Torvean Quarry
Preliminary Ecological Appraisal (PEA) Report



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Torvean Quarry – PEA Report

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Executive Summary

Contents	Summary
Site Location:	Torvean Quarry, Inverness, is approximately 0.9 Ha. The site is defined by the red line boundary at Ordnance Survey Grid Reference (OSGR) points NH 64690 43240.
Scope of Works	The proposed developments are comprised of a battery storage unit, including an underground cable connecting the unit to the electrical pylons to the west of the site. The construction of an underground Scottish Water pipeline (linear boundary) leading to the site to facilitate a welfare unit is also proposed.
Purpose of the Report	This PEA aims to establish an ecological baseline for the site, in terms of habitat present, and evidence of rare habitats and species, invasive non-native species, protected species and species of conservation concern and to assess potential impacts from the development and outline further assessment and/or mitigation required where appropriate.
Results	**Statutory Designated Sites** Nature Scot's SiteLink (2025) identified five statutory designated areas within 2 km of the site boundary. Of the five sites, the following site is deemed connected to the site boundary and survey areas: Torvean Landforms, SSSI **Habitats** A total of eight habitats were identified within the site. A summary of the habitats is presented in Table 9. **Bats** A total of six trees were deemed **PRF-I** within the survey areas. **Badgers** Field signs identified within the site were eight badger paths, 11 snuffle holes and feeding signs, and badger guard hairs. Suitable foraging and commuting habitat were located throughout the site and survey area. **Red squirrels** Suitable foraging and drey habitat were identified within the site and survey area; mature Scots pine, mature beech, and connecting habitat to the external survey area. The desk study returned 342 counts of red squirrel within 100m of the site. **Birds** A total of 17 species sightings were recorded within the site and survey area (Table 10). One old, medium-sized nest was identified within the eastern survey area. Suitable nesting habitat was located throughout the site and within the survey area, in the form of young and mature woodland and mixed scrub. **Freshwater Pearl Mussel** Suitable habitat in the form of the River Ness was identified within the 250m survey buffer. The riverbed substrate comprised of coarse sand and gravel, with no algal cover identified. Salmon and trout are present within the River Ness.
Conclusions & Further Survey	**Statutory Designated Sites** As the SSSI falls within the site and survey, there is potential for the proposed works to impact the geomorphology of the designated site. Therefore, it is required that a

Contents	Summary
	suitably qualified and experienced geologist assesses the site for such potential impacts and to instruct mitigation if required. **Biodiversity Enhancements in Scotland** As the site is over 0.5 Ha, a Biodiversity Enhancement report is required through the National Planning Framework 4 (NPF 4) Policy 3 (see Appendix B). Biodiversity Enhancement is a specific, measurable outcome of project activities that deliver demonstrable and quantifiable benefits to biodiversity compared to the baseline situation. The report will calculate potential biodiversity loss within the site and facilitate a 10% net gain where necessary. A Habitat Management Plan (HMP) is required to inform monitoring and maintenance measures of biodiversity for a minimum of 30 years. **INNS** It is strongly recommended that all invasive species are removed from the site and survey area that fall within Highland Council land in order to support native flora that protected fauna utilise for foraging and breeding habitat. A biosecurity plan must be in place to determine suitable removal methods for snowberry and lesser periwinkle. **Habitats** All areas of woodland (but specifically semi-natural woodland) found on site are of value for a range of wildlife including nesting birds, bats, mammals and invertebrates. It is strongly recommended that semi-natural woodland is retained, and that an arboriculture impact assessment is completed to establish and outline RPZ. It is also recommended that the remaining areas of woodland habitat (plantation) identified are retained and enhanced where possible. **Bats** It is recommended that appropriate compensation is provided if the six PRF-I trees identified are required to be felled for the proposed works. A Precautionary Method of Working (PMoW) may also be provided for staff on site alongside the toolbox talk. **Red squirrels** Pre-construction checks are to be completed no more than 2 weeks prior to works commencing to identify new dreys within 50 m of the site. If dreys are identified, further monitoring to deem active use/breeding is required. A licence to disturb active dreys within 50m may be required. **Badger** Though no setts were identified, it is recommended that pre-construction checks are completed no later than two weeks prior to the works commencing. It is strongly recommended that suitable primary foraging habitat for badger is retained and enhanced where possible. **Reptiles** Suitable hibernacula and refugia habitat were identified within the site in the form of stone piles, rubble, and fly tipping/spoil. It is recommended that pre-construction checks within these areas of spoil are completed before works commence, especially if such materials are to be removed. **Birds** It is recommended that works are completed outwith the bird breeding/nesting season (March-August, inclusive) to avoid constraints.

Contents	Summary
	If works are undertaken within the breeding bird season, the site and any concentrated areas of vegetation (woodland, scrub) to be cleared must be checked for breeding bird activity no more than 24 hours prior to works taking place, by a suitably qualified ecologist / ECoW. A weekly ECoW visit is recommended to monitor nesting potential within the site. It is also recommended that all staff receive a toolbox talk in relation to nesting birds. **Freshwater Pearl Mussel** If proposed works change and encompass River Ness, further FWPM surveys and a Species Protection Plan (SPP) is required. Good Practice Mitigation can be found in Section 4.7

Section 1.0: Introduction

1.1 Introduction

Amy MacCulloch requested the Highland Council Ecology team to undertake a Preliminary Ecological Appraisal (PEA) of Torvean Quarry, Inverness, hereafter referred to as "the site". The site is approximately 0.9 Ha.

The 'site' is defined by the red line boundary at Ordnance Survey Grid Reference (OSGR) points NH 64690 43240 with a Site Location Plan presented in Appendix A. The 'survey area' constitutes the area of the 'site' plus appropriate buffers as detailed in Section 2.

The proposed developments are comprised of a battery storage unit, including an underground cable connecting the unit to the electrical pylons to the west of the site. The construction of an underground Scottish Water pipeline (linear boundary) leading to the site to facilitate a welfare unit is also proposed.

1.2 Purpose of the Report

This PEA aims to establish an ecological baseline for the site, in terms of habitat present, and evidence of rare habitats and species, invasive non-native species, protected species and species of conservation concern and to assess potential impacts from the development and outline further assessment and/or mitigation required where appropriate.

1.3 Legislation, Policy, and Guidance

European and national legislation, planning policies, conservation initiatives and general guidance relevant to this study include:

- The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended);
- The Water Framework Directive (2000/60/EC);
- The Wildlife and Countryside Act 1981 (as amended) (WCA);
- The Nature Conservation (Scotland) Act 2004;
- The Wildlife and Natural Environment (Scotland) Act 2011 (WANE);
- The Protection of Badgers Act 1992;
- The British Standard for Biodiversity;
- The UK Biodiversity Action Plan (UK BAP);
- The Scottish Biodiversity Strategy;
- Scottish Planning Policy (2014);
- Highland-wide Local Development Plan (HwLDP);
- National Planning Framework 4 (2024); and
- Biodiversity Enhancement Planning Guidance (2024)

The legal protection legislation afforded to species which are likely to be present on the site are outlined in Appendix B.

Section 2.0: Methodology

2.1 Desk Study

A desk study was undertaken for the PEA on 6th February 2025. This data is considered to be valid for five years. Online resources, available for statutory purposes were used to identify ecological constraints which may be present within the Site. The following sources were used.

2.1.1 Online Resources

The following web-based databases were also accessed:

- NatureScot's SiteLink (Nature Scot, 2024) for information on statutory and non-statutory designated sites.
- National Biodiversity Network (NBN) Atlas (2024) for information on protected species.

2.2 Field Survey

The field survey was undertaken on 17th January 2025, by The Highland Council Ecology Officer Katy Martin, and Assistant Ecology Officers Jodie Ross and Nicola Tallach.

