



Cloud Hill Wind Farm

Technical Appendix 7.2 Protected Species Survey Report

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MacArthur
Green

Cloud Hill Wind Farm

Protected Species Survey Report

Technical Appendix 7.2

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1 INTRODUCTION

MacArthur Green was commissioned by Cloud Hill Windfarm Limited (the Applicant) to carry out protected species surveys at Cloud Hill Wind Farm (hereafter referred to as the 'Site').

These surveys primarily focussed on otter (*Lutra lutra*), water vole (*Arvicola amphibius*), badger (*Meles meles*), red squirrel (*Sciurus vulgaris*) and pine marten (*Martes martes*).

A watching brief was also kept throughout these surveys, and during all ecological surveys at the Site, and signs recorded for other protected species potentially inhabiting the Site and respective study area such as adder (*Vipera berus*), common or viviparous lizard (*Zootoca vivipara*), and slow worm (*Anguis fragilis*).

Surveys for bats and fish were carried out and are reported separately in Technical Appendices A7.3 and A7.4.

These protected species surveys were undertaken to aid and inform the design and ecological assessment for the Cloud Hill Wind Farm Environmental Impact Assessment Report (EIA Report).

2 THE SITE & SURVEY AREA

The Site is located in Dumfries and Galloway, with the entrance approximately 0.5 km south-west of Sanquhar, and the turbines and ancillary infrastructure around 5 km further to the south-west. The Site is upland in character with a mix of mainly marshy grassland, acid grassland and wet modified bog habitats. Several minor watercourses drain the main body of the Site, with the larger Euchar Water and River Nith close to the proposed access routes, both existing and proposed.

The survey area in which protected species surveys were undertaken for the Development incorporated the Red Line Boundary and access route, with buffers in some areas as appropriate for the specific species surveyed for. The protected species survey areas are shown in Figure 7.5. It should be noted that the Site boundary underwent changes throughout the design process, and as such some records discussed within this report are located outwith the final Red Line Boundary.

3 LEGAL PROTECTION

Details of the legal protection of the protected species surveyed for are given in Annex A of this report.

4 METHODS

4.1 Desk Study

A desk-based study was undertaken to inform the field surveys and assessment with regards the presence of designated sites and species of interest within the Site and study area.

This study consisted of the consultation of various online resources such as the National Biodiversity Network (NBN) Atlas¹, NatureScot Sitelink², the British Deer Society Deer Distribution Survey³ and Saving Scotland's Red Squirrels⁴.

4.2 Field Surveys

Surveys for protected species were undertaken during August 2021, October 2022, December 2022 and February 2023 to record the presence or likely absence of otter, water vole, badger, red squirrel and pine marten, with all habitats suitable for protected species surveyed within the survey area (see Figure 7.5). The survey areas encompassed the Site, and the access track/road up to the junction with the A76, with buffers as follows: 30 m (water vole and red squirrel), 100 m (badger and pine marten) and 200 m (otter); see Figure 7.5.

A watching brief for any protected species signs was also undertaken during other survey visits (e.g., ornithology/vegetation/other ecology surveys) throughout the year.

The signs found indicate type and intensity of activity and consequently help in the assessment of the importance of a particular area for the protected species. The survey methods used are described below.

4.2.1 Otter

All accessible watercourses within the survey area were surveyed for otter field signs. Otter field signs and survey methods are described in Bang & Dahlstrøm (2001)⁵, Sargent & Morris (2003)⁶ and Chanin (2003)⁷, and include:

- **Holts:** underground features where otters live. They can be tunnels within bank sides, underneath root-plates or boulder piles, and even man-made structures such as disused drains. Holts are used by otters to rest up during the day and are the usual location of natal or breeding sites. Otters may use holts permanently or temporarily;
- **Couches:** these are above ground resting-up sites. They may be partially sheltered, or fully exposed. Couches may be regularly used, especially in reed beds and on in-stream islands. They have been known to be used as natal and breeding sites. Couches can be very difficult to identify and may consist of an area of flattened grass or earth. Where rocks or rock armour are used as couches, these can be almost impossible to identify without observing the otter *in situ*;

¹ NBN Atlas Scotland. (2022). *NBN Atlas*. [Online] Available from - <https://scotland.nbnatlas.org/>. [Accessed: March 2023]

² NatureScot. (2022) *SiteLink*. [Online] Available from - <https://sitelink.nature.scot/home>. [Accessed: March 2023]

³ The British Deer Society (2016). *Deer Distribution Survey Results*. Available online: <https://bds.org.uk/science-research/deer-surveys/deer-distribution-survey/> [Accessed March 2023]

⁴ Saving Scotland's Red Squirrels (2022) Website. [Online] Available from <https://scottishsquirrels.org.uk/squirrel-sightings/> [Accessed: March 2023]

⁵ BANG, P., and DAHLSTRØM, P. (2001). *Animal Tracks and Signs*. Oxford University Press, Oxford.

