

AULTMORE WIND FARM REDESIGN

TECHNICAL APPENDIX 8.3

Protected Mammal Survey Report
Prepared for: **Vattenfall Wind Power Ltd**

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SLR 

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1.0 Introduction

1.1 Overview

Vattenfall Wind Power Ltd ('Vattenfall') are seeking to redesign the consented Aultmore Wind Farm at Aultmore Forest, Moray (the Site). Vattenfall (the Applicant) has appointed SLR Consulting Limited (SLR) to conduct a range of environmental studies on the site to initially inform the Scoping Report and latterly to inform the resulting Environmental Impact Assessment (EIA) Report. This report provides the results of protected mammal surveys undertaken in August 2021. It also details the results of additional baseline protected species survey work carried out in August 2022 to inform a proposed access track variation leading into Aultmore Forest.

1.2 Site Location

The proposed wind farm site ('the Site') is located within Aultmore Forest, approximately 6km to the north of the settlement of Keith, Moray. The Site is managed on behalf of Scottish Ministers by Forestry and Land Scotland (FLS) and is defined by the red-line boundary in **Figure 8.3.1**.

The area of the Site extends to 2,400ha, with the proposed wind turbines located in the eastern and western parts of the Site.

The Site consists predominantly of commercial forestry, which comprises one large parcel of land that is referred to as the eastern and western sections, as the central part of the Site is separated by a small strip of non-forested farmland. The three highest hills within the Site are Millstone Hill (301m above ordnance datum (AOD) in the west, Addie Hill (272m AOD) in the centre of the Site and Old Fir Hill (262m AOD) in the east.

1.2.1 Site Access

The proposed access route into the Site has been subject to a series of variations throughout the design process. Following a design freeze meeting in March 2023, the proposed route will now traverse east from the B9016 (just north of Croft of Ryeriggs) through agricultural grazing land, rush pasture, and scrubby woodland, before joining an existing forest ride within Aultmore Forest.

1.3 Scope of Study

The scope of this study was to carry out a survey for protected mammals within the Site and proposed access route survey area in order to identify presence, potential presence, or likely absence. The following species, considered to be potentially present, following a desk study, were targeted for this survey:

- Water vole *Arvicola amphibius*.
- Otter *Lutra lutra*.
- Red squirrel *Sciurus vulgaris*.
- Badger *Meles meles*.
- Pine marten *Martes martes*.
- Other mammals/fauna of interest – only recorded if seen.

The aim of the survey was to provide baseline data to inform the wind farm design process, the development of any habitat restoration and management proposals and the subsequent EIA Report. The assessment of impacts resulting from the proposed development and the development of mitigation measures, if required, are beyond the scope of this report and will be covered in the subsequent EIA Report.

1.4 Relevant Legislation and Planning Policy

1.4.1 Legislation

Otter

Otter is a European Protected Species, of which receives full protection under Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) (the 'Habitats Regulations'). They are also fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (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 while it is occupying a structure or place used 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 or not deliberately or recklessly). This applies at all times, whether or not the breeding site or resting place currently being used by an otter.
- 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.

The otter is also detailed within the Scottish Biodiversity List (SBL), of which is a list of animals, habitats and plants that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland.

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 only to the water vole 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.

Water vole is listed within the SBL as a species of principle importance for biodiversity conservation in Scotland.

Badger

Both badgers and their setts are protected under the Protection of Badgers Act 1992, as amended by the Wildlife and Natural Environment (Scotland) Act 2011. Under this legislation it is an offence to:

- Kill, injure, take, possess or cruelly ill-treat a badger;
- Interfere with a sett by damaging or destroying it;

- Obstruct access to a badger sett;
- Disturb a badger whilst it is occupying a sett; and
- Allow a dog to enter a sett.

Pine Marten

Pine marten receive full protection under Schedule 5 of The Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally or recklessly:

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

The pine marten is also listed within the SBL as a species of principal importance for biodiversity conservation in Scotland.

Red Squirrel

Red squirrels and their dreys receive full protection under Schedules 5 and 6 of the Wildlife and Countryside Act 1981 (as amended). In short, 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;
- 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; or
- Knowingly causing or permitting any of the above acts to be carried out.

The red squirrel is also listed within the SBL as a species of principal importance for biodiversity conservation in Scotland.

Wildcat

Wildcat is a European Protected Species, of which receives full protection under Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) (the 'Habitats Regulations'). They are also fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). As such, it is an offence to deliberately or recklessly:

- Capture, injure or kill an wildcat;
- Harass a wildcat or group of wildcats;
- Disturb an wildcat while it is occupying a structure or place used for shelter or protection;
- Disturb an wildcat while it is rearing or otherwise caring for its young;
- Obstruct access to a holt or other structure or place wildcats use for shelter or protection, or otherwise deny the animal use of that place;

- Disturb an wildcat in a manner or in circumstances likely to significantly affect the local distribution or abundance of the species; and
- Disturb an wildcat 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 or not deliberately or recklessly). This applies at all times, whether or not the breeding site or resting place currently being used by an otter.

The wildcat is also detailed within the SBL, of which is a list of animals, habitats and plants that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland.

1.4.2 Planning Policy

National Planning Policy

In order to accord with the biodiversity provisions of National Planning Framework 4 (NPF4)¹, development proposals should demonstrate that they contribute to the enhancement of biodiversity. Of particular relevance to this study, Policy 3b states:

Development proposals for national or major development, or for development that requires an Environmental Impact Assessment will only be supported where it can be demonstrated that the proposal will conserve, restore and enhance biodiversity, including nature networks so they are in a demonstrably better state than without intervention. Proposals within these categories will demonstrate how they have met all of the following criteria:

- The proposal is based on an understanding of existing characteristics of the site and its local, regional and national ecological context prior to development, including the presence of any irreplaceable habitats;*
- Wherever feasible, nature-based solutions have been integrated and made best use of;*
- An assessment of potential negative effects which should be fully mitigated in line with the mitigation hierarchy prior to identifying enhancements;*
- Significant biodiversity enhancements are provided, in addition to any proposed mitigation. This should include nature networks, linking to and strengthening habitat connectivity within and beyond the development, secured within a reasonable timescale and with reasonable certainty. Management arrangements for their long-term retention and monitoring should be included, wherever appropriate...'*

Wherever possible, opportunities to deliver biodiversity enhancement should therefore be considered and implemented for any new development proposals.

