Environmental Impact Assessment Report
Volume 3, Appendix 23.3: Protected Species Survey Report

MarramWind Offshore Wind Farm

December 2025

MarramWind

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Contents

1. Introduction

1.1 Purpose of this baseline report

1.1.1.1 This Appendix presents baseline protected and priority species information relevant to the Project. This Appendix should be read in conjunction with **Volume 1, Chapter 4: Project Description** for full details of the Project.

1.1.1.2 Baseline data has been collected from a desk-based review of existing information, in addition to habitat suitability and incidental signs of protected and priority species recorded during field surveys.

1.1.1.3 Specifically, this Appendix presents the methods and results of the protected and priority species surveys in relation to the Onshore Red Line Boundary, plus a 250 metres (m) survey buffer. The combined areas assessed are hereafter referred to as the 'Ecological Survey Area' (ESA).

1.1.2 Supporting documents

1.1.2.1 This Appendix supports the Ecological Impact Assessment (EcIA) (**Volume 1, Chapter 23: Terrestrial Ecology and Ornithology**) in addition to the following Appendices:

- **Appendix 23.1: Ecological Desk Study;** and
- **Appendix 23.2: Habitats and Vegetation Survey Report**.

1.1.2.2 This Appendix is supported by the following figures:

- **Figure 1: Ecological survey area**;
- **Figure 2: Protected species results**; and
- **Figure 3: Protected species results (confidential)**.

1.2 Scope

1.2.1.1 In January 2023 a Scoping Report (MarramWind, 2023) was submitted on behalf of MarramWind Offshore Wind Farm ('the Applicant') as a means of agreeing the full scope of surveys with relevant consultees to inform the EcIA. Surveys for the following species were undertaken within the ESA: Otter *Lutra lutra,* Water vole *Arvicola amphibius,* Pine marten *Martes martes,* Red squirrel *Sciurus vulgaris,* Badger *Meles meles and* Bats *Chiroptera.*

1.2.1.2 Due to the persecution of badger, and the need to restrict access to badger sett data, information is presented in **Confidential Appendix A**.

2. Methodology

2.1 Desk study

2.1.1.1 This Appendix should be read in conjunction with **Appendix 23.1**, which provides methodologies relating to the desk-based ecological study.

2.2 Field surveys

2.2.1.1 Phase 1 habitat surveys were conducted between April 2023 and August 2024 (see **Appendix 23.2**). These surveys were 'extended' to classify the suitability of terrestrial and aquatic habitats and to record any incidental signs of protected and priority species, as detailed in **Table 2.1**.

2.2.1.2 Protected and priority species surveys were undertaken within the ESA, as shown in **Figure 1**.

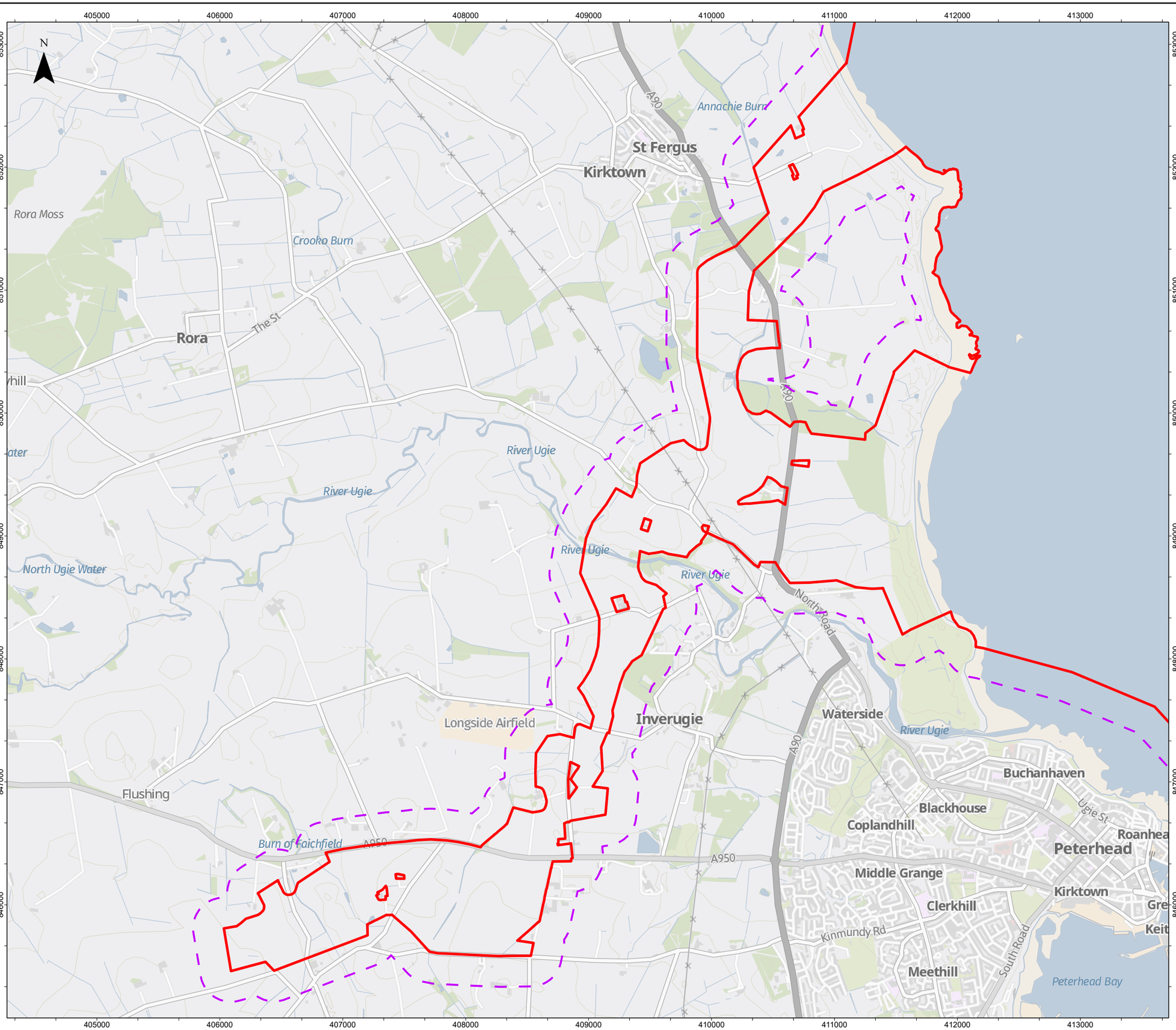
2.2.1.3 The zones for considering the baseline condition within are shown on **Volume 2, Figure 5.1: Onshore Red Line Boundary (zones)** and summary details of protected species presence provided in **Section 4.2**:

- Scotstown landfall zone and associated export cable corridor;
- Lunderton North landfall zone and associated export cable corridor;
- Lunderton South landfall zone and associated export cable corridor;
- onshore export cable corridor zone A;
- onshore substation zone; and
- onshore export cable corridor zone B.