⁶ SARGENT, G., and MORRIS, P. (2003). *How to Find and Identify Mammals*. The Mammal Society, London.

⁷ CHANIN, P. (2003). *Monitoring the Otter (Lutra lutra)*. Conserving Natura 2000 Rivers Monitoring Series No.10 English Nature, Peterborough.

- **Prints:** otters have characteristic footprints that can be found in soft ground and muddy areas;
- **Spraints:** otter faeces may be used to mark territories, often on in-stream boulders. They can be present within or outside the entrances of holts and couches. Spraints have a characteristic smell and often contain fish remains;
- **Feeding signs:** the remains of prey items may be found at preferred feeding stations. Remains of fish, crabs or skinned amphibians can indicate the presence of otter;
- **Paths:** these are terrestrial routes that otters take when moving between resting-up sites and watercourses, or at high flow conditions when they will travel along bank sides in preference to swimming; and
- **Slides and play areas:** slides are typically worn areas on steep slopes where otters slide on their bellies, often found between holts or couches and watercourses. Play areas are used by juvenile otters in play and are often evident by trampled vegetation and the presence of slides. These are often positioned in sheltered areas adjacent to the natal holt.

Any of the above signs (apart from paths) are diagnostic of the presence of otter. However, it is often not possible to identify couches with confidence unless other field signs are also present. Spraints are the most reliably identifiable evidence of the presence of this species.

4.2.2 Water Vole

All watercourses within the survey area were surveyed for water vole field signs following the methodology prescribed in Dean *et al.* (2016)⁸. This involved searching for the following field signs:

- **Faeces:** recognisable by their size, shape, and content. If not too dried-out these are also distinguishable from rat droppings by their smell;
- **Latrines:** faeces, often deposited at discrete locations;
- **Feeding stations:** food items are often brought to feeding stations along pathways and hauled onto platforms. Recognisable as neat piles of chewed vegetation up to 10cm long;
- **Burrows:** appear as a series of holes along the water's edge distinguishable from rat burrows by size and position;
- **Lawns:** may appear as grazed areas around land holes;
- **Nests:** where the water table is high above ground woven nests may be found;
- **Footprints:** tracks may occur at the water's edge and lead into bank side vegetation. May be distinguishable from rat footprints by size; and
- **Runways in vegetation:** low tunnels pushed through vegetation near the water's edge; these are less obvious than rat runs.

⁸ DEAN, M., STRACHAN, R., GOW, D. and ANDREWS, R. (2016). The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series). Eds. Fiona Mathews and Paul Chanin. The Mammal Society, London.

Dean *et al.* (2016)⁸ states that water vole droppings are the only field sign that can be used to determine water vole presence reliably on their own. Experience is required to distinguish feeding signs, burrows and footprints of water voles from those of other species. A collection of these field signs found in close proximity can indicate water vole presence.

4.2.3 Badger

Land with the potential to support badger within the survey area was searched for field signs with particular attention given to areas around woodland and areas underlain by mineral soils. Field signs of badger are described in Neal and Cheeseman (1996)⁹, Bang and Dahlstrøm (2001)⁵, and Scottish Badgers (2018)¹⁰. Field evidence searched for included:

- **Setts:** single and/or groups of holes;
- **Prints:** badgers have characteristic footprints that can be found in soft ground and muddy areas;
- **Latrines and dung pits:** these are small excavated pits in which droppings are deposited. Latrines are a collection of dung pits used as territorial markers;
- **Hairs:** tufts of hair can often be found on fences, or in the entrances to setts;
- **Feeding signs:** small scrapes, also known as snuffle holes, where badgers have searched for insects and plant tubers. Feeding signs can also include dug up wasp or bee nests and ripped up dung of other species including cattle;
- **Scratching posts:** marks on trees (including fallen trees) where badgers have scratched leaving claw marks or ripped at areas of rotten bark to search for food; and
- **Paths:** these are routes that badgers take when moving between setts and foraging areas.

