



**ARECLEOCH WINDFARM EXTENSION**  
**Protected Species 2017 and 2019 Survey Report**  
**Technical Appendix 8.2A**

**Document Quality Record**

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## EXECUTIVE SUMMARY

MacArthur Green was commissioned by ScottishPower Renewables to carry out protected species surveys for the proposed Arecleoch Windfarm Extension (referred to as the 'proposed Development').

These surveys were undertaken to inform the ecological assessment for the proposed Development's Environmental Impact Assessment Report (EIAR).

Baseline surveys were conducted in 2015, with the results of these contained within Technical Appendix 8.2B: Protected Species 2015 Survey Results. Surveys to update the baseline were conducted between 19 and 21 June 2017 by MacArthur Green. An additional survey for water vole was undertaken between 6 and 9 September 2017. The surveys found evidence of otter, water vole, badger, pine marten, red squirrel and common lizard using the study area. Surveys were undertaken along the proposed access track in 2019. The surveys found evidence of badger and otter.

Surveys for bats were carried out and are reported separately (Technical Appendix 8.3 A & B).

## 1 INTRODUCTION

MacArthur Green was commissioned by ScottishPower Renewables to carry out protected species surveys at the proposed Arecleoch Windfarm (hereafter referred to as the 'proposed Development'). The Site is located approximately 3 km to the south west of the village of Barrhill in South Ayrshire. These surveys 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 and signs recorded for other protected species potentially inhabiting the Site, i.e. native reptiles: adder (*Vipera berus*), common or viviparous lizard (*Zootoca vivipara*), and slow worm (*Anguis fragilis*).

Surveys for bats were carried out and are reported separately (see Technical Appendix 8.3 A & B).

Baseline surveys were conducted in October 2015 to inform the ecological assessment for the proposed Development's Environmental Impact Assessment Report (EIAR). The results of the survey are contained within Technical Appendix 8.2B: Protected Species 2015 Surveys Results and are referenced within this report where necessary. Surveys to update the baseline results were conducted in 2017, and reference to these initial surveys is made within this report. Surveys were conducted along the access track in 2019, to cover off additional areas not covered by previous surveys.

## 2 THE SITE

The majority of the Site supports commercial forestry plantation, which is interspersed by areas of clearfell. The forestry rides generally support mire and heath habitat. There are a number of watercourses present on the Site, including Water of Tig to the north and west and the Laggish Burn to the south east. There are a number of smaller watercourses present on Site including White Loan, which feeds into the Cross Water to the east of the Site. There are also a number of unnamed burns present on the Site. A railway line intersects the Site and crosses the White Loan and Cross Water.

The proposed access track route follows that of the existing track for the operational Arecleoch Windfarm. The track entrance leaves the A714 to the south of Eldrick at Wheeb Bridge and follows through areas of conifer plantation and clearfell. It cuts over the B7027 near Knockylaigh and continues through clearfell and conifer habitats, past the entrance to Killgallioch Windfarm and on towards Knockshin, where it crosses the Forest Road into the Arecleoch Windfarm entrance.

## 3 LEGAL PROTECTION

The details of the legal protection of the protected species surveyed for are given in Annex 1.

## 4 METHODS

Surveys to record the presence or likely absence of otter, water vole, badger, red squirrel and pine marten were carried out within the Site between 19 and 21 June 2017. During the 2017 surveys, all habitats suitable for these species were surveyed within the application boundary, as described in the sections below. An additional survey visit for water vole was conducted between 6 and 9 of September 2017, during which all watercourses were resurveyed for this species. Due to access restrictions, areas outside the application boundary were not included in the surveys.

Surveys were conducted between 18 and 20 February 2019 along the proposed access route for the Site. All habitats along the length of the proposed route, and out to appropriate survey buffers as outlined in the sections below, were searched for protected species.

The area within which surveys were conducted for protected species is hereafter referred to as the 'study area'. Clear distinction will be made within the text where reference to the access track surveys is being discussed.

