Cambois Connection – Onshore Scheme

Environmental Statement Volume 3

Technical Appendix 9.4: Mammal Survey Report

sse Renewables

Cambois Connection Onshore Scheme

Technical Appendix 9.4: Protected Mammal Survey Report

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Basis of Report

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1.0 Introduction

1.1 Overview

Berwick Bank Wind Farm Limited (BBWFL) is a wholly owned subsidiary of SSE Renewables (SSER) (hereafter referred to as 'the Applicant'). The Applicant is proposing the development of Offshore Export Cables, Onshore Export Cables, an Onshore Converter Station and associated grid connection at Blyth substation in Northumberland, known as the 'Cambois Connection' ('the 'Project'). The onshore components of the Project, landward of Mean Low Water Springs (MLWS) comprise the Onshore Scheme ('the Site').

The purpose of this infrastructure is to facilitate the export of green energy from the generation assets associated with the Berwick Bank Wind Farm (BBWF), located in the outer Firth of Forth. A separate application for developing a grid connection to Branxton, East Lothian, has been included as part of the Applicant's application for consent for BBWF, currently being determined separately. The Project will enable the BBWF to reach full generating capacity (4.1 gigawatts (GW)) by the early 2030's.

The Project comprises two distinct proposals, or 'Schemes', which will require three separate consents. For the Onshore Scheme (all activities and infrastructure landward of MLWS) consent will be sought via a planning application to Northumberland County Council (NCC) as the local planning authority (LPA) under Section 57 of the Town and Country Planning Act 1990.

The offshore components of the Project seaward of Mean High Water Springs (MHWS) ('the Marine Scheme') are located within both Scottish and English waters. In Scotland, the Marine Scheme is entirely within offshore waters (i.e., between the 12 nautical miles (nm) limit and the Scottish Exclusive Economic Zone). In England, the Marine Scheme is within offshore waters and inshore waters.

SLR Consulting undertook a Preliminary Ecological Appraisal (PEA) (Appendix 9.8) with respect to the Onshore Scheme. The PEA was based on UK Habitat Classification (UKHab) description to identify areas of opportunities for protected mammals. A site walkover was then completed in April 2023 and recommendations of survey areas were made to the client.

SLR Consulting Ltd was commissioned by SSE Renewables ('the Client') to conduct protected and notable species surveys at the Site in May 2023. This baseline report details the results of the protected mammal surveys conducted within the Site in June 2023. The information contained herein will be appended to the Environmental Statement (ES) which will contain the relevant impact assessment and mitigation proposals.

1.2 Site Location

The Site is located on the Northumberland coastline at Cambois, approximately centred on NZ 29656 84205. The nearest large settlements are the town of Blyth approximately 1 km to the south, and the town of Ashington approximately 1.2 km to the north. The Sleek Burn / River Blyth estuary borders the Site to the southwest and the River Wansbeck estuary lies approximately 600 m to the north. The main access route to the Site is via the A189 from Newcastle which borders the eastern site boundary.

The centre of the Site is of primarily industrial land use with sealed surface and a network of drainage channels running north to south. In the east of the Site is a grassland with lines of woodland fed by the Site's most significant watercourses; the Maw Burn and Cow Gut.

1.3 Scope of Study

The boundary for the Site along with the indicative infrastructure development zones and survey areas is shown on Figure 9.4.1.

The Site was assessed for the presence of protected and otherwise notable mammals, focussing on species that are likely to occur in the area, ascertained from known species distribution and habitat suitability. The survey focussed on Eurasian otter (*Lutra lutra*), water vole (*Arvicola amphibius*), European badger (*Meles meles*) and red squirrel (*Scuirus vulgaris*).

The aims of the survey were to:

- Provide baseline data to inform the construction of the development and identify the need for any avoidance, mitigation, enhancement and compensation measures (if required);
- Confirm the presence or absence of protected or otherwise notable mammals within areas which could be affected by the development; and
- Record the location of field signs indicative of their activity should they be present.

This report presents the findings of the survey carried out in June 2023 and further confirmatory checks carried out in September 2023.

2.0 Legislation, Policy, and Guidelines

2.1 Legislation

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

- The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended);
- Wildlife and Countryside Act 1981 (as amended) (WCA);
- Natural Environment and Rural Communities Act (2006); and
- Regional biodiversity targets defined through the Local Biodiversity Action Plan (LBAP).

The relevant legislation is detailed in **Appendix 01**.

2.2 Otter

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

Otter is a European Protected Species (EPS), protected under the Conservation (Natural Habitats, &c.) Regulations 1994. 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 den 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 den 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); 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 at all times, whether an otter is present or not.

Otter is a Priority Species[1].

2.3 Water Vole

Water vole receives full protection through its listing on section 9 of Schedule 5 of The Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally or recklessly:

- Capture, injure or kill a water vole;
- 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 a Priority Species.