Katy Martin has over thirty years of experience working in the environmental sector, including over seven years of experience working as an ecological consultant for The Highland Council. Katy holds a NS bat licence (no. 221344) and is experienced in a range of surveys including bats, protected species and Phase 1 Habitat Survey.

Jodie Ross has over five years working in the environmental sector, including four years working as a consultant ecologist and ECoW. Jodie is an active BTO Ringer, committee member of the Highland Ringing Group, and is experienced in a range of surveys including MBBS, protected species, Phase 1, and UKHAB.

Nicola Tallach has over thirty years of experience working in the environmental and conservation sector, including over two years of experience working as an ecological consultant, completing Phase 1 Habitat Survey and protected species surveys.

Weather conditions for the survey were suitable: dry, 11˚C, no precipitation, Beaufort 2 winds and 4/8 Okta.

2.2.1 Habitats and Flora

The broad habitats within the site were mapped in accordance with the categories specified in the Handbook for Phase 1 Habitat Survey (Joint Nature Conservancy Committee, 2016). Dominant plant species were recorded for each habitat present.

2.2.2 Invasive Non-Native Species (INNS)

The site was searched for invasive plant species, primarily those included in the Wildlife and Countryside Act 1981 (as amended by the Wildlife and Natural Environment (Scotland) Act 2012), which includes, but is not limited to, Japanese knotweed (*Fallopia japonica)*, Himalayan balsam (*Impatiens glandulifera)*, giant hogweed (*Heracleum mantegazzianum)* and rhododendron (*Rhododendron ponticum)*.

2.2.3 Protected and Notable Species

The site was assessed for the possible presence of, and the likely importance of its habitats for, protected or notable species, especially those listed under the Schedule 2 of the Habitats Regulations 1994, Schedule 5 of the Wildlife and Countryside Act 1981 (as amended in Scotland), those given extra protection under The Nature Conservation (Scotland) Act 2004, and those listed on the Scottish Biodiversity List (SBL).

The following details of the survey areas that extend from the site for each protected and notable species are noted below:

- Bats - 30m
- Otters (*Lutra Lutra*) - 250m
- Water Voles (*Arvicola amphibius*) - 250m
- Pine Martens (*Martes martes*) - 250m
- Badgers (*Meles meles*) - 200m
- Reptiles - 30m
- Birds - 30m
- Freshwater Pearl Mussel (*Margaritifera margaritifera*) – 250m

From the desktop study, specific protected species that had no suitable habitat within the site were scoped out (e.g. absence of watercourses, standing water). Protected species scoped out of the site and survey area were great crested newt and Scottish wildcat. However, field evidence and/or sightings of these protected species were still recorded as incidental target notes within the survey.

2.2.3.1 Bats

The site was assessed for its potential to support bat roosts in the form of structures and trees, in accordance with the criteria set out by the Bat Conservation Trust (BCT) (Collins, 2023) as outlined in Table 1 - Table 3 below. Evidence of bat activity can be detected by searching for the following signs:

- Bat droppings (faeces) running down the trunk of structures/trees;
- Polishing, scratching or staining resulting from bats entering or exiting structures/trees;
- Live or dead bats; and,
- Any insect remains which may indicate feeding.

Though the suitability of trees to support bat roosts can be carried out at any time of year, external evidence of use can be washed away by prolonged rainfall.

Table 1 - Guidelines for assessing the suitability of trees for bats (Collins, 2023)

Suitability	Description
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present

Table 2 - Guidelines for categorising the potential suitability of PRFs in trees for bats (Collins, 2023)

Suitability	Description
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

Table 3 - Guidelines for assessing the potential suitability of sites for bats, to be applied using professional judgement (Collins, 2023)

Potential Suitability	Description	
	Roosting habitats in structures	**Potential flight paths and foraging habitats**
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels.	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines. Or generate/shelter insect populations available to foraging bats)
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion	No obvious habitat features on site likely to be used by any commuting or foraging bats at any time of the year; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.

Potential Suitability	Description Roosting habitats in structures	Potential flight paths and foraging habitats
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site but could be used by individual hibernating bats).	Habitat that could be used by small numbers of commuting bats as flight paths such as gappy hedgerow or unvegetated stream but isolated i.e. not very well connected to the surrounding landscape by other habitat. Suitable but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity or hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after (presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. These structures have the potential to support high conservation status roosts e.g. maternity or classic cool/stable hibernation sites.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree lined watercourses and grazed parkland. Site is close to and connected to known roosts.

2.2.3.2 Otter

An otter survey was undertaken, which included identified waterbodies, where accessible. The survey followed best practice guidelines, and aimed to identify suitable otter habitat and field signs, including:

- Spraints (otter faeces/droppings used as territorial signposts).
- Footprints;
- Feeding remains (can often be a useful indication of otter presence);
- Paths/slides (otter can often leave a distinctive path from and into the watercourse);
- Holts (underground shelter) are generally found:
  - Within trees roots at the edge of the bank of a river;
  - Within hollowed out trees;
  - In naturally formed holes in the river banks that can be easily extended;
  - Or preferably in ready-made holes created by other large mammals such as badger setts, rabbit burrows or outlet pipes; and

- Couches/lay-ups (couches or lay-ups are places for lying up above ground are usually located near a watercourse, between rocks or boulders, under dense vegetation).

In order to assess their importance, the status of otter resting sites was assigned from Low to High according to Table 4 below.

Table 4 - Status of otter resting sites

Resting Site Status	Definition
Low	Feature with limited evidence of otter activity - low number of spraints, not all age classes present. Insufficient seclusion to be a breeding site or key resting site, unlikely to have links to the key otter requirements. Most likely to provide a temporary 'stop off' for otters when moving through their territory. Loss/disturbance of such a feature is unlikely to be significant in terms of the individual or population.
Moderate	Feature containing sprainting with a range of age classes, but not in significant quantities. Availability may be limited by season, tides or flow. Unlikely to be suitable as a breeding/natal site but will be a key resting site and may be linked to other important features within the territory. The impact arising from a loss or disturbance of such a feature will be determined by the availability of more suitable or well used sites within the otter's territory.
High	Feature has a high level of otter activity, including an abundance of sprainting of all age classes, large spraint mounds, well used grooming hollows, paths and slides. Affords a high degree of cover and is linked to key features such as fresh water and abundance of prey. May be suitable as a breeding area (spraints may be absent from natal holts). The site is usually available at all times of year and at high and low tide/flow. The loss/ disturbance of such as feature will often be considered significant in terms of the individual or population.

2.2.3.3 Water Vole

The site was appraised for its suitability for water vole, including around identified waterbodies, where accessible. The survey followed standard survey guidelines, in addition to an assessment of the habitat suitability of the site.

Field signs include:

- Droppings: 8-12 mm long, 4-5 mm wide.
- Latrine sites: piles of droppings of mixed aged categories, often stamped into the ground;
- Feeding stations: located along water's edge; usually a pile of cut/chewed vegetation in sections approximately 10cm long; vegetation ends show marks of two large incisors. Piles of chopped grass, sedge or rush stems, rush pith and leaves;
- Burrows: 4-8 cm diameter, wider than high; can be up to 3m from the waters edge;
- Nests: size and shape of a rugby ball, often in base of rushes, sedges or reeds;
- Lawns: short, grazed vegetation around land entrances of burrows;
- Footprints; and
- Runways: often 5-9 cm broad and multi-branched; usually within 2m of water's edge and often forming tunnels through vegetation; leading to water's edge or burrows.

2.2.3.4 Pine Marten

The site was appraised for its suitability for pine marten, identifying terrestrial habitat and field signs within such habitat. This included a search for:

- Suitable pine marten dens or shelters;
- Pine marten scats;
- Feeding remains; and
- Prints and scratches.