Local Planning Policy

Local planning policy for Moray Council is set out in the Moray Council Local Development Plan 2020². Policy EP1 Natural Heritage Designations addresses protected species (including European Protected Species – EP1d and Other Protected Species – EP1e) and states:

d) 'Where a European Protected Species may be present or affected by development or activity arising from development, a species survey and where necessary a Species Protection Plan should be prepared to accompany the planning application, to demonstrate how the Regulations will be complied with.'

¹ National Planning Framework 4 was adopted by Scottish Ministers on 13 February 2023. Further information is available online at <https://www.gov.scot/publications/national-planning-framework-4/documents/>

² The Moray Local Development Plan and details of Policy EP1 can be found online at http://www.moray.gov.uk/moray_standard/page_133431.html

...

Proposals that would have an adverse effect on European Protected Species will not be approved unless;

- *The need for development is one that is possible for SNH to grant a license for under the Regulations (e.g. to preserve public health or public safety).*
- *There is no satisfactory alternative to the development.*
- *The development will not be detrimental to the maintenance of the favourable conservation status of the species.'*

e) Where a protected species may be present or affected by development or activity arising from development, a species survey and where necessary a Species Protection Plan should be prepared to accompany the planning application to demonstrate how legislation will be complied with. The survey should be carried out by a suitably experienced ecological surveyor, who may also need to be licensed depending on the species being surveyed for.

Proposals which would have an adverse effect on badgers or their setts must be accompanied by a Badger Protection Plan demonstrating how impacts will be avoided, mitigated, minimised or compensated for.

In addition to Natural Heritage (EP1), Policy EP2 addresses Biodiversity and states:

'All development proposals must, where possible, retain, protect and enhance features of biological interest and provide for their appropriate management. Development must safeguard and where physically possible extend or enhance wildlife corridors and green networks and prevent fragmentation of existing habitats.'

2.0 Methodology

2.1 Desk Study

In order to inform field surveys and provide context for assessment, a data request for records relating to protected and notable species within 2km of the Site (extended to 10km for bat species) was submitted to North East Scotland Biological Records Centre (NESBReC) and Forestry and Land Scotland (FLS). The data was obtained in August 2021 and June 2023, with full details presented in **Technical Appendix 8.1**.

2.2 Field Survey

2.2.1 Survey Area

The Site

The Site 'survey area' is shown on **Figure 8.3.2** (labelled survey area 2021).

Proposed Access Route

An additional area of land to the west of the Site boundary, encompassing the proposed access route into Aultmore Forest, was assessed in August 2022. The corresponding 'survey area' encompassed the proposed access route and an associated 250m buffer, as denoted by the blue dashed line in **Figure 8.3.2**.

2.2.2 Protected and Notable Species

Otter

The survey for otter comprised a walkover of all accessible watercourses within the survey area. The survey was carried out by a team of two suitably qualified ecologists in order to comply with health and safety requirements associated with working in and/or near water.

Otter field signs are described in guidance produced by Bang and Dahlstrøm (2006), Sargent & Morris (2003) and Chanin (2003a, b) and include:

- Holts – these are underground shelters 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. They can also be excavated from pre-existing badger setts, rabbit burrows and fox *Vulpes vulpes* earths as well as above ground shelters in dense scrubby vegetation. Holts are used by otters to rest during the day and may be used as natal or breeding sites. Otters may use holts permanently or temporarily;
- Couches/hovers – 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 may be used as natal and breeding sites. Couches can be very difficult to identify and may comprise 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 and tracks – otters have characteristic footprints that can be found in soft ground and muddy areas;
- Spraints – otter faeces are often used to mark territories, usually deposited on in-stream boulders or similarly prominent features such as raised ground close to water, under tree roots, beneath bridges and at crossing points of fences or walls. They can also 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 during high flow conditions when otters 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; slides are often found between holts/couches and watercourses. Play areas are used by juvenile otters in play and are usually evident as trampled vegetation and the presence of slides. These are often positioned in sheltered areas adjacent to the natal holt.

Any of the above signs are diagnostic evidence of the presence of otter; however, it is often not possible to identify couches with confidence unless other field signs are also present. Spraint is the most reliable identifiable evidence of the presence of this species.

Water Vole

The survey methods used for water vole were based on the standard methodology detailed in the Water Vole Conservation Handbook (Strachan *et al.*, 2011) and the Water Vole Mitigation Handbook (Dean *et al.*, 2016). All accessible watercourses within the survey area were searched for signs of water vole activity including:

- Live water vole observations;
- Faeces – these are recognisable by their size, shape and content. When reasonably fresh, water vole faeces are also distinguishable from rat droppings by their smell;
- Latrines – faeces are often deposited at discrete locations known as latrines;
- Feeding stations – food items are often brought along pathways and hauled onto platforms which are used as feeding stations. These are recognisable as neat piles of chewed vegetation up to 10 cm long. There can be crossover in size with field vole feeding signs, and therefore other signs may be required to provide diagnostic evidence of the presence of water vole;
- Burrows – these appear as a series of holes along the water's edge; they are distinguishable from rat or field vole burrows by their size, position and characteristics;
- Lawns – these may appear as grazed areas around burrows;
- Nests – woven nests may be found above ground in areas where the water table is high;
- Footprints – water vole tracks may occur at the water's edge and lead into bankside vegetation. Clear prints are distinguishable from rat and field vole footprints by their characteristics and size; and
- Runways in vegetation – low tunnels pushed through vegetation near the water's edge may be visible; these are less obvious than rat runs and are only diagnostic of water vole in the presence of other signs.