A watching brief for any protected species signs was undertaken during other survey visits (e.g. ornithology/vegetation surveys) to Site 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:

#### 4.1 Otter

All accessible watercourses within the study area were surveyed for otter field signs in 2017. Surveys along the access track in 2019 were undertaken within a 250 m buffer of the proposed route. Otter field signs and survey methods are described in Bang & Dahlstrøm (2001), Sargent & Morris (2003) and Chanin (2003), 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;

**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 Water Vole

All watercourses within the study area were surveyed for water vole field signs in 2017, following the methodology prescribed in Dean *et al.* (2016). In the 2019 access track surveys, the proposed access route plus a 30 m survey buffer was searched. 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 10 cm long;

**Burrows:** Appear as a series of holes along the water's edge distinguishable from rat burrows by size and position;

**Lawns:** May appear 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.

In line with current guidance (Dean *et al.*, 2016), the first visit should be undertaken during the first half of the water vole breeding season (mid-May to the end of June) and the second between July and mid-September.

#### 4.3 Badger

Land with the potential to support badger within the study area was searched for field signs with particular attention given to areas around woodland and areas underlain by mineral soils. Surveys along the proposed access track included a 40 m survey buffer for badger. Field signs of badger are described in Neal and Cheeseman (1996), Bang and Dahlstrøm (2001), and Scottish Natural Heritage (2001). 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. These are often used as territorial markers;

**Hairs:** Tufts of hair can often be found on fences, or in the entrances to setts;

**Feeding signs (snuffle holes):** Small scrapes where badgers have searched for insects and plant tubers;

**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, the presence of field signs and their current usage was recorded, in line with the definitions outlined in Table 4.1 below.

**Table 4.1: Sett Entrance Classifications and Associated Descriptions**

Classification	Description
Well-used	One or more of the following features: well-worn entrance, freshly excavated soil, bedding material.
Part-used	Leaves or twigs in the entrance and/or moss and other plants growing in or around the entrance, or none of the features of a well-used.
Disused	Partially or completely blocked, with considerable amount of excavation required for reoccupation.

Where a sett was recorded during the survey, the category of the sett was also recorded in line with the classifications in Table 4.2.

**Table 4.2: Categories of Sett and Associated Descriptions**

Category of Sett	Description
Main	Several holes with large spoil heaps and obvious paths emanating from and between sett entrances. Can range from 3 to >30 holes.
Annex	Normally less than 150m from the main sett, comprising several holes and usually with well-defined runs connecting it to the main sett.
Subsidiary	Normally fairly close to the main sett, at least 50m away. Generally no connecting tracks and used infrequently.
Outlier	Little spoil outside holes. Often no obvious paths connecting to other setts.

#### 4.4 Pine Marten

Signs of pine marten were searched for within the study area following guidance from O’Mahony *et al.* (2006). Searches for pine marten scats were made along linear features such as fence lines, and around rock piles and dense scrub where the species could establish a den. Dens can include the utilisation of upturned trees, tee cavities, rocks or manmade structures such as log piles or large bird boxes.

#### 4.5 Red squirrel

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

**Sightings:** visual sightings of red squirrels;

**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 (Gurnell *et al.*, 2009); and

**Feeding signs:** predated cone (cone cores) searches in areas of woodland.

#### 4.6 Other Protected Species

It is not considered necessary to undertake targeted reptile surveys; however, incidental records of reptile sightings, or signs such as shed skins, and features of particular importance (i.e. potential hibernacula) were recorded.

A desk study for other protected species, including great crested newt was undertaken.

## 5 SURVEY LIMITATIONS

The 2019 surveys were conducted in February, which is not considered to be within the optimal, or recommended, survey period for water voles. Notes were taken during the survey period of any watercourses or habitats which showed suitability for supporting the species. Given the results of the surveys (see Section 6.2), appropriate mitigation will be recommended which should provide protection to any water voles utilising the habitats along the proposed access route. Therefore, the survey timing is not considered to have affected the integrity of the surveys along the proposed access route.

## 6 RESULTS AND DISCUSSION

Evidence of otter, water vole, badger, pine marten and squirrel was recorded during the surveys in 2017. There were two sightings of common lizard recorded during the surveys in 2017. Evidence of otter and badger was recorded along the proposed access route in 2019.