2.2.3.5 Red Squirrel

The site was appraised for its suitability to support red squirrel, including a search of suitable habitat (primarily coniferous woodland) for evidence of squirrel activity:

- Squirrel dreys within trees;
- Feeding remains (e.g. chewed cones, split nuts); and,
- Sightings of red squirrels.

It should be noted that dreys and feeding remains cannot be accurately distinguishes between red or grey squirrels.

2.2.3.6 Badger

A badger survey was undertaken in suitable and accessible habitat, with reference to the methodology described by Scottish Badgers, which aimed to identify the following field evidence:

- Presence of holes with evidence of badgers such as footprints, discarded hairs; etc.;
- Presence of dung pits or latrines;
- Presence of well-used runs with subsidiary evidence of badger activity; and
- Presence of other indications of badger activity such as signs of foraging, snuffle marks and footprints.

In addition, any mammal holes which were either dug by badger or could be used by badger (known as setts) were also noted. Setts were categorised as per Scottish Badgers guidance. Sett type and sett activity status is defined in Table 5. Day nests comprised of collections of bedding above ground were also noted if present.

Table 5: Categories for assessing badger sett type, and sett activity status

Sett type	**Description**
Main	Usually have a large number of holes with conspicuous spoil heaps. Well used and worn paths. Normally a breeding sett and in continuous use.
Annexe	Within 150 m of a main sett, connected by well-worn path(s). Several holes but may not be in use all the time.
Subsidiary	Often only have a few holes (3 – 5 average), at least 50 m from a main sett. Not always connected to another sett with an obvious path and nor continuously active.
Outlier	Usually only one or two holes. Little spoil outside hole(s). Sporadically used. When not in use by badgers may be taken over by fox or rabbit.
Sett activity status	
Active	Smooth side to the tunnels (i.e. no cobwebs), clearly used paths to the sett entrances (i.e. lack of vegetation), footprints, snuffle holes, latrines and tree scratching in the area surrounding the sett.
Inactive	Tunnels that look disused e.g. cobwebs and vegetation/leaves in the entrance and no other evidence of badger.
Disused	Setts have lost the structural integrity of the tunnel entrance and/or roots growing through obstructing the tunnel and no other field signs of badger.

The habitats on site were assessed for their ability to provide suitable foraging habitat on a primary and secondary basis as per best practice guidance. An assessment of the distribution of primary and secondary habitat (defined below) within the survey area was undertaken:

- Primary foraging habitat: short grazed or mown grassland, improved or unimproved, golf course habitat and broadleaved woodland (> 80% broadleaves); and
- Secondary foraging habitat: arable, rough grassland (not grazed by domestic stock or mown), scrub and mixed woodland.

2.2.3.7 Reptiles

The site was appraised for its suitability to support reptiles. This considers habitat type, basking and foraging opportunities, and linkages to other areas of suitable habitat. Habitat quality was assessed using the following criteria:

- High - Suitable vegetation cover offering foraging opportunities, basking sites and a variety of refugia. Good linkages with other areas of reptile habitat. For example semi-improved grassland with areas of dense continuous scrub.
- Moderate - Some suitable vegetation cover offering foraging opportunities, basking sites and refugia. Limited linkages to other areas of suitable reptile habitat. For example dense continuous scrub surrounded by short improved grassland.
- Low - Unsuitable vegetation cover with no linkages to other areas of suitable reptile habitat. For example dense mature conifer plantation, closely mown amenity grassland.

In addition, direct sightings of reptiles, and features that offer suitable hibernation refugia (e.g., dry stone walls, vegetated stone piles containing cavities etc.) were recorded.

2.2.3.8 Birds

Habitats within the site and survey area were appraised for their suitability to support breeding and over wintering birds. Observations of birds were noted during the survey.

2.2.3.9 Freshwater Pearl Mussels

Habitats within the site and survey area were appraised for their suitability to support freshwater pearl mussels (FWPM). A general survey was completed of the river and its substrate types by walking along the riverbank. Habitat quality was assessed using the following criteria:

- Coarse sand and gravel beds
- Fast-flowing water
- Non-calcareous streams and rivers
- Presence of salmon (*Salmo salar*) and trout (*Salmo trutta*) to complete their life cycle
- Absence of/limited algal growth

2.2.3.10 Other Species

The site was also assessed for its suitability to support other protected or notable fauna including mammals, amphibians, and invertebrates. Evidence of any current or historical presence of such species was recorded.

2.2.4 Survey Limitations

The main limitations to this PEA are recognised to apply to most ecological surveys. The desk study is constrained by the quality of the data collected being only as good as the data supplied to the recording scheme. No attempt has been made to verify records. The absence of a species in the records does not imply absence from site. The survey results give an indication of the presence, numbers, distribution and activities of species at the particular time that survey was carried out. Species occurrence changes over time, so the results presented in this report are snapshots in time.

Absence of a species during a survey does not always indicate that the species in not present on site, only that there was no evidence of activity at the time of survey. Professional judgement based upon the desk and field surveys are used to determine the likelihood of a species being absent from the site.

Section 3.0: Results

Desk Study results are shown in Appendix C. Phase 1 habitat and field survey results are shown in Appendix D. Photographs of species field signs and habitat suitability are shown in Appendix E. Target notes are shown in appendix F.

3.1 Desk Study

All relevant ecological data provided by the consultees was reviewed and the results from these investigations are summarised below. The original desk study data is available upon request.

3.1.1 Statutory Designated Sites

Nature Scot's SiteLink 2024 identified five statutory designated sites within 5 km of the site boundary. Details of these sites can be found in Table 6.

Table 6: Statutory designated sites within 5 km of the site boundary. Designated sites and/or features highlighted in orange are considered to be connected to the site.

Site Name and Designation	Proximity and Direction to Site	Qualifying Features
Moray Firth SAC	3.km north	• Bottlenose dolphin *(Tursiops truncatus)* • Subtidal banks
Inner Moray Firth SPA	3km north	• Common scoter *(Melanitta nigra*), non-breeding • Eider (*Somateria mollissima*), non-breeding • Goldeneye (*Bucephala clangula*), non-breeding • Great northern diver *(Gavia immer)*, non-breeding
Moray Firth SPA	3.1km north	• Bar-tailed godwit *(Limosa lapponica),* non-breeding • Common tern *(Sterna hirundo*), breeding • Cormorant (*Phalacrocorax carbo*), non-breeding • Curlew (*Numenius arquata*), non-breeding
Inner Moray Firth RAMSAR	3km north	• Bar-tailed godwit, non-breeding • Greylag goose (Anser anser), non-breeding • Red-breasted merganser (*Mergus serrator),* non-breeding • Intertidal mudflats and sandflats
Beauly Firth SSSI	3km north	• Coastlands: Saltmarsh • Vascular plants: Vascular plant assemblage • Goosander (*Mergus merganser*) • Greylag goose • Red-breasted merganser
Torvean Landforms SSSI	Within site	• Geological: Quaternary of Scotland

3.1.2 Non-statutory Designated Sites

A total of one non-statutory designated sites was identified within 5 km of the site boundary - Merkinch Local Nature Reserve (LNR). Due to the location of the LNR, the site was deemed to be unconnected to the non-statutory designated site. Thus, Merkinch LNR has been scoped out of the report.

3.1.3 Ancient Woodland Inventory

Desk results identified 12 AWI sites within 2km of the site, details of each AWI site are presented in Table 7. Two of the AWI sites are deemed connected to the site (highlighted within Table 7), the remaining 10 sites have been scoped out of the report as they are not considered to be connected to the site.

Table 7: Ancient Woodland Inventory desk study results. Woodlands highlighted in orange are considered to be connected to the site.