2.4 Badger

Both badgers and their setts are protected under the Protection of Badgers Act. 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, or any entrance of, a badger sett;
- Disturb a badger whilst it is occupying a sett;
- Allow a dog to enter a sett;
- Possess, sell or offer for sale a live badger; or
- Be in possession or control of a dead badger or anything derived from a dead badger.

2.5 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;
- 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.

Red squirrel is a priority species.

3.0 Methodology

3.1 Desk Study

Existing information on protected mammals within the Study Area was collected through a detailed desktop review of existing studies and data sets. Details of the existing studies and datasets are

[1] Species that appear on Section 41 of the 2006 Natural Environment and Rural Communities (NERC) Act, which lists habitats and species identified as being the most threatened and requiring conservation action.

detailed in Volume 3, Appendix 9.9 Preliminary Ecological Assessment, along with full results of the desk study. These results are also summarised for each species covered in this report in Section 4.

3.2 Otter

Surveys were conducted by suitably qualified and experienced ecologists. All suitable otter habitat within 250 m of the Site were surveyed, including a systematic search for spraints, paw prints, otter paths, slides, food remains, holts and places used for shelter.

Otter surveys can be carried out at any time of year but should avoid periods following prolonged heavy rainfall and/or high water when spraints and other signs of otter may have been washed away. Heavy frost or recent snow can also make finding spraints difficult.

Otter field signs that were searched for, as described in Bang & Dahlstrøm (2006)[2], Sargent & Morris (2003)[3] and Chanin (2003a & b)[4] [5], included:

- 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 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.

[2] Bang, P. & Dahlstrøm, P. (2006).. *Animal Tracks and Signs*. Oxford University Press, Oxford.
[3] Sargent, G. & Morris, P. (2003.) *How to find & Identify Mammals*. The Mammal Society, London.
[4] Chanin P (2003a) Ecology of the European Otter. Conserving Natura 2000 Rivers, Ecology Series No. 10. English Nature, Peterborough
[5] Chanin P (2003b). Monitoring the Otter Lutra lutra. Conserving Natura 2000 *Rivers Monitoring Series* **No 10**. English Nature, Peterborough

Additionally, Natural England guidelines[6] were used to determine and subsequently note areas of 'moderate' or 'good' habitat for otter. 'Moderate' suitability denotes that a habitat possesses some of the required features necessary for otter, while a 'good' habitat possesses most of the necessary features.

3.3 Water Vole

Water vole surveys were undertaken in areas of suitable habitat within the study area by an experienced surveyor. Water vole field signs that were searched for, as described in Strachan & Moorhouse (2011)[7] and Dean *et al* (2016)[8], included:

- Sightings of water vole;
- 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 the exceptions noted) can be taken as diagnostic evidence of the presence of water vole.

As with otter, target notes were made if a section of a habitat was deemed of 'moderate' or 'good' suitability for water vole, based on the habitat requirements set out in The Water Vole Mitigation Handbook[9]. 'Moderate' suitability denotes that a habitat possesses some of the required features necessary for water vole, while a 'good' habitat possesses most of the necessary features.

3.4 Badger

Badger surveys were undertaken in areas of suitable habitat within the study area by an experienced surveyor in suitable weather conditions. Badger field signs that were searched for, as described in Neal

[6] Natural England (2011). *IN111: Ecology of the European Otter.* Life In UK Rivers

[7] Strachan, R., Moorhouse, T. & Gelling, M. (2011). *The Water Vole Conservation Handbook*. Third Edition, Wildlife Conservation Research Unit, University of Oxford, Abingdon.

[8] Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016). *The Water Vole Mitigation Handbook (Mammal Society Mitigation Guidance Series).* Eds Fiona Mathews and Paul Chanin. Mammal Society, London.

[9] Dean, M., Strachan, R., Gow, D., Andrews, R., Mathews, F. and Chanin, P. (2016). *The Water Vole Mitigation Handbook The Mammal Society Mitigation Guidance Series*. London: The Mammal Society.

& Cheeseman (1996)[10], Bang & Dahlstrøm (2006)[2] and SNH (2001)[11], Reynolds and Harris (2005)[12] and Scottish Badgers (2018)[13] included:

- 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;
    - Within a territory, a social group of badgers will have a number of setts of varying size and frequency of use. The number of entrances possessed by a sett of each class is variable and largely dependent upon environmental factors. Setts with a higher position in the hierarchy will be more frequently used, with the main sett being more or less constantly occupied and an outlier sett infrequently so. Outlier setts are often only occupied when seasonal local resources are available.
        - *Main setts:* typically possess a comparatively large number of entrances compared to the other setts within the territory (from approximately eight to thirty or more) and are constantly occupied by badgers.
        - *Annexe setts:* are clearly linked to the main sett (or sometimes setts of other rank) by well-worn badger tracks. They may comprise any number of entrances and are normally in frequent use by badgers, but they are not necessarily constantly occupied.
        - *Subsidiary setts:* support a variable number of entrance holes, normally in the range of three to eight, and are not connected to the main sett by well-worn badger tracks. The frequency of use of subsidiary setts varies greatly, but rarely will they be constantly occupied and often they are in sporadic use.
        - *Outlier setts:* usually comprise one or two entrances only and are not connected to the main sett by well-worn tracks. They are often in sporadic use only yet may display periods of highly active use when local seasonal resources are available (for example outlier setts near fruit trees may experience periods of high use during autumn).
        - Sett activity level is assessed on a scale, from highly active to inactive, using estimates of the frequency of use.
- 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.