Any of the above signs (other than feeding stations and runways) can be taken as diagnostic evidence of the presence of water vole.

Current guidance recommends that up to two field survey visits are carried out, however, one survey visit may be sufficient in certain circumstances (e.g., where the habitat is of very low suitability for water voles and there is a very low likelihood that water voles are present). In the context of this study, a single survey for water vole was considered sufficient owing to optimal survey conditions being encountered (i.e. vegetation growth not obscuring visibility of watercourse banks, no heavy rainfall preceding or during the survey and low water levels), optimal survey timing, high level of surveyor water vole experience and there being no signs of water vole activity found to be present in this survey.

Red Squirrel

All suitable habitat within the survey area was surveyed for squirrel field signs. A broad-scale walkover assessment was undertaken, which involved walking through forest coupes (or around, where tree density

prevented access), assessing habitat suitability (tree species, age and potential seed crops) and recording any signs of squirrel (e.g., feeding signs and dreys), as described in Gurnell *et al.* (2009) including:

- Dreys,
- Feeding signs, and
- Sightings.

There is no distinguishable difference between the dreys or feeding signs of a red squirrel and a grey squirrel therefore all dreys and feeding signs are counted as potential red squirrel presence unless accompanied by a live sighting.

Badger

The badger survey comprised a walkover of accessible land within the survey area during daylight hours to search for, and record, evidence of badger activity. The survey followed guidance published by Scottish Badgers (2018). Field signs pertaining to badger include:

- Setts - these are underground tunnels where badgers live. Setts can have large spoil heaps or discarded bedding material at the entrance. Badgers may use setts permanently or temporarily, which can thus be classed as active or inactive.
 - *Main setts*: typically possess several holes with large spoil heaps with obvious paths between sett entrances. Main setts are usually in constant use, however it is possible to find some dormant entrances.
 - *Annexe setts*: usually close to the main sett (less than 150m away) and clearly linked by well-worn paths. They usually comprise several entrances and are often in frequent use by badgers, but they are not necessarily constantly occupied.
 - *Subsidiary setts*: usually at least 50m from a main sett and do not have obvious paths connecting with another sett. They are not constantly active.
 - *Outlier setts*: usually comprise one or two entrances only and are not connected to the main sett by well-worn paths due to only sporadic use. When not in use by badgers, they are often used by foxes or rabbits. Note however that some outlier setts may be used for breeding.
- Prints - badgers have characteristic footprints that can be found in soft ground and muddy areas;
- Latrines - faeces are often deposited in dung pits at discrete locations. These are known as latrines and are often used as territorial markers;
- Hairs – badgers have characteristic hairs which can often be found in the soil at sett entrances or snagged on fences; and
- Feeding signs (snuffle holes) – scrapes and small holes created in the ground by badgers foraging for earthworms etc.

Any of the above signs can be taken as diagnostic evidence of the presence of badger.

Pine Marten

All suitable habitat within the survey area was surveyed to determine the presence, or potential presence, of pine marten.

Pine marten field signs are described in Bang and Dahlstrøm (2006), Birks (2002) and Balharry *et al.* (2008) and include:

- Scats – These are typically dark in colour and 4-12 cm long x 0.8-1.8 cm in diameter. They often have a coiled twisted appearance, typical of many mustelid scats. Scats will often contain food remains including fur, feathers, bone, plant content and seeds. Scats vary in size, shape and colour, overlapping in these respects with scats of foxes, polecats, mink and stoat. Marten scats are usually long and cylindrical, often tapering at one end and sometimes coiled into a 'U' or '&' shape. Scats may be 5-14mm in diameter and up to 120mm long. Where scat identification is in doubt, DNA analysis may be used to confirm pine marten.
- Footprints – Five-toed but slightly cat-like forefoot imprints measure approximately 40 x 45 mm for females and 55 x 65 mm for males; fur on the underside of feet in winter may blur prints and make them look larger, especially in soft snow. Indistinct trails of bounding martens (stride length 60-100 cm) may resemble those of hares, with prints in groups of two or three where one or both hind feet have registered over prints of forefeet; and
- Den sites – Dens are usually not distinctive unless revealed by visible concentration of scats. Elevated den sites are preferred to keep martens safe from predators and provide insulation and shelter from the elements, and so hollow trees, owl boxes and the roofs of dwelling houses are often used, as well as purpose-built pine marten den boxes. Where such elevated dens are absent, they may den on the ground in rabbit burrows, rocky outcrops or under tree root plates.

Any of the above signs are diagnostic evidence of the presence of pine marten; however, it is often not possible to identify den sites with confidence unless other field signs are also present. Scats are the most reliable identifiable evidence of the presence of this species.

Wildcat

Walkover surveys for wildcat consisted of identifying suitable wildcat habitat, based on their habitat needs and availability of prey, e.g. rabbit. Any potential habitat feature such as potential den sites or above ground shelters were marked. A search for any field signs including scats, claw marks and paw prints was also undertaken in suitable areas.

Other Protected and/ or Notable Species

Incidental sightings of other protected and/ or notable species, such as amphibians and reptiles, were also recorded during the survey.

2.3 Survey Dates and Personnel

The protected species survey of the Site was carried out by Nicola Faulks (CEcol, MCIEEM) between 09 and 13 August 2021, in conjunction with the botanical survey. During all days, rain showers occurred, but the weather was generally dry and breezy.

The riparian mammal (otter and water vole survey) of the Site was carried out by Leigh Kelly (Mhor Ecology) in conjunction with a fish habitat assessment, between 11 and 12 September 2021.

The protected species walkover of the proposed access route was carried out by Hannah Rowding (BSc Hons, MSc, ACIEEM) and Niamh Ni Nagy (BSc) between 01 and 02 August 2022. Surveys were carried out in accordance with CIEEM competency standards (CIEEM 2013a - e). Weather during the surveys was dry and mild with no rainfall.