Where setts were recorded their sett entrance classification and sett type were noted, in line with the definitions outlined in Scottish Badgers (2018), which are reproduced below in Table 4-1 and Table 4-2 below.

Table 4-1 Sett entrance classifications and associated descriptions⁹

Classification	Description
Well Used	Are clear of debris and vegetation, sides worn smooth but not necessarily excavated recently.
Partially Used	Are not in regular use and have debris e.g. twigs and leaves in the entrance. They could be used after only a minimal amount of clearance.
Disused	Not in use for some time, are partially blocked and could not be used without considerable effort. Rabbits and foxes may take over part of a sett and keep disused entrances open.
Collapses	Where a tunnel has collapsed.
Air Holes	Where badgers have made a small hole in a tunnel roof from below.

⁹ NEAL, E., and CHEESEMAN, C.L. (1996). Badgers. Poyser Natural History, London.

¹⁰ Scottish Badgers (2018). Surveying for Badgers: Good Practice Guidelines. Version 1.

Table 4-2 Categories of sett and associated descriptions⁹

Category	Description
Main	Main setts usually have several holes with large spoil heaps, and the sett generally looks well used. There are obvious paths to and from the sett and between sett entrances. In the British National Badger Survey the average number of holes for a main sett was twelve, although main setts may be much smaller, even a single hole in exceptional circumstances. Although normally the breeding sett and in continuous use, it is possible to find a main sett that has some disused or dormant entrances.
Annexe	These are often close to a main sett, normally less than 150 m away, and are connected to the main sett by one or more well-worn paths. Usually there are several holes but the sett may not be in use all the time, even if the main sett is very active. The average number of holes per annexe sett in the British survey was eight.
Subsidiary	These are usually at least 50 m from a main sett, and do not have an obvious path connecting with another sett. They are not continuously active. The average number of holes per subsidiary sett in the British survey was four.
Outlier	These often have little spoil outside the holes, have no obvious path connecting them with another sett, and are only used sporadically. When not in use by badgers, they are often taken over by foxes or even rabbits. However, they can still be recognised as badger setts by the shape of the tunnel (not the actual entrance hole), which is at least 25 cm in diameter, and rounded or a flattened oval shape (i.e. broader than high). Fox and rabbit tunnels are smaller and often taller than they are broad. The average number of holes per outlying sett in the British survey was two.
Other	In some cases, it can be difficult to assess the status of a sett, and it is open to interpretation. It is therefore recommended that if there is uncertainty as to the type of sett present, setts should be referred to as 'Other'.

4.2.4 Pine Marten

Signs of pine marten were searched for within the survey area following guidance from O'Mahony *et al.* (2006)¹¹. Survey methods included:

- **Scats:** searches for pine marten scats were made along linear features such as fence lines, stone walls or forestry tracks/rides. Also searches for scats on prominent features such as tree stumps, dead logs or stones, and around rock piles and dense scrub where the species could establish a den; and
- **Dens:** identification of features which could be used as a den. Dens can include the utilisation of upturned trees, tree cavities, rocks or manmade structures such as log piles or large bird boxes.

4.2.5 Red squirrel

Areas of woodland that have the potential to support red squirrel were surveyed for squirrels, following guidance from Gurnell *et al.* (2009)¹². Survey methods included:

- **Sightings:** visual sightings of red squirrel;

¹¹ O'MAHONY D., O'REILLY, C. & TURNER, P. (2006). National Pine Marten Survey of Ireland 2005. COFORD, Dublin.

¹² GURNELL, J., LURZ, P. MCDONALD, R. & PEPPER, H. (2009). Practical Techniques for Surveying and Monitoring Squirrels. Forestry Commission Practice Note.

- **Dreys:** dreys are usually built close to the main stem of a tree, over 3 m from ground level and over 50x30 cm in size; and
- **Feeding signs:** predated cone (cone cores) searches in areas of woodland.

4.2.6 Reptiles

Targeted reptile surveys were not undertaken, however, incidental records of reptile sightings and features of particular importance (i.e., potential hibernacula) were recorded.