[10] Neal, E. & Cheeseman, C. (1996). *Badgers*. Poyser Natural History, London.
[11] Scottish Natural Heritage (2001). *Scotland's Wildlife: Badgers and Development*. SNH, Battleby.
[12] Reynolds, P. & Harris, M. (2005). *Inverness Badger Survey 2003*. Scottish Natural Heritage Commissioned Report No. 096
[13] Scottish Badgers. (2018). *Surveying for Badgers: Good Practice Guidelines*. Version 1.

3.5 Red Squirrel

All suitable habitat within the original survey area was surveyed for red squirrel by an experienced surveyor in suitable weather conditions. The field signs searched for, as described in Gurnell *et al.* (2009)[14], included:

- Dreys – these can be found in trees, usually built close to the main stem from 3 m above ground upwards, often much higher. These typically look like a cluster of sticks, 50 cm diameter and 30 cm deep;
- Feeding signs – squirrels leave distinctive feeding signs in conifer forests, leaving pine cones that have been stripped from the broad end, leaving a small number of pine kernels still intact at the narrow end of the cone; 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.

3.6 Other Protected/Notable Mammals

The survey also noted any signs of other mammal presence; including but not limited to, European brown hare (*Lepus europaeus*) and European hedgehog (*Erinaceus europaeus*).

3.7 Invasive Non-native Species

Incidental records of invasive non-native species were recorded in conjunction with the protected species surveys.

3.8 Survey Dates and Weather Conditions

The Site was visited for riparian mammal survey on 19th of June during sunny weather conditions and on the 20th of June during periods of moderate-to-heavy rainfall , and the 20th and 21st of July during sunny weather conditions.

Terrestrial mammal surveys were incorporated into these surveys but predominantly surveyed on the 20th and 21st of July during dry conditions with intermediate light showers.

A return visit was made 25th September 2023 in order to update results relating to badgers during sunny, dry weather conditions.

3.9 Survey Personnel

The riparian mammal survey was conducted by Helen Allinson, BSc,. Helen is a Senior Field Ecologist at SLR with 8 years' ecological consultancy experience. She was accompanied on the 19th by Euan MacRae, BSc, and on the 20th by Niamh Ní Nagy, BSC, for health and safety purposes. Both Euan and Niamh are Assistant Ecologists at SLR with 1 years' ecological consultancy experience. Helen Allinson and Niamh Ni Nagy also completed the terrestrial mammal surveys on the 20th and 21st of July, with Callum Taylor BSc conducting a confirmatory visit 25th September 2023. Callum is a Senior Ecologist with over 5 years of ecological consultancy experience.

3.10 Limitations

An ecological study provides only a 'snapshot' of the conditions prevailing at the time of survey. Lack of evidence of any one protected species does not necessarily preclude them from being present on site at a later date. Whilst it is considered unlikely that any significant evidence of protected or

[14] Gurnell, J., Lurz, P., McDonald, R., Pepper, H. (2009). Practical Techniques for Surveying and Monitoring Squirrels. Forestry Commission Scotland, Edinburgh.

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. It is considered unlikely, however, that additional surveys of the site at this time would materially alter the conclusions of this report.

One 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 in five days preceding 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 and previous recent surveys on/visits to site.

3.10.1 Weather

The surveys conducted on 19th and 20th June were conducted following a period of drought. As a result, the Site's watercourses were, in some cases, mostly dry. However, it is unlikely that any evidence of riparian mammals, nor any areas of suitable habitat, were missed as a result of the reduced water levels.

During the survey on the 20th June 2023 rainfall was moderate to heavy rainfall. It is therefore possible that some field signs may have been washed away by heavy showers but is not foreseen to have caused a significant impacts to the results of these surveys.

3.10.2 Access

Sections of the Maw Burn and Cow Gut watercourses were inaccessible on the day(s) of survey due to dense vegetation growth, steep banks and/or fencing. These watercourses were assessed for riparian mammals from a distance where bankside access was restricted to build up a good general overview of their suitability for protected mammals. However, it is feasible that some evidence may have been missed as a result.

Woodlands adjacent to the A189 could not be accessed for survey.

4.0 Results

Target note locations of protected species evidence recorded by surveyors are provided on Figure 9.4.2 and Figure 9.4.3 and in the target note tables within Appendices 02 and 03.

4.1 Otter

Forty records of European otter within 2 km of the Site were provided from the desk study, with the most recent found in April 2019, with seven observations of field signs 1.7 km northwest of the Site boundary, on the River Wansbeck. No records of holts or resting sites were returned.