2.2.1.4 Priority species include those on the North East Scotland Biodiversity Partnership, UK Biodiversity Action Plan and Scottish Biodiversity List.

2.2.1.5 All surveys were carried out by WSP ecologists of 'Capable' or above competency, as per the Chartered Institute of Ecology and Environmental Management (CIEEM) Competency Framework (CIEEM, 2022).

2.2.1.6 Surveys were conducted across the ESA on foot, access permitting. Observed target species, field signs or notable features, such as structures with bat roosting potential, were recorded as individual point locations using Geographical Information System (GIS) software. Once recorded, the data was later quality assured utilising desktop GIS software.



Red Line Boundary

Ecological survey area (250m buffer)

0 0.5 1 1.5 Kilometres

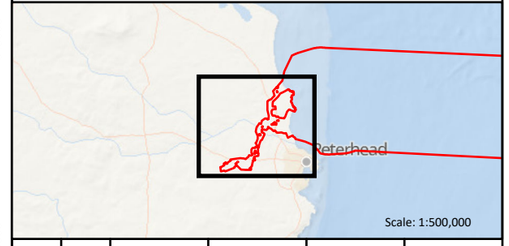


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Figure 1 Ecological survey area

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2.2.2 Survey guidance and habitat suitability criteria

2.2.2.1 The assessment of a habitat's suitability to support the targeted species and identification of field signs was based on standard sources of guidance on habitat suitability and field sign assessment. This was supplemented by professional experience and judgement. The applicable guidance included:

- bat species (Collins, 2024);
- badger *Meles meles* (Scottish Badgers, 2018 and NatureScot, 2018);
- red squirrel *Sciurus vulgaris* (Gurnell *et al*., 2009 and NatureScot, 2020a);
- pine marten *Martes martes* (Cresswell *et al*., 2012 and NatureScot, 2020b);
- reptile species (Gent *et al*., 2003 and NatureScot, 2020c);
- otter *Lutra lutra* (Chanin, 2003 and NatureScot, 2020d); and
- water vole *Arvicola amphibius* (Dean *et al*., 2016 and NatureScot, 2020e).

2.2.2.2 **Table 2.1** presents criteria considered for identification of habitat suitable to support protected and priority species.

Table 2.1 Protected and priority species assessment - criteria

Receptor	Criteria considered
Amphibians	The suitability of habitats (including ponds and waterbodies) for amphibians. The proximity, quality, and accessibility of surrounding terrestrial habitats. Incidental observations of adult or immature life stages, for instance spawn or tadpoles.
Reptiles	General suitability of terrestrial habitats to support reptiles, for instance embankments, slopes, potential natural and artificial refugia, interface or edge habitats, and shade free areas near dense vegetation. Linkages to off-site habitats. Incidental observations of reptile species.
Bats	A daytime bat walkover was undertaken to record presence of woodland, scrub, hedgerows, watercourses and ponds for commuting and foraging. Presence of suitable buildings, trees or structures for roosting. Recorded and classified as 'low', 'moderate' or 'high' suitability following best practice guidance at the time. Incidental observation of roosts via evidence of droppings, urine stains.
Otter	General suitability of watercourses and water bodies to support otter, including depths, flow, bank and substrate material, food resources. Incidental otter signs include: • holts – these are underground or enclosed features where otters live. They can be, for example, tunnels within bank sides; underneath root systems or boulder piles; and fabricated structures such as disused drains. Holts are used by otters to rest up during the day and are the usual location of natal or breeding sites. Otters may use holts permanently of temporarily; • couches – these are above-ground resting sites. They may be partially sheltered or fully exposed. Couches may be regularly used, especially in reed beds and on in-stream islands. Couches can be very difficult to identify and may consist of an area of flattened grass or earth; • spraint – otter faeces known as spraint may be used to mark territories, often observed on in-stream boulders. They can be present within or outside the entrances of holts and couches. Spraints have a characteristic smell and often

Receptor	Criteria considered
	contain fish remains. Features with two or more spraints of mixed age are considered to be spraint sites, with signs of regular use; • prints – characteristic footprints of otter are often observed in soft ground and muddy areas; • anal jelly – like spraint, anal jelly is often observed on prominent in-stream boulders; • feeding signs – remains of prey items may be found at preferred feeding stations. Remains of fish, crabs, or skinned amphibians can indicate the presence of otter; and • pathways – these are terrestrial routes that otters take when moving between resting sites and watercourses, or at high flow conditions when they will travel along bank sides in preference to swimming.
Water vole	General suitability of watercourses to support water vole, including details of burn geomorphology and riparian and emergent vegetation. Incidental water vole signs include: • droppings – water vole faeces are recognisable by their size, shape and content. If not too dried-out these are also distinguishable from rat droppings by their smell; • feeding stations – food items are often brought to feeding stations along pathways and hauled onto platforms. Recognisable as neat piles of chewed vegetation up to 10 centimetres (cm) long; • burrows – these appear as a series of holes along the water's edge, distinguishable from rat burrows by size and position; • lawns – these may appear as grazed areas around land holes; • nests – where the water table is high, above ground woven nests may be found; • prints – water vole footprints may be found at water's edge and lead into bankside vegetation. May be distinguishable from rat footprints by size; and • runways – these are low tunnels pushed through vegetation near the water's edge, less obvious than rat runs.
Badger	General suitability of terrestrial habitats to support badger, for instance woodland, grassland. Incidental badger signs: setts, badger paths, footprints, fence push-ups, foraging marks, latrines, and hair. Where sufficient field evidence and / or surround sett information has been identified, setts identified in the field are categorised based on the following criteria: • main setts – these usually have a large number of holes with large spoil heaps, and the sett generally looks well used. They usually have well used paths to and from the sett and between sett entrances. Although normally the breeding sett is in continual use, it is possible to find a main sett that has become disused because of excessive digging or for some other reason, in which case it is recorded as a disused main sett; • annex setts – these are always close to a main sett, usually less than 150m away, and are usually connected to the main sett by one or more obvious, well-worn paths. They consist of several holes, but are not necessarily in use all the time, even if the main sett is very active; • subsidiary setts – these often have only a few holes, are usually at least 50m from a main sett, and do not have an obvious path connecting them with another sett. They are not continuously active; and • outlier setts – these usually only have one or two holes, often have little spoil outside the hole, have no obvious path connecting them with another sett, and are only used sporadically. When not in use by badgers, they are often taken over by foxes or even rabbits. However, they can still be recognised as badger setts by the shape of the tunnel (not entrance hole), which is at least 250 millimetres (mm) to 300mm wide at the base with a rounded or flattened oval roof (roughly 200mm high).

