Melgarve Cluster Project

Protected Species Survey Report

Appendix 8.3

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1 INTRODUCTION

MacArthur Green was commissioned by SSEN Transmission (the Applicant) to carry out protected species surveys for the Melgarve Cluster Project (hereafter the 'Proposed Development').

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

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 survey areas such as wildcat (*Felis silvestris*), adder (*Vipera berus*), common or viviparous lizard (*Zootoca vivipara*), and slow worm (*Anguis fragilis*).

These protected species surveys were undertaken to aid and inform the design and ecological assessment for the Melgarve Cluster Environmental Impact Assessment Report (EIAR).

2 THE SITE & SURVEY AREA

The Proposed Development is driven by the requirement to connect the consented Cloiche Wind Farm[1] and the proposed Dell 2 Wind Farm[2], located in the Monadhliath mountain range approximately 10km to the east of Fort Augustus, to the National Grid, at Melgarve substation.

The Proposed Development has been subject to a routeing process in which alternative routes and design solutions for the proposed connection were compared to find the best option based on the most appropriate balance between environmental, engineering and cost factors. A study of various alignment options within the chosen route was carried out, prior to selecting a proposed alignment and design solution to take forward for section 37 consent (that chosen alignment being the Proposed Development).

The protected species surveys covered several alignment options and associated buffers, collectively termed here the 'survey area'. This report details the results of protected species surveys within the entire survey area, as shown on **Figure 8.5**.

3 LEGAL PROTECTION

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

[1] Received consent from the Scottish Government in November 2023.
[2] It should be noted that in August 2019, an application to build and operate Dell Wind Farm was consented following an appeal to the Scottish Ministers. However, the wind farm has been re-designed at the same location to increase capacity and energy capture with fewer wind turbines. The application for Dell 2 Wind Farm was submitted to the Scottish Government Energy Consents Unit on behalf of the Scottish Ministers on 11th March 2024 and awaits decision. It is this proposed re-designed Dell 2 Wind Farm that this EIA Report refers to throughout, rather than the previously consented design.

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) Atlas[3], NatureScot Sitelink[4], Saving Scotland's Red Squirrels[5] and the British Deer Society Deer Distribution Survey[6].

The desk-study also reviewed the EIA and associated documents for Cloiche, Dell and Stronelairg Wind Farms, as well as data recorded by Ecological Clerk of Works (ECoW) during ground investigation (GI) works.

4.2 Field Surveys

Surveys to record the presence or likely absence of otter, water vole, badger, red squirrel and pine marten have been undertaken, with all habitats suitable for protected species surveyed within the survey area. The respective surveys areas included the alignment options and survey buffers as follows: 50m (red squirrel, potential bat roost features), 100m (badger, pine marten and water vole) and 200m (otter); see **Figure 8.5**.

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[7], Sargent & Morris[8] and Chanin[9], 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;

[3] NBN Atlas Scotland (2023). Available online: https://nbnatlas.org/ [Accessed August 2023]
[4] NatureScot (2023). SiteLink. Available online: https://sitelink.nature.scot/home [Accessed August 2023]
[5] Scottish Squirrels. (2023). Saving Scotland's Red Squirrels. Available online: https://scottishsquirrels.org.uk/ [Accessed August 2023]
[6] The British Deer Society (2023). Deer Distribution Survey Results. Available online: https://bds.org.uk/science-research/deer-surveys/deer-distribution-survey/ [Accessed January 2024]
[7] Bang, P., and Dahlstrøm, P. (2001). Animal Tracks and Signs. Oxford University Press, Oxford.
[8] Sargent, G., and Morris, P. (2003). *How to Find and Identify Mammals*. The Mammal Society, London.
[9] Chanin, P. (2003). Monitoring the Otter (*Lutra lutra*). Conserving Natura 2000 Rivers Monitoring Series No.10 English Nature, Peterborough.

- **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*;
- **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.*[10]. 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 and cut at 45 degrees;
- **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;

[10] 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.

- **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.