Two potential field signs were observed during protected mammals survey. Two predated crabs (possible otter feeding remains) were found on the shoreline of the Sleek Burn.

Sections of the Maw Burn (Target Note (TN) 1,3,4) and Cow Gut (TN 5) were assessed as having 'moderate' habitat suitability for otter and the northern bank of River Blyth / Sleek Burn estuary (TN 7) was assessed as having 'good' habitat suitability for otter.

4.2 Water Vole

Water vole was recorded on one occasion in 2015 (see Appendix 9.8) as being within 2 km of the Site. However, the grid reference does not place the observation within a suitable habitat, c.600m south-west of Spital Burn on the grounds of the Duke's Secondary School.

No evidence of water vole on the Site was identified during the protected mammals survey.

Sections of the Maw Burn (TN 1,3,4), Cow Gut (TN 5), the network of ditches in East Sleekburn (TN 6) and the northern bank of the River Blyth / Sleek Burn estuary (TN 7) were assessed as having 'Moderate' habitat suitability for water vole.

This section of the English east coast has been flagged as an area of American mink presence and / or control by the National Water Vole Database and Mapping Project[15]. American mink is a predator of water vole causing severe impact on water vole population, and even local extinctions, where present.

4.3 Badger

Twenty records of badger within 2 km of the site in the last 10 years was returned by the desk study, all victims of road collisions on the A189 spine road.

Target note locations of badger evidence recorded by surveyors are provided on Figure 9.4.3 and Appendix 3.

Three potential setts were found in the western coniferous plantation woodland. Signs of recent use were not found at the entrance of the setts or in the immediate vicinity, with old spoil heaps found at the entrances These setts were identified as being the correct size and shape to suggest badger use however did not show any other signs that would confirm badger use, therefore they are referred to as 'potential' setts.

Snuffle holes were observed 110 m from potential sett 3 (see target note table within Appendix 03) and a single suspected badger scat was found approximately 250 m from the same potential sett.. This suggests badger are active in the area..

Six further mammal burrows were observed in the centre of the Site and woodland present within the west of the Site. Due to insufficient tunnel dimensions and a lack of additional badger evidence such as a significant spoil heap or guard hairs, these burrows are not considered to be a potential sett and

[15] Data published 2020. Available online: https://www.wildlifetrusts.org/national-water-vole-database-mapping-project

has been classified instead as a rabbit warren and two likely fox dens. Previous surveys in 2019-2021 also found no signs of badger activity on the British Volt land or the land adjacent.[16]

4.4 Red Squirrel

Desk study data returned over 500 records of red squirrel within 2km of the site in the last 10 years. Surveys undertaken to inform the Britishvolt Project Phoenix Environmental Statement[17] former Britishvolt site identified suitable habitat for red squirrel but no signs of presence.

Squirrel feeding signs were recorded on 36 occasions, within the western coniferous woodland at the time of survey, with one potential drey that could not be confirmed from ground observation alone. Grey squirrel are present within the local area which may also contribute to the feeding signs. No red squirrel individuals were recorded at the time of survey to distinguish which species these field signs relate to.Coniferous plantation woodlands within the Site contains suitable habitat for foraging, commuting and shelter, particularly the western coniferous woodland.

As no squirrels were observed and with suitable habitat and evidence of squirrel activity existing across site, red squirrel presence cannot be discounted at this time.

4.5 Other protected/ notable mammals

No other protected or notable mammal field signs or sightings were recorded during the survey.

4.6 INNS

Squirrel monitoring programmes have identified grey squirrels in the local area[18] and ERIC data returned 124 records, the most recent in 2017. It is therefore appropriate to assume grey squirrel are potentially present.

No other invasive mammal species were noted during the survey.

[16] E3 Ecology Ltd (2021) 'Ecology Appendix 7.1 Former Coal Stocking Yards, Cambois'

[17] Ridge (2021) BritishVolt Project Phoenix Environmental Statement: Main Report.

[18] Northumberland Wildlife Trust: 2022 Spring Squirrel Monitoring Programme Results.

5.0 Conclusion

5.1 Otter

No breeding site or resting places were observed. Two potential feeding signs were observed on the shoreline of the Sleek Burn.

Of the Site's watercourses, the Maw Burn and Cow Gut appear to offer the most potential for otter as commuting routes and for foraging. The earth banks of the Maw Burn are potentially suitable for holt creation or the digging of couches/lay-ups and the understory of scrubby bankside vegetation, such as the frequently occurring bramble, may provide places of shelter here for resting otter.

Both the Maw Burn and Cow Gut are likely to be hydrologically connected to the wider area, including the potentially important otter habitats of the Wansbeck estuary to the north, the River Blyth / Sleek Burn estuary to the south and to the North Sea coastline.

5.2 Water Vole

No evidence of water vole was recorded on the Site and desk study data returned a single record of their presence within the last 10 years.