2.4 Limitations

It should be noted that ecological study provides only a 'snapshot' of the conditions prevailing at the time of survey. Lack of evidence of any species does not necessarily preclude them from being present on site at a later date.

The Site

For surveys carried out during 2021, access was only possible within the Site's boundary and, with the exception of extended surveys within the riparian habitats, focussed on the survey area (**Figure 8.3.2**). Therefore, any species field signs out-with the site boundary and/or survey area will not have been recorded (except for otter and water vole).

In addition, the dense nature of the forestry within the site made accessing small streams and other features, which lay away from roads and paths very difficult. It is however considered that sufficient locations were visited to provide sufficient evidence on which to base a presence/ likely absence conclusion for each species considered herein.

An occasional heavy rain shower may have obscured evidence of some riparian mammal activity on the first survey visit; however, this was not considered to be a limitation since the weather was generally dry and breezy in the first visit and the freshwater areas were resurveyed in September in favourable weather conditions.

Whilst it is considered unlikely that any significant evidence of protected or otherwise notable mammal species has been overlooked, due to the nature of the subjects of ecological surveys it is feasible that species that use the site may not have been recorded by virtue of their seasonality, cryptic behaviour, habit or random chance.

Photographs of otter evidence from the fish habitat survey were erased due to a technical error. It is not perceived to be a limitation as such since we have descriptions of the records and grid references to aid future detection.

Due to the ecology and behaviour of wildcat, field signs are very elusive and difficult to detect. Therefore, walkover surveys for this species are of a limited value.

Proposed Access Route

Active harvesting operations within mature coniferous woodland habitat in eastern section of the 250m survey area buffer (**Figure 8.3.2**) prevented survey access to certain areas. It has however been assumed that protected species pre-felling checks would have been carried out by Forestry and Land Scotland (FLS) prior to felling works commencing and therefore potential constraints relating to protected and/ or notable species within felling areas are considered unlikely.

Vegetation cover surrounding Burn of Ryeriggs was tall and very dense at the time of the survey. While a thorough check for otter and water vole field signs was carried out, potential for missed field sign observations exists due to the overgrown nature of surrounding vegetation. A pre-construction walkover for otter and water vole along the Burn of Ryeriggs is therefore recommended.

3.0 Results

The results of the field survey have been mapped and are shown on **Figure 8.3.2**. The raw survey data is provided in **Appendix 01**.

3.1 Otter

The Site

During the survey, the Site was found to support a network of man-made drains, associated with the forestry blocks (**Photograph 3-1**). The drains were located on the side of the roads, and between the forestry blocks, where slope allowed. No signs of otter were noted in these drains, some of which were flowing, while others hold standing water only during dry weather periods.

Evidence of otter activity was identified throughout watercourses within the Site. Above ground resting sites (hover) were identified (Target Note [TN] 19), other field signs recorded included spraint (TNs 3 – 5, 8, 11, 13 – 16 and 19), potential otter pathways (TNs 1, 10 and 12) at various watercourses and a slide (TN 14). In addition,

Ardmachie Burn and Burn of Fernking provided amphibian presence/suitable amphibian habitat that may attract otters for the purposes of foraging – particularly during spawning season.

Photograph 3-1
Drain flowing out from under track, down side of plantation



There are some more natural streams within the Site, these include the Corsekell Burn on the western boundary of the Site, the White Stripe Burn which flows south from the centre of the Site and the Milk Burn which flows west, from the eastern part of the Site. Most of the streams, where they are present within the survey area, are small (1m wide or less), and shallow, less than 20 cm at the time of survey, generally 5 cm deep. No signs of otter were noted on these streams, prints, spraints and holts/lie-ups were all searched for.

Photograph 3-2 shows the Milk Burn after a heavy rain shower, during which time the level of water raised a few centimetres. In general, the banks are heavily shaded, so could provide suitable habitat for holts or lie-ups. With regards to potential food sources, the stream banks did appear to have an abundance of small common frogs *Rana temporaria* a species which can make up part of the food base for otter (Mammal Society, 2021), especially during the spring period.

Photograph 3-2
The Milk Burn



Proposed Access Route

Habitat surrounding the proposed access route to the Site comprised a mosaic of neutral grassland and rush pasture and supported a narrow watercourse (headwaters of Burn of Ryriggs). This watercourse was considered suitable for otter commuting and foraging purposes, while the long, unmanaged grassland and rush pasture habitat may serve to provide sheltered locations for otter couch creation (Target Note 34). No field evidence pertaining to otter was however noted along the length of the watercourse during the survey.

Photograph 3-3
Minor watercourse within grassland and rush pasture habitat



3.2 Water Vole

The Site

No evidence of water vole was identified during the field survey. However, suitable habitat was noted, albeit sub-optimal, along the Corsekell Burn, Burn of Fernking, Tack Burn and Milk Burn. The streams in general were all generally overgrown, with either rush dominant or shaded heavily with trees or scrub. On the Milk Burn some more open areas were noted; however, no signs of burrows or runs were noted. Target notes displayed on **Figure 8.3.2** show areas where potentially suitable habitat for water voles was observed.

Photograph 3-4 shows a section of the Milk Burn with a large associated 'grassy lawn'. At this point the burn was heavily shaded with broom *Cytisus scoparius* as it flowed past the edge of a mature section of plantation woodland. No signs of water vole were noted here. Deer droppings, grazing signs, numerous ticks and deer lie-ups were noted in this area.

Photograph 3-4
Section of the Milk Burn with open grassy area



A pond was noted adjacent to the eastern tributary of the White Stripe burn. The pond appeared to be deep and peaty, with floating mats of *Sphagnum spp.* No signs of water vole presence were noted around this pond.

Photograph 3-5
Pond adjacent to a tributary of the White Stripe Burn



Proposed Access Route

No field signs relating to water vole presence, or habitat suitability, were noted during surveys associated with the proposed access route.