4.2.7 Other Species

A watching brief was maintained for all other protected, notable, and/or invasive species during surveys and presence or field signs recorded as appropriate (e.g., smooth newt (*Lissotriton vulgaris*), palmate newt (*Lissotriton helveticus*), hares (*Lepus* spp.), and American mink (*Neovison vison*)).

4.2.8 Species Scoped Out

Surveys for beaver (*Castor fiber*), wildcat (*Felis silvestris*) and great crested newt (GCN) (*Triturus cristatus*) were scoped out of field surveys due to the absence of suitable habitat or the survey area being located out with the known range or distribution of these species.

5 SURVEY DETAILS & LIMITATIONS/CONSTRAINTS

Surveys for protected species were undertaken from the 2nd to the 6th of August 2021, 17th August 2021, 20th October 2022, 13th December 2022 and 8th February 2023. The weather conditions during surveys were generally overcast, with some sunny spells and periods of light rain. Water levels were observed to be low at all survey visits.

A short section of Glenmaddie Burn around NS 75499 07715 could not be fully surveyed due to the high, steep sides posing an access restriction and health and safety concerns.

There is uncertainty associated with identifying scats produced by pine marten due to their variability in composition and their similarity with those produced by other species such as fox. DNA analysis is often used as a method to increase reliability of identification, although it is often not possible to determine to species level with this method due to possible degradation of samples or the collection of scat samples from species that cannot be sequenced (Croose *et al.*, 2014). The scats recorded within survey area that were undeterminable between pine marten and fox were therefore considered as 'potential pine marten' and a precautionary approach is applied when discussing their presence and utilisation of the Site and the habitats within the wider area.

Overall, given the number of times the survey area has been surveyed, it is considered the baseline characterisation of protected species is representative of their presence within and around the Site.

Due to protected species mobile nature, it is possible that new features may be created in the period between surveys and the commencement of construction. It is therefore recommended that pre-construction surveys are undertaken in advance of construction activities progressing across the Site.

6 RESULTS

6.1 Desk Study Results

6.1.1 Designated Sites

There are no designated sites within the Red Line Boundary or within 5 km of the Site where a protected species is a qualifying feature.

6.1.2 Online Resources/Data Searches

A search of the NBN Atlas Scotland¹ within 5 km of the Site in the last 15 years (i.e., from 2008 onwards) returned records of the following protected or notable species:

- Brown hare (*Lepus timidus*);
- Red squirrel;
- Roe deer (*Capreolus capreolus*); and
- Hedgehog (*Erinaceus europaeus*).

Details regarding licences and data providers for these records are included in Annex B.

The Deer Distribution Survey³ results suggested the presence of roe and red deer (both recorded in 2007 and/or 2011 and reconfirmed in 2016).

Sightings of red and grey squirrels have been recorded on Saving Scotland's Red Squirrels⁴ within 5 km of the Site in the past 13 years, particularly in woodland around Menzies.

6.2 Field Survey Results

The survey results are summarised in Error! Reference source not found. below, with full detailed results provided within Annex C, survey results are displayed on Figure 7.5. Confidential protected species records are provided in Confidential Annex D and Figure 7.5C.

Table 6-1 Protected species survey results summary

Species	Survey Results Summary	General Habitat Suitability
Otter	Three potential holts and one couch were recorded. Details of these features are contained within Confidential Annex D. Forty-eight records of otter spraints were recorded, along Glenlarie Burn and tributaries, Glen Burn, Birk Burn, Glenmaddie Burn, Whing Burn, McTurk's Gutter and Euchar Water.	Several of the burns within the survey area were found to have good suitability for otter, with trees and gullies providing shelter. The River Nith and Euchar Water where they exist close to the proposed access road and track have good suitability for otter, with fast flows stone/boulder riverbeds. The watercourse crossed by the existing access track, near Shielling Knowe, was noted as having good potential for otter.
Water vole	No signs of water vole were recorded.	Glen Burn was found to be moderately suitable for water vole. Some moderately suitable areas were identified in the upstream reaches of Birch Burn, with suitable foraging habitat noted.