The Maw Burn and Cow Gut had moderately suitable habitat for water vole. These watercourses were noted for earth banks suitable for burrowing and dense vegetation providing food and shelter. The density of vegetation at the time of survey prevented full bankside access to these watercourses and may have concealed any burrows or other evidence of water vole that were present. To the west of the site the Sleek Burn is also assessed as having moderate suitability for water vole. However, the estuary does not become viable for use until c.750 m west of the site boundary.

Similarly suitable habitat was recorded at the ditches close to the substation in the south of the Site. These ditches were mostly dry at the time of survey and dense vegetation prevented full access for survey.

5.3 Badger

Potential badger setts and field signs were identified on Site, confirming badger presence in the area.

Suitable habitat for badger on the Site includes the woodland and dense scrub along the Cow Gut and Maw Burn. Both watercourses offer sheltered areas with good seasonal foraging potential in the frequently occurring bramble. Notably, the sheltered, earthen slopes of the Maw Burn offer good habitat for sett construction. This area of the Maw Burn could not be fully surveyed, and the previously suspected mammal burrow not visited, due to dense vegetation growth at time of this site visit. Due to the population of badger recorded in the local area there is a possibility that badger can access the site for sett creation at any time and use it as a commuting route as part of the green network.

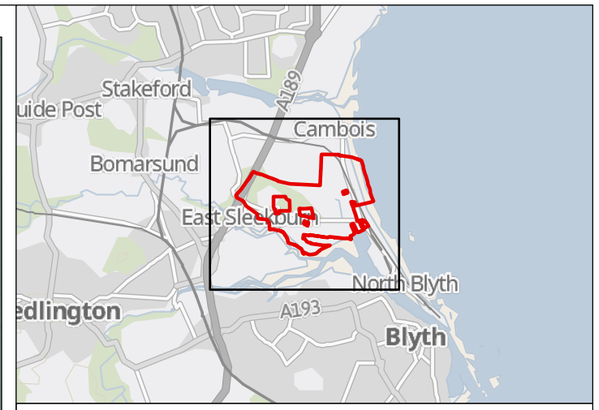
5.4 Red Squirrel

Evidence of squirrel feeding signs, potential drey and was recorded at the time of survey and suitable habitat exists for red squirrel within woodland present on site. In particular, woodland stands along the Maw Burn and in the southwest of the Site offer good potential for foraging and drey construction.

This area is well connected to the Site via lines of trees and hedgerows along the River Wansbeck and the A189, leading to the Site's eastern woodland stands.

Figure 9.4.1: Protected Mammal Survey Areas

Cambois Connection Onshore Scheme



Legend

- Site Boundary
- Badger Survey Area
- Otter and Water Vole Survey Area
- Red Squirrel Survey Area

Rev	Date	Status	Drwn	Chkd	Appd
04	-	-	-	-	-
03	-	-	-	-	-
02	-	-	-	-	-
01	20/10/2023	First Issue	FG	JS	SP

sse Renewables

SLR

Project

CAMBOIS CONNECTION ONSHORE SCHEME

Title

FIGURE 9.4.1: PROTECTED MAMMAL SURVEY AREAS

N

0 100 200 300 400 500 m

Scale	Plot Size	Datum	Projection
1:10,000	A3	OSGB36	BNG

Drawing Number

404.000041.00001.0079.0

Sheet No.

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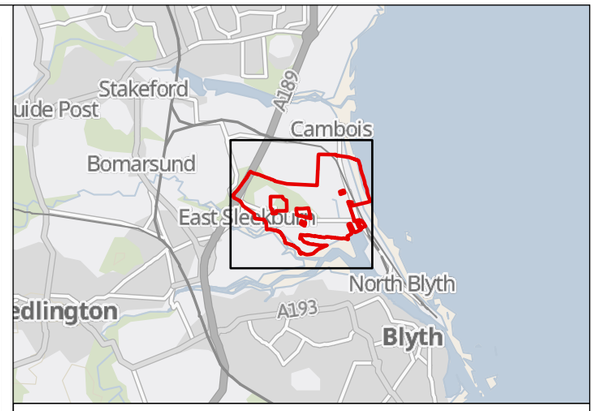
Figure 9.4.2: Protected Mammal Survey Results

Cambois Connection Onshore Scheme



Legend

Site Boundary

Target Note

Otter / Water Vole

Field Sign

Predated Crab, Possibly Otter

Squirrel Feeding Sign

Area of Squirrel Feeding Signs

Rev	Date	Status	Drwn	Chkd	Appd
04	-	-	-	-	-
03	-	-	-	-	-
02	-	-	-	-	-
01	25/10/2023	First Issue	FG	JS	SP

