Hill of Fare Wind Farm

Technical Appendix 8.2

Protected Species Baseline

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Contents

Executive Summary

ITPEnergised was appointed by RES to undertake Protected Species surveys for the proposed Hill of Fare Wind Farm and battery storage development in Aberdeenshire.

This survey is intended to establish the baseline for badger (*Meles meles*), otter (*Lutra lutra*), water vole (*Arvicola amphibius*), red squirrel (*Sciurus vulgaris*) and pine marten (*Martes martes*) presence on or adjacent to the Site, due to the presence of suitable habitat. The survey results are summarised as:

- Badger: Badgers are known from the local area, but no evidence of badger presence was confirmed on or within proximity to the Site.
- Otter: Territory-marking spraints were identified in the lower reaches of the Landerberry Burn and the Burn of Corrichie, but no resting sites or holts were recorded.
- Water vole: No evidence of water vole was identified within the survey area, which is generally concluded to be unsuitable for the species.
- Red squirrel: No evidence of red squirrel presence was recorded within the plantations of the Site and immediately adjacent areas of the survey buffer; however, several spruce cones, with potential to have been foraged by squirrel, were noted on a track to the north of the Site.
- Pine marten: There is widespread evidence of this species in the form of territory-marking scats (of a variety of ages) on the forestry tracks surrounding the open moorland.
- Other protected, otherwise notable or controlled species:
    - Amphibians: Several common frogs were noted within the site, with breeding habitat available.
    - Reptiles: No reptiles were observed but suitable reptile habitat is widespread in the study area, including woodland edge habitat, exposed boulders and tracks for basking and drystone walling which can provide hibernation features.
    - Bats: Features with bat roost potential were noted during the survey.
    - Deer: Deer are known to be present in the wider area and using the Site.
    - Breeding birds: Breeding birds are known to be present in the wider area and using the Site.
    - Invasive non-native species: Japanese knotweed was noted by the wall of the Hill of Fare car park (the layby opposite the eastern entrance) and at the back of Hillbrae Cottage and into the watercourse.

No further Protected Species surveys are deemed to be needed for the planning application. Mitigation will need to be defined and presented in the Environmental Impact Assessment Report (EIAR). A preconstruction survey for badger, otter, red squirrel and pine marten will be required.

1. Introduction

1.1 Overview

ITPEnergised was appointed by RES to undertake Protected Species surveys for the proposed Hill of Fare Wind Farm and battery storage development in Aberdeenshire (hereafter referred to as 'the Site'). The Site is located to the west of Aberdeen city, at central Ordnance Survey Grid Reference NJ 68051 02921.

This survey is intended to establish the baseline for badger (*Meles meles*), otter (*Lutra lutra*), water vole (*Arvicola amphibius*), red squirrel (*Sciurus vulgaris*) and pine marten (*Martes martes*) presence on or adjacent to the Site (to a standard survey buffer for each species; see Section 3, below), due to the presence of suitable habitat. This is intended to inform the planning application for the proposed development and potential future need for Species Protection Plans (SPPs) during the construction period.

1.2 Site Description

The Site comprises upland habitats, including heath, grassland, bracken and regenerating conifers and is understood to have formerly been under grouse moor management. Three access tracks lead into the Site; two from the A980 and B977 in the south, respectively, and one from the B977 Hill of Fare car park layby in the east. The Landerberry Burn runs adjacent to the eastern access track, passing Hillbrae Cottage. The Burn of Lythbauds runs down from the hill summit into the eastern plantation. The Burn of Corrichie and its tributaries runs alongside the south-eastern access track and through the woodland to the south, and a quarry can be found towards the track entrance. A small bothy is present on the southern face of the hill, along the south-western access track. There is also a hunting lodge further up this track, within the moorland.

The land surrounding the Hill of Fare is primarily agricultural but with many connected areas of woodland as well. Much of this woodland is listed within the Ancient Woodland Inventory, including the plantations surrounding the Site. The assorted burns of the area feed into the River Dee to the south and the Loch of Skene to the northeast.

The River Dee Special Area of Conservation (SAC), an international designation, is located 2.5 km southwest of the Site and is unlikely to be affected by the proposed development. There are no national nature conservation designations within 5 km of the Site.

2. Legislation, Policy and Guidelines

2.1 Legislation

Full consideration has been given to all relevant nature conservation legislation when carrying out this assessment. This includes the following:

- The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended);
- The Wildlife and Countryside Act 1981 (as amended) (WCA);
- The Protection of Badgers Act 1992;
- The Wildlife and Natural Environment (Scotland) (WANE) Act, 2011 (as amended); and
- The Nature Conservation (Scotland) Act 2004 (as amended), which places a statutory duty on all public bodies to further the conservation of biodiversity through the Scottish Biodiversity Strategy, with Scottish priority species and habitats listed on the Scottish Biodiversity List (SBL), itself based on the former UK Biodiversity Action Plan (UKBAP), and regional biodiversity targets defined through the Local Biodiversity Action Plan (LBAP).

Legislation specific to protected species, including details of all actions which would constitute an offence, is detailed below.

2.1.1 Badger

Badgers and their setts are protected under the Protection of Badgers Act 1992 and by Section 11 of the Wildlife and Countryside Act (1981); both Acts have been updated by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2011. Badger is also listed in Appendix III of the Bern Convention and are also protected under the Protection of Wild Mammals (Scotland) Act 2002 which makes it an offence to hunt wild mammals with dogs. Under the above legislation it is an offence to intentionally or recklessly:

- Kill, injure, take, possess or cruelly ill-treat a badger or attempt to do so;
- Interfere with a sett by damaging or destroying it;
- Obstruct access to a badger sett;
- Disturb a badger whilst it is occupying a sett;
- Cause or allow a dog to enter a sett;
- Sell a live badger, or offer one for sale, or possess a live badger; and
- Be in the possession, or control of, a dead badger or anything derived from a dead badger.