Species	Survey Results Summary	General Habitat Suitability
		Some suitable sections were also identified along Cow's Burn and on the watercourse south of Earl's Seat. A tributary to Whing Burn, close to the existing access track, was noted to have low to moderate suitability for water vole, with overgrown rushes and stagnant water with no flow at the time of survey. Presence of mink in the area may have affected water vole numbers.
Badger	One outlier sett was identified, which is detailed in Confidential Annex D. Potential feeding signs were recorded within Ulzieside Plantation, and dung was recorded close to Glenlarie Burn.	Glenmaddie Wood was found to have good suitability for badger, although this could be limited by cattle activity. Suitable foraging conditions are nearby. Glenmaddie Burn, north of Ulzieside Plantation, has good habitat for badger, with suitable substrate and foraging.
Pine marten	An incidental record of a potential pine marten scat was recorded west of Glen Burn.	There are some areas of forestry close to the Site (Ulzieside Plantation to the north and Brown Hill to the east) which may offer some suitable habitat for pine marten. The habitats within the survey area are likely to offer good hunting/foraging habitat.
Red squirrel	Feeding signs (stripped cones) potentially attributable to red squirrel were identified at Ulzieside Plantation.	Areas of woodland along the road between Eliock Bridge and Ulzieside were deemed suitable for red squirrel, with mature oak, sycamore and beech. Areas of suitable woodland for red squirrel were also noted along the banks of Euchar Water at Ulzieside.
Reptiles	Five common lizard sightings were recorded, all in the southern part of the survey area. Sixteen potential hibernacula features were recorded. These were mostly attributed to dry stone wall features, with some stone circle remains and rock piles.	The main body of the survey area has habitat offering suitability for reptiles, with tussocky grassland features and scattered potential hibernacula.
Hare	Two brown hare sightings were recorded towards Whing Burn in the north-east part of the survey area.	The habitats within the survey area are likely to offer good forms for shelter amongst the vegetation.
General	Four mammal holes with no diagnostic protected species signs were identified.	-
Other Species	One instance of mink scat was recorded, near Glenlarie Burn.	-

ANNEX A. LEGAL PROTECTION

Otter are a European Protected Species and receive full protection under the Conservation Regulations (1994) (as amended)¹³.

Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)

Under Regulation 39 (1) it is an offence to:

- a) deliberately or recklessly to capture, injure or kill a wild animal of a European protected species;
- b) deliberately or recklessly:
 - i. to harass a wild animal or group of wild animals of a European protected species;
 - ii. to disturb such an animal while it is occupying a structure or place which it uses for shelter or protection;
 - iii. to disturb such an animal while it is rearing or otherwise caring for its young;
 - iv. to obstruct access to a breeding site or resting place of such an animal, or otherwise to deny the animal use of the breeding site or resting place;
 - v. to disturb such an animal in a manner that is, or in circumstances which are, likely to significantly affect the local distribution or abundance of the species to which it belongs; or
 - vi. to disturb such an animal in a manner that is, or in circumstances which are, likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young;
- c) deliberately or recklessly to take or destroy the eggs of such an animal; or
- d) to damage or destroy a breeding site or resting place of such an animal.

Regulation 44 (2e) allows a licence to be granted for the activities noted in Regulation 39 such that:

Preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.

Otter is also listed on Appendix I of CITES, Appendix II of the Bern Convention and Annexes II and IV of the Habitats Directive (1994). It is also listed as globally threatened on the IUCN/WCMC Red Data List.

¹³ The Conservation Amendment (Scotland) Regulations (2007) removed EPS from Schedule 5 and 8 of the Wildlife and Countryside Act 1981.

Badger is protected under the Protection of Badgers Act 1992 (as amended by the Nature Conservation (Scotland) Act 2004 (as amended)).

The following applies under this legislation:

Part 1. – A person is guilty of an offence if, except as permitted by or under this Act, he wilfully kills, injures or takes, or attempts to kill, injure or take, a badger.

1. If, in any proceedings for an offence under subsection (1) above consisting of attempting to kill, injure or take a badger, there is evidence from which it could reasonably be concluded that at the material time the accused was attempting to kill, injure or take a badger, he shall be presumed to have been attempting to kill, injure or take a badger unless the contrary is shown.
2. A person is guilty of an offence if, except as permitted by or under this Act, he has in his possession or under his control any dead badger or any part of, or anything derived from, a dead badger.

Part 3. –

1. A person is guilty of an offence if, except as permitted by or under this Act, he interferes with a badger sett by doing any of the following things–
 - a. damaging a badger sett or any part of it;
 - b. destroying a badger sett;
 - c. obstructing access to, or any entrance of, a badger sett;
 - d. causing a dog to enter a badger sett; or
 - e. disturbing a badger when it is occupying a badger sett,
 - f. intending to do any of those things or being reckless as to whether his actions would have any of those consequences.
2. A person is guilty of an offence if, except as permitted by or under this Act, he knowingly causes or permits to be done an act which is made unlawful by subsection (1) above.