Receptor	Criteria considered
	Sett status can quickly change, and it is not uncommon for badgers to change the location of their main sett to the location of a previously identified annexe or subsidiary sett. Likewise, outlier setts can quickly be developed into subsidiary setts. The current level of activity at each sett entrance hole was also classified as: • well used – a well-worn entrance, and / or with freshly excavated soil, and / or with bedding material present, a sett is considered well used if signs indicate use within the last six months; • partially used (currently inactive) – with leaves or twigs in the entrance, and / or mosses and other plants growing in or around the hole, and / or cobwebs across the hole; and • disused – where the entrance is completely blocked, and a considerable amount of excavation would be required for reoccupation.
Pine marten	General suitability of terrestrial habitats to support pine marten for example woodlands. Incidental pine marten signs include: • potential scats – pine marten faeces are known be used to mark territories. Pine martens are elusive and largely nocturnal, which makes them difficult to see, but their scats (droppings) are often quite distinctive (in structure, smell and content) and are the most encountered field sign. Often observed on prominent rock outcrops, mounds or tussocks; or at the edges of woodland blocks, rides or pathways. • footprints – pine marten tracks may be found on soft mud, sand and snow etc. Often within, or within proximity of, dense coniferous woodland areas. • potential den sites; and • sightings – direct sightings of pine marten.
Red squirrel	General suitability of terrestrial habitats to support red squirrel for example woodlands. Incidental red squirrel signs include: • dreys – distinctive bundles of twigs in trees that are usually 15 years or older and can be conifer or broadleaf species; • feeding signs – frequently comprising chewed conifer cones. Often discarded on prominent features at ‘feeding stations’; • footprints – squirrel tracks may be found on soft mud, sand and snow etc. Often within, or at the edges or, woodland areas; and • sightings – direct sightings of red squirrels.
Other species	General suitability of habitats to support any other protected or notable species.

2.3 Limitations and assumptions

2.3.1.1 Ecological surveys are limited by factors which affect the presence species, such as the time of year and behaviour. The absence of field signs or visual observations should not be taken as conclusive proof that the species is not present or that it will not be present in the future.

2.3.1.2 Due to land access restrictions small extents of the ESA could not be surveyed and therefore no ecological information is available. However, through the use of desk study data, aerial imagery and surveys from nearby land parcels, it is considered that an accurate assessment of the ESA to support protected species or those of conservation concern was possible.

2.3.1.3 Private buildings and maintained amenity gardens associated with private gardens were not accessed. However, the potential for private woodlands and housing to support protected species (such as roosting bats) was remotely considered, where possible.

2.3.1.4 At the time of surveying in April 2023, bat surveys were undertaken with reference to the Bat Conservation Trust (BCT) guidelines (Collins, 2016) relevant at the time, which have now been superseded. BCT released the 4th edition of their guidelines (Collins, 2023) in September 2023, which informed the daytime bat walkover surveys undertaken in 2024. The results and recommendations within this report are still valid due to the high level of survey detail. However, if any other bat surveys are to be undertaken, the new guidelines will be adhered to.

2.3.1.5 Where suitable features that can be used as resting sites (such as squirrel dreys; otter couches; or pine marten dens) have been identified within the ESA, but the presence or current use by a protected species has not been confirmed, they have been recorded as 'potential' rest areas (for example 'potential squirrel drey'; 'potential otter couch'; or 'potential pine marten den site'). For the purposes of this Environmental Impact Assessment (EIA Report), this allows the habitat suitability for the applicable species to be assessed, and the availability of resting sites recorded. This information can then inform the potential impact and mitigation.

3. Results

3.1 Desk study

3.1.1.1 This Appendix should be read in conjunction with **Appendix 23.1**, which provides detailed results relating to the desk-based ecological study.

3.2 Field surveys

3.2.1.1 The protected species suitability surveys undertaken across April 2023 to August 2024, recorded suitable habitat to support protected / priority species along with evidence of protected and priority species recorded within the ESA, summarised below.

3.2.1.2 Protected species survey results are presented in **Figure 2**.

3.2.2 Amphibians

3.2.2.1 No incidental sightings of amphibians were recorded; however, within the ESA, amphibian species are likely to utilise very slow flowing and standing freshwater and riparian habitat for shelter and foraging. Additionally, stone walls, rock piles, woodland edge, tussocky grassland and heath could be used for shelter, including over winter / hibernation.

3.2.2.2 Great crested newts are not known to be present within the ESA. In Scotland, two great crested newt populations are present with largest numbers in southern parts of the country and a smaller, separate population further north in the Highlands. The nearest population is found east of Inverness, approximately 100km east of the ESA.

3.2.3 Reptiles

3.2.3.1 No incidental sightings of reptiles were recorded; however, the ESA contains habitat suitable for reptiles including stone walls, rock piles, woodland edge, dense tussocky grassland, and open areas for basking, shelter and foraging.

3.2.4 Bats

Bat preliminary roost assessment - trees

3.2.4.1 Preliminary Roost Assessment (PRA) of nine trees that have Bat Roost Potential (BRP) are identified in **Table 3.1**. Most woodland within the ESA comprised conifer plantation, which often presented fewer opportunities for bat species, however smaller parcels of mature, broadleaved woodland within the ESA provided opportunities for roosting bats. In particular, the woodland along the River Ugie.

3.2.4.2 Suitable foraging and commuting habitat was found across the entire ESA, including watercourses, woodland edges and hedge lines.

Table 3.1 Trees within ESA with bat roost potential

Bat roost feature	National Grid Reference (NGR)	Bat roost potential	Description
T1	NK 10780 49185	Moderate potential	Ash tree in centre of field with hole in southern aspect and hole in limb of northern aspect.
T2	NK 10521 49047	Low potential	Mature ash tree with one knothole that does not appear to extend. Raised bark and splits in branches may provide some roost potential.
T3	NK 10174 49134	Moderate potential	Mature trees in a treeline with occasional knot holes and peeling bark.
T4	NK 09856 48878	High potential	Woodland along River Ugie.
T5	NK 09683 48826	High potential	Rotting trunk of sycamore.
T6	NK 08547 46759	Moderate potential	Multiple beech trees growing into each other and creating cavities where bark meets.
T7	NK 08514 46487	Moderate potential	Dying ash tree, with ash die back, with multiple knot holes.
T8	NK 08509 46420	Low potential	Dying sycamore / whitebeam / ash trees with lifting bark. Cavities within trunks and high foliage with cover.
T9	NK 06529 45329	Low potential	Small hole in ash tree.