Under the Protection of Badgers Act 1992, a badger sett is defined as "any structure or place which displays signs indicating current use by a badger" (UK Government, 1992). Following NatureScot (formerly Scottish Natural Heritage) guidance, in the absence of any case law to define current use, the presence of field signs such as bedding, fresh spoil heaps, signs of recent digging, hair, latrines, or footprints in or around the potential sett or evidence of badgers entering or exiting the structure or place in question would indicate current use of the structure/place by a badger. Where a possible sett has no immediate evidence of current use, the structure should be actively monitored for a minimum of two weeks (Scottish Badgers, 2018).

This legislation means that badgers are fully protected in Scotland, and that any planned activity, which may affect them, requires prior consultation with the appropriate statutory nature conservation organisation (i.e. NatureScot). It is advised that no development takes place within 30m of the nearest sett entrance (extended to 100m for piling or blasting works) (NatureScot, 2018). Under Section 10 (1) of The Protection of Badgers Act 1992, licences may be granted by NatureScot for certain purposes that would otherwise be illegal. Appropriate mitigation and compensation will be necessary if a sett is to be damaged or destroyed under licence.

2.1.2 Otter

Otter is fully protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). As such, it is an offence to deliberately or recklessly:

- Capture, injure or kill an otter;
- Harass an otter or group of otters;
- Disturb an otter in a holt or any other structure or place it uses for shelter or protection;
- Disturb an otter while it is rearing or otherwise caring for its young;
- Obstruct access to a holt or other structure or place otters use for shelter or protection, or otherwise deny the animal use of that place;
- Disturb an otter in a manner or in circumstances likely to significantly affect the local distribution or abundance of the species; and
- Disturb an otter in a manner or in circumstances likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young.

It is also an offence to:

- Damage or destroy a breeding site or resting place of such an animal (whether deliberately or recklessly); and

- Keep, transport, sell or exchange, or offer for sale or exchange any wild otter (or any part or derivative of one) obtained after 10 June 1994.

It should be noted that otter shelters are legally protected whether an otter is present or not. Actions that are prohibited can be made lawful by a licence issued by the appropriate Statutory Nature Conservation Organisation, which in this case is NatureScot.

2.1.3 Water Vole

Water vole receives partial protection through its listing on Schedule 5 of The Wildlife and Countryside Act 1981 (as amended). In Scotland, this legal protection is currently restricted to only the water voles' places of shelter or protection; it does not extend to the animal itself. It is an offence to intentionally or recklessly:

- Damage, destroy or obstruct access to any structure or place that water voles use for shelter or protection; or
- Disturb a water vole while it is using any such place of shelter or protection.

Actions that are prohibited can be made lawful by a licence issued by NatureScot.

Water vole is also a Priority Species on the SBL. The species has suffered significant declines in recent decades, mainly due to habitat loss and degradation, population fragmentation and predation by American mink (*Mustela vison*).

2.1.4 Red squirrel

Red squirrels and their dreys (resting places) receive full protection under Schedules 5 and 6 of the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally or recklessly:

- Kill, injure or take a red squirrel;
- Damage, destroy or obstruct access to a drey or any other structure or place which a red squirrel uses for shelter or protection; and
- Disturb a red squirrel when it is occupying a structure or place for shelter or protection.

It should be noted that this protection does not apply to areas where red squirrels only feed.

It is also an offence to:

- Possess or control, sell or offer for sale, or possess or transport for the purpose of sale any living or dead red squirrel or any derivative of such an animal;
- Release a grey squirrel into the wild; and
- Knowingly causing or permitting any of the above acts to be carried out is also an offence.

2.1.5 Pine marten

Pine marten is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Additionally, certain methods of killing or taking pine marten are illegal under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). It is an offence to intentionally or recklessly:

- Kill, injure or take a pine marten;
- Damage, destroy or obstruct access to a nest or den – i.e., any structure or place which such an animal uses for shelter or protection; and
- Disturb such an animal when it is occupying a nest or den for shelter or protection (except when this is inside a dwelling house).

It is also an offence to:

- Possess or control, sell, offer for sale or possess or transport for the purpose of sale any living or dead pine marten or any derivative of such an animal; and

- Knowingly cause or permit any of the above acts to be carried out.

2.2 Biodiversity Priorities

2.2.1 Planning Policy

Scottish Planning Policy (SPP) 2020 (Scottish Government, 2020) outlines the duty of planning authorities to further the conservation of biodiversity as defined in the Nature Conservation (Scotland) Act 2004 and the SPP highlights that this should be reflected in the development plans.

National Planning Framework 3 (Scottish Government, 2014) recognises that "Stewardship of Scotland's wildlife and biodiversity can make a significant contribution to sustainable economic growth". The planning system has an important role to play in improving the environment, for example by strengthening green infrastructure, safeguarding and enhancing urban and rural biodiversity, and contributing to the improvement of water, air and soil quality. Development plans should also seek to achieve a net enhancement of landscape quality and biodiversity.

The policies set out below are those relevant to nature conservation and include those from the Aberdeenshire Local Development Plan. In respect to the above, regard has been made to the following policies, which are summarised below and described in full in Annex A:

- Scottish Planning Policy (SPP) 2020 (Scottish Government, 2020);
- Planning Advice Note 60: Planning for Natural Heritage (Scottish Government, 2000); and
- Proposed Aberdeenshire Local Development Plan (LDP) 2020 (Aberdeenshire Council, 2020).