Note: A badger sett is defined in law as any structure or place which displays signs of current use by a badger.

Red squirrel and **pine marten** are protected by the following legislation:

Wildlife and Countryside Act (1981), Nature Conservation (Scotland) Act 2004

Under Section 9, Subsection 1, it is an offence to:

Intentionally or recklessly:

- Kill, injure or take any wild animal listed on Schedule 5;
- Damages or destroys or obstructs access to, any structure or place that any animal listed on Schedule 5 uses for shelter or protection;
- Disturbs any such animal while it is occupying a structure or place which is used for that purpose
- Sell, offer or expose for sale, or possess or transport for the purpose of sale, any live or dead wild animal included in Schedule 5, or any part of, or anything derived from, such an animal.
- Publish or cause to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things.

Adder, slow worm and **viviparous lizard** are protected by the following legislation:

These three species of reptile are noted within Schedule 5 of the Wildlife and Countryside Act (1981). However, Schedule 5 of the 1981 act notes that these species are protected 'in respect of section 9(5) only'.

Section 9(5) states:

- Subject to the provisions of this part, if any person
 - a) Sells, offers or exposes for sale, or has in his possession or transports for the purpose of sale, any live or dead wild animal included in Schedule 5, or any part of, or anything derived from, such an animal; or
 - b) Publishes or causes to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things.
- he shall be guilty of an offence

An amendment was made to Schedule 5 on 18 March 1988 relating to slow worm and viviparous lizard to give them protection under Section 9(1). A further amendment was made to Schedule 5 on 27 March 1991 relating to adders which afford them protection under Section 9(1).

Section 9(1) (as amended by the Nature Conservation (Scotland) Act 2004) states:

'Subject to the provisions of this Part, if any person intentionally or recklessly kills, injures or takes any wild animal included in schedule 5, he shall be guilty of an offence.'

Water vole receives partial protection under Section 9, subsection 4 and Section 10 of the Wildlife and Countryside Act ¹⁴.

Wildlife and Countryside Act (1981), Nature Conservation (Scotland) Act 2004

Under Section 9, Subsection 4, Paragraphs (a) and (b)¹⁴, it is an offence to:

- Intentionally or recklessly damage or destroy, or obstruct access to, any structure or place which any wild animal included in Schedule 5 uses for shelter or protection.
- Intentionally or recklessly disturb any such animal while it is occupying a structure or place which it uses for that purpose.

Under Section 10, Subsection 3, Paragraph (c)¹⁴, any person shall not be guilty of an offence by reason of:

- Any act made unlawful by that section if he shows:
 - a) That each of the conditions specified in subsection (3A) was satisfied in relation to the carrying out of the unlawful act; or
 - b) That the unlawful act was carried out in relation to an animal bred and, at the time the act was carried out, lawfully held in captivity.
- Section 3A states those conditions referred to in Subsection 3c are:
 - a) That the unlawful act was the incidental result of a lawful operation or other activity;
 - b) That the person who carried out the lawful operation or other activity:
 - i. took reasonable precautions for the purpose of avoiding carrying out the unlawful act; or
 - ii. did not foresee, and could not reasonably have foreseen, that the unlawful act would be an incidental result of the carrying out of the lawful operation or other activity; and
- 3) That the person who carried out the unlawful act took, immediately upon the consequence of that act becoming apparent to the person, such steps as were reasonably practicable in the circumstances to minimise the damage or disturbance to the wild animal, or the damage or obstruction to the structure or place, in relation to which the unlawful act was carried out.

¹⁴ as amended by the Nature Conservation (Scotland) Act 2004.