Project

CAMBOIS CONNECTION ONSHORE SCHEME

Title

FIGURE 9.4.2: PROTECTED MAMMAL SURVEY RESULTS

0 100 200 300 400 500 m

N

Scale	Plot Size	Datum	Projection
1:7,500	A3	OSGB36	BNG

Drawing Number	Sheet No.
404.000041.00001.0070.0	1

Y:\UK\055990 Xodus Group Limited\404.000041.00001 Berwick Bank Blyth\Tech\GIS\Dwgs\Wking\2023 09 EIA\Chapter 9 - Ecology\TA 9.4 Mammal Survey\404.000041.00001.0070.0 Mammal Survey Map.aprx

Figure 9.4.3: CONFIDENTIAL Badger Survey Results

Cambois Connection Onshore Scheme

Appendix 1 Relevant Legislation

Cambois Connection Onshore Scheme

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

Under the conservation (Natural Habitats, &c.) Regulations 1994 (The Habitats Regulations) it is an offence to deliberately capture, kill or disturb wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time). Otter is listed under Schedule 2 of the Habitat Regulations.

Wildlife and Countryside Act 1981 (as amended)

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to intentionally or recklessly:

- Kill, injure or take and wild animal listed under Schedule 5 to the Act;
- Damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; and
- Disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection.

Otter, water vole and red squirrel are listed under Schedule 5 of the Act.

Protection of Badgers Act 1992

The Protection of Badgers Act 1992 makes it illegal to kill, injure or take a badger or to interfere with a badger sett intentionally or recklessly (i.e., damage/destroy a sett). Sett interference includes disturbing badgers whilst they are occupying a sett or obstructing access to it.

Natural Environment and Rural Communities (NERC) Act 2006

The NERC Act makes provisions about bodies concerned with the natural environment and rural communities, placing duty to conserve biodiversity onto public authorities in England in the exercise of their functions. Section 41 of the Act requires the publication of a list of habtiats and species which are of principal importance for the purpose of conserving biodiversity.

Otter, water vole and red squirrel are Section 41 Species.

Northumberland Biodiversity Action Plan (BAP)

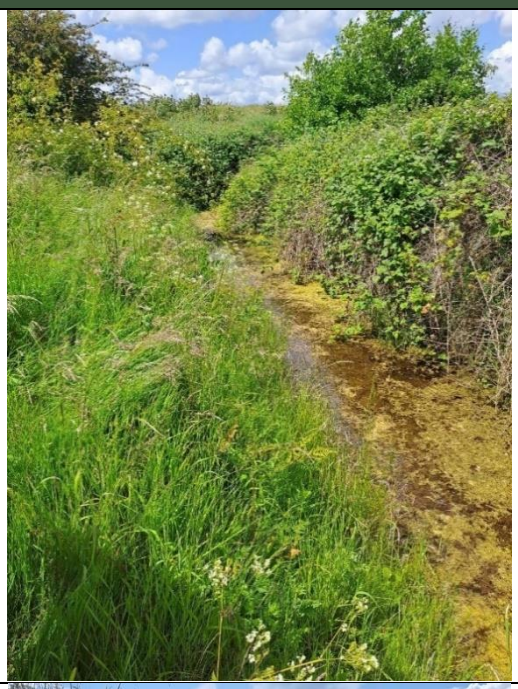
The members of the Northumberland Biodiversity Partnership deliver action for wildlife through implementation of the Biodiversity Action Plan (BAP) for Northumberland. Individual plans have been developed to reflect those habitats and species which are characteristic of Northumberland's natural heritage and most at risk from loss, fragmentation and deterioration of quality. Specific actions within the individual plans vary depending on the species or habitat and range from practical conservation management and survey work, through to promotional activities and working with policy makers.

Otter, water vole and red squirrel are Northumberland BAP species.

Appendix 2 Target Note Table

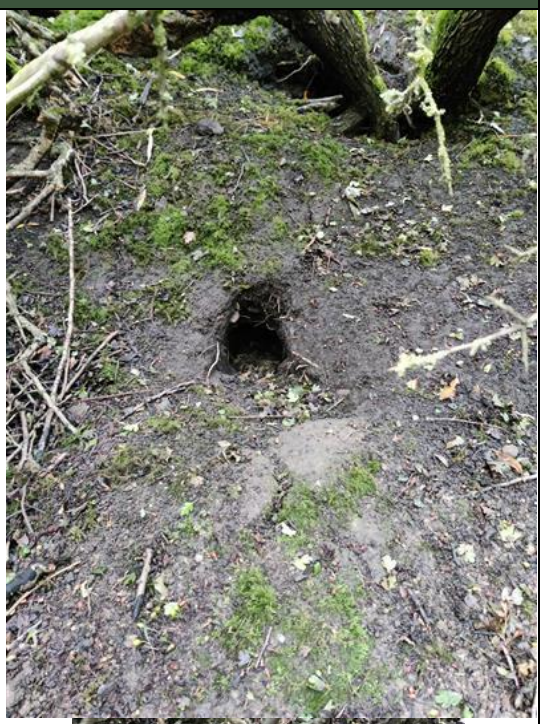
Table A-02: Survey Results Target Notes

Target Note Number	Species	Location	Detail / Description	Photograph
1	Water vole/ otter	NZ 30082 84416	Moderately suitable water vole/otter habitat along the northern section of Maw Burn. Shallow bank profile <45%, estimated watercourse width 0.5 m and estimated depth 0.2 m. Earthy banks are dominated by common grasses and tall herbs. Watercourse is heavily shaded and mostly dry at time of survey due to recent drought. Occasional disturbance from nearby construction activities.	
2	Water vole/otter	NZ 30193 84178	Inaccessible section of Maw Burn due to dense vegetation.	