Dean *et al.*[10] 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 Scottish Badgers[11]. 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 guidance[11], which are reproduced below in **Table 4-2** and **Table 4-1** below.

Table 4-1 Categories of sett and associated descriptions

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.

[11] Scottish Badgers (2018). Surveying for Badgers: Good Practice Guidelines. Version 1.

Category	Description
Annexe	These are often close to a main sett, normally less than 150m 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 50m 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 25cm 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'.

Table 4-2 Sett entrance classifications and associated descriptions

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.

4.2.4 Pine Marten

Signs of pine marten were searched for within the survey area following guidance from O'Mahony *et al.* (2006)[12] and Bright and Smithson (1997)[13]. 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.

[12] O'Mahony D., O'Reilly, C. & Turner, P. (2006). National Pine Marten Survey of Ireland 2005. COFORD, Dublin.

[13] Bright, P.W., and Smithson, T.J. (1997). Ecology of den use by pine martens reintroduced to a commercial coniferous forest. Pages 58-64 in: Species Recovery Programme for the Pine Marten in England: 1995-96. English Nature Research Report No. 240. English Nature, Peterborough.

- **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)[14]. Survey methods included:

- **Sightings:** visual sightings of red squirrels;
- **Dreys:** dreys are usually built close to the main stem of a tree, over 3m from ground level and over 50x30cm in size; and
- **Feeding signs:** predated cone (cone cores) searches in areas of woodland.

4.2.6 Bats

In accordance with relevant guidance (Collins, 2016)[15] a ground level preliminary roost assessment (PRA) of trees and any structures present within the survey area was carried out. Trees and structures were searched for potential roost features (PRFs) from the ground and categorised in accordance with their roosting suitability (likelihood of bats being present) as low, moderate or high as described in **Table 4-3**. In some sections where potential bat trees were in close proximity with each other, they were recorded as a group of trees. In addition, some areas of woodland were given a collective percentage of potential bat trees present, after surveyors walked the woodland and surveyed for PRFs.

PRFs on trees are generally damage and decay features such as knot holes, tear outs, cracks/splits, unions etc., which can often lead to cavity features which are used by bats. It is often unclear from a PRA if a PRF at height has a suitable cavity or not for bats unless a closer inspection is carried out such as an endoscope survey or an aerial inspection. Ground level surveys therefore can only indicate the potential suitability of a PRF and highlight the requirement for further surveys if required.

Table 4-3: Guidelines for assessing the potential suitability of proposed development sites for bat, based on the presence of habitat features within the landscape[15]

Suitability	Description of roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitats feature on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitats to be used on a regular basis or by larger numbers	Habitats that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream but isolated i.e. not very well connected to the surrounding landscape by other habitat.

[14] Gurnell, J., Lurz, P. McDonald, R. & Pepper, H. (2009). Practical Techniques for Surveying and Monitoring Squirrels. Forestry Commission Practice Note.
[15] Collins, J. (Ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edn.). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1.

Suitability	Description of roosting habitats	Commuting and foraging habitats
	of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only limited roosting potential.	Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch or scrub
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessment in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree lined watercourses and grazed parkland. Site is close to and connected to known roosts.

4.2.7 Reptiles

Targeted reptile surveys were not undertaken, however, incidental records of reptile sightings, or signs such as shed skins, and features of particular importance (i.e. potential hibernacula) were recorded, using relevant guidance[16, 17].

4.2.8 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. wildcat, hares (*Lepus* spp.), and American mink (*Neovison vison*)).

[16] Edgar, P., Foster, J. and Baker, J. (2010). Reptile Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth.
[17] Cathrine, C. (2018). ARG UK Advice Note 10: Reptile Survey and Mitigation Guidance for Peatland Habitats. Amphibian and Reptile Groups of the United Kingdom.

4.2.9 Species Scoped Out

Surveys for beaver (*Castor fiber*) and great crested newt (*Triturus cristatus*) were scoped out of field surveys due to the absence of suitable habitat or the survey area being located outwith their known range or distribution.