ANNEX B. NBN ATLAS SCOTLAND DATA PROVIDERS AND LICENCES**Table B-1 Data Providers and Licence Details for NBN Atlas Scotland Records Used**

Species	Reason for Inclusion	Data Provider (Recorder)	Licence
Brown hare	Protected species (Wildlife and Countryside Act 1981)	British Trust for Ornithology (BTO)	OGL ¹⁵
Red squirrel	Protected species (Wildlife and Countryside Act 1981)	Scottish Wildlife Trust (Anthony McKeown, B Greenshields, Chris Hopkins, Emma Ewan, J McColm, J Newman, Janer Lee, John Carter, Julie Campbell, Karin Coltart, Kenny Collins, Mike Hall, Stephanie Johnstone, Stephen McQuade, Stinson, M., Tait, A., Wilf Randall) The Mammal Society, and Biological Records Centre (Steven Kyle Parker)	CC-BY ¹⁶
Roe deer	Welfare and impacts of deer on habitats and on neighbouring land and interests (inc. public roads)	BTO	OGL ¹⁵
Hedgehog	LBAP species	The Conservation Volunteers	CCo ¹⁷

¹⁵ Open Government Licence (OGL) <https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/> (Accessed March 2023)

¹⁶ Creative Commons with Attribution 4.0 (CC-BY) <https://creativecommons.org/licenses/by/4.0/> (Accessed March 2023)

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ANNEX C. FIELD SURVEY DATA

Table C-1 below details the relevant field signs collected for protected and notable species during surveys for the Development, sorted by species, then survey date (see also Figure 7.5). Confidential information relating to badger setts and otter holts and couches is contained within Confidential Annex D (and shown on Figure 7.5C).

Table c-1 Protected and Notable Species Survey Results

Species	Sign	Easting	Northing	Survey Date	Notes
Badger	Feeding Signs/Snuffle Holes	275601	607668	03/08/2021	Stripped dead wood.
Badger	Dung	273286	605849	05/08/2021	-
General	Mammal Hole	274331	607204	02/08/2021	Root recess at bank. 1m wide reducing to 0.5m into recess. No protected species signs but could be used by species such as otter to rest.
General	Mammal Hole	274456	607476	03/08/2021	Rock recess that's dry and potentially heads out of sight. Big enough for otter or other larger mammal. No protected species signs.
General	Mammal Hole	275839	607430	03/08/2021	25 cm wide and 17 cm high with potential fox hairs.
General	Mammal Hole	274162	607322	06/08/2021	Cavity under rowan. Rock recess that has light spill but enters down further. Size and shape for a larger mammal.
Brown Hare	Sighting	275693	606381	08/02/2023	Two flushed.
Mink	Scat	273702	606875	05/08/2021	-
Otter	Spraint	274376	607297	02/08/2021	Relatively old spraint. Sheltered area with tree cover and mineral soil substrate banks.
Otter	Spraint	274265	607149	02/08/2021	-
Otter	Spraint	274255	607124	02/08/2021	-
Otter	Spraint	274247	607103	02/08/2021	-
Otter	Spraint	274246	607071	02/08/2021	-
Otter	Spraint	274226	606973	02/08/2021	Very old.

Species	Sign	Easting	Northing	Survey Date	Notes
Otter	Spraint	274220	606897	02/08/2021	-
Otter	Spraint	274232	606735	02/08/2021	
Otter	Spraint	274235	606719	02/08/2021	2 spraints.
Otter	Spraint	274199	606491	02/08/2021	2 spraints.
Otter	Spraint	274215	605988	02/08/2021	
Otter	Spraint	274209	605977	02/08/2021	
Otter	Spraint	274245	605926	02/08/2021	
Otter	Spraint	274216	605730	02/08/2021	-
Otter	Spraint	274161	605598	02/08/2021	-
Otter	Spraint	274343	605734	02/08/2021	-
Otter	Spraint	274811	607690	03/08/2021	-
Otter	Spraint	275499	607715	03/08/2021	-
Otter	Spraint	275767	608131	03/08/2021	One old and small spot of 'tar'.
Otter	Spraint	275370	607250	03/08/2021	-
Otter	Spraint	275134	607014	04/08/2021	-
Otter	Spraint	275224	607120	04/08/2021	-
Otter	Spraint	275277	607165	04/08/2021	-
Otter	Spraint	275347	607200	04/08/2021	-
Otter	Spraint	275396	607289	04/08/2021	2 spraints.
Otter	Spraint	275411	607305	04/08/2021	-
Otter	Spraint	275268	606921	04/08/2021	-
Otter	Spraint	273749	606545	04/08/2021	2 spraints.
Otter	Spraint	273820	607075	05/08/2021	-