Proposed Aberdeenshire LDP policies of potential relevance to this Proposed Development are found under *Natural Heritage and Landscape:*

- Policy E1 Natural Heritage;
- Policy E2 Landscape; and
- Policy E3 Forestry and Woodland

2.2.2 Scottish Biodiversity List

Scottish Ministers created the SBL (Scottish Government, 2013) in 2005 to satisfy the requirements under Section 2(4) of the Nature Conservation (Scotland) Act 2004, and to assist public bodies in carrying out conservation of biodiversity, as well as to provide the general public with information regarding conservation within Scotland. Re-issued by NatureScot (2020), the SBL comprises species and habitats listed using both scientific and social criteria. Only scientific criteria are considered relevant to this report. They include the following:

- All UK Priority Species present in Scotland;
- Species which Scotland has an international obligation to safeguard;
- All species defined as nationally rare at a GB or UK level that are present in Scotland;
- Species with populations present (resident, wintering or breeding) in five or fewer 10 km squares or sites in Scotland;
- All species that are endemic to Scotland;
- Any sub-species or race that is widely recognised and accepted by the scientific (or other relevant) community and that is endemic to Scotland, if it also meets one of the other criteria; and
- Natural and semi-natural habitats that are known to be particularly important for supporting assemblages of plant or animal groups that are data deficient, such as fungi, bryophytes, lichens, algae and invertebrates.

It should be noted that a new Scottish biodiversity strategy, to cover the next 25 years, was out for consultation having been published in June 2022 (Scottish Government, 2022) at time of writing this report.

This document indicates the Scottish Government's ambitions to halt biodiversity loss by 2030 and reverse this loss by 2045. Results of the consultation will be published in due course and will be followed by issue of the new strategy document.

Water vole and red squirrel are both Priority Species on the SBL. Water vole has suffered significant declines in recent decades, mainly due to habitat loss and degradation, population fragmentation and predation by American mink (*Mustela vison*); red squirrel has suffered decline due to direct competition from the introduced grey squirrel (*Sciurus corolinensis*) and mortality from the squirrel parapoxvirus carried by greys. Otter and pine marten are also listed on the SBL but only as species on which negative impacts should be avoided.

2.2.3 Local Biodiversity Plan

Aberdeenshire Council forms part of the North East Scotland Biodiversity Partnership (NESBiP), which has produced six broad habitat statements "*…which give a summary of the habitats found in the area, useful information on habitat status and an outline of some of the species they support. The statements also illustrate the importance of each habitat group and opportunities to secure and enhance each habitat for the future"* (NESBiP, 2022a). Within the habitat statements species of interest are also identified. Those statements and species of potential relevance to the Site include:

- Woodlands;
  - Habitats:
    - Native pine woodland; and
    - Planted coniferous woodland.
  - Species:
    - Red squirrel (*Sciurus vulgaris*); and
    - Pine martin (*Martes martes*).
- Upland heathland;
  - Habitats:
    - Wet and dry heath; and
    - Blanket bog.
- Freshwater habitats;
  - Habitats:
    - Rivers and burns
  - Species:
    - Otter (*Lutra lutra*); and
    - Water vole (*Arvicola amphibius*);

2.3 Best Practice Ecological Guidance

As part of the protected species survey, cognisance has been taken of the following best practice guidelines and survey method publications:

- Otter:
  - Competencies for Species Survey: Otter (CIEEM, 2013a); and
  - Monitoring the Otter *Lutra lutra* (Chanin, 2003).
- Water vole:
  - Competencies for Species Survey: Water Vole (CIEEM, 2013b); and

- The Water Vole Mitigation Handbook (Dean *et al*., 2016).

- Badger:
  - Competencies for Species Survey: Badger (CIEEM, 2013c); and
  - Surveying for Badgers: Good Practice Guidelines (Scottish Badgers, 2018).
- Red squirrel:
  - Competencies for Species Survey: Red Squirrel (CIEEM, 2013d).
  - Red squirrel conservation: Field study methods (Gurnell and Pepper, 1994); and
  - Practical Techniques for Surveying and Monitoring Squirrels (Gurnell *et al*., 2009).
- Pine marten:
  - Competencies for Species Survey: Pine Marten (CIEEM, 2013e);
  - National Pine Marten Survey of Ireland 2005 (O'Mahony *et al*., 2006); and
  - A guide to Identifying evidence of Pine Martens in Wales (Vincent Wildlife Trust, 2017).

3. Methodology

3.1 Survey Methods

3.1.1 Introduction

A combined survey investigating for signs of badger, otter, water vole, red squirrel and pine marten was conducted over the 22nd – 25th August 2022, with the work completed by Mark Berry MCIEEM and Helen Lamont QCIEEM, both suitably qualified and experienced ecologists. Any incidental evidence of other protected species was also recorded. The survey covered the potential turbine development area, access tracks and a 100 m buffer; although the survey buffer was increased to 250 m for otter due to the larger distance over which potential disturbance impacts can occur (see Figure 1).

3.1.2 Badger

The survey was carried out in line with methods highlighted in the Scottish Badgers (2018) good practice guidelines survey guidance. The survey covered accessible suitable habitat within the Site and up to a 100 m buffer. The survey involved a search for the following field signs:

- Badger setts;
- Day beds (above ground areas where badgers sleep, characterised by flattened vegetation or bundles of grass);
- Badger faeces in dung pits, a concentration of which is termed a latrine;
- Foraging signs such as diggings or snuffle holes (where badgers have inserted their snouts into the ground to search for earthworms and insects);
- Paths linking setts and foraging areas;
- Scratching posts;
- Hair; and
- Footprints.