Surveys for fish species were not carried out; whilst resident brown trout (*Salmo trutta*) are likely to be present in watercourses within the site, multiple known barriers to migration are present downstream of these watercourses such that migratory species including Atlantic salmon (*Salmo salar*), river lamprey (*Lampetra fluviatilis*) and sea lamprey (*Petromyzon marinus*) would not be present. There is the potential that the resident brown trout population could support freshwater pearl mussel (FWPM) (*Margeritifera margeritifera*), but fisheries surveys carried out in support of surrounding wind farm developments found no evidence of FWPM and watercourses within the plateau section of the site are considered too steep and shallow to maintain the trout populations necessary to support FWPM. European eel (*Anguilla anguilla*) may be present within the watercourses on site.

5 SURVEY DETAILS & LIMITATIONS/CONSTRAINTS

Surveys for protected species were undertaken between 17 October 2022 and 19 October 2022, and between 31 October 2022 and 3 November 2022. As noted above, a watching brief for protected species signs was also maintained throughout the habitat surveys undertaken at the site throughout 2022. No survey limitations resulted from adverse weather conditions, and the water levels across the site were noted as being at a normal level.

Due to the mobile nature of protected species, it is possible that new features may be created in the period between surveys and the commencement of construction. It is therefore recommended that re-fresh 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 site boundary. **Table 6-1** below details the designated sites with qualifying interests for protected species within 5km of the site[4].

Table 6-1 Ecologically designated sites within 5km of the site

Designated site	Distance from site (km)	Qualifying interests	Last assessed condition & date
River Spey SAC	0.29	Atlantic salmon (*Salmo salar*)	Unfavourable Recovering, 4 September 2011
		Freshwater pearl mussel (*Margaritifera margaritifera*)	Unfavourable Declining, 30 September 2014
		Otter (*Lutra lutra*)	Unfavourable, Recovering, 18 September 2011

Designated site	Distance from site (km)	Qualifying interests	Last assessed condition & date
		Sea lamprey (*Petromyzon marinus*)	Favourable Maintained, 7 September 2011
River Spey SSSI	0.29	Atlantic salmon (*Salmo salar*)	Unfavourable Recovering, 20 October 2004
		Freshwater pearl mussel (*Margaritifera margaritifera*)	Unfavourable Declining, 30 September 2014
		Otter (*Lutra lutra*)	Favourable, Maintained, 18 September 2011
		Sea lamprey (*Petromyzon marinus*)	Favourable Maintained, 7 November 2011
Ness Woods SAC	5.17	Otter (*Lutra lutra*)	Unfavourable, Declining, 21 September 2011
Glen Tarff SSSI	5.17	Beetle (*Bolitophagus reticulatus*)	Favourable Declining, 15 July 2015

6.1.2 Online Resources/Data Searches

A search of the NBN Atlas Scotland[3] covering a 5 km buffer (10 km for bat species and wildcat) off the proposed alignment in the past 15 years (i.e., from 2008 onwards) returned records of the following protected or notable species:

- Common lizard;
- Mountain hare (*Lepus timidus*);
- Otter;
- Red squirrel;
- Red deer (*Cervus elaphus*);
- Roe deer (*Capreolus capreolus*); and
- Sika deer (*Cervus nippon*).

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

No sightings of red squirrels have been recorded by Saving Scotland's Red Squirrels[5] within 5km of the Proposed Development in any year since 2010. Outwith 5km of the Proposed Development, sightings of red squirrels were recorded, with these sightings concentrated mainly around Fort Augustus, Invergarry and Newtonmore.

The Deer Distribution Survey 2023[6] results suggested the presence of the following deer species in the general area of the Proposed Development:

- Roe deer;
- Red deer;
- Sika deer; and
- Fallow deer (*Dama dama*).