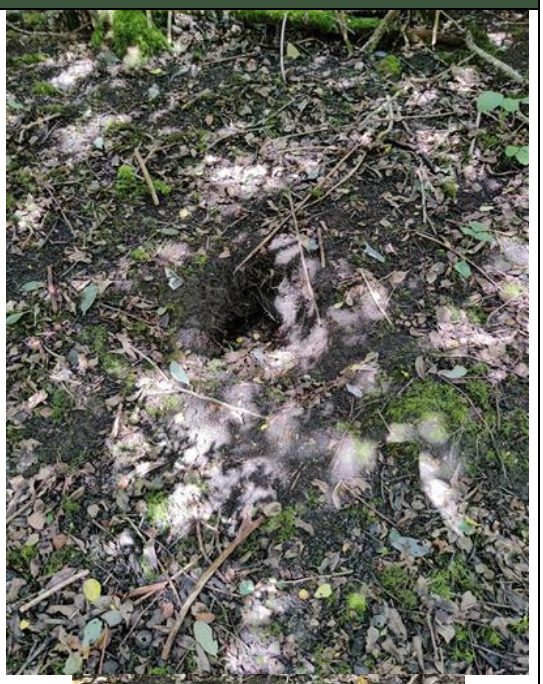
Target Note Number	Species	Location	Detail / Description	Photograph
3	Water vole/ otter	NZ 30178 83789	Moderately suitable water vole/otter habitat along the southern section of Maw Burn. Shallow bank profile <45%, estimated watercourse width 1m and estimated depth 0.5 m. Accessible bank is dominated by common grasses and tall herbs with much bramble on either side. This section of the Burn is unshaded and wet at time of survey. Water quality is moderate to poor with very low flow and much floating weeds and algae. Occasional disturbance from nearby construction activities.	
4	Water vole/ otter	NZ 30564 84093	Moderately suitable water vole/otter habitat where Maw Burn drains into Cambois Beach. Steep bank profile >45%, estimated watercourse width 0.3 m, estimated depth 0.2 m and estimated flow 0.5 m/s. Banks are earthy and dominated by tall grasses representative of the surrounding neutral grassland community. Disturbance is likely moderate-to-high with walkers and dog-walkers frequent along the beach.	

Target Note Number	Species	Location	Detail / Description	Photograph
5	Water vole/ otter	NZ 29360 84028	Moderately suitable water / vole habitat along Cow Gut. Steep bank profile >45%. Mostly dry at time of survey. Banks are earthy with tall grasses and dense scrub. Primary bordering habitats are mixed broadleaved woodland and dense scrub.	
6	Water vole	NZ 29677 83116	Section of ditch in East Sleekburn of moderate suitability for water vole. Shallow bank profile <45% and estimated watercourse width 0.8 m. Mostly dry at time of survey with an estimated watercourse depth of 0.02 m. Weeds are frequent in water channel. Earthy banks with frequent tall grasses, tall herbs, bushes and trees. Surrounding habitat of dense scrub and neutral grassland. Occasional-to-low disturbance from walkers and dog-walkers.	
7	Water vole/ otter	NZ 29534 83054	River Blyth / Sleek Burn estuary	
N/A	Mammal burrow	NZ 30089 84143	Mammal burrow noted during previous survey likely used by fox.	

Target Note Number	Species	Location	Detail / Description	Photograph
N/A	Likely rabbit	NZ 29645 84228	Mammal burrow of insufficient dimensions to be badger. Likely large rabbit warren. No evidence of badger noted in the vicinity.	
N/A	Squirrel Feeding signs (36 recordings)	NZ 29011 83962	Several squirrel feeding signs found in coniferous woodland, no live specimens observed.	
N/A	Potential Squirrel Drey		Single potential drey, not possible to confirm due to lack of access.	