On identification of a badger sett, the observer was to note the number of entrances, direction of tunnels and a description of the activity level and status of the sett. Sett status was evaluated and determined based on descriptions presented in Scottish Badgers (2018), which assign setts into one of six categorises, these being:

- Main sett (used throughout the year and constitutes the main breeding sett); usually has 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;
- Annexe sett (forms part of the main sett area but is not directly linked by an underground passage to the main sett, either due to a barrier (e.g. separated by a watercourse or ditch) or by distance). Often close to a main sett, normally less than 150m away and connected to the main sett by one or more well-worn paths;
- Subsidiary sett (offers an alternative large sett complex to the main sett, but is usually, although not always, at least 50m away and not always obviously linked by a well-used path); not continuously active;
- Outlier sett (often comprising just one or two holes); often has little spoil outside the holes, has no obvious path connecting with another sett and are only used sporadically. When not in use by badgers, often taken over by foxes or even rabbits;
- Inactive sett (judged to be disused on a temporary basis); and
- Disused sett (appearing to have been abandoned by the group).

In addition, there may be:

- Collapses where a tunnel has collapsed; and
- Air holes where badgers have made a small hole in a tunnel roof from below.

It should be noted that the status of a badger sett can change over a relatively short period of time; for example, some badger social groups will move the location of the main sett to other less used setts within their territory, in response to external factors, for example, disturbance.

3.1.3 Otter

The otter survey followed best practice guidance (Chanin, 2003), with a survey buffer area of watercourse habitat up to a minimum of 250 m upstream and downstream of the Site. A search was undertaken of the riparian zone and up to 20 m away from the water's edge (where suitable habitat was found to be present). Throughout the survey and where accessible, overhanging banks, cavities, bankside vegetation and riparian features, such as boulders and mud, were searched for the following signs of otter use:

- Spraints – otter dung (spraint), which is used for marking territories, is often located on prominent features within the channel or on the bank (including weirs, bridges, rocks, tree roots, watercourse confluences, etc.); and
- Footprints – located in soft mud, silt or sand banks.

Other potential evidence of otter presence was also searched for. The following signs, when interpreted in conjunction with spraints and footprints, can provide data to support an assessment of otter activity on a site. They cannot, however, be used in isolation to definitively indicate otter presence/absence:

- Resting-up places – comprising couches (areas of flattened vegetation) or hovers (lay-up areas, including ledges under rocks or hollows under fallen trees or roots);
- Potential holt sites – holes or dens;
- Runs and trails – pathways from the water into dense cover or around bankside trees;
- Slides – down banks as an entry to waterbodies; and
- Feeding remains – e.g. remains of fish and amphibians.

Watercourse notation follows standard river survey descriptions, with the bank identified as either "left" or "right" by facing the direction of downstream flow.

3.1.4 Water vole

The water vole survey followed best practice guidance (Dean *et al.*, 2016), with a survey area of up to 50 m from Site upstream and downstream the Site along the watercourse. A search for potential water vole evidence was undertaken in the riparian zone and up to 20 m away from the water's edge (where suitable habitat was found to be present). Potential evidence of water vole includes the following:

- Latrines – water vole droppings are often concentrated in discreet latrine sites near the nest, at territory boundaries and places where they regularly enter and exit the water;
- Feeding stations and feeding remains – feeding remains in the form of neat piles of chewed lengths of vegetation are often found in runways and at haul-out platforms;
- Tunnel/burrow entrances – these are typically found along the water's edge on top of the bank up to 5 m from the water's edge. Holes on top of the banks often have grazed 'lawns' around them;
- Paths and runs at the water's edge;
- Footprints – these may be identified in soft mud or silt;
- Sightings and or characteristic sounds of water voles entering the water; and
- Droppings – while most droppings will be deposited in latrines, some may also be found scattered along runways in vegetation.

Specifically, for watercourses, the approximate depth and speed of water flow, the waterway width, bankside vegetation and surrounding land use, was also recorded, as these factors may determine the suitability of habitat for supporting water voles.

It should be noted that any single field sign recorded in isolation, especially when ambiguous (e.g., a burrow or footprints) would not be definitive in confirming species presence/absence.

3.1.5 Red squirrel

As part of the survey, all suitable red squirrel habitat within the Study Area (specifically within areas of woodland) was searched for:

- Dreys;
- Prints; and
- Evidence of feeding activities, such as gnawed pine cones.

3.1.6 Pine marten

As part of the survey, field signs, including scats and potential den sites, were actively searched for. Differences between field signs of pine marten and other species can be determined in a number of different ways.

- Scats – Found in areas of woodland and can be differentiated from other similar species such as fox due to aroma, size and constituent parts as they tend to be made up of a variety of food including eggs, insects, berries and bone;
- Footprints – Pine martens are mustelids so have five toes compared to species that may be mistaken including fox and dog, both of which have four toes; and
- Den sites – Pine martens prefer to utilise woodland habitats where they can use their climbing abilities to access tree cavities, squirrel dreys and wind-throw. Evidence of use may also be seen from prey remains surrounding den sites including feathers and small mammal bones.

3.1.7 Other species

Though not a focus of this study, any *ad hoc* sightings of other species were also recorded, including other mammals than those listed above, birds, herptiles, fish and invertebrates.

3.2 Limitations to survey

The survey was undertaken at the optimal time of year. Site conditions were suitable for survey, with no heavy rain preceding the survey to potentially wash away notable field evidence.

Extensive sections of the northern plantation forestry have been subject to wind-throw which, alongside the density of the plantation, reduced safe access to the coupes. Where full access was not be safely achieved, the edges of the windthrow were walked to check for evidence of protected species.

The upper reaches of the Burn of Lythebauds are located within a steep-sided gorge and could not be safely accessed. The edge of the gorge was walked to check for evidence of protected species, such as mammal tracks.