Woodland Name	Woodland ID	Proximity and Direction to Site	Grid Reference	Designation
No name	5775	1.7km northwest	NH625447	Long-Established (of plantation origin)
No name	5799	1.4km southwest	NH630434	Long-Established (of plantation origin)
No name	5790	Within site (east)	NH630434	Long-Established (of plantation origin)
No name	5789	Within site (west)	NH630434	Long-Established (of plantation origin)
No name	5802	976m southwest	NH636420	Long-Established (of plantation origin)
No name	5798	360m southwest	NH642427	Long-Established (of plantation origin)
No name	5809	1.6km south	NH646413	Long-Established (of plantation origin)
No name	5807	1.1km south	NH647418	Long-Established (of plantation origin)
No name	5805	909m south	NH648422	Long-Established (of plantation origin)
No name	5794	1km southeast	NH654420	Long-Established (of plantation origin)
No name	5804	1.5km southeast	NH658422	Long-Established (of plantation origin)
No name	5801	1.8km southeast	NH665424	Long-Established (of plantation origin)

3.1.4 Protected Species

Desk results regarding protected and notable species within 2km of the site are presented in Table 8.

Table 8: Protected species desk results within 2km of the site. NBN Atlas occurrence download at NBN Atlas accessed on 05/02/25.

Species	No. of Records	Most Recent Record	Proximity of Nearest Record to Site	Highland Nature BAP	Legislation/Conservation Status
Mammals					
Eurasian otter *Lutra lutra*	5	2023	707m west		Conservation (Natural Habitats, & c.) Regulations 1994
Eurasian badger *Meles meles*	5	2020	700m south		Protection of Badgers Act 1992
Eurasian red squirrel *Sciurus vulgaris*	342	2023	93m west	Yes	Wildlife and Countryside Act 1981 (Schedules 5 & 6)
Soprano pipistrelle *Pipistrellus pygmaeus*	3	2021	1km south	Yes	Conservation (Natural Habitats, & c.) Regulations 1994
Brown long-eared bat *Plecotus auritus*	1	2023	1.6km southwest	Yes	Conservation (Natural Habitats, & c.) Regulations 1994
Daubenton's bat *Myotis daubentonii*	20	2022	700m south	Yes	Conservation (Natural Habitats, & c.) Regulations 1994
Bat spp.	7	2022	700m south	Yes	Conservation (Natural Habitats, & c.) Regulations 1994
European Beaver *Castor fiber*	1	2020	1.7km north	Yes	Wildlife and Countryside Act 1981 (Schedule 5)

Wildcat hybrid *Felis sylvestris*	1	2020	1.6km northwest	Yes	Conservation (Natural Habitats, & c.) Regulations 1994
European Hedgehog *Erinaceus europaeus*	34	2023	882m southeast	Yes	Wildlife and Countryside Act 1981 (Schedule 6)
Pine marten *Martes martes*	1	2015	707m west	Yes	Conservation (Natural Habitats, & c.) Regulations 1994
Amphibians					
Common toad *Bufo bufo*	28	2024	496m northeast		Wildlife and Countryside Act 1981
Common frog *Rana temporaria*	18	2023	184m north		Wildlife and Countryside Act 1981
Great crested newt *Triturus cristatus*	6	2023	735m southwest	Yes	Wildlife and Countryside Act 1981 (Schedule 5)
Palmate newt *Lissotriton helveticus*	12	2021	184m north		Wildlife and Countryside Act 1981
Reptiles					
Common lizard *Zootoca vivipara*	10	2023	184m north		Wildlife and Countryside Act 1981
Slow worm *Anguis fragilis*	3	2020	529m southwest		Wildlife and Countryside Act 1981

NBN Atlas Reference:
Information was downloaded from NBN Atlas (2024) on 5th February 2025 14:30. Information was provided by the following: dp0/Royal Society for the Protection of Birds, dp145/The Conservation Volunteers Scotland, dp2/Scottish Wildlife Trust, dp205/The Road Lab UK, dp245/Scottish Raptor Monitoring Scheme, dp280/Birda, dp29/British Trust for Ornithology, dp35/People's Trust for Endangered Species, dp57/Bat Conservation Trust, dp58/Amphibian and Reptile Conservation, dp7/Highland Biological Recording Group, dp8/Mammal Society, dp9/NatureScot

3.1.4.1 Birds

A list of 141 bird species were returned from the desk study, for whom suitable foraging or nesting habitat is present within the site. Of the 141 birds, 28 are listed as Schedule 1 species:

- Black-tailed Godwit (*Limosa limosa*)
- Brambling (*Fringilla montifringilla*)
- Common Scoter (*Melanitta nigra*)
- Fieldfare (*Turdus pilaris*)
- Greenshank (*Tringa nebularia*)
- Kingfisher (*Alcedo atthis*)
- Osprey (*Pandion haliaetus)*
- Barn Owl (Tyto alba)
- Goshawk (Accipiter gentilis)
- Hobby (*Falco subbuteo*)
- Honey-buzzard (*Pernis apivorus*)
- Hoopoe (*Upupa epops*)
- Long-eared Owl (*Asio otus*)
- Long-tailed Duck (*Clangula hyemalis*)
- Pintail (*Anas acuta)*
- Red Kite (*Milvus milvus)*
- Ruff (*Calidris pugnax*)
- Scottish Crossbill (*Loxia scotica)*
- Slavonian Grebe (*Podiceps auritus*)
- Whimbrel (*Numenius phaeopus*)
- Whooper Swan (*Cygnus cygnus*)
- Quail (*Coturnix coturnix*)
- Red-throated Diver (*Gavia stellata*)
- Redwing (*Turdus iliacus*)
- Ruff (*Calidris pugnax*)
- Scaup (*Aythya marila*)
- Slavonian Grebe (*Podiceps auritus*)
- Peregrine (*Falco peregrinus*)

3.1.5 Invasive Non-Native Species

The desk study returned two records of American Mink (*Neovision neovision*), with the latest record in 2020 within 2 km of the site.

3.2 Field Survey

3.2.1 Phase 1

A total of eight habitats were identified within the site. A summary of the habitats is presented in Table 9.

Table 9: Summary of Phase 1 Habitats

Habitat Code	Description	Sum of Areas (Ha)	% of Area
A1.1.1	Broadleaved woodland - semi-natural	0.76	20.2
A1.1.2	Broadleaved woodland - plantation	0.99	26.4
A2.1	Dense scrub	0.23	6.2
A2.2	Scattered scrub	0.37	9.8
B2	Neutral grassland	0.81	21.6
I2.2	Spoil	0.05	1.2
J4	Bare ground	0.25	6.8
J5	Other habitat	0.30	7.8
	Total:	**3.76**	**100**

A1.1.1 Broadleaved woodland – semi natural
This habitat forms 20.2% of the site and survey area, and is concentrated within the northern areas, with one small treeline in the south (Photo 1 / TN 67). The habitat is comprised of beech (*Fagus sylvatica*), silver birch (*Betula pendula*), alder (*Alnus glutinosa*), oak (*Quercus robur*), few Scots pine (*Pinus sylvestris*), with an understory of gorse (*Ulex europaeus*), Scot's broom (*Cytisus scoparius*), and holly (*Ilex aquifolium*).

A1.1.2 Broadleaved woodland – plantation
This habitat forms 26.4%, making tit he largest area of habitat within the survey area and site. The habitat is concentrated within the east, south and western areas (Photo 2 / TN 42, 56). The habitat is comprised of silver birch, alder, beech, elm (*Ulmus procera*), rowan (*Sorbus aucuparia*), Salix spp., few Scots pine with a scrub understory of Scots broom, gorse, tutsan (*Hypericum androsaemum*), holly, elder (*Sambucus nigra*), bramble (*Rubus fruticosus*), and hawthorn (*Crataegus monogyna*).