All 2017 and 2019 survey results are listed within Annex 2 and are provided on Figure 8.5 and 8.C1.

The survey in June 2017 was conducted in dry, sunny and hot weather whilst the survey in September 2017 was conducted in dry and overcast conditions. The watercourses were considered to be at normal flows (i.e. not at very low levels or in spate) during both survey visits. The surveys in February 2019 were conducted in mainly dry conditions, with a number of intermittent rain spells. As with the 2017 surveys, watercourses were considered to be displaying normal flows.

### 6.1 Otter

Evidence of otter was recorded during the 2015 survey, with spraints recorded in eight locations. No protected features were recorded.

The 2017 surveys found similar levels of otter activity to that recorded in 2015. Spraints were recorded at fifteen different locations during the June survey, whilst two spraint records were recorded during the September survey. The spraints varied in age, from fresh to old and weathered. A potential resting site was also recorded close to a watercourse under a tree root plate.

The 2019 access track surveys recorded evidence of otter, with spraints recorded at 13 locations. There was a higher level of otter activity recorded around the area of Pullower Burn and Loch Long, including several well used paths linking the waterbodies, which are likely to be used by otter given the field signs recorded within their vicinity. No protected features for otter were recorded during the surveys.

The Water of Tig is likely to provide good foraging opportunities for otter, given its suitability for supporting fish and other prey species such as amphibians. The watercourse also offers commuting opportunities for otter, and is likely to be used as commuting link between the study area and the other watercourses within the wider vicinity of the Site. The watercourses are located within habitat which offers suitable sheltering opportunities for otter, such as from upturned tree root plates, fallen tree and branch debris and suitable bankside vegetation. Along the access track route, the River Cree to the east offers good habitat for supporting otter, likely providing good foraging opportunities. It is likely that many of the watercourses which drain or feed the Long Loch, Black Loch, Cow Loch and Craigie Loch, act as links between these habitats and are used by otters for foraging, commuting and sheltering opportunities.

## 6.2 Water Vole

There was no evidence of water vole recorded within the study area in 2015, although the good suitability of the habitat along the watercourses was noted as having potential to support the species.

A water vole colony was recorded within the study area during the June 2017 survey, along a tributary to the Cross Water. The colony consisted of at least nine burrows and a total of six latrines were recorded. A water vole was also seen to jump into the watercourse. The surrounding habitat, which consisted of dense rush vegetation, made it difficult to fully determine the total number of burrows within the colony and it is possible that there were more present than were recorded. The colony is located within a stretch of habitat that contains historic clearfell, but offers good water vole habitat given the slow water flow, suitable bank substrate and vegetation. The second survey visit in September 2017 recorded two potential water vole burrows further north along a tributary to Cross Water, although no further evidence for water vole were recorded within the vicinity. Several water vole droppings were recorded further downstream of the water vole colony recorded in June, although no burrows were recorded in this area.

There was no evidence of water vole in the 2019 survey along the proposed access route, although the high suitability of the habitat for supporting water vole in this area was noted. As mentioned in section 5 above, the surveys were not conducted within the recommended survey period for water vole, and it is possible that there were no field signs present at this time due to the timing of the survey, rather than the absence of the species. Given the suitability of the habitat, and the knowledge of water vole presence within the Site and the wider area, there is the potential for water voles to utilise the suitable habitats within the Site, as discussed below. The watercourses within the study area offer suitability for water vole in areas with slow flowing sections and soft, peaty banks offer good burrowing opportunities. The terrestrial vegetation also offers suitable foraging habitat.

Water voles are a mobile species and effective dispersers. They are known to move their colonies along watercourses over time and can disperse over land and along waterways (Waterside Ecology, 2014). The movement of water voles between areas of suitable habitat can not only boost existing population numbers, but also results in the colonisation of new or previously occupied suitable habitat (Waterside Ecology, 2014). It can be expected that burrow locations of active burrows will continuously change over time. Given this behaviour, it is considered likely that the location of active burrows will change over time and it is likely that water vole have moved into the tributary to Cross Water since the surveys were conducted in 2015 from surrounding areas. It is also possible that the location of active burrows will change across the Site from year to year, specifically with new colony locations within the suitable habitats within the Site.