3.3 Badger

Due to a history of illegal persecution, results of the badger survey are considered sensitive and are therefore provided within **Confidential Appendix 02**.

3.4 Red Squirrel

The Site

During the survey no signs of red squirrel were noted. The search included locating old pine cones and examining them for signs that they had been eaten by squirrel. The cone crops were only evident where the trees were more mature, and not recently planted. No signs of eaten cones were noted. During the survey large numbers of fungi were noted including *Boletus edulis* a species which is known to be eaten by red squirrel. Most of the specimens examined had been eaten by slugs and mushroom fly, however some had been nibbled and partially destroyed (TN 27). Due to the size of the teeth marks, it is considered most likely that deer had been eating the fungi, rather than red squirrel.

The more mature forestry blocks are densely planted, to prevent, or reduce growth of branches, creating very tall trees (Photograph 3-6). No dreys were noted in these plantations, although it should be noted that the search was not exhaustive. Most of the felled and replanted plantations, were considered to provide sub-optimal habitat for dreys, as the trees are 0.5 – 4 metres high.

Photograph 3-6
Dense forestry block



Proposed Access Route

The proposed access route into the Site traverses east from the B9016 through agricultural grazing land, rush pasture, and scrubby woodland, before leading into Aultmore Forest. The open grassland, rush pasture, and scrub habitat surrounding the proposed route was considered largely unsuitable for supporting red squirrel. However, mature woodland associated with Aultmore Forest (i.e. the Site) was considered more suitable for squirrel commuting, foraging and drey creation.

3.5 Pine Marten

The Site

It is not possible to distinguish pine marten scat from fox scat with 100% certainty without DNA testing. Therefore, where scats have been recorded, they are referred to as potential pine marten scats based on assessment of their morphology. Treating all potential pine marten scats as evidence of pine marten is a precautionary approach likely to slightly overestimate rather than underestimate the presence of this species on site.

One potential pine marten scat was recorded (TN 20). **Figure 8.3.2** shows the location of the scat which was found to the west of Site.

Proposed Access Route

No field signs relating to pine marten were recorded during the survey. Suitable (yet sub-optimal, owing to forest species and structure) pine marten habitat was however considered present within mature coniferous woodland within the east of the survey area (Aultmore Forest).

3.6 Wildcat

The Site

No evidence of wildcat was found during the surveys. The Site provides some suitable habitat for wildcat which prefers to live and hunt along woodland edges, and in the east of Scotland wildcat seem to favour woodland edges beside heathland or pastureland which is present on and beside the Site. The watercourses on Site provide commuting corridors through the Site for wildcat. While the plantation forestry, which is common on Site, provides good cover though areas of dense coverage may be more limited in the prey resources available. Areas of windthrow and clear fell provide open areas which are more suited to small mammals which would provide more prey resources, while brash piles may also provide suitable denning habitat.

Proposed Access Route

No evidence of wildcat was recorded during the 2022 surveys. Habitat along the access track is broadly similar to that on Site but on a smaller scale, therefore it is possible that wildcat could make use of this area.

3.7 Other Mammals

The Site

During the survey roe deer *Capreolus capreolus* were sighted on three occasions (TN 29). Signs of grazing and droppings from roe deer and indeterminate deer species were also noted (TN 28 and 30). Fox scat was recorded on a number of occasions, containing bones and fur of presumably small mammals (TNs 21, 22, 24, 25 and 26).

Proposed Access Route

Several trees within the access route survey area were identified as having suitability to support roosting bats. For full details, please refer to **Technical Appendix 8.4: Bat Survey Report**.

4.0 Summary and Conclusion

4.1 The Site

The Site appears to offer suitable habitat for a range of protected mammal species including otter, water vole, badger, red squirrel, pine marten and wildcat; however, at the time of survey it was a very active commercial woodland, with felling and replanting of tree blocks an ongoing activity. Active machinery and lorries carrying logs are a common feature within the Site.

Otter

Evidence of otter places of shelter and activity were recorded during the surveys and suitable habitat identified. Places of shelter included a hover and above ground resting site. Otter spraint, both old and new, were identified throughout watercourses within the survey site. Slides and otter pathways were identified through vegetation.

Water Vole

No signs of water vole were recorded during the survey. These results do not necessarily preclude the possibility of these species being present within the Site boundary. During the survey, water levels were moderate to low, therefore, it is considered that if present, water vole would have been identified. On this basis and given also that the water vole survey was undertaken during their peak activity period (April to September inclusive⁹), a second water vole survey is not considered necessary. A survey for fish habitat assessment undertaken on the Site in September did not record any signs of water vole either.

Badger

Evidence of badger was recorded within the survey area and it is considered that this species occurs within the Site itself. Full details relating to results of the badger field survey are provided in Confidential Appendix 02.

Red Squirrel

No evidence of red squirrel was found during the surveys, although suitable habitat was present. The lack of squirrel activity may be due to the disturbance caused by the commercial nature of this forestry, and the now large areas of newly planted coops which do not offer optimal drey building or foraging habitat. Aultmore Forest is connected to other blocks of forestry and lies adjacent to some extensive areas of forest. It is therefore possible that red squirrel are present in the wider area, with the species temporarily vacating areas where disturbance levels have increased (e.g. during tree harvesting activities).

It is also worth noting that the Scottish Forestry website provides a link to conserving red squirrels. On this page³ is a map provided by Squirrel Conservation Scotland (2010), which shows the neighbouring forests to the Site: Ordiequish, Whiteash and Ben Aigan as Red Squirrel Stronghold Areas. These forests lie to the west, 400 metres from the Site at their closest point. Giving further evidence that this species is likely to be present in the wider area, if not within the Site at the time of survey.

Pine Marten

Potential evidence of pine marten activity was limited to one potential scat at the western part of the Site. Due to the size of the area, there is potential for multiple individuals to be using the survey area. Follow up surveys using camera traps or DNA testing of scat could be used to increase certainly over pine martens' use of the site; although, further surveys are only likely to be required if potential den or resting sites could be affected (not currently identified to be the case).