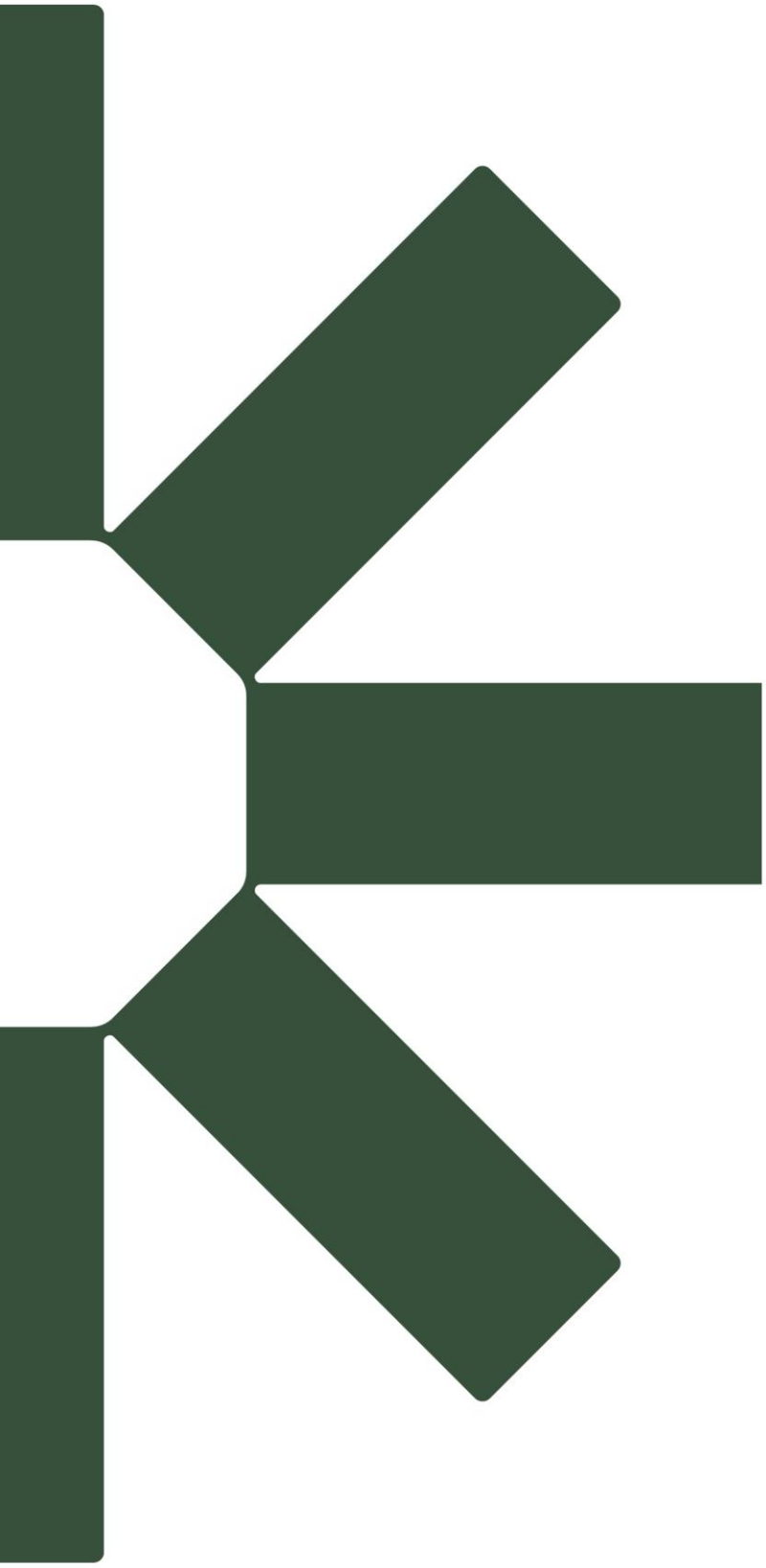
Target Note Number	Species	Location	Detail / Description	Photograph
N/A	Mammal Burrow	NZ 28928 83908	Multiple entrances around root system, mostly less than 15 cm wide and 15 cm tall. Due to size not suitable for badger.	 

N/A	Mammal Burrow	NZ 28944 83926	Individual entrance 23 cm wide and 30 cm high, with old soil spoil heap outside of entrance. Located within the edge of coniferous woodland plantation, immediately adjacent to broadleaved woodland. Not suitable for badger.	  

Target Note Number	Species	Location	Detail / Description	Photograph
N/A	Mammal Burrow	NZ 28980 83974	Individual entrance, old spoil, no vegetation encroachment. Entrance is 24 cm wide by 17 cm high. Almost immediately the entrance curves north and narrows to roughly 10 cm wide and high. Located within the edge of coniferous woodland plantation, immediately adjacent to broadleaved woodland. Fallen leaf litter and old vegetation spoil is present at the entrances but no other field signs were found. Not suitable for badger.	  

Target Note Number	Species	Location	Detail / Description	Photograph
N/A	Mammal Burrow	NZ 29015 84040	Individual entrance 24 cm wide and 17cm high at the entrance. Entrance immediately curves north and narrows to less than 10cm wide and high., not in current use. Old spoil, leaf litter/detritus lining entrance hole. Partially blocked by tree branch. No other field signs observed. Located within the edge of coniferous woodland plantation, immediately adjacent to broadleaved woodland. Fallen leaf litter and old vegetation spoil is present at the entrances but no other field signs were found. Not suitable for badger.	 

Appendix 3 CONFIDENTIAL Badger Target Note Table



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