A2.1 Dense scrub
This habitat forms 6.2% of the site and survey area and is concentrated within the north and western areas (Photo 3 / TN 37, 54, 50). The habitat is comprised dominantly of gorse and Scots broom.

A2.2 Scattered scrub
This habitat forms 9.8% of the site and survey area, concentrated within the north and western areas (Photo 4 / TN 56). The habitat is comprised of gorse, Scots broom, with scattered bramble.

B2 Neutral grassland
This habitat forms 21.6% of the site and is located throughout the site boundary (Photo 6 / TN 35). The habitat is species poor and is comprised of perennial ryegrass (*Lolium perenne*), ribwort plantain (*Plantago lanceolata*) and black knapweed (*Centaurea nigra*).

I2.2 Spoil
This habitat forms 1.2% of the site and is mainly concentrated within the northeast of the site boundary, with smaller areas located throughout the site. (Photo 5 / TN 26, 40, 41, 49). The habitat is comprised of building ruins with rubble piles adjacent, burnt-out vehicles, fly tipped broken patio slabs, and fly tipping of branches and broken tarmac.

J4 Bare ground
This habitat forms 6.8% of the site and covers the majority of the site boundary (Photo 7 / TN 38). Bare earth habitat has formed due to previous quarry works within the site, and from continuous use of local trial bikes. Tyre tracks were evident on the ground throughout the site.

J5 Other habitat
This habitat forms 7.8% of the site and is located within the north and west of the survey area (Photo 8). The habitat is comprised of a concrete vehicle access track, a turning circle that leads into the A82 road.

3.2.2 Invasive Non-Native Species

Five large areas of Snowberry (*Symphoricarpos albus)* were identified within and adjacent to the eastern site boundary (Photo 9 / TN 26, 39, 47, 51, 34). One area of *Vinca minor* (garden escape species) was located within the northwestern survey area, along the existing access track (Photo 10 / TN 57).

3.2.3 Protected Species

3.2.3.1 Bats

Trees within the survey area
No direct sightings of bat or bat field signs were recorded during the survey. A total of six trees were deemed **PRF-I** due to the small singular holes and minor cracks/flakes on each tree (TN 21, 24, 25, 27, 48, 58). Only one tree falls within the 30m survey buffer (Photo 11 / TN 21). The remining trees are adjacent to the survey buffer that applies to bat disturbance.

Foraging and commuting habitat
Suitable foraging habitat is present in the form of broadleaved woodland, dense and scattered scrub within the site. Suitable foraging and communing habitat are present within the survey area; River Ness and Caledonian canal, both of which are lined with broadleaved trees (Photo 12). Further connecting habitat is present in the form of woodland corridors to the west, which lead to Dunain hill and Cnoc na Moine. Agricultural fields lined with scrub and trees are scattered through the west, with small pockets of standing water, burns and falls. Therefore, the overall habitat was deemed as **'high potential'** for foraging and commuting bats.

3.2.3.2 Otter

No direct sightings of otter were confirmed. No field signs were identified within the site or in the survey area. Suitable habitat in the form of the River Ness and Caledonia Canal was identified as commuting and foraging habitat. However, otter holts/resting sites were identified within the survey area.

3.2.3.3 Red squirrels

No direct sightings of red squirrel or field signs were recorded during the survey. Suitable foraging and drey habitat were identified within the site and survey area; mature Scots pine, mature beech, and connecting habitat to the external survey area. Though no drey activity was identified during the survey, the desk study returned 342 counts of red squirrel within 100m of the site.

3.2.3.4 Badgers

No direct sightings of badgers were recorded during the survey. Field signs of badger were recorded within the survey area only. Field signs included eight badger paths (Photo 13 / TN 7, 12, 14, 15, 22, 44, 46), 11 snuffle holes and feeding signs, and badger guard hairs (Photo 14 / TN 16). Suitable foraging and commuting habitat were located throughout the site and survey area.

3.2.3.5 Reptiles

No direct sightings of reptiles or field signs were recorded during the survey. Suitable habitat was identified in the form of vegetated anthropogenic spoil piles (including the old, fallen substation unit), dense and scattered scrub, neutral grassland and bracken (Photo 16 / TN 41, 49).

3.2.3.6 Birds

A total of 17 species sightings were recorded within the site and survey area. Each species, their Birds of Conservation Concern (BoCC) status and protection status, are shown in Table 10. One old, medium-sized

nest was identified within the eastern survey area (Photo 16 / TN 4). Suitable nesting habitat was located throughout the site and within the survey area, in the form of young and mature woodland and mixed scrub.

Table 10: Summary of bird species, feature/behaviour, conservation status and protection status

Species	Feature/behaviour	BoCC Status	Schedule 1
Bullfinch *Phyrrula phyrrula*	Within suitable foraging / nesting habitat	Amber	-
Common gull *Larus canus*	Flying over site	Amber	-
Herring gull *Larus argentatus*	Flying over site	Red	-
Robin *Erithacus rubecula*	Within suitable foraging / nesting habitat		-
Great tit *Parus major*	Within suitable foraging / nesting habitat	Red	-
Coal tit *Periparus ater*	Within suitable foraging / nesting habitat		-
Redwing *Turdus iliacus*	Within suitable foraging habitat	Amber	Yes
Long-tailed tit *Aegithalos caudatus*	Within suitable foraging / nesting habitat		-
Blackbird *Turdus merula*	Within suitable foraging / nesting habitat		-
Woodpigeon *Columba palumbus*	Within suitable foraging / nesting habitat	Amber	-
Goldcrest *Regulus regulus*	Within suitable foraging / nesting habitat		-
Goldfinch *Cardeulus cardeulus*	Within suitable foraging / nesting habitat		-
Blue tit *Cyanistes Caeruleus*	Within suitable foraging / nesting habitat		-
Buzzard *Buteo buteo*	Within suitable foraging / nesting habitat		-
Song thrush *Turdus philomelos*	Within suitable foraging / nesting habitat	Amber	-
Carrion crow *Corvus corone*	Within suitable foraging / nesting habitat		-
Hooded crow *Corvus cornix*	Within suitable foraging / nesting habitat		-

3.2.3.7 Freshwater Pearl Mussel

No FWPM were identified during the survey. Suitable habitat in the form of the River Ness was identified within the 250m survey buffer. The riverbed substrate comprised of coarse sand and gravel, with no algal cover identified. Salmon and trout are present within the River Ness.

3.2.3.8 Water vole and pine marten

No direct sightings of otter, water vole, and pine marten recorded during the survey. No field signs or suitable den habitat were identified within the site or in the survey area. Therefore, these species have been scoped out of the report.

Section 4.0: Conclusions and Recommendations

4.1 Designated Sites

Nature Scot's SiteLink (2025) identified five statutory designated areas within 2 km of the site boundary. Of the five sites, the following site is deemed connected to the site boundary and survey areas:

- Torvean Landforms, SSSI – Geological: Quaternary of Scotland

As the SSSI falls within the site and survey, there is potential for the proposed works to impact the geomorphology of the designated site. Therefore, it is required that a suitably qualified and experienced geologist assesses the site for such potential impacts and to instruct mitigation if required.

4.2 Non-Statutory Designated Sites

The AWI identified 12 woodlands within 2 km of the site boundary. A total of two Long-Established (of plantation origin) woodlands are within and adjacent to the site boundary:

- Unnamed woodland – 5789 (west)
- Unnamed woodland – 5789 (east)

Though the two areas are all of plantation origin and have been subject to historical systematic felling, and unauthorised public cutting, it is required that an arboriculture impact assessment is completed on trees adjacent to the site in the AWI areas prior to works being undertaken. The assessment will establish and outline root protection zones (RPZ) if they are required. If felling works are scheduled to support the construction of the battery storage unit, consultation with NatureScot to determine potential felling within an AWI area is advised.