³ Scottish Forestry (2021). *Conserving red squirrels*. [Online] Available at: <https://forestry.gov.scot/publications/forests-and-the-environment/biodiversity/conserving-red-squirrels> [Accessed 06 September 2021].

Wildcat

No evidence of wildcat was noted during the surveys though there is suitable habitat on Site. Foraging habitat is present along the woodland edges and in areas of clear fell, while denser woodland may provide shelter as do brush piles associated with forestry management.

4.2 Proposed Access Route

Otter

While no evidence of otter was identified during the survey, watercourses and surrounding vegetation present within the survey area were recorded to serve as suitable habitat for otter commuting, foraging and potentially resting purposes.

Water vole

No evidence of water vole was identified along watercourses within the survey area. The watercourses were considered sub-optimal for water vole due to their narrow, shallow nature and shading cast by surrounding vegetation.

Badger

For full details relating to badger field signs, please refer to Confidential Appendix 02.

Red Squirrel

No evidence of red squirrel was found during the field survey. The mature coniferous trees within Aultmore forest were however noted to be suitable for red squirrel foraging and drey creation.

Pine Marten

No evidence of pine marten was identified during the field survey. Coniferous trees within Aultmore Forest were however considered to support suitable habitat for pine marten commuting and resting purposes (albeit sub-optimal suitability owing to forest species and structure).

Wildcat

No evidence of wildcat was noted though suitable habitat for commuting and foraging wildcat is present.

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FIGURES

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345000

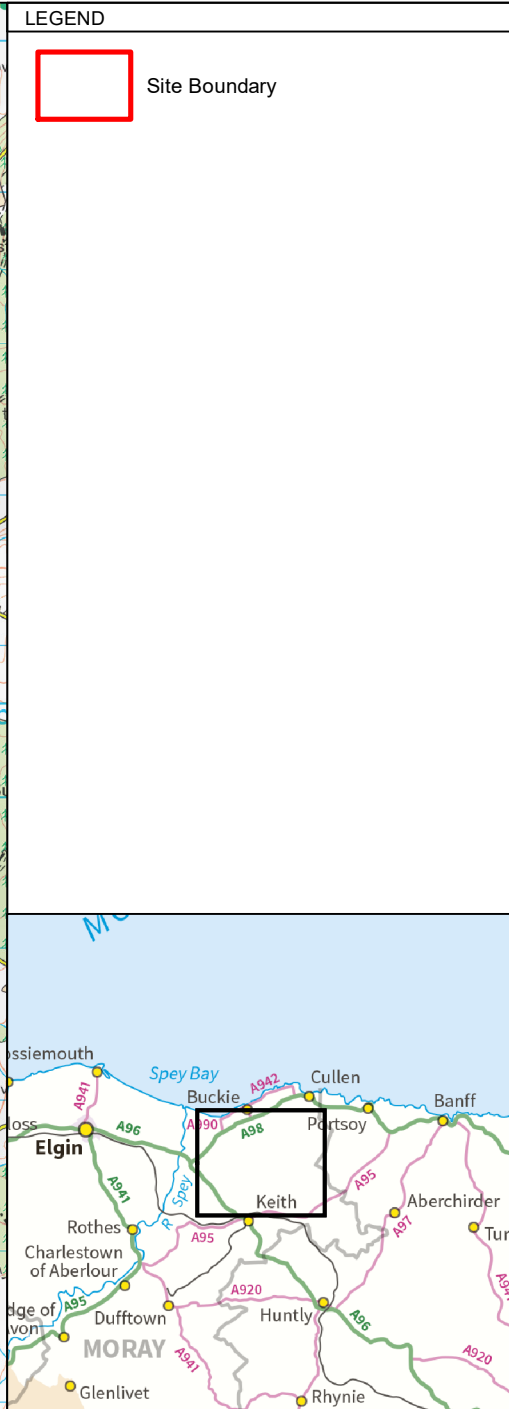
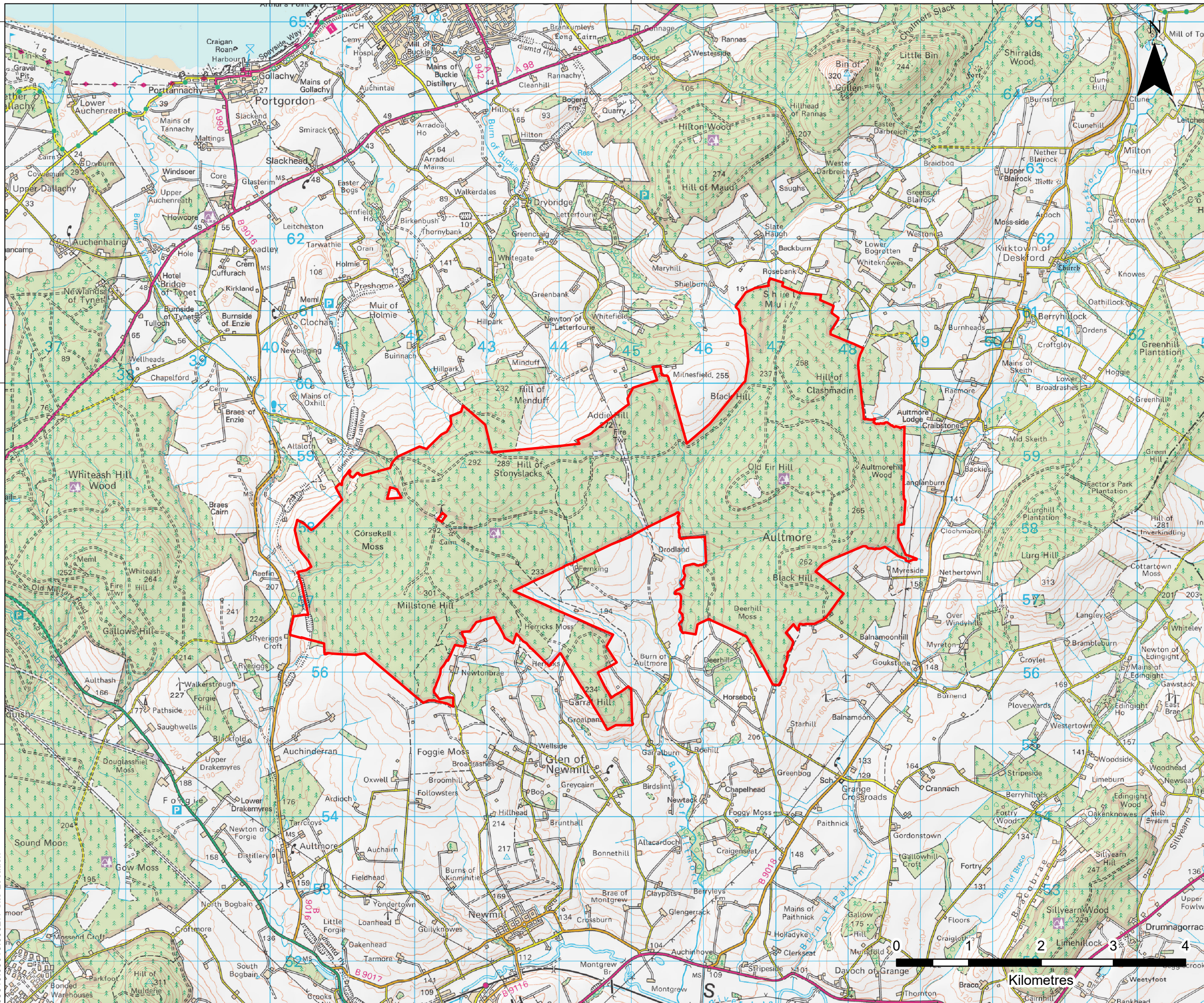
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03640.00016.0032.1 Site Location