A review of EIA Reports for nearby wind farm developments was undertaken to gauge the presence of protected or notable species in the wider area, summarised as follows:

- Protected species surveys undertaken for Cloiche Wind Farm[18] noted the presence of protected features attributed to water vole and otter in addition to noting the presence of mountain hare, low population densities of brown trout and common lizard.
- Surveys undertaken to inform the application for Dell Wind Farm[19] noted presence of otter, water vole, mountain hare, pine marten, common lizard, *Pipistrellus* spp. and *Myotis* spp.
- The Environmental Statement for Stronelairg Wind Farm[20] states that otter, water vole, common lizard, soprano pipistrelle and mountain hare were present on site; brown trout were also recorded, with all watercourses considered to be inaccessible for Atlantic salmon.
- Protected species surveys for the refused Glenshero Wind Farm[21] recorded the presence of otter (no breeding or resting sites), water vole, common lizard, common and soprano pipistrelle bats, and Daubenton's bat.
- Electrofishing surveys completed as part of the Glenshero Wind Farm[21] submission found a robust and healthy resident trout population on the Allt Coire Iain Oig, but no fish were recorded on the Allt Gilbe (these are the main watercourses draining the south of the Proposed Deelopment). Juvenile salmon were present in the lower Feith Talagain downstream of an impassable waterfall; salmon were not recorded above the waterfall on the Feith Talagain nor on any other watercourse draining the site. Feith Talagain is above Spey Dam and so the presence of juvenille salmon here, and repeatedly from many years of monitoring work by the Spey Fishery Board, indicates Spey Dam is not a completely impassable barrier to migratory fish. The Allt Coire Iain Oig and Allt Gilbe are larger tribuatries of the Feith Talagain but are located upstream of the natrual and impassable waterfalls on the lower Feith Talagain (which are just upstream of its confluence with the River Spey) and thus Allt Coire Iain Oig and Allt Gilbe and their tributaries are inaccessible to migratory fish.

Surveys undertaken during GI works for the Proposed Development as part of ECoW duties in June/July and October/November 2023 recorded the following signs of species:

- common lizard: sightings throughout the site (June, July 2023); and
- otter: holt and prints in vicinity of Stronelaig Wind Farm (June 2023). Location included in **Confidential Annex E**.

[18] SSE (2020). Cloiche wind farm: Environmental Impact Assessment Report.
[19] Coriolis Energy (2014). Dell Wind Farm Environmental Statement.
[20] SSE (2012). Stronelairg Wind Farm Environmental Statement.
[21] Simec Wind One Ltd and RES Ltd (2018). Glenshero Wind Farm Impact Assessment Report.

6.2 Field Survey Results

The survey results are summarised in **Table 6-2** below, with full detailed results provided within **ANNEX C**, selected photographs are presented in **ANNEX D**. Survey results are displayed on **Figure 8.5**.

Table 6-2 Protected Species Survey Results Summary

Species	Survey Results Summary	General Habitat Suitability
Otter	Sixteen otter spraints were recorded; nine on Allt na Craidhleig and its associated tributaries, one on Allt a' Choire Odhair, one on Allt Creag Chomaich, two on Allt nan Sidhean and three on Allt Coire Lain Oig. The spraints recorded varied in age from fresh to old, suggesting that the survey area is regularly and has been recently used by otter. No protected features were recorded.	The watercourses within the area provide suitable foraging and commuting habitat for otter and provide connectivity between the site and the River Spey. Watercourses within the site have limited opportunities for resting sites for otter, with limited riparian tree presence.
Water vole	Evidence of water vole was recorded on a number of watercourses throughout the survey area. The highest level of activity was recorded on Allt na Craidhleig in the north of the site, where three burrows and three latrines were found. Two burrows and a latrine were also recorded along Allt Creag Chomaich and its tributaries. A single burrow was also recorded along Allt Coire Iain Oig in the south of the site. Droppings and runways were also found in association with several of the burrows and latrines.	Watercourses within the survey area were varied, with some offering moderate to high suitability for this species due to the vegetation, bank profile, slower waterflow, channel widths and food resources.
Badger	No signs of badger were recorded during the surveys.	The majority of the survey area offers very limited suitability for badger. Much of the area is covered by peat, which is generally not utilised by badgers for sett building. The area to the south of the site near the substation is at a lower elevation and may offer moderate suitability on its drier slopes, and in areas of shelter provided by the conifer plantations and young broadleaved woodland.
Pine marten	A pine marten den box was recorded. No field signs that the box is, or has previously been, in use. The location is included in **Confidential Annex E**. No pine marten field signs were recorded.	The majority of the survey area offers very limited suitability for pine marten, as there are no extensive areas of woodland or forestry present. The small areas of conifer plantation in the south of the site near the substation may offer potential shelter, with areas of more open land for hunting available nearby.
Red squirrel	Stripped cones and feeding signs were recorded in two locations at the edge of woodland to the west of Sherramore Forest	The small areas of coniferous forestry plantation within the south of the site may provide moderate suitability, providing