The area is well-used by walkers/dog-walkers, trail-runners and cyclists, meaning a high level of anthropogenic disturbance, in addition to forestry operations (logging was under way in the eastern part of the Site, south of Hillbrae, at time of survey). Notable field evidence could potentially be lost due to this disturbance.

4. Survey Results

4.1 Introduction

The results of the survey are presented below and shown on Figure 1, which illustrates the survey Target Note (TN) locations; TNs are detailed in Appendix A.

4.2 Results

4.2.1 Badger

No evidence of badger was found within the Study Area, although badgers are known to be present in the area surrounding the Hill of Fare (NBN, 2022). Potentially suitable foraging habitat is widespread in the area surrounding the hill; notably cereal crops, livestock grazing areas plus habitats dominated by woodlands biased towards broad-leaved trees. The Hill of Fare heather moorlands are on generally thin soils, over bedrock and degraded granitic material, and are therefore not suitable for sett construction. Areas of deep peat are also present, but are too wet for sett construction.

4.2.2 Pine marten

There is widespread evidence of this species in the form of territory-marking scats (of a variety of ages) on the forestry tracks surrounding the open moorland (TN1-12), including in the fireplace of a bothy (TN6) located on the southern slopes of the Hill along the south west access track. The plantation habitats are suitably mature to support this species. Though the evidence found was limited to the edges of the Site (i.e. no further than the woodland edges), it is possible that pine martens may venture out onto the fringes of the moorland when foraging, particularly during the bird breeding season. However, no suitable denning habitat was identified as present in the open habitat. A small mammal hole, with a trail leading to the entrance was identified in the vicinity of some scats (TN13); however, it could not be determined what species it belonged to.

4.2.3 Otter

Territory-marking spraints were identified in the lower reaches of the Landerberry Burn and the Burn of Corrichie, but no resting sites were recorded (TN14-17). The apparent age of the spraints suggests infrequent presence within the watercourses, but otters may forage for amphibians in the upper catchments of these burns during the amphibian breeding season (February-May). Two sets of partial prints were identified in the lower reaches of the Landerberry Burn (TN18-19); based on size and presence of claw marks, the prints could be attributed to otter. No signs of otter were identified around the waterbodies within the moorland

(TN27-29). Nor were any signs found in the vicinity of the quarry, the steep cliff faces likely making it inaccessible (TN31).

4.2.4 Water vole

No evidence of water vole was recorded during the survey. Water voles in this region prefer riparian habitat associated with rivers, streams and ditches and other waterbodies with vegetated sides and steep banks for burrowing. Generally, the banks of the watercourses that run through the woodlands are shallow and rocky, making them less suitable for use by water voles.

4.2.5 Red squirrel

No evidence of red squirrel presence was recorded within the plantations of the Site and immediately adjacent areas of the survey buffer. There is a mixed age structure to the plantation coupes, including some too young to have sufficient cone crop to support red squirrel; however, the plantation of the wider area surrounding the Site appears to be of suitable age structure to support a red squirrel population. Several spruce cones, with potential to have been foraged by squirrel, were noted on a track to the north of the Site (TN20). Anecdotal evidence from discussion with an Estate worker suggests that red squirrels are present in the northern plantation policies and a review of publicly available wildlife records indicates observation of red squirrel in the wider Hill of Fare area (including the northern plantation policies) within the previous one to four years. Of note, no records for grey squirrel appear to have been made in the local area within the last 10 years (NBN, 2022).

4.2.6 Herptiles

Several common frogs were noted within the Site (TN30), with breeding habitat available (TN27-29). While no reptiles were observed, reptile habitat is widespread, including woodland edge habitat, exposed boulders and tracks for basking. Old drystone walling was noted marking the boundary of the plantation and additionally, the remains of ruined buildings, which can provide hibernation features (TN22-23, TN26).

4.2.7 Other species

Features with bat roost potential were noted during the survey. The bothy, located along the southwest access track, had multiple loose slates on the roof and gaps under the flashing (TN6). The interior of the roof was lined with wood panelling and access to the building could be gained through the chimney. As such, the bothy has been classed as having **medium** bat roost potential (BRP) based on the criteria set out in the Bat Conservation Trust (BCT) guidelines (Collins, 2016). A Scots pine tree with several broken limbs and **low** bat roost potential was noted in the east of the Site (TN21). The hunting lodge could only be assessed externally (TN25); however, given the corrugated metal roof and lack of access points, is unlikely to possess roost potential.

Deer presence was indicated by prints across the Site and lower plantation areas, including near Brown Hill, with deer slots of red deer size and one sighting of a roe deer.

A range of birds, including red grouse, were also observed and a derelict corvid trap was noted (TN24). Additionally, a variety of invertebrate species were observed across the area.

4.2.8 Invasive Non-native Species

Japanese knotweed was noted by the wall of the Hill of Fare car park (TN32). Further Japanese knotweed was recorded at the back of Hillbrae Cottage: a large stand (>10 m x 5 m) at c.10 m beyond the left bank of the Landerberry Burn, with individual small groupings of canes between the main stand and into the watercourse (TN33-34).

5. Discussion and Recommendations

5.1 Badger

No evidence of badger was identified and the habitats of the Site and buffer area are considered sub-optimal for use. Foraging habitat is widespread in the agricultural areas surrounding the hill; it is therefore possible that badgers could use the Site and surrounding habitats for foraging and commuting. No further surveys for badger are considered to be required to inform the planning application at this stage; however, it is recommended that a pre-construction survey is undertaken by a suitably experienced ecologist to check for any changes to the baseline.