4.3 Biodiversity Enhancements in Scotland

As the site is over 0.5 Ha, a Biodiversity Enhancement report is required through the National Planning Framework 4 (NPF 4) Policy 3 (see Appendix B). Biodiversity Enhancement is a specific, measurable outcome of project activities that deliver demonstrable and quantifiable benefits to biodiversity compared to the baseline situation. The report will calculate potential biodiversity loss within the site and facilitate a 10% net gain where necessary. A Habitat Management Plan (HMP) is required to inform monitoring and maintenance measures of biodiversity for a minimum of 30 years.

4.4 Habitats

From the eight habitats identified on site, broadleaved woodland – plantation and neutral grassland were the largest areas, followed by broadleaved woodland – semi-natural, and scattered scrub. The bulk of the proposed works (storage unit) within the site are to occur within the already-existing bare ground, and partial areas of neutral grassland. Therefore, no sensitive and/or significant habitat will be lost, and no impacts to protected/sensitive habitat are expected. However, any proposed excavations to construct the ground must refer to the geological sensitivities (Section 4.1).

The proposed cable route to connect the battery storage unit to the overhead lines is to occur within broadleaved woodland – plantation and semi-natural, dense and scattered scrub. All areas of woodland (but specifically semi-natural woodland) found on site are of value for a range of wildlife including nesting birds, bats, mammals and invertebrates. It is strongly recommended that semi-natural woodland is retained, and that an arboriculture impact assessment is completed to establish and outline RPZ. It is also recommended that the remaining areas of woodland habitat (plantation) identified are retained and enhanced where possible.

4.5 Invasive Non-Native Species

Areas of snowberry and one area of lesser periwinkle (*Vinca minor*) were identified within the site, specifically growing within the spoil areas that have now vegetated. It is strongly recommended that all invasive species are removed from the site and survey area that fall within Highland Council land in order to

support native flora that protected fauna utilise for foraging and breeding habitat. A biosecurity plan must be in place to determine suitable removal methods for snowberry and lesser periwinkle.

4.6 Protected Species

4.6.1 Potential Impacts

The following potential impacts may be applied when carrying out the proposed works within the site:

- Bat: loss and/or disturbance of potential roosting site(s)
- Otter: disturbance to foraging and commuting habitat
- Red squirrels: loss and/or disturbance to breeding drey and foraging habitat
- Badger: loss and/or disturbance to primary foraging and commuting habitat
- Reptiles: loss and/or disturbance to hibernacula/refugia habitat
- Bird: loss and/or disturbance to breeding/nesting habitat

4.6.2 Avoidance, Mitigation and Further Surveys

4.6.2.1 Bats

Six trees were identified with suitable features for bats and were deemed **PRF-I.** One tree was within the 30m buffer which applies to bats. However, no further surveys are required. It is recommended that appropriate compensation is provided if such trees are required to be felled for the proposed works. A Precautionary Method of Working (PMoW) may also be provided for staff on site alongside the toolbox talk.

To avoid any impacts on foraging and commuting bats, any temporary or permanent lighting associated with the proposals should avoid lighting tree/scrub habitat within, and adjacent to, the site and adhere to measures outlined in the *Bats and Artificial Light Guidance Note* (Bat Conservation Trust & Institution of Lighting Professionals, 2018).

4.6.2.2 Otters

Suitable commuting and foraging habitat in the form of the Caledonian Canal and River Ness was identified. Due to the proximity of both watercourses, and the natural steep terrain woodland that separates the canal from the site, it is deemed that foraging and commuting impacts will be low. No further surveys are required, see Section 4.7 for Good Practice Mitigation.

4.6.2.3 Red squirrels

Though no dreys and sightings of red squirrel were identified, suitable habitat and 342 counts of red squirrel were retrieved within 100m of the site. It is recommended the pre-construction survey are completed no more than 2 weeks prior to works commencing to identify new dreys within 50 m of the site. If dreys are identified, further monitoring to deem active use/breeding is required. A licence to disturb active dreys within 50m may be required.

4.6.2.4 Badgers

Multiple badger field signs (paths, hairs, snuffle holes) were identified within the site and survey area. Though no setts were identified, it is recommended that a pre-construction survey is completed no later than two weeks prior to the works commencing. It is strongly recommended that suitable primary foraging habitat for badger is retained and enhanced where possible.

4.6.2.5 Reptiles

Suitable hibernacula and refugia habitat were identified within the site in the form of stone piles, rubble, and fly tipping/spoil. It is recommended that pre-construction surveys within these areas of spoil are completed before works commence especially if such materials are to be removed.

4.6.2.6 Birds

Two old nests, 16 bird species and suitable nesting and foraging habitat was identified within the site and survey area. It is recommended that works are completed outwith the bird breeding/nesting season (March-August, inclusive) to avoid constraints.

If works are undertaken within the breeding bird season, the site and any concentrated areas of vegetation (woodland, scrub) to be cleared must be surveyed for breeding bird activity no more than 24 hours prior to works taking place, by a suitably qualified ecologist / ECoW. A weekly ECoW visit is recommended to monitor nesting potential within the site. It is also recommended that all staff receive a toolbox talk in relation to nesting birds.

4.6.2.7 Freshwater Pearl Mussel

Suitable habitat was identified within the survey area for FWPM within River Ness. However, as there is no hydrological connection between the site and River Ness, along with natural buffers from the steep terrain at the south of Torvean Quarry and the Caledonian Canal, no FWPM impacts have been identified. Therefore, no further surveys are required. If proposed works change and encompass River Ness, further FWPM surveys and a Species Protection Plan (SPP) is required. See section 4.7 for Good Practice Mitigation.

4.7 Good Practice Mitigation

The following good practice mitigation is recommended based on the current level of available site information:

- Preconstruction surveys for protected species, specifically breeding birds, red squirrel, reptiles and badger should be undertaken by a suitably qualified ecologist or Ecological Clerk of Works (ECoW).
- All site contractors should be made aware of the potential presence of protected species in the locale.
- If any protected and/or notable species are encountered, all works must stop immediately and the ECoW contacted for advice and further mitigation measures if required.
- A Pollution Prevention Plan (PPP) for any proposed works occurring within proximity to water and to FWPM habitat.
- Covering of excavations when unattended, or the installation of a shallow angled plank inserted to allow animals to escape.
- Any works causing high levels of noise or vibration should be limited to daylight hours to reduce disturbance to nocturnal or crepuscular species.
- Temporary lights used during construction should be fitted with shades to prevent light spillage outside the working area. Temporary lights should not illuminate woodland and scrub habitats on site, and avoid illuminating habitats, trees and buildings surrounding the site as lighting can affect commuting and foraging success for nocturnal or crepuscular species such as bat, along with other species.
- Any permanent lighting should be designed to be 'bat friendly' and should not illuminate bat commuting, foraging and roosting habitats including woodland, hedgerows, scrub and scattered trees.