Species	Survey Results Summary	General Habitat Suitability
	and one location within woodland adjacent to General Wade's Military Road.	potential food resources, cover from predation, and potential to support dreys. However, the lack of tree species diversity may limit a steady year-round food supply. Areas of young broadleaved plantation around the substation in the south of the survey area are unlikely to provide suitable habitat at present due to the immature nature of the trees.
Bats	The PRA survey recorded one feature of moderate roosting potential; this was an installed bat box recorded on a boundary fence post to Melgarve substation. It is unknown whether the box is in use. The installation date is unknown but assumed to be part of works associated with the substation. Detailed PRF results are presented in **Annex C**.	The majority of the site offers poor suitability for bat roosting, foraging and commuting due to the lack of tree cover and exposed conditions. The coniferous plantations to the south of the site near the substation may offer better foraging and commuting opportunities but were assessed as having negligible roosting potential.
Reptiles	One common lizard sighting was recorded along the edge of woodland at the south of the site.	The site has some areas of open heathland and grassland habitats suitable for reptiles to forage and bask. Vegetation tussocks and any areas of outcropping rocks may provide suitability as hibernacula features.
Other Species	Five brown hare sightings were recorded across the survey area and one mountain hare was recorded on the north-west slopes of Carn na Gourach.	N/A

ANNEX A. LEGAL PROTECTION

A full list of protected species and the associated legislation can be found on the NatureScot website[22]. The following provides a summary of legal protection; the actual legislation should be consulted for the definitive list of offences.

Bats, Beaver, Great Crested Newt (GCN), Otter and Wildcat

All bat species, beaver, GCN, otter and wildcat receive protection in Scotland under the Conservation (Natural Habitats, &c.) Regulations (1994) (as amended) (the "Habitats Regulations"), being classified as European protected species of animals[23].

For European protected species, NatureScot guidance[24] sets out that it is an offence to deliberately or recklessly:

- capture, injure or kill an animal;
- harass an animal or group of animals;
- disturb an animal while it is occupying a structure or place used for shelter or protection;
- disturb an animal while it is rearing or otherwise caring for its young;
- obstruct access to a breeding site or resting place, or otherwise deny an animal use of a breeding site or resting place;
- disturb an animal in a manner or in circumstances likely to significantly affect the local distribution or abundance of the species;
- disturb an animal in a manner or in circumstances likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young;
- disturb an animal while it is migrating or hibernating;
- take or destroy an animal's eggs; or
- damage or destroy a breeding site or resting place of such an animal (these sites and places are protected even when the animal is not present)[25].

Regulation 44(2)(e) of the Habitats Regulations allows a licence to be granted for activities ordinarily prohibited, where that purpose is:

> "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."

[22] NatureScot (2022). Table of all of Scotland's Protected Species. Online: https://www.nature.scot/doc/table-all-scotlands-protected-species [Accessed September 2023].
[23] Schedule 2.
[24] NatureScot. (2023). European protected species. Online: https://www.nature.scot/professional-advice/protected-areas-and-species/protected-species/legal-framework/habitats-directive-and-habitats-regulations/european-protected [Accessed September 2023].
[25] Note that this is a summary of offences. Refer to Regulations 39 and 40 of the Habitats Regulations for legislative context.

Otter is also listed on Appendix I of the Convention of International Trade in Endangered Species (CITES), Appendix II of the Bern Convention, and Annexes II and IV of the Habitats Directive.[26] It is also listed as globally threatened on the IUCN/WCMC Red Data List.