## 6.3 Badger

No evidence of badger was recorded during the 2015 survey visit. The presence of suitable habitat with the potential to support badgers within the vicinity of the Site was noted.

During the June 2017 survey, badger footprints were recorded along a mud track to the north of the study area. No other field signs of badger or protected features (i.e. setts or day nests) were recorded.

The areas of farmland that are present adjacent to the north and east of the study area, provide good habitat for sett building given the suitability of the substrate. The coniferous forestry plantation within the north of the study area offers suitability for sett building, although no setts were recorded. It is possible that badgers will use the study area for foraging and commuting between those habitats within the application boundary and those within its wider vicinity.

The surveys in 2019 recorded badger activity along the proposed access track route. This data has been added to confidential Annex 4, and photos provided in confidential Annex 5, given its sensitivity.

## 6.4 Pine Marten

Evidence of pine marten was recorded within the study area during the 2015 survey, in the form of potential scats and an incidental sighting of a pine marten crossing the track during a bat survey.

There was similar evidence of pine marten using the study area during the 2017 surveys. Two potential pine marten scats were recorded during the survey in June. An unconfirmed pine marten call was recorded in two locations during the June survey. Pine marten are known to make a shrill call during their mating season, and the timing of the survey coincided with this period. No dens were recorded during the survey.

There was no evidence of pine marten recorded during the 2019 surveys of the proposed access track route.

The study area offers good suitability for pine marten given the mixed age of coniferous forestry and the presence of features which offer suitable denning opportunities. Given the evidence of pine marten recorded during the surveys, it is likely that the Site falls within the home range of a pine marten. A population of pine marten is known to be present within the Galloway Forest Park (Croose *et al.*, 2013), located approximately 12 km east of the study area.

## 6.5 Red Squirrel

Feeding signs of squirrel, in the form of predated cone cores, were recorded during the 2015 surveys, although it was not possible to determine if these were from red squirrel. No protected features were recorded during the survey.

During the 2017 survey, feeding signs of squirrel were also recorded, in the form of predated cone cores found in two locations. It is not possible to determine species of squirrel, red or grey, from these field signs alone. An incidental observation of a red squirrel was made during an ornithology survey within the study area. The sighting confirms that red squirrel is using the habitats within the study area.

Red squirrel is known to be present within the wider area of the Site. The Fleet Basin in the Galloway Forest Park, approximately 23 km east of the Site, has been proposed as a red squirrel stronghold against grey squirrels, and Glentroll within the Galloway Forest Park, located approximately 14.5 km east of the Site has formerly been noted as a Red Squirrel Priority Woodland (Poulsom *et al.*, 2005).

## 6.6 Other Species

There were two sightings of common lizard during the survey in June 2017. The study area offers good suitability for supporting basking and hibernating reptiles, including adder.

There were also several records of common frog (*Rana temporaria*) and common toad (*Bufo bufo*) recorded during the surveys.

According to O'Brian *et al.* (2017), the Site is in category C of, therefore is categorised as unsuitable for this species. No great crested newt records were found in available data from windfarm sites within 2 km of the proposed Development during the desk study. The Environmental Statement for the neighbouring Kilgallioch Windfarm (Scottish Power Renewables, 2010) to the south of the proposed Development states that lochs and lochans in the study area of this windfarm are "highly unlikely to support protected amphibians, as such species are not normally associated with upland acid mire habitats and acid waterbodies". This includes the group of lochs around Loch

Martle to the south of the access route for the proposed Development. This assessment of habitat type also applies to the lochs and lochans within 500 m of the proposed Development. Drumlamford Loch to the south of the access route is a fisheries loch and therefore considered unsuitable for newts. Based on this information, no field surveys were considered necessary for this species.

The presence of red fox (*Vulpes vulpes*) was also recorded within the study area, with several scats recorded.