4.8 Biodiversity Enhancement Opportunities

Policy 3(c) of NPF4 requires local developments to "include appropriate measures to conserve, restore and enhance biodiversity". The following Biodiversity Net Gain Opportunities measures are recommended:

- **Native scrub planting:** The proposed development may remove suitable features to support nesting birds and commuting/foraging bats within the site boundary. Native scrub planting could benefit wild birds, bats, invertebrates and west European hedgehog. Species could include hawthorn, blackthorn (*Prunus spinosa*) and hazel (*Corylus avellana*).
- **Wildflower planting:** post-construction, the amenity grassland habitat could be enhanced by planting suitable wildflower species. This may include common vetch (*Vicia sativa)*, oxeye daisy (*Leucanthemum vulgare)*, ribwort plantain (*Plantago lanceolata)* and common poppy (*Papaver rhoeas)*, honeysuckle (*Lonicera periclymenum*), and common ragwort (*Jacobaea vulgaris*). The planting of wildflowers will be beneficial for foraging invertebrates, as well as continuing the site's suitability to support protected species, including reptiles and west European hedgehog. Example wildflower mixes are available here:

https://www.wildflower.co.uk/products/wildflower-seed-mixtures/100-wildflower-seed-mixtures/?gad_source=1&gclid=Cj0KCQiAs5i8BhDmARIsAGE4xHzY9DykUcZWY55icNgnea5hvTVu2UcwVzcE_dwhZwWyrl8FWKNcMHgaAmQUEALw_wcB

- **Provision of bird nest boxes:** The proposed development may remove suitable features to support nesting birds within the site boundary. Bird nest boxes suitable for the following species could be positioned on suitable trees within or in proximity to the site:
  - House sparrow: https://www.nhbs.com/1sp-schwegler-sparrow-terrace?bkfno=185099&ca_id=1495&adlocale=uk&gad_source=1&gclid=Cj0KCQiA4fi7BhC5ARIsAEV1YianjYEzURZw9TfANzcsrlPLtmQ7SSo8jc4xEZp4HDPpZH_YNg6qUO8aAn7wEALw_wcB
  - Tit species: https://www.nhbs.com/nhbs-wooden-bird-nest-box?bkfno=254494&ca_id=1495&adlocale=uk&gad_source=1&gclid=Cj0KCQiA4fi7BhC5ARIsAEV1YiYYuPRF3B-DyUWnafY_1vOy0fwX_MfOAOjXQvHBffGYMM2r-jz-aeAaAmKwEALw_wcB
  - Robin: Eco Robin (Open-Fronted) Nest Box https://www.nhbs.com/eco-robin-open-fronted-nest-box?bkfno=241640

- **Provision of bat boxes:** The proposed development may remove suitable features to support roosting bats within the site boundary. Bat boxes can be positioned on suitable trees along the River Peffery - Schwegler 2F Bat Box: https://www.arkwildlife.co.uk/products/dropship-schwegler-2f-bat-box?currency=GBP&variant=44805352095961&stkn=6f1f3f72d1a5&gad_source=1&gclid=Cj0KCQiA4fi7BhC5ARIsAEV1YiZ7saZmj7JiM5DjQdG5n3mePnynqkgHmugh_fngKRUN2RI0OXPTF4QaAoiPEALw_wcB
- **Wildlife Kerbs**: Kerbside gully-pot or drainage be set away from the kerb by a minimum of 20cm. By installing “ACO wildlife kerbs” or lowering kerbs around gully pots this would further reduce the risk of amphibians and small mammals falling into and dying within the drainage. This mitigation could be further enhanced through the installation of “amphibian ladders” on gully pots to facilitate the escape of any amphibian or small mammal which does become trapped.

Bibliography

Bat Conservation Trust & Institution of Lighting Professionals. (2018). *Guideance Note 08/18 Bats and artificial light in the UK. Bats and the Built Environment Series.* Retrieved from Institution of Lighting Professionals: https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/.

Chanin, P. (2003). *Ecology of the European Otter* (Vol. Conserving Natura 2000 Rivers Ecology Series No. 10). Peterborough: English Nature.

CIEEM. (2017, December). *Guidelines for Ecological Report Writing: Second Edition.* Retrieved from CIEEM: https://cieem.net/wp-content/uploads/2019/02/Ecological-Report-Writing-Dec2017.pdf

CIEEM. (2021). *Good Practice Guidance for Habitats and Species - Version 3, May 2021.* Retrieved from CIEEM: https://cieem.net/wp-content/uploads/2021/05/Good-Practice-Guide-April-2021-v6.pdf

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

Edgar, P., Foster, J., & Baker, J. (2010). *Reptile Habitat Management Handbook*. Bournemouth: Amphibian and Reptile Conservation

Highland Nature. (2021). *Biodiversity Action Plan (BAP) 2021-2026.*

Joint Nature Conservancy Committee (2016). *Handbook for Phase 1 habitat survey*. Retrieved from https://data.jncc.gov.uk/data/9578d07b-e018-4c66-9c1b-47110f14df2a/Handbook-Phase1-HabitatSurvey-Revised-2016.pdf

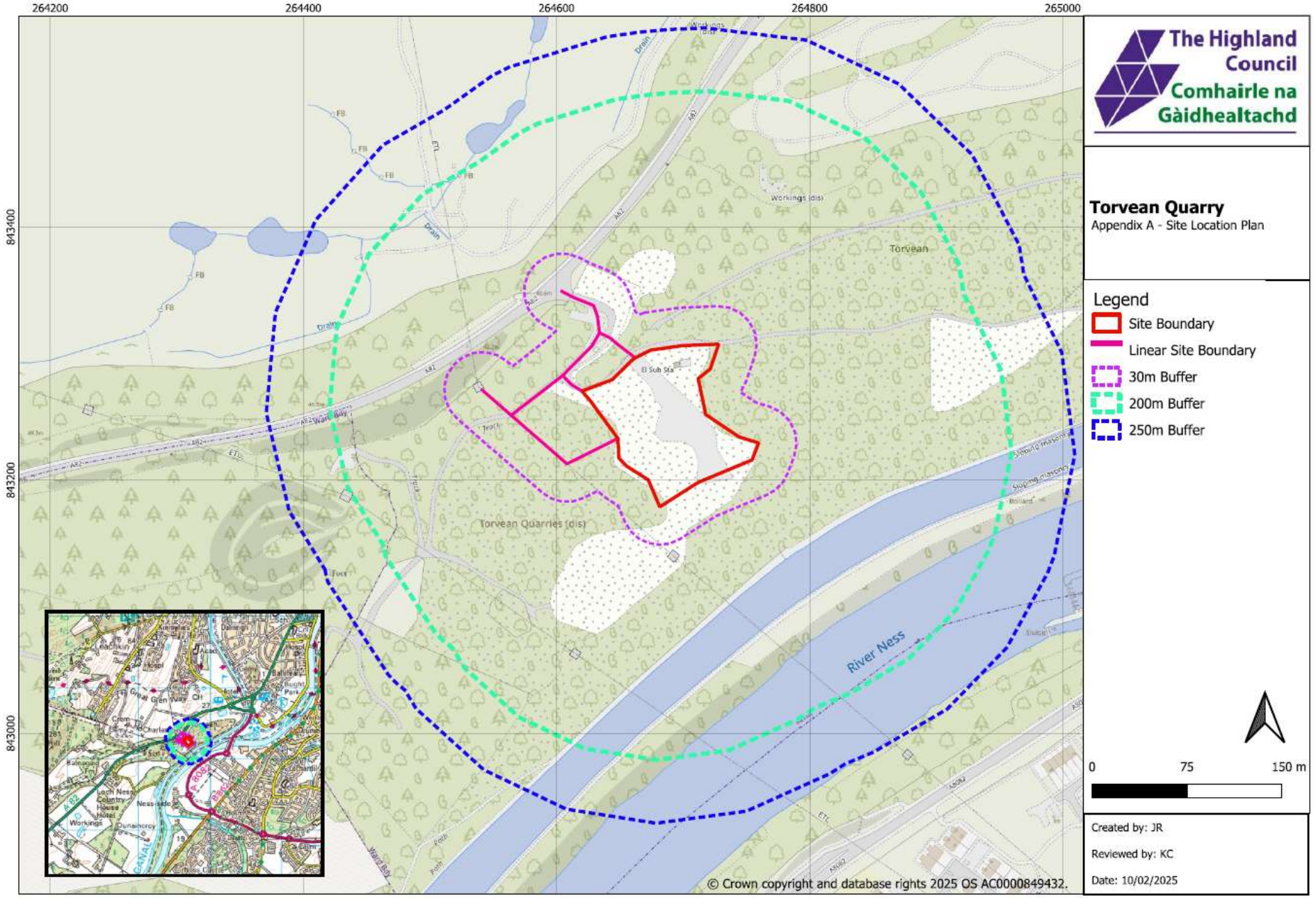
NatureScot. (2024). *Standing advice for planning consultations - Freshwater Pearl Mussels.* Retrieved from https://www.nature.scot/doc/standing-advice-planning-consultations-freshwater-pearl-mussels

Scottish Badgers. (2018). *Surveying for Badgers: Good Practice Guidelines: Version 1*. SNH Scotland's Wildlife Badgers and Development.