Mountain Hare, Pine Marten and Red Squirrel

Mountain hare, pine marten and **red squirrel** and are protected in Scotland under the Wildlife and Countryside Act 1981[27].

Under Sections 9(1) and 9(2) of the 1981 Act, it is an offence to intentionally or recklessly kill, injure or take such an animal, or be in possession or control of such an animal (whether live or dead).[28]

Under Section 9(4)(a) and (b), it is an offence to intentionally of recklessly:

- damage or destroy, or obstruct access to, any structure or place which any wild animal included in Schedule 5[29] uses for shelter or protection; or
- disturb any such animal while it is occupying a structure or place which it uses for that purpose

Further, Section 9(5) sets out that it is an offence to:

- 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; or
- 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.

Water Vole

Water vole is protected in Scotland under Sections 9(4) and 10 of the Wildlife and Countryside Act 1981[30].

Under Section 9(4)(a) and (b) of the Wildlife and Countryside Act 1981, 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[31] uses for shelter or protection; or
- disturb any such animal while it is occupying a structure or place which it uses for that purpose.

Section 10(3)(c) provides for exceptions under Section 9, such that a person shall not be guilty of an offence where that person shows:

[26] European Union Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.
[27] Schedule 5.
[28] See exceptions under Section 9(3).
[29] Animals which are protected under Section 9 of the Wildlife and Countryside Act 1981.
[30] as amended by the Nature Conservation (Scotland) Act 2004.
[31] Animals which are protected under Section 9 of the Wildlife and Countryside Act 1981.

- that each of the conditions specified in subsection (3A) was satisfied in relation to the carrying out of the unlawful act; or
- 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.

Subsection (3A) states those conditions referred to in Section 10(3)(c) 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

c) 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.

Badger

Badger is protected in Scotland under the Protection of Badgers Act 1992 (the "Badgers Act")[32].

Under Section 1(1) of the Badgers Act, "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."

Where it can reasonably be concluded that a person had been attempting to kill, injure or take a badger, then it will be presumed that that person had been attempting to do so, unless it can be proven otherwise[33].

Under Section 1(3), unless authorised under the Badgers Act, a person is guilty of an offence where "he has in his possession or under his control any dead badger or any part of, or anything derived from, a dead badger."

Under Section 3(1), unless authorised under the Badgers Act, it is an offence to interfere with a badger set*. The following actions are described as interference:

- damaging a badger sett or any part of it;
- destroying a badger sett;
- obstructing access to, or any entrance of, a badger sett;
- causing a dog to enter a badger sett; or
- disturbing a badger when it is occupying a badger sett,

[32] as amended by the Nature Conservation (Scotland) Act 2004 (as amended).
[33] Section 1(2) of the Badgers Act.

intending to do any of those things or being reckless as to whether his actions would have any of those consequences.

It is also an offence if a person knowingly causes or permits any of the above actions to be carried out[34].

*Note: A badger sett is defined under the Badgers Act as any structure or place which displays signs of current use by a badger.[35]

Reptiles

The three native species of **reptile** to Scotland, **adder**, **slow worm** and **viviparous lizard**, are protected under Section 9(1) (insofar as the action relates to killing or injuring the animal), and Section 9(5) of the Wildlife and Countryside Act 1981.

Under Section 9(5), it is an offence to:

- 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.

Section 10(3)(c) provides for exceptions under Section 9, such that a person shall not be guilty of an offence where that person shows:

- that each of the conditions specified in subsection (3A) was satisfied in relation to the carrying out of the unlawful act; or
- 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.

Subsection (3A) states those conditions referred to in Section 10(3)(c) 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

c) 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.

[34] Section 3(2).
[35] Section 14.

Other Protected Species

Freshwater pearl mussel is listed on Annexes II and V of the Habitats Directive and are fully protected under Section 9 of the Wildlife and Countryside Act 1981. They are also listed as endangered on the IUCN/WCMC Red Data List. Offences relevant to development works include to intentionally or recklessly:

- kill, injure, take or disturb a freshwater pearl mussel;
- damage, destroy or obstruct access to a riverbed supporting freshwater pearl mussels.