Bat preliminary roost assessment - buildings

3.2.4.3 Eight buildings were identified with roosting suitability and hibernation suitability as presented in **Table 3.2.**

Table 3.2 Buildings within ESA with bat roost potential

Building number	NGR	Roost potential	Description
B1	NK 10673 51966	Moderate potential.	Old barn buildings.
B2	NK 09851 50681	Low potential.	Shed with bitumen roof, raised in some places, appears too open to provide shelter.
B3	NK 09694 50691	Moderate potential.	Stone out buildings with gaps in slates and roof and along stone walls.
B4	NK 09637 50679	Moderate potential.	Barn out buildings.
B5	NK 10379 49270	Moderate potential.	Single storey concrete flat sloping roof. Cracks at east and west face just below roof will allow access for bats.

Building number	NGR	Roost potential	Description
B6	NK 10246 49224	Moderate potential.	Old brick building with concrete flat roof. Derelict building with lots of failing brickwork creating potential cavities for bats. Also gap on side of building may provide access for bats into structure.
B7	NK 07872 46258	High potential.	Building used to store farm equipment. Cracks and crevices and open spaces inside.
B8	NK 07846 46286	High potential.	

3.2.5 Otter

3.2.5.1 Habitat suitable to support otter was identified across the ESA, which included the River Ugie, Burn of Faichfield, Cuttie Burn, Annachie Burn and numerous unnamed ditches and streams. Otters are assumed to be present within the ESA. In particular, riparian habitats throughout the ESA provide suitable habitat for commuting, foraging and resting opportunities.

3.2.5.2 Two otter spraints were recorded, one along the Annachie Burn and one on the River Ugie (see **Figure 2).**

3.2.6 Water vole

3.2.6.1 No evidence of water vole was recorded within the ESA, however standing freshwater and riparian habitat was considered suitable for water vole, in particular along the River Ugie, Burn of Faichfield and the Cuttie Burn and smaller unnamed burns and streams. Grassy banks provided suitable habitat for burrowing and slow-moderate flowing watercourses were considered suitable for foraging wate vole.

3.2.7 Badger

3.2.7.1 The ESA was predominantly comprised of cropland, grassland and woodland suitable for sett creation. The ESA was also suitable for foraging and commuting, however manmade barriers such as roads may prevent access across some areas.

3.2.7.2 Six setts were recorded within the ESA (see **Confidential Appendix A**). These varied in size from main setts of five entrances to single outliers. Location of setts are shown in **Confidential Appendix A** (and **Confidential Figure 2: S1-6**).

3.2.8 Pine marten

3.2.8.1 No evidence of pine marten was recorded within the ESA. However, conifer plantation and broadleaved woodland provided some potential habitat for pine marten for instance cavities within trees and tree roots that could be used for shelter or protection. Suitability was limited by the presence of roads and arable fields which reduced connectivity between suitable habitat parcels.

3.2.9 Red squirrel

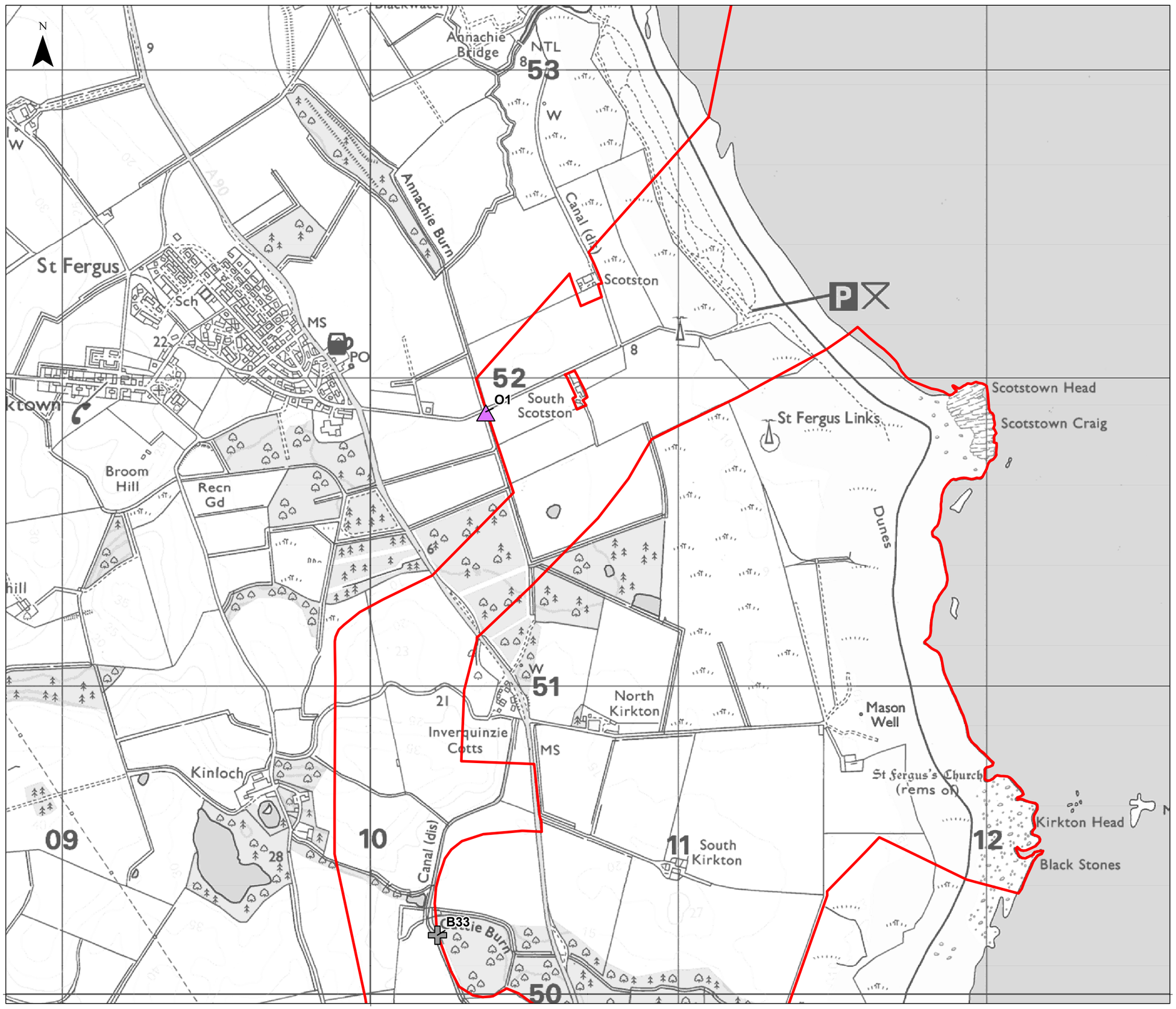
3.2.9.1 No evidence of red squirrel was recorded within the ESA. Conifer plantation and broadleaved woodland recorded across the ESA provided negligible suitable habitat for red

squirrel, due to a lack of connectivity between parcels and woodland areas within the wider landscape.