LEGEND

Site Boundary

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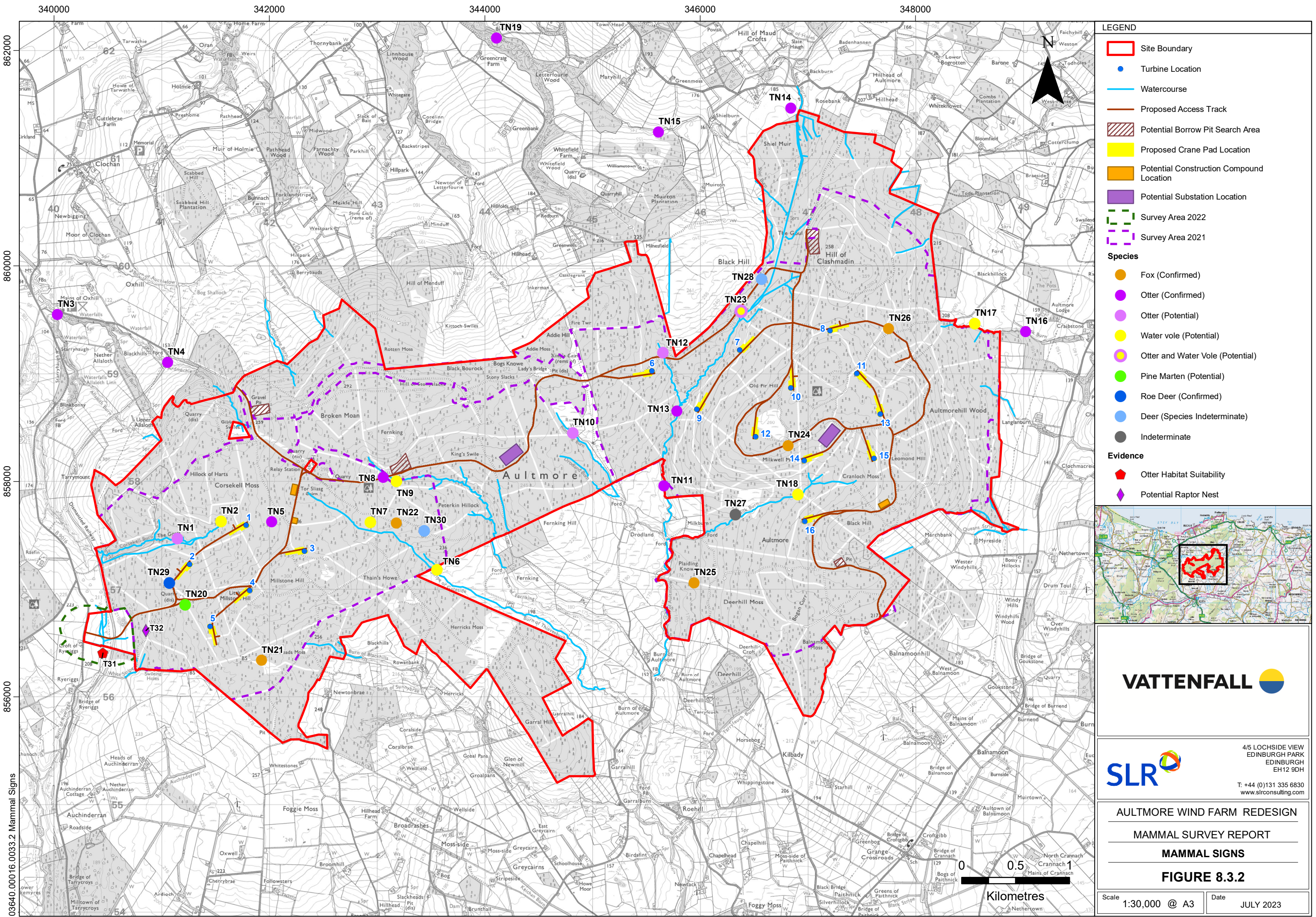
AULTMORE WIND FARM REDESIGN