## 7 CONCLUSIONS

The study area provides good habitat for supporting otter, with the Water of Tig and several of the smaller watercourses providing opportunities for foraging, commuting and sheltering otter. Several otter spraints were recorded within the study area as well as a potential resting up site. A number of well-used paths and spraints were recorded during the 2019 surveys of the proposed access route.

The study area has variable suitability along its watercourses for water voles. Those watercourses with a slow water flow, soft and peaty banks and good terrestrial habitat provide good opportunities for burrowing water voles. The tributary to the Cross Water supports a water vole colony, recorded in 2017, with several burrows, latrines, runs and feeding signs recorded. A water vole was also sighted entering the water at this location. The two potential water vole burrows further north at another tributary of Cross Water may be part of remnants of a former water vole colony. There is the potential for the water voles to utilise the other suitable habitats within the study area for dispersal and potential colonisation, including those watercourses that intersect the proposed access route.

Badger footprints were recorded in an area to the north of the study area. The habitats to the north of the study area and those present out-with the Site to the north offer good suitability for sett building. Evidence of badger was recorded along the proposed access route, with a number of field signs recorded. It is likely that badgers will utilise several of the habitats within the study area for commuting and foraging.

There was evidence of pine marten recorded within the study area in 2017, with scats recorded along the tracks and a potential pine marten call heard during the survey. A pine marten was also seen within the study area during a bat survey in 2015. The habitats within the study area are suitable for pine marten given the presence of features which offer suitability for denning pine marten.

A red squirrel was sighted during the 2017 survey period, confirming that the species is present within the study area. The study area offers suitable habitat for red squirrel given the presence of coniferous forestry which is of cone bearing age. No dreys were recorded during the surveys.

There were two common lizards sighted during the survey in 2017, confirming the species' presence within the study area. The habitats within the study area offer suitable opportunities for basking reptiles, including adder, and there are several structures have suitability for use as hibernaculum.

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## Legal Protection

Otters receive protection under the Conservation Regulations (1994) (as amended) only<sup>1</sup>.

### 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.

**Water vole** is not protected by Section 9, subsection 1 of the Wildlife and Countryside Act but is covered by Section 9, subsection 4 and Section 10<sup>2</sup>.

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

Under Section 9, Subsection 4, Paragraphs (a) and (b)<sup>4</sup>, 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)<sup>4</sup>, 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
  - (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.

<sup>1</sup> The Conservation Amendment (Scotland) Regulations (2007) removed EPS from Schedule 5 and 8 of the Wildlife and Countryside Act 1981.

<sup>2</sup> as amended by the Nature Conservation (Scotland) Act 2004



**Badgers** are 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.–

- (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.
- (2) 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.
- (3) 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 squirrels and pine martens** 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:

- (5) 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.'