5.2 Otter

Otter presence has been confirmed along watercourses within the Site and access track route and this indicates continued otter use of the catchment. The potential for otter presence will be taken into account within the Project Construction Environmental Management Plan (CEMP) and its Species Protection Plan (SPP) documentation. No further survey is needed to inform the planning application; however, it is recommended that a pre-construction survey is undertaken by a suitably experienced ecologist to check for any changes to the baseline.

Should otter holts or resting sites be found during the pre-construction survey, then establishment of appropriate exclusion zones (i.e. a minimum 30 m for a resting site) is anticipated to be sufficient to ensure these sites are protected. However, additional mitigation and a Project otter disturbance licence may be required.

5.3 Water Vole

No evidence of water vole was identified and the habitats of the Site and buffer area are considered sub-optimal for use. Water vole Water vole presence on Site is therefore considered unlikely and no further surveys are required at this stage.

5.4 Red Squirrel

Whilst no evidence of red squirrel was recorded during the survey, this species could use the coniferous and mixed woodland within the Study Area to forage, commute and construct dreys. A red squirrel SPP detailing pre-felling checks for red squirrel ahead of any forestry works required for the Project should be produced as part of the CEMP documentation.

5.5 Pine Marten

Pine marten presence has been confirmed within the plantation habitats and should be taken into account during the construction phase of the Proposed Development. A pine marten SPP detailing pre-felling checks for pine marten ahead of any forestry works required for the Project should be produced as part of the CEMP documentation.

5.6 Other Species

Several habitats are considered optimal for herptiles. The drystone walls can provide a potential refugia and hibernation resource for reptiles and the mix of moorland and forest edge may provide suitable foraging habitat. The occasional pools within the Study Area provide suitable breeding habitat for a range of amphibians, including common frog, common toad, smooth and palmate newt.. Though these species are only partially protected under the WCA 1981 (as amended), working methods should be adopted to minimise the chance of these species being killed or injured during works. Any herptiles encountered during works should be carefully lifted and placed outwith the works area (N.B. were adders [*Vipera berus*] to be found,

then they should only be handled by a trained ecologist, using the appropriate protections; otherwise works should cease and the animal be permitted to escape the works area before works continue). Where possible/practicable, potential amphibian breeding pools should be retained.

Features with bat roost potential were noted during the survey. Separate bat surveys have been commissioned and a report detailing the findings will be presented in a format suitable for inclusion as a Technical Appendix within the Ecological Impact Assessment Report.

The habitats within the Study Area provide numerous opportunities for nesting birds. A dedicated ornithological survey should be carried out to determine if any Annex1/Schedule 1 species are active within the Study Area. All wild birds and their nests are protected under the WCA 1981 (as amended) (with Annex 1/Schedule 1 species afforded additional protection). Therefore, during construction, if works including Site preparation/vegetation clearance are scheduled to take place within the breeding bird season (March to September, inclusive) then a nesting bird check should be completed by the EnCoW or a suitably qualified ecologist (SQE) within 48 hours of works commencing. If an active nest is identified, then the appropriate protection zone must be installed (guided by the EnCoW/an SQE), within which there can be no works until the nest has fledged.

6. Further Recommendations

6.1 Good Practice Mitigation

The following broad mitigation should be applied:

- Artificial lighting can often impact the foraging and commuting behaviour of nocturnal mammals such as bats and badger. Consequently, it is recommended that lighting should be directed to where it is needed and light spillage (whether direct and/or in-direct) should be avoided as far as practicable. Also, the times during which lighting is on should be limited to provide dark periods. See IPL Guidance Notes for the Reduction of Obtrusive Light (Institution of Lighting Professionals, 2020) and the Bat Conservation Trust/IPL Guidance Note 08/18 'Bats and Artificial Lighting in the UK (IPL/BCT, 2018).
- Covering of trenches or pits made during construction when unattended, or the installation of a shallow angled plank to allow entrapped animals to escape.
- The capping of ends of any pipes, when unattended, to prevent animal access.
- Should any protected or notable species be observed during works, construction activities should cease, and a suitably qualified ecologist contacted for advice.

6.2 Repeat Surveys

The survey data in this report is considered valid for 18 months. Should submission of a planning application occur after February 2024, or construction of the Proposed Development not commence before this date, it is recommended that an update survey is undertaken, as per the methods section of this report, to ensure there has been no significant change to the baseline outlined within this report.