3.2.10 Other species

3.2.10.1 Woodland and grassland habitats within the ESA are also suitable for brown hare *Lepus europaeus* and European hedgehog *Erinaceus europaeus*.

3.2.10.2 Two incidental sightings of brown hare were recorded within the ESA (**Figure 2**).



Red Line Boundary

Otter Spraint

Bat PRA Trees

Roost Potential

- High
- Moderate
- Low
- Unknown

Badger Field Signs

Field Sign

- Unknown
- Footprint
- Latrine
- Path
- Push under
- Snuffle holes
- Other Protected Species

0 250 500 Metres

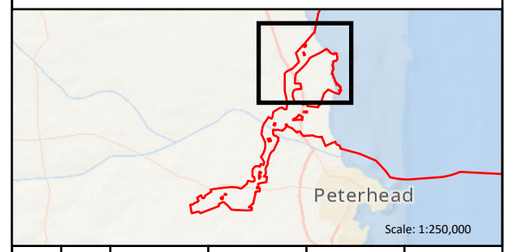


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Figure 2 Protected species results
Sheet 1
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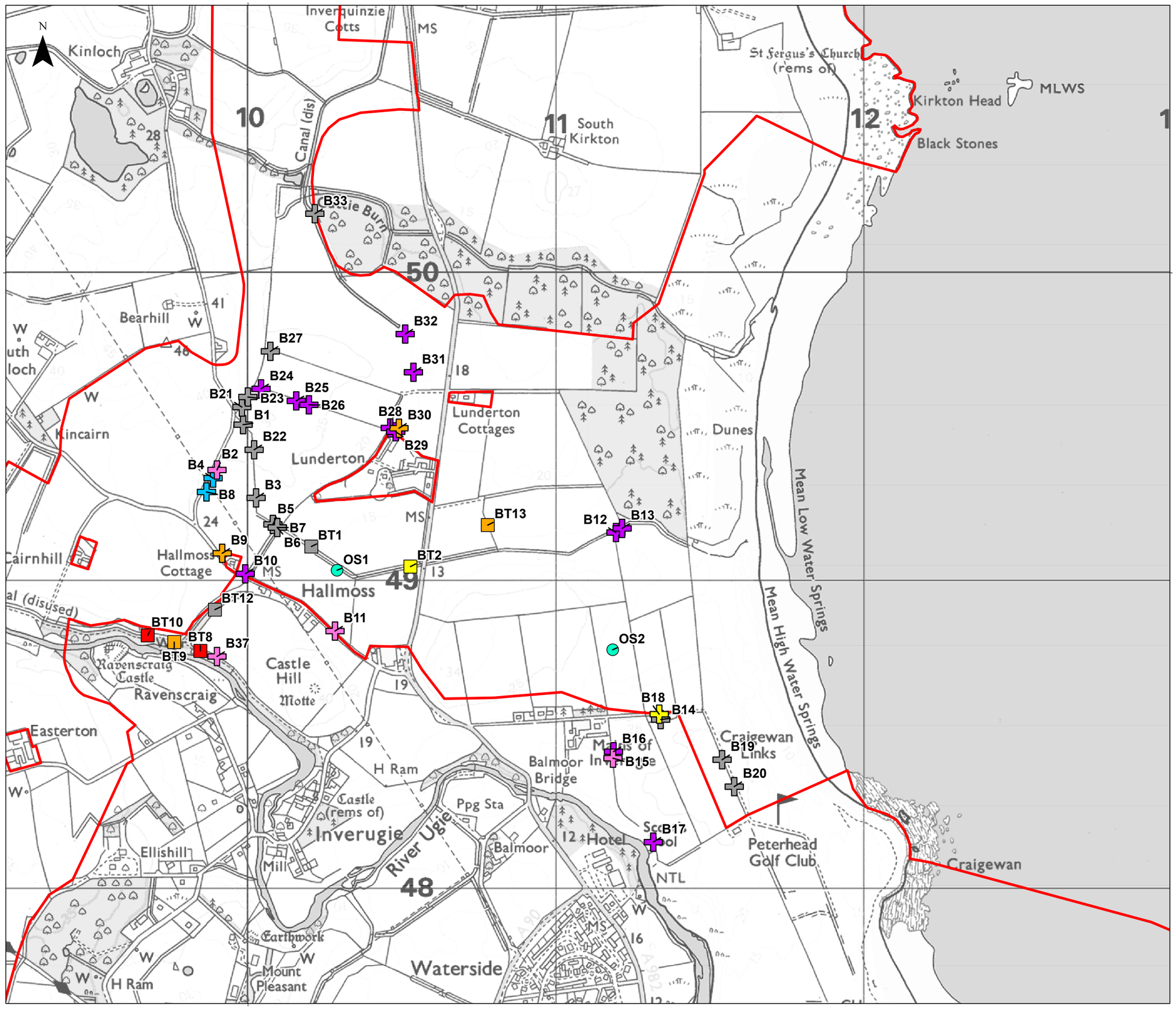

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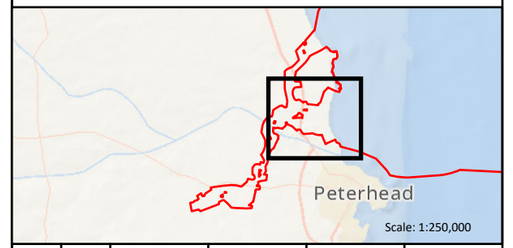