**Survey Results**

**Table A. 1: 2017 Survey Results - Site**

Species	Sign	Grid reference	Notes	Photo
Otter	Spraint	NX 20546 79782	Three spraints on large emerging rock. Look recent, one quite fresh. On rock adjacent to Cross Water.	
Otter	Spraint	NX 20486 79778	Spraint on rush vegetation next to Cross Water. Recent/fresh.	
Otter	Spraint	NX 20467 79796	Spraint on rock in Cross Water. Looks relatively fresh/recent. Looks tarry.	
Otter	Spraint	NX 20461 79795	Large fresh spraint on rock. Contains bones. On rock adjacent to bank of Cross Water.	
Otter	Spraint	NX 20355 79797	Spraint on rock in Cross Water. Looks relatively fresh.	
Otter	Spraint	NX 20146 79671	Fresh spraint on rock in Cross Water.	1
Otter	Spraint	NX 20068 79495	Spraint on rock in middle of Cross Water	
Otter	Spraint	NX 20029 79428	Fresh spraint on rock in middle of Cross Water	
Otter	Spraint	NX 20683 80115	Spraint on large rock at side of tributary to White Loan. Old and weathered	
Otter	Spraint	NX 20546 79782	Two otter spraints present along the Water of Tig under the bridge. Old - only a few bones remaining and staining left.	
Otter	Spraint	NX 18520 81415	Old and weathered otter spraint. Along the Water of Tig. On rock emerging from the watercourse.	
Otter	Spraint	NX 18409 81333	Otter spraint on rock in watercourse. Recent.	
Otter	Spraint	NX 18331 82148	Very old spraint on rock	
Otter	Spraint	NX 21120 78016	Located next to Burn. Contains fish bones.	
Otter	Spraint	NX 21240 80761	Very old spraint on rock, only bones remaining.	
Otter	Spraint	NX 20995 80323	Three spraints on large emerging rock. Look recent, one quite fresh. On rock adjacent to Cross Water.	
Otter	Potential resting site	NX 19748 79986	Potential resting site, suitable under tree root, but no other field signs found.	
Pine Marten	Potential scat	NX 20446 79851	Potential pine marten scat.	
Pine Marten	Potential scat	NX 21122 80022	Potential pine marten scat on track.	
Pine Marten	Potential call	NX 21279 80038	Potential pine marten calling (mating call) north of track in conifer plantation. Could be 10m from track.	
Badger	Footprint	NX 17345 82063	Badger print on mud track.	
Badger	Footprint	NX 17339 82071	Badger prints in mud on track.	
Squirrel	Feeding signs	NX 20046 80642	Predated cone. Adjacent to burn at forestry edge/ride.	
Squirrel	Feeding signs	NX 20014 80630	Squirreled cones under tree canopy.	2

Species	Sign	Grid reference	Notes	Photo
Red squirrel	Sighting	NX 21122 80022	Bird surveyor who is carrying out 2017 bird surveys sighted red squirrel in this area.	
Water Vole	Burrow	NX 20166 79826	Burrow in bank adjacent to water.	
Water Vole	Burrow	NX 20163 79826	Burrow in bank.	3
Water Vole	Burrow	NX 20160 79827	Two burrows.	
Water Vole	Burrow	NX 20156 79828	Burrow in bank.	
Water Vole	Burrow	NX 20148 79827	Burrow in bank.	
Water Vole	Burrow	NX 20157 79832	Burrow in bank.	
Water Vole	Burrow	NX 20160 79830	Burrow in bank by mud island.	
Water Vole	Burrow	NX 20179 79826	Burrow in bank adjacent to water.	
Water Vole	Burrow	NX 20227 81287	Potential vole burrows. Two burrows which are 1.3m from the water's edge.	
Water Vole	Burrow	NX 20218 81285	Potential water vole burrow 0.5m from the edge of burn.	
Water Vole	Latrine	NX 20168 79826	Latrine on mud island in middle of watercourse.	
Water Vole	Latrine	NX 20162 79825	Latrine on mud bank in watercourse.	
Water Vole	Latrine	NX 20161 79825	Old weathered droppings present.	
Water Vole	Latrine	NX 20159 79827	On mud in watercourse.	
Water Vole	Latrine	NX 20157 79829	Latrine on branch in watercourse.	4
Water Vole	Latrine	NX 20183 79832	Two droppings on rock.	
Water Vole	Dropping	NX 20435 79814	One dropping only found.	
Water Vole	Potential dropping	NX 19960 79677	Single dropping only on small side, vague possibility is a very large field vole.	
Water Vole	Runs	NX 20407 79831	Runs buried deep in rush also lots bank/field vole in area.	
Water Vole	Sighting	NX 20179 79826	Sighting of water vole entering watercourse.	
Water Vole	Feeding Remains	NX 20220 81286	Clippings next to the edge of burn with fresh droppings approx. 8.5mm long. The size of clippings suggest field vole.	
Water Vole	Feeding Remains	NX 19744 79709	Stripped rush clippings.	
Water Vole	Feeding Remains	NX 20414 80094	Large clippings, runs in deep rush area, but possibility bank or field vole.	
Reptile	Sighting	NX 18544 81706	Sighting of common lizard.	
Reptile	Sighting	NX 19077 82982	Sighting of common lizard running into wall.	
Reptile	Potential hibernaculum	NX 18347 81001	Old stone sheepfold. Has potential to be used as hibernacula but not a lot of vegetation growth and limited fallen stones.	
Reptile	Potential hibernaculum	NX 18383 82179	Potential hibernacula - old building remains with some suitability for hibernating reptiles. Limited fallen stones on ground, adjacent to watercourse.	
Reptile	Potential hibernaculum	NX 22202 81709	Old stone wall along eastern boundary with some suitability for hibernating reptiles.	