Some freshwater pearl mussel populations are qualifying features of Special Areas of Conservation (SACs), and therefore receive further legal protection under the Habitats Regulations.

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
Common lizard	Protected species (Wildlife and Countryside Act 1981)	Biological Records Centre (F. Williams), Highland Biological Recording Group (R. Raynor)	CC-BY[36]
Common toad	Listed on the Scottish Biodiversity List (NatureScot, 2020)	Biological Records Centre (G. Dalley, D. Tompkins)	CC-BY
Mountain hare	Protected species (Wildlife and Countryside Act 1981)	Highland Biological Recording Group (J. O'Donovan)	CC-BY
		BTO (Withheld), NatureScot (Blank)	OGL[37]
Red deer	Welfare and impacts of deer on habitats and on neighbouring land and interests (inc. public roads)	Highland Biological Recording Group (J. Mercer)	CC-BY
		BTO (Withheld)	OGL
Red squirrel	Protected species (Wildlife and Countryside Act 1981, Nature Conservation (Scotland) Act 2004)	Scottish Wildlife Trust (C. Riddell)	CC-BY
Roe deer	Welfare and impacts of deer on habitats and on neighbouring land and interests (inc. public roads)	BTO (Withheld)	OGL
Otter	Protected species (Conservation (Natural Habitats, &c) Regulations 1994 (as amended)), qualifying feature of River Spey SAC, River Spey SSSI and Ness Woods SAC	Scottish Natural Heritage (Blank)	OGL
Sika deer	Welfare and impacts of deer on habitats and on neighbouring land and interests (inc. public roads)	BTO (Withheld)	OGL

[36] Creative Commons with Attribution 4.0 (CC-BY) https://creativecommons.org/licenses/by/4.0/ (Accessed January 2023)
[37] Open Government Licence (OGL) https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/ (Accessed January 2023)

ANNEX C. SURVEY RESULTS

Table C-1 below details the relevant data collected for protected species during surveys for the site, sorted by species, then survey date (see also **Figure 8.5**). Confidential information relating to a potential pine marten den is contained within **Confidential Annex E.**

Table C-2 details the results from the bat preliminary roost assessment (PRA) survey.

Table C-1 Protected Species Survey Results

Species	Sign	PS ID	Easting	Northing	Survey date	Notes
Brown hare	Sighting	PS004	248215	804517	31/10/2022	
Brown hare	Sighting	PS025	250890	800051	19/10/2022	Flushed.
Brown hare	Sighting	PS028	250326	803286	02/11/2022	Flushed by Allt Mor watercourse.
Brown hare	Sighting	PS030	251022	803076	02/11/2022	
Brown hare	Sighting	PS037	248049	803047	03/11/2022	
Common lizard	Sighting	PS001	249995	795647	17/10/2022	
Mountain hare	Sighting	PS038	251411	802602	29/11/2022	Incidental sighting recorded during habitat survey.
Otter	Spraint	PS005	249127	804544	31/10/2022	Old spraint on rock by sluice. Algae over rock and previous tarring.
Otter	Spraint	PS009	249218	804745	01/11/2022	Spraint on large rock in middle of watercourse. Previous tarring, slightly degraded and wet.
Otter	Spraint	PS012	250456	803988	01/11/2022	Three spraints on large rock by Allt Na Craidhleig river. Moss covered, looks older.
Otter	Spraint	PS013	250410	804003	01/11/2022	Spraint on large rock with lots of algae on Allt Na Craidhleig river. Intact but older.
Otter	Spraint	PS014	250361	804032	01/11/2022	On rock by Allt Na Craidhleig banking. Yellowish slime on it, looks old. Rock cleared of moss.
Otter	Spraint	PS015	250186	804090	01/11/2022	Small older spraint on large rock in Allt Na Craidhleig river.