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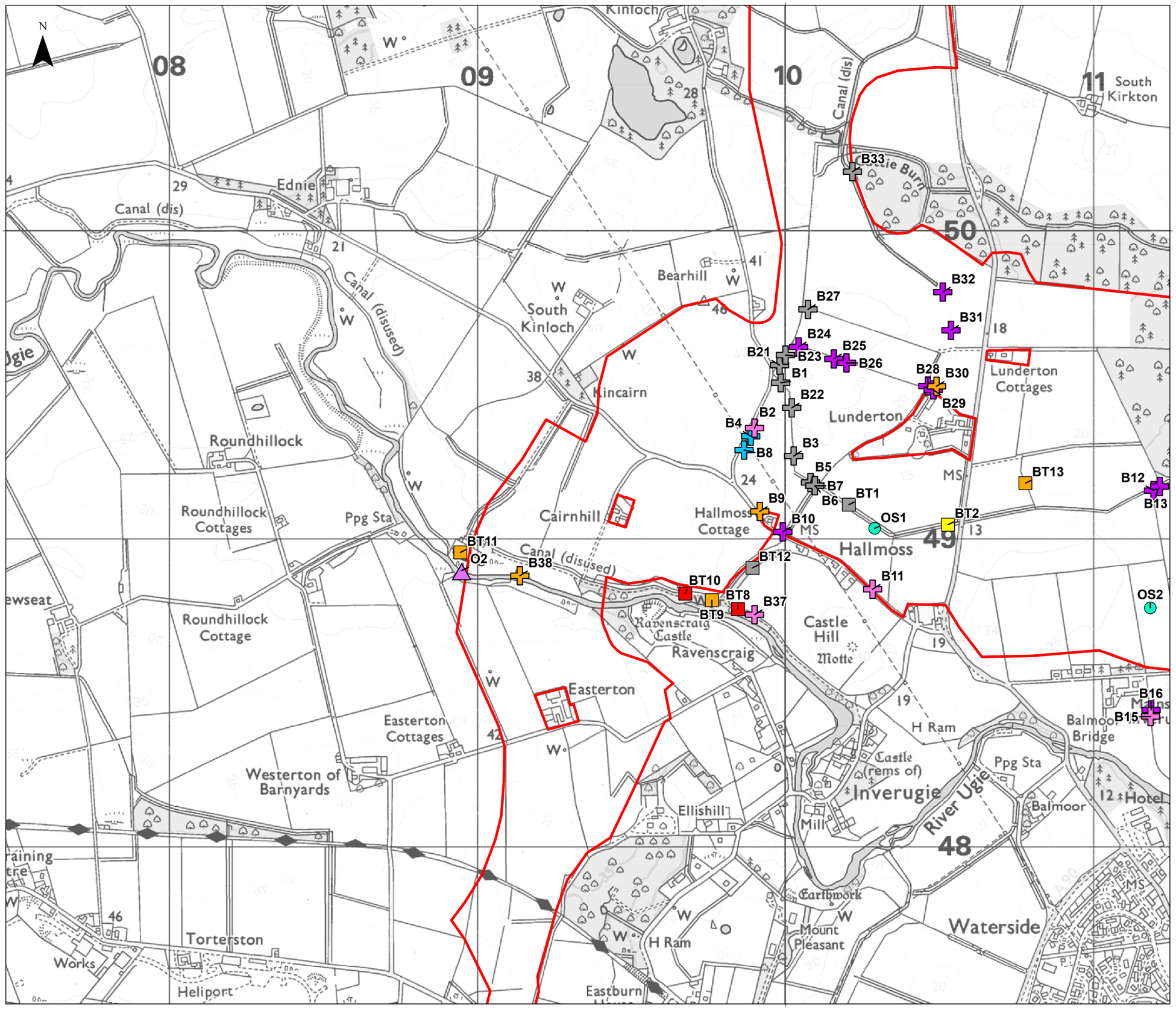

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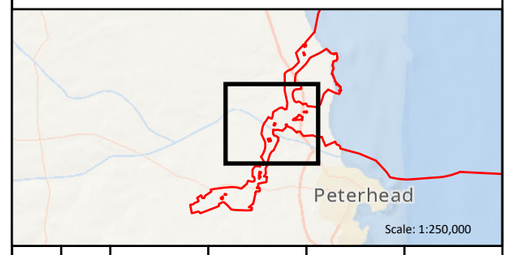

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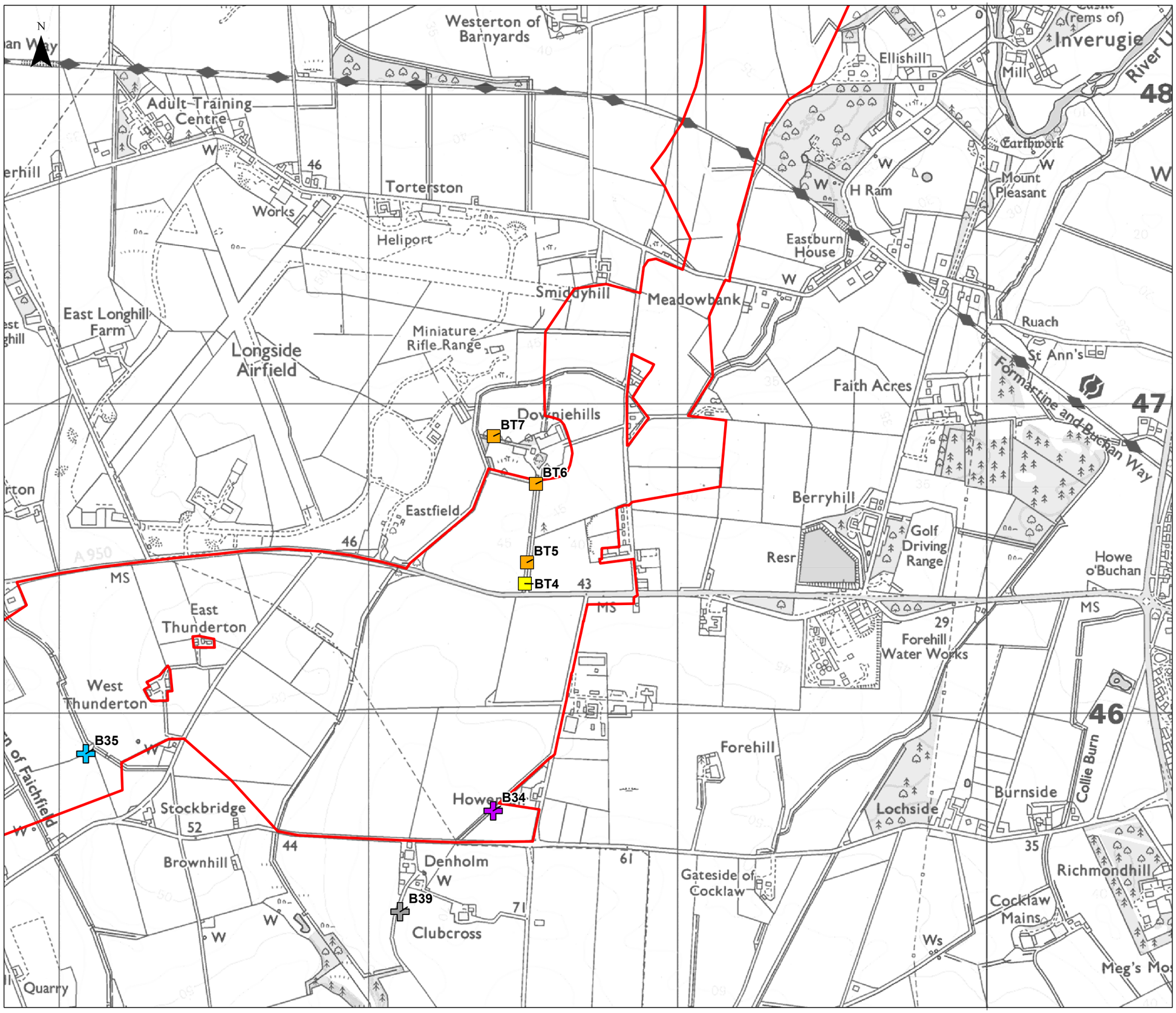