Species	Sign	Grid reference	Notes	Photo
Reptile	Potential hibernaculum	NX 19937 82811	Old stone wall along north western corner of site with some suitability for hibernating reptiles.	
Reptile	Potential hibernaculum	NX 19363 82942	Old stone wall along northern boundary of site with some suitability for hibernating reptiles.	

Species	Sign	Grid reference	Notes	Photo
Reptile	Potential hibernaculum	NX 27826 78673	Old corrugated iron sheeting across the ground offering shelter and basking areas for reptiles.	
Reptile	Potential hibernaculum	NX 30031 79824	Old stone ruin of building. Covered with moss. Potential hibernaculum.	

**Table A. 2: 2019 Survey Results – Proposed Access Track**

Species	Sign	Grid reference	Notes	Photo
Otter	Spraint	NX 30371 80311	Two weathered spraints on rock in watercourse.	
Otter	Spraint	NX 27360 78288	Spraint adjacent to path crossing watercourse.	
Otter	Spraint	NX 27366 78273	Old spraint in woodland adjacent to watercourse.	
Otter	Spraint	NX 22152 78301	Recent spraint on rock by culvert.	
Otter	Spraint	NX 23546 76521	Spraint on grassy tussock adjacent to watercourse.	
Otter	Spraint	NX 23555 76538	Recent spraint along path away from watercourse into forestry.	
Otter	Spraint	NX 23641 76668	Five spraints on grassy tussock adjacent to watercourse and next to path leading away from watercourse. One fresh, the rest recent.	
Otter	Spraint	NX 23656 76663	Very small spraint on grassy tussock leaving watercourse. Path adjacent running to forestry.	
Otter	Spraint	NX 23660 76657	Spraint and anal jelly on path entering into forestry.	
Otter	Spraint	NX 23696 76613	Potential very old spraint on mossy tussock in forestry plantation. Along well-worn path.	
Otter	Spraint	NX 23760 76498	Spraint on path next to tussock. Path leads to lochan.	
Otter	Spraint	NX 23630 76658	On grass and moss within 2 m of watercourse.	
Otter	Spraint	NX 23292 76720	Spraint by water's edge. Well weathered.	
Otter	Anal jelly	NX 23768 76500	Anal jelly along worn path entering lochan.	
Otter	Path	NX 23749 76498	Well-worn otter path. Cuts low through vegetation.	
Otter	Path	NX 23143 76756	Potential otter path leading away from watercourse towards track.	
Otter	Path	NX 23757 76539	Potential otter path. Gap in vegetation where it cuts through and up into forestry.	
Squirrel	Stripped cones	NX 26993 78212	In conifer woodland.	
Reptile	Potential hibernaculum	NX 30173 80276	Potential hibernacula from remains of old stone wall.	

**Photographs**

**Photo 1: Fresh spraint recorded on boulder within Cross Water**



**Photo 2: Squirrelised cones present under tree canopy**



**Photo 3: Water vole burrow in bank of tributary to Cross Water**



**Photo 4: Latrine recorded on log present within the tributary to Cross Water**



#### **Annex 4. Confidential Badger Annex**

**CONFIDENTIALITY REQUEST:** This confidential report contains sensitive information on the location and activity of badgers. Badgers are protected under the Protection of Badgers Act 1992 (as amended by the Nature Conservation (Scotland) Act 2004 (as amended)). Its distribution should therefore be limited to ScottishPower Renewables relevant project staff, Scottish Natural Heritage and Scottish Badgers.

Provided in a separate confidential Annex.

#### **Annex 5. Confidential Badger Photographs**

Provided in a separate confidential Annex.

**Figure 8.5 Protected Species Survey Results**

**Figure 8.C1a-c Confidential: Protected Species Survey Results**