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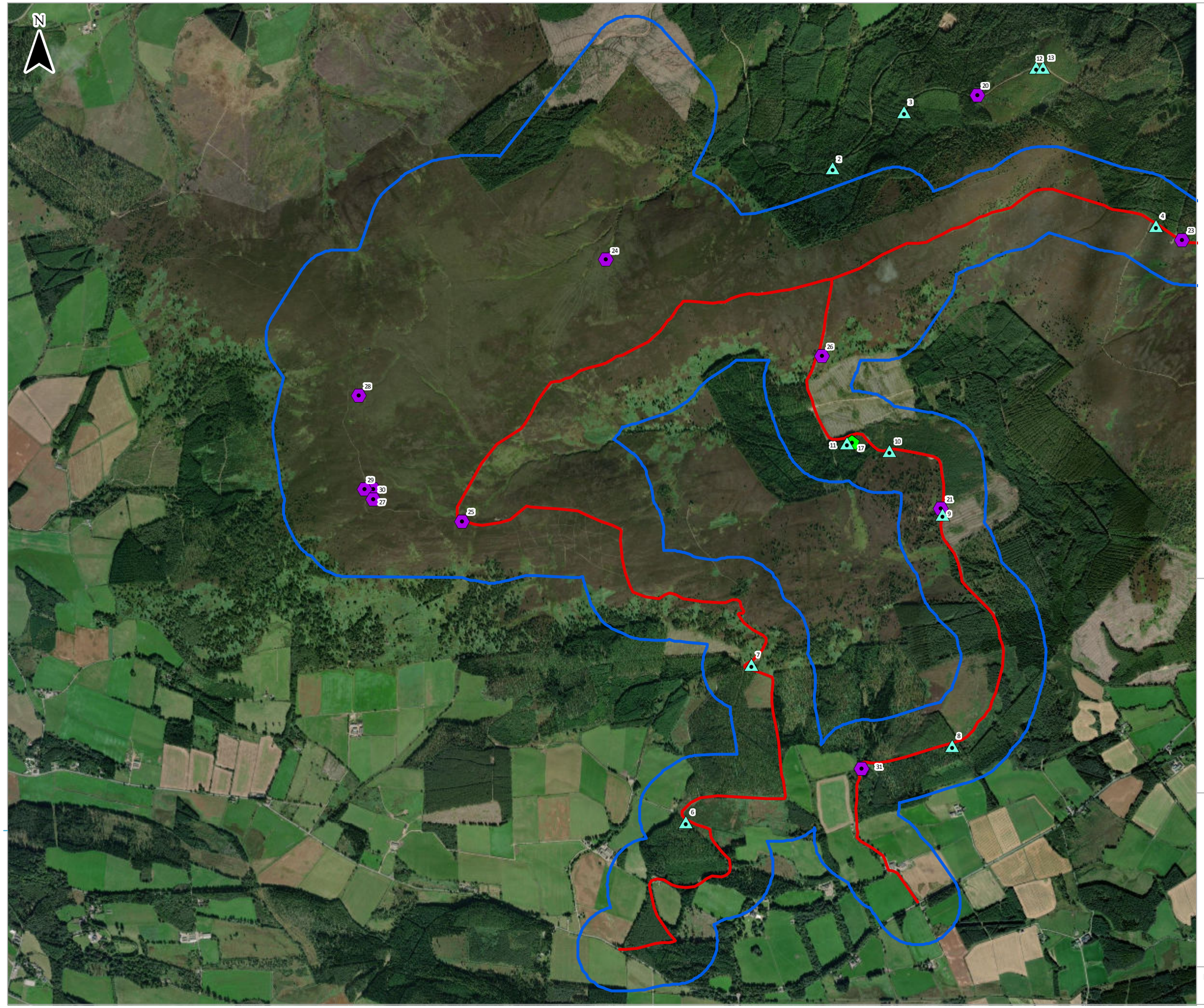
Figure 1 – Protected Species Results



KEY

- Site Boundary
- 250 m survey buffer
- Development_Area
- Access tracks
- Pine marten field signs
- Otter field signs
- Other field signs
- Japanese knotweed

Coordinate System: British National Grid
Projection: Transverse Mercator

Service Layer Credits: Contains OS data © Crown Copyright and database right 2020
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Historic Environment Scotland and Ordnance Survey data ©

0 0.25 0.5 0.75 1
Kilometers

1:21,500

ITPENERGISED

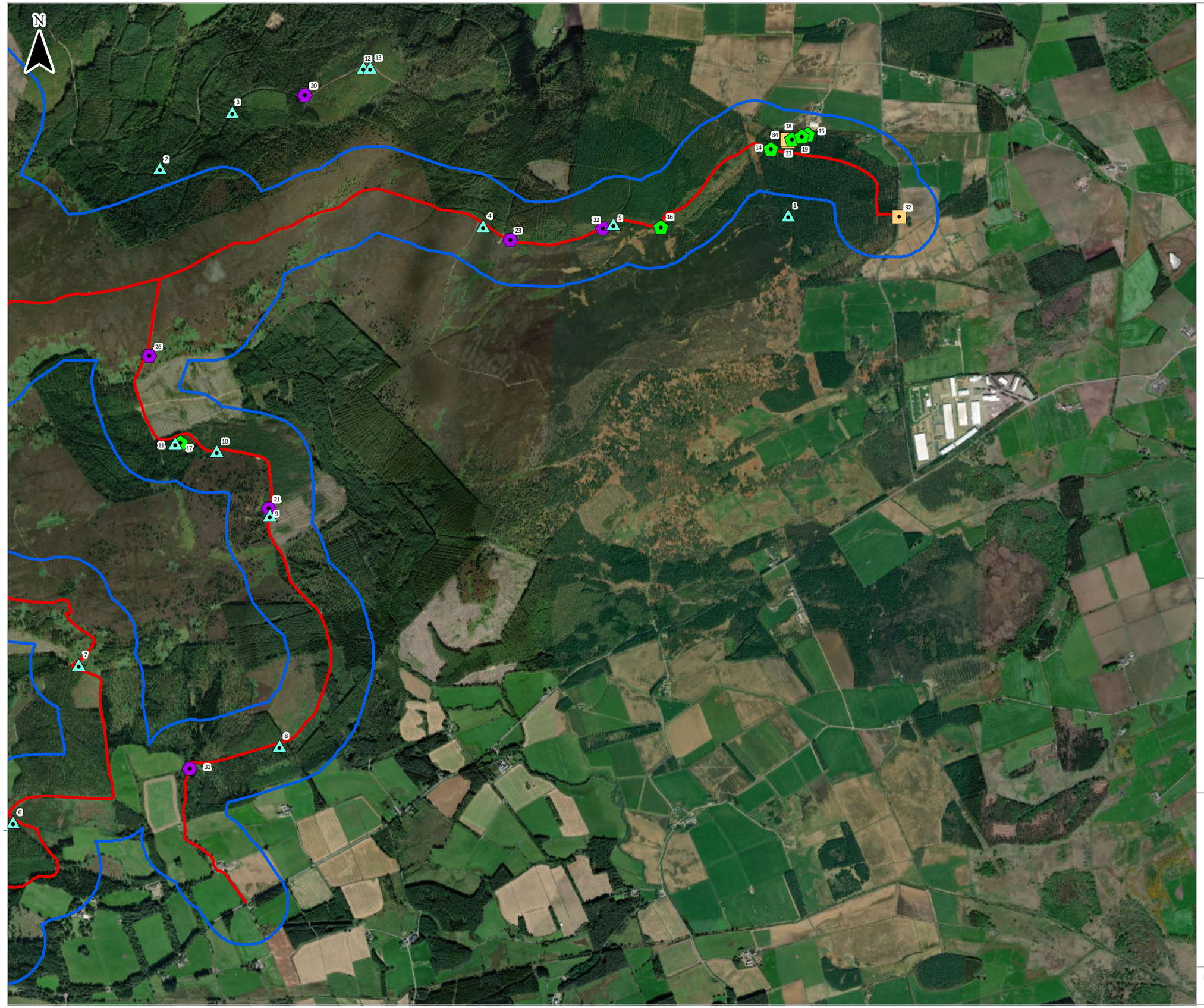
Hill of Fare
Technical Appendix 8.2 - Protected Species Report