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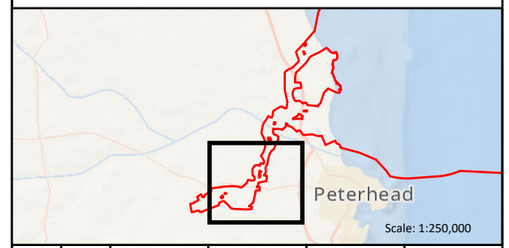

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SCALE	1:12,000	PAGE SIZE	A3

PROJECT TITLE

MarramWind Offshore Wind Farm

DRAWING TITLE

Figure 2 Protected species results
Sheet 4
Environmental Impact Assessment Report
Appendix 23.3

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MarramWind

405000

N

Torterston
Works
Heliport
Smiddyh
37
West Longhill
East Longhill Farm
Longside Airfield
Miniature Rifle Range
Monyruy
Quarry (dis)
Hillhead
Bridge of Buthlaw
27
Flushing
Dovniehill
BT7
BT6
Faichfield House
Thunderton
32
MS
Eastfield
46
Dovecote (rems of)
A950
MS
BT5
BT4
43
Longleys
East Thunderton
Bridge of Faichfield
Parkhill
B36
West Thunderton
B35
Burn of Faichfield
Stockbridge
52
38
W
Howe
B34
44
Netherton
Parkhill
Brownhill
Denholm
W
BT3
B39
Inverveddie
42
71
Clubcross
62
Toddlehill Cottage
Quarry
Toddlehills
Nether Kinmundy Farm
51
West Toddlehills
52
East Den
Gushetneuk

405000

Red Line Boundary
Otter Spraint

Bat PRA Trees

Roost Potential

High
Moderate
Low
Unknown

Badger Field Signs

Field Sign

Unknown
Footprint
Latrine
Path
Push under
Snuffle holes
Other Protected Species

0 250 500 Metres

Peterhead
Scale: 1:250,000

	dd/mm/yyyy	--	--	--	--
2	22/09/2025	EH	LT	AM	MW
1	13/06/2025	EH	LT	AM	MW
REV	REV DATE	GIS CREATOR	GIS REVIEWER	TECHNICAL CHECKER	TECHNICAL APPROVER

WSP DRAWING NUMBER	808368-WEIS-IA-E5-FG-T7-73295		
MarramWind DRAWING NUMBER	MAR-GEN-ENV-MAP-WSP-000323		
DATUM	OSGB 1936	PROJECTION	British National Grid
SCALE	1:12,000	PAGE SIZE	A3

PROJECT TITLE
MarramWind Offshore Wind Farm

DRAWING TITLE

Figure 2 Protected species results
Sheet 5
Environmental Impact Assessment Report
Appendix 23.3

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4. Conclusion

4.1 High level summary

4.1.1.1 Ecological surveys have confirmed the presence of badger, bats, otter and brown hare within the ESA.

4.1.1.2 No signs were recorded of the following protected or conservation priority species. Based on habitat suitability, it is unlikely that there will be regularly occurring populations, but their occasional presence cannot be ruled out:

- amphibians;
- reptiles;
- red squirrel;
- water vole;
- pine marten; and
- other priority species, for instance hedgehog.

4.1.1.3 All assessments should be made with reference to the nature conservation legislation and policy that protects them, as outlined in **Volume 1, Chapter 2: Legislative and Policy Context**.

4.2 Summary of protected species within Project zones

4.2.1.1 The ESA is predominantly comprised of agricultural land, consisting of a mix of improved grassland pasture and commercial crop, neutral grassland, and isolated stands of woodland. These habitats are largely unsuitable for protected species (with the exception of badger), due to high volumes of disturbance and intensive land management.

4.2.1.2 The stands of woodland present within the ESA generally lack the structural complexity favoured by protected species. In addition to this, the woodland stands are isolated and surrounded by agricultural habitats, which significantly reduces the suitability for a range of protected species, such as bats, pine marten and red squirrel. However, despite the above, some habitats within the ESA were noted as suitable for otter and bat species.

4.2.1.3 The following Sections provide a summary of the protected species presence / activity within the zones of the Project:

4.2.2 Scotstown landfall zone and associated export cable corridor infrastructure

4.2.2.1 As noted above, the Scotstown landfall zone is mainly comprised of open dune systems, improved / semi-improved grassland and arable pasture and dense commercial conifer plantation. Whilst habitat offers potential for water vole, otter and foraging badger, no records were found. A single building with BRP was recorded within the zone. Additionally, whilst coniferous woodland does have the potential to support bat species, bat roosting potential in this habitat is considered to be **negligible**.

4.2.3 Lunderton North landfall zone and associated export cable corridor infrastructure

4.2.3.1 As noted above, the Lunderton North landfall zone is mainly comprised of open dune systems, improved / semi-improved grassland and arable pasture and dense commercial conifer plantation. Whilst habitat offers potential for water vole, otter and foraging badger, no records were found. While coniferous woodland does have the potential to support bat species, no potential roosting features were recorded, and bat roosting potential was determined to be **negligible**.

4.2.4 Lunderton South landfall zone and associated export cable corridor infrastructure

4.2.4.1 As noted above, the Lunderton South landfall zone is mainly comprised of open dune systems, improved / semi-improved grassland and arable pasture. Whilst habitat to the east of the A90 offers potential for water vole and otter, no field signs were recorded. Direct evidence of badger was recorded within the zone.

4.2.4.2 The River Ugie, which flows between the landfall zone and onshore export cable corridor zone A, provides optimal habitat for otter. The river is approximately 15-20m in width, with moderate to fast flowing water. The river contains flow at all times of year, which provides optimal commuting and foraging opportunities for the species. Recent spraints were recorded along the embankment of the watercourse, confirming that otter utilise the river for commuting and foraging purposes. It is likely that otter use the watercourse sporadically, as part of larger commuting and foraging routes, as the River Ugie flows through the wider landscape eventually discharging into the North Sea, north of Peterhead. While suitable resting and breeding habitat, in the form of broadleaved woodland, was present along the length of the river, no breeding or resting evidence was discovered during the surveys.