Species	Sign	PS ID	Easting	Northing	Survey date	Notes
Otter	Spraint	PS017	250012	804140	01/11/2022	Two very old spraints left on rock in Allt Na Craidleig. Jelly like substance near to one spraint.
Otter	Spraint	PS018	249984	803773	01/11/2022	Large spraint on rock beside sluice wall by large body of water.
Otter	Spraint	PS024	250263	799291	18/10/2022	Dark and larger bones on moss on large rock on watercourse bank. Fishy smell.
Otter	Spraint	PS026	250114	799872	19/10/2022	On large boulder at top, surrounded by moss. Older with tarring and a few other very small spraints on moss with bones.
Otter	Spraint	PS027	250127	799872	19/10/2022	Large tar like spraint on top of boulder in watercourse.
Otter	Spraint	PS029	250452	803434	02/11/2022	Washed out spraints on rock by culvert on Allt Mor watercourse.
Otter	Spraint	PS031	250960	802795	02/11/2022	Three spraints on rock on banking of Allt Creag Chomaich river. Old with lots of algae on rock.
Otter	Spraint	PS033	250900	801523	02/11/2022	Very old spraint on large rock on banking of Allt Nan Sidhean watercourse.
Otter	Spraint	PS034	250841	801742	03/11/2022	Small old spraint on rock by Allt Nan Sidhean. Lots of algae left on rock.
Otter	Spraint	PS039	249782	805660	30/11/2022	In mossy area around 10m from slow flowing watercourse (Allt a' Choire Odhair). Has lots of bones in it, seems old but has smell. Incidental record found during a habitat survey.
Red squirrel	Feeding signs	PS020	250574	795316	17/10/2022	Stripped cone by road beside larch tree edge.
Red squirrel	Feeding signs	PS021	251542	797648	18/10/2022	One stripped cone amongst large area of fallen cones.
Red squirrel	Feeding signs	PS022	251590	797700	18/10/2022	Several stripped cones beneath large conifer.
Water vole	Burrow	PS006	249147	804379	31/10/2022	Hole by rock that goes deep into banking. Latrine and droppings beside.
Water vole	Latrine	PS007	249136	804594	01/11/2022	Several latrines (around 8) in rushy area, beside watercourse near sluice.
Water vole	Latrine	PS008	249189	804670	01/11/2022	Latrine with feeding signs by watercourse.

Species	Sign	PS ID	Easting	Northing	Survey date	Notes
Water vole	Burrow	PS010	249239	804903	01/11/2022	Burrow with droppings on the outside and a clear run. 1.5m from watercourse.
Water vole	Burrow	PS011	249276	804978	01/11/2022	Large opening with droppings that reduces to fist size.
Water vole	Latrine	PS016	250067	804121	01/11/2022	At least 3 large piles of droppings and clear runs within rush.
Water vole	Burrow	PS023	251135	798564	18/10/2022	Two holes and at least 3 latrines on Allt Coire banking. Lots of dropping and runs.
Water vole	Burrow	PS032	251432	801539	02/11/2022	Beside Allt Nan Sidhean watercourse. Lots of droppings outside entrance.
Water vole	Sighting	PS035	249450	800324	03/11/2022	Ran along exposed peat hags, beside watercourse.
Water vole	Burrow	PS036	249136	800991	03/11/2022	Burrow with run and droppings. Beside deep section of water from Allt an Dubh Lochan.

Table C-2 Bat Preliminary Roost Assessment (PRA) Target Notes & Survey Results

Feature ID	Easting	Northing	Feature	Number	Species	PRF notes	PRF category
PS002	250003	795649	Bat box	1	-	Installed bat box recorded on boundary fence post to Melgarve substation - use status unknown. Installation date unknown but assumed to be part of works associated with the substation.	Moderate

ANNEX D. PHOTOGRAPHS

Photo 1 Water vole burrow with latrine near entrance (PS023)

Photo 2 Water vole burrow (PS006)

Photo 3 Water vole burrow with run down to watercourse (PS010)

Photo 4 Water vole burrow by Allt an Dubh Lochan (PS036)