Figure 1
Protected Species Results

Date:	Lead:	Review:	Version:
13/09/2023	HL	MB	1.0

Project Number: 5223

Document Path: F:\GIS\Clients\R\RES\5223 - Hill of Fare\04 MXD\Ecology\protected sp.mxd



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Hill of Fare
Technical Appendix 8.2 - Protected Species Report

Figure 1
Protected Species Results

Date:	Lead:	Review:	Version:
13/09/2023	HL	MB	1.0

Appendix A: Target Notes

TN	Grid Reference	Description
1	373661 803626	  Pine marten scat on forestry track at the edge of the plantation, located south of the eastern access track.

TN	Grid Reference	Description
2	369958 803902	  Pine marten scat on a forestry track to the north of the eastern access track.

TN	Grid Reference	Description
3	370382 804234	  Pine marten scat on a forestry track to the north of the eastern access track.

TN	Grid Reference	Description
4	371867 803564	  Pine marten scat along the eastern access track.

TN	Grid Reference	Description
5	372632 803574	  Pine marten scat along the eastern access track.
6	369093 800053	 Bothy located along the southwestern access track.

TN	Grid Reference	Description
		  Pine marten scats of various ages were noted in the fire place. 

TN	Grid Reference	Description
		  Roof has loose slates and gaps under flashing, there are gaps in the chimney brickwork.  The interior is lined with wood panelling – medium BRP

TN	Grid Reference	Description
7	369480 800980	 Pine marten scat located on the southwest access track.

TN	Grid Reference	Description
8	370664 800501	   Two pine marten scats along the southeastern access track.

TN	Grid Reference	Description
9	370609 801859	  Pine marten scat on a large rock along the southeastern access track.

TN	Grid Reference	Description
10	370295 802236	  Pine marten scat along the south-eastern access track.

TN	Grid Reference	Description
11	370046 802284	  Pine marten scat on a rock at the edge of the Burn of Corrichie.

TN	Grid Reference	Description
12	371160 804495	  Pine marten scat on a forestry track to the north of the eastern access track.

TN	Grid Reference	Description
13	371199 804497	  Small mammal hole with trail leading to entrance, close to pine marten scats.Potentially fox or rabbit as too small for badger, and unusual for pine marten to den at ground level.

TN	Grid Reference	Description
14	373561 804018	  Otter spraint, downstream end of culvert pipe, relatively recent, Landerberry Burn.

TN	Grid Reference	Description
15	373777 804102	  Otter spraint, left bank boulder, very degraded, Landerberry Burn

TN	Grid Reference	Description
16	372913 803555	  Otter spraint on impoundment dam, Landerberry Burn.
17	370076 802288	

TN	Grid Reference	Description
		 Otter spraint just upstream of culvert, on mid-channel boulder, Burn of Corrichie.
18	373685 804076	 Faint prints on the bank of the Landerberry Burn.

TN	Grid Reference	Description
19	373740 804090	  Potential partial otter prints on the bank of the Landerberry Burn., claw impressions visable.

TN	Grid Reference	Description
20	370812 804332	  A number of pine cone remains, either consumed by wood mouse or red squirrel.

TN	Grid Reference	Description
21	370598 801895	  Scots pine with broken limbs, low BRP.

TN	Grid Reference	Description
22	372571 803545	 Wall - old boundary feature along edge of plantation.
23	372021 803476	

TN	Grid Reference	Description
		 Foundations of a building within the forestry.
24	368624 803360	 Derelict corvid trap.
25	367775 801821	

TN	Grid Reference	Description
		 Hunting lodge.
26	369896 802796	  Ruins off southwest access track.

TN	Grid Reference	Description
27	367252 802008	  Dried-out bog pools with wet peat present.
28	367166 802559	 Waterbody – no evidence of otter or water vole present. The banks were unsuitable for holts or burrows.

TN	Grid Reference	Description
29	367199 802009	   Dried-out waterbody.

TN	Grid Reference	Description
30	367250 801953	 Juvenile frog near the waterbody in TN29.
31	370133 800366	

TN	Grid Reference	Description
		 Quarry adjacent to south east access track.
32	374317 803614	 Japanese knotweed at side of B977 Hill of Fare car park layby.
33	373662 804060	

TN	Grid Reference	Description
		Japanese knotweed in watercourse channel, left bank, Landerberry Burn.
34	373657 804071	 Japanese knotweed large stand c.10m from watercourse, back of Hillbrae Cottage.

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