Species	Sign	Easting	Northing	Survey Date	Notes
Otter	Spraint	273650	606827	05/08/2021	-
Otter	Spraint	273600	606739	05/08/2021	-
Otter	Spraint	273469	606530	05/08/2021	-
Otter	Spraint	273377	606144	05/08/2021	-
Otter	Spraint	273312	605965	05/08/2021	-
Otter	Spraint	273284	605821	05/08/2021	-
Otter	Spraint	273297	605779	05/08/2021	-
Otter	Spraint	273298	605771	05/08/2021	-
Otter	Spraint	273076	605324	05/08/2021	-
Otter	Spraint	273750	606545	06/08/2021	-
Otter	Spraint	275790	605413	08/02/2023	Potential spraint but very few remains and no smell. Dark patch with some bones on mossy rock in McTurk's Gutter watercourse.
Otter	Spraint	275851	606216	08/02/2023	Fresh spraint on small rock on side of Whing Burn.
Otter	Spraint	275873	606236	08/02/2023	Dark jelly-like spraint on rock in Whing Burn on moss.
Otter	Spraint	275891	606264	08/02/2023	Fresh spraint on rock in middle of Whing Burn. Some moss cleared from rock.
Otter	Spraint	275951	606327	08/02/2023	Relatively fresh spraint on large mossy rock in Whing Burn.
Otter	Spraint	275994	606395	08/02/2023	Old spraint on top of large mossy rock in Whing Burn.
Otter	Spraint	276013	606420	08/02/2023	Long fresh spraint on rock in Whing Burn.
Otter	Spraint	276067	606640	08/02/2023	Three fresh and long spraints on two different rocks in Whing Burn.
Otter	Spraint	276212	607056	08/02/2023	Large old spraint on rock in Whing Burn.
Pine Marten	Potential Scat	274480	605950	17/08/2021	Incidental record from National Vegetation Classification survey. Single scat containing skeleton and fur on moss hummock.
Reptile	Potential Hibernaculum	274242	607179	02/08/2021	Stone wall around house.

Species	Sign	Easting	Northing	Survey Date	Notes
Reptile	Potential Hibernaculum	273834	604956	02/08/2021	Dry stone wall running north.
Reptile	Common Lizard Sighting	274348	605462	02/08/2021	-
Reptile	Potential Hibernaculum	274284	605127	02/08/2021	Rock/boulder pile that could provide suitable shelter.
Reptile	Common Lizard Sighting	274501	605320	02/08/2021	-
Reptile	Common Lizard Sighting	274323	605762	02/08/2021	-
Reptile	Potential Hibernaculum	275198	607497	03/08/2021	Dry stone wall (partial).
Reptile	Potential Hibernaculum	275337	607958	03/08/2021	Moss-covered dry stone wall approx. 12m long.
Reptile	Potential Hibernaculum	276009	608127	03/08/2021	Dry stone wall.
Reptile	Potential Hibernaculum	275237	607442	03/08/2021	Dry stone wall.
Reptile	Potential Hibernaculum	275245	606662	04/08/2021	-
Reptile	Potential Hibernaculum	274127	606847	04/08/2021	Stone circle remains.
Reptile	Common Lizard Sighting	273680	605462	04/08/2021	-
Reptile	Potential Hibernaculum	273580	606757	05/08/2021	Stone circle remains.

Species	Sign	Easting	Northing	Survey Date	Notes
Reptile	Potential Hibernaculum	273595	606724	05/08/2021	-
Reptile	Potential Hibernaculum	273418	606403	05/08/2021	Stone circle remains.
Reptile	Potential Hibernaculum	273027	604792	05/08/2021	Wall remains and stone wall.
Reptile	Common Lizard Sighting	272870	605516	05/08/2021	-
Reptile	Potential Hibernaculum	272962	605341	05/08/2021	Dry stone circle.
Reptile	Potential Hibernaculum	275796	606326	08/02/2023	Old sheep fold (stone wall) with rush surrounding area.
Reptile	Potential Hibernaculum	276439	607441	08/02/2023	Stone wall at sheep fold.
Squirrel species	Feeding Signs	275775	607736	03/08/2021	Stripped cone.
Squirrel species	Feeding Signs	275633	607614	03/08/2021	Stripped cone.
Squirrel species	Feeding Signs	275933	607444	03/08/2021	Stripped cone.
Squirrel species	Feeding Signs	275702	607172	03/08/2021	Stripped cone.
Squirrel species	Feeding Signs	276010	607513	08/02/2023	Several stripped cones along plantation edge.

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