4.2.4.3 Suitable bat roosting habitat was recorded with five features with BRP recorded; and additionally high value bat habitat was recorded along the embankments of the River Ugie. The woodland within this area was mature and offered many potential roosting features which can be utilised by bat species, such as crevices, limb wounds, knot holes and lifted bark. Foraging opportunities were plentiful, with bat species being able to utilise the river to feed on local invertebrate populations.

4.2.4.4 Direct evidence of badger was recorded within the zone.

4.2.5 Onshore export cable corridor zone A

4.2.5.1 The onshore export cable corridor zone A is largely comprised of improved grassland pasture or occasional arable fields. Suitable habitat for all protected species was limited, as the habitats within this area were intensively managed. The majority of the improved grassland pasture contained grazing livestock.

4.2.5.2 Suitable bat roosting habitat was recorded with four features with BRP recorded.

4.2.5.3 No badger activity was recorded within the zone.

4.2.6 Onshore substation zone

4.2.6.1 The onshore substation zone is largely comprised of improved grassland pasture or occasional arable fields. Suitable habitat for all target protected species was limited, as the habitats within this area were intensively managed. The majority of the improved grassland pasture contained grazing livestock.

4.2.6.2 Direct evidence of badger was recorded within the zone.

4.2.7 Onshore export cable corridor zone B

4.2.7.1 The onshore export cable corridor zone B contained a small number of habitats which were suitable for target protected species.

4.2.7.2 The Burn of Faichfield provides suitable commuting habitat for otter. The watercourse is a tributary of the River Ugie and flows through a portion of the zone. The watercourse was approximately 2m to 4m wide, with slow to moderate flowing water. The embankments were predominately grassland, with some scattered broadleaved trees. While no otter evidence was recorded within the zone, fresh spraint was recorded along this watercourse approximately 800m downstream, confirming that otter are using this watercourse, albeit sporadically.

4.2.7.3 A number of woodland stands and treelines within the Zone provide potential roosting features for bats, particularly along the embankments of the Burn of Faichfield. Suitable bat roosting habitat was recorded with four features with BRP recorded. Potential roosting features, such as crevices, limb wounds, knot holes and lifted bark, can be utilised by bat species.

4.2.7.4 Badger activity was recorded within the zone.

5. Glossary of Terms and Abbreviations

5.1 Abbreviations

Acronym	Definition
BCT	Bat Conservation Trust
BRP	Bat Roost Potential
CIEEM	Chartered Institute of Ecology and Environmental Management
EcIA	Ecological Impact Assessment
EIA Report	Environmental Impact Assessment Report
ESA	Ecological Survey Area
GIS	Geographical Information System
NGR	National Grid Reference
PRA	Preliminary Roost Assessments

5.2 Glossary of terms

Term	Definition
Environmental Impact Assessment Report	The outcome of the Environmental Impact Assessment (EIA) process is reported within a document called an EIA Report.
Ecological Impact Assessment	The process through which the potential impacts resulting from a project are identified, quantified and assessed through appropriate ecology surveys.
United Kingdom	The United Kingdom of Great Britain and Northern Ireland, comprising England, Scotland, Wales and Northern Ireland.

6. References

Chanin P., (2003). *Monitoring the Otter Lutra lutra. Conserving Natura 2000 Rivers Monitoring Series No. 10.* English Nature, Peterborough.

Chartered Institute of Ecology and Environmental Management (CIEEM), (2022). *Competency Framework.* [online] Available at: https://cieem.net/resource/competency-framework/ [Accessed: 9 June 2025].

Collins J., (ed.), (2016). *Bat Surveys for Professional Ecologists, Good Practice Guidelines (3rd Edition). The Bat Conservation Trust, London*.

Collins J., (ed.), (2023). *Bat Surveys for Professional Ecologists, Good Practice Guidelines (4th Edition). The Bat Conservation Trust, London*.

Cresswell W.J, Birks J., Dean M., Pacheco M., Trewhella W.J., Wells D. and Wray S., (2012). *UK BAP Mammals: Interim Guidelines for Survey Methodologies, Impact Assessment and Mitigation. The Mammal Society, Southampton.*

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

Gent, A. and Gibson, S., (2003). *Herpetofauna Workers' Manual. Joint Nature Conservation Committee (JNCC), Peterborough.*

Gurnell, J., Lurz, P., McDonald, R. and Pepper, H., (2009). *Practical Techniques for Surveying and Monitoring Squirrels. Practice Note. Forestry Commission, Edinburgh*.

MarramWind Limited, (2023). *MarramWind Offshore Wind Farm EIA Scoping Report.* [online] Available at: https://www.marramwind.co.uk/userfiles/file/MarramWind_Scoping_Report.pdf [Accessed: 4 July 2025].

NatureScot, (2018). *Licensing Guidance. What is a badger sett*. [online] Available at: https://www.nature.scot/sites/default/files/2018-04/Guidance-Licensing-Badgers-Current-use.pdf [Accessed: 9 June 2025].

NatureScot, (2020a). *Standing Advice for Planning Consultations, Protected Species: Red Squirrel*. [online] Available at: https://www.nature.scot/doc/standing-advice-planning-consultations-red-squirrels [Accessed: 9 June 2025].

NatureScot, (2020b). *Standing Advice for Planning Consultations, Protected Species: Pine Marten*. [online] Available at: https://www.nature.scot/doc/standing-advice-planning-consultations-pine-martens [Accessed: 9 June 2025].

NatureScot, (2020c). *Standing Advice for Planning Consultations, Protected Species: Reptiles (Adder, Slow Worm & Common lizard).* [online] Available at: https://www.nature.scot/doc/standing-advice-planning-consultations-reptiles-adder-slow-worm-common-lizard [Accessed: 9 June 2025].

NatureScot, (2020d). *Standing Advice for Planning Consultations, Protected Species: Otter*. [online] Available at: https://www.nature.scot/doc/standing-advice-planning-consultations-otters [Accessed: 9 June 2025].

NatureScot, (2020e). *Standing Advice for Planning Consultations, Protected Species: Water Vole*. [online] Available at: https://www.nature.scot/doc/standing-advice-planning-consultations-water-voles [Accessed: 9 June 2025].

Scottish Badgers, (2018). *Surveying for Badgers: Good Practice Guidelines, Version 1. Scottish Badgers, Forfar, Angus.*

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