MAMMAL SURVEY REPORT

SITE LOCATION

Figure 8.3.1

Scale 1:50,000 @ A3 Date SEPTEMBER 2021



LEGEND

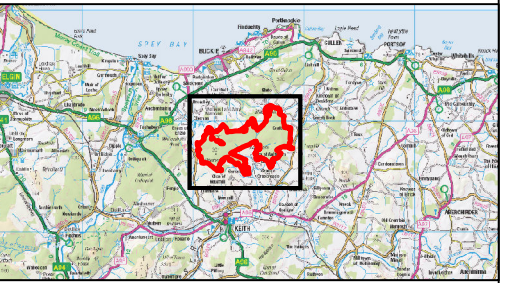
- Site Boundary
- Turbine Location
- Watercourse
- Proposed Access Track
- Potential Borrow Pit Search Area
- Proposed Crane Pad Location
- Potential Construction Compound Location
- Potential Substation Location
- Survey Area 2022
- Survey Area 2021

Species

- Fox (Confirmed)
- Otter (Confirmed)
- Otter (Potential)
- Water vole (Potential)
- Otter and Water Vole (Potential)
- Pine Marten (Potential)
- Roe Deer (Confirmed)
- Deer (Species Indeterminate)
- Indeterminate

Evidence

- ♦ Otter Habitat Suitability
- ♦ Potential Raptor Nest



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AULTMORE WIND FARM REDESIGN

MAMMAL SURVEY REPORT

MAMMAL SIGNS

FIGURE 8.3.2

Scale 1:30,000 @ A3 Date JULY 2023

APPENDIX 01

Target Notes

Target Note	Grid Reference	Species	Detail
The Site			
1	NJ 41144 57469	Otter (potential only)	Potential otter pathway, habitat suitable for commuting and foraging. May be attributable to fox as scat recorded nearby – NJ 41181 57483
2	NJ 41551 57626	Water vole (potential only)	Potentially suitable water vole habitat
3	NJ 40031 59549	Otter (confirmed)	Otter spraint (below bridge) recorded during Fish Habitat Survey (FHS). Commuting/foraging habitat.
4	NJ 41055 59106	Otter (confirmed)	Otter spraint (old). Area suitable for amphibians – potential foraging resource, otter likely to be present during spawning.
5	NJ 42021 57623	Otter (confirmed)	Otter spraint (old). Area suitable for amphibians – potential foraging resource, otter likely to be present during spawning.
6	NJ 43555 57178	Water vole (potential only)	Potentially suitable water vole habitat identified. Area of flush/pool, water course very slow throughout this area. No field signs recorded.
7	NJ 42939 57619	Water vole (potential only)	Potentially suitable water vole habitat identified. Area of flush/pool, water course very slow throughout this area. No field signs recorded.
8	NJ 43057 58037	Otter (confirmed)	Otter spraint (old). Area suitable for amphibians – potential foraging resource, otter likely to be present during spawning.
9	NJ 43179 58003	Water vole (potential only)	Sub-optimal water vole habitat identified. Area of flush/pool, water course very slow throughout this area. No field signs recorded.
10	NJ 44819 58449	Otter (potential only)	Potential otter pathway (Rumbling Burn), no other field signs recorded.
11	NJ 45664 57956	Otter (confirmed)	Otter spraint and slide, potential commuting/foraging habitat.

12	NJ 45653 59193	Otter (potential only)	Mammal path adjacent to White Stripe, potential otter path leading to watercourse. No other field signs recorded.
13	NJ 45784 58653	Otter (confirmed)	Otter spraint, potential commuting/foraging habitat.
14	NJ 46843 61466	Otter (confirmed)	Various otter spraints and slides recorded; pond considered suitable habitat. Foraging resource as habitat suitable for amphibians.
15	NJ 45613 61244	Otter (confirmed)	Otter spraint, potential commuting/foraging habitat.
16	NJ 49023 59391	Otter (confirmed)	Otter spraint (old), potential commuting/foraging habitat.
17	NJ 48549 59464	Water vole (potential only)	Sub-optimal water vole habitat identified. Large area of flush/wetland, very slow flow with good vegetation cover. No field signs recorded.
18	NJ 46910 57877	Water vole (potential only)	Sub-optimal water vole habitat identified. Large area of flush/wetland – confluence with 3 tributaries – very slow flow with good vegetation cover. No field signs recorded.
19	NJ 44110 62119	Otter (confirmed)	Otter resting site (hover) and various spraint recorded below bridge.
20	NJ 14218 56854	Pine marten (potential only)	Potential pine marten scat identified.
21	NJ 141926056338	Fox (confirmed)	
22	NJ 43180 57614	Fox (confirmed)	
23	NJ 46380 59579	Otter and water vole (suitability)	Suitable otter and water vole habitat.
24	NJ 46818 58333	Fox (confirmed)	

25	NJ 45943 57057	Fox (confirmed)	
26	NJ 47751 59420	Fox (confirmed)	
27	NJ 46328 57693	Indeterminate	Nibbled fungi
28	NJ 46571 59877	Deer (species indeterminate)	Deer droppings
29	NJ 41070 57057	Roe deer	2 x roe deer seen
30	NJ 43439 57540	Deer (species indeterminate)	Deer droppings
Proposed Access Route			
31	NJ 40453 56408	Otter (habitat suitability)	This area is formed of tall neutral grassland and rush pasture mosaic habitat with a narrow (<1m wide) watercourse running through it. Suitable for otter foraging and commuting along watercourse. Surrounding habitat would serve as a sheltered location for otter couch creation.
32	NJ 40853 56615	Nest (Potentially raptor)	Potential raptor nest in coniferous tree with broken crown. Nest measures approximately 50x70cm diameter. Not surveyed in detail however no signs of current activity were noted at the time of the survey.

APPENDIX 02

Confidential Badger Report

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