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

UK Government. (1981). *Wildlife and Countryside Act 1981*. Retrieved from https://www.legislation.gov.uk/ukpga/1981/69/schedule/1

Appendix A: Site Location Plan



Appendix B: Legislation

Protected Species

Bats

Bats and the places they use for shelter or protection (i.e. roosts) receive European protection under the Habitats Regulations 1994. They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations (as amended), states that a person commits an offence if they:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats; or
- damage or destroy a bat roost (breeding site or resting place).

Disturbance of animals includes any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations (as amended) for any person to have in their possession or control, to transport, to sell or exchange or to offer for sale, any live or dead bats, part of a bat or anything derived from bats, which has been unlawfully taken from the wild.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to intentionally kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to intentionally or recklessly damage or destroy, or obstruct access to, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to intentionally or recklessly* disturb any protected species while it is occupying a structure or place which it uses for shelter or protection.

As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

Nine bat species are listed as ‘SPI’ on the Scottish Biodiversity List. These are:

- Barbastelle bat Barbastella barbastellus.
- Bechstein’s bat Myotis bechsteinii.
- Noctule Nyctalus noctule.
- Soprano pipistrelle Pipistrellus pygmaeus.
- Brown long-eared bat Plecotus auritus.
- Greater horseshoe bat Rhinolophus ferrumequinum.
- Lesser horseshoe bat Rhinolophus hipposideros.

Other European Protected Species (otter, water vole, great crested newt)

A European Protected Species (EPS) is a species listed in the EC Directive (92/43) The Conservation of Natural Habitats and of Wild Flora and Fauna (the “Habitats Directive”), which is transposed into Scottish law through the Conservation (Natural Habitats &c.) Regulations 1994 (the “Habitat Regulations”) as amended. Under this legislation it is an offence to deliberately or recklessly:

- capture, injure or kill such an animal;
- harass an animal or group of animals;
- disturb an animal while it is occupying a structure or place used for shelter or protection;
- disturb an animal while it is rearing or otherwise caring for its young;
- obstruct access to a breeding site or resting place, or otherwise deny an animal use of a breeding site or resting place;
- disturb an animal in a manner or in circumstances likely to significantly affect the local distribution or abundance of the species;
- disturb an animal in a manner or in circumstances likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young;
- disturb an animal while it is migrating or hibernating;

- take or destroy its eggs; and
- possess, control, transport, sell or exchange specimens of any animal listed on Annex IV of the Habitats Directive. This applies to living or dead specimens and to their derivatives.

Birds

The Wildlife and Countryside Act (WCA) 1981, as amended, protects all breeding birds in the UK with a few exceptions (i.e. sporting birds listed in Schedule 2 and for certain specified purposes under licence). The WCA makes it an offence to intentionally or recklessly:

- kill, injure or take a wild bird;
- take, damage, destroy or interfere with the nest of any wild bird whilst it is in use or being built (or at any time for a nest habitually used by any listed in Schedule A I);
- obstruct or prevent any wild bird from using its nest;
- take or destroy an egg of any wild bird;
- disturb any wild bird listed on Schedule 1 whilst it is building a nest or is in, on, or near a nest containing eggs or young, or whilst lekking; or
- disturb the dependent young of any wild bird listed on Schedule 1.

Recklessly in this context is to be understood as pursuing a course of action while consciously disregarding the fact that the action gives rise to a substantial and unjustifiable risk.

Schedule 1 is a list of rare breeding species that are specially protected in the UK. Two additional Schedules (Schedule 1A and A1) have been created to afford further protection to some species included on Schedule 1. This additional protection makes it an offence to intentionally or recklessly:

- at any time, damage, destroy or interfere with any nest habitually used by any wild bird included in Schedule A1; or
- at any time harass any wild bird included in Schedule 1A.

A total of 105 bird species are listed as SPI on the Scottish Biodiversity List and therefore are a material consideration for Local Planning Authorities (LPAs) during the planning process.

Herpetofauna (reptiles and amphibians)

All the UK's native reptiles and amphibians are protected by law, although their level of protection differs.
The following species are European Protected Species and therefore have additional protection under the Habitats Regulations 2017 (as amended):

- Great crested newt (*Triturus cristatus)*.
- Pool frog (*Pelophylax lessonae)*.
- Natterjack toad (*Epidalea calamita)*.
- Sand lizard (*Lacerta agilis)*.
- Smooth snake (*Coronella austriaca)*.
- Sea turtles ((*Caretta caretta)*, (*Chelonia mydas)*, (*Dermochelys coriacea)*, (*Eretmochelys imbricata)*, (*Lepidochelys kempii*)).

The legal protection for these species is outlined in Section 43 of the Habitats Regulations 2017, and states that a person commits an offence if they:

- deliberately capture, injure or kill a protected species;
- deliberately disturb a protected species;
- deliberately take or destroy eggs of a protected species; or
- damage or destroy a protected species' breeding site or resting place.

This is a simplified description of the legislation. In particular, the offences mentioned here may be absolute, intentional, deliberate, or reckless. Note that where it is predictable that reptiles are likely to be killed or injured by activities such as site clearance, this could legally constitute intentional killing or injuring.
Widespread reptile species are protected under part of Section 9(1) of the Wildlife & Countryside Act 1981 (as amended) against:

- intentional killing and injuring (note the provision in Section 9(1) of Wildlife & Countryside Act 1981 prohibiting "taking" does not apply to reptiles).

Both reptiles (adder, grass snake, common lizard, and slow worm) and amphibians (common frog, common toad, smooth newt, palmate newt) are protected via part of Section 9(5) of the Wildlife & Countryside Act 1981 (as amended) against:

- selling, offering or exposing for sale, or having in possession or transporting for the purpose of sale, any live or dead wild animal or any part of, or anything derived from, such an animal; or
- publishing or causing to be published any advertisement likely to be understood as conveying buying or selling, or in or selling, or intending to buy or sell, any of those things.

Red Squirrel and Pine Marten

Red squirrel & pine marten re protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Subject to certain exceptions, it is an offence to intentionally or recklessly:

- kill, injure or take (capture) an individual;
- damage, destroy or obstruct access to any structure or place which they use for shelter or protection;
- disturb an individual while it is occupying a structure or place which it uses for that purpose; or to
- possess or control, sell, offer for sale or possess or transport for the purpose of sale any live or dead animal or any derivative of such an animal.

Knowingly causing or permitting any of the above acts to be carried out is also an offence.

In some cases licences may be issued by NatureScot to enable certain otherwise illegal activities to take place for social, economic or environmental reasons (including development) as long as:

- the licensed activity will contribute to significant social, economic or environmental benefit;
- there is no satisfactory alternative; and
- there will be no significant negative impact on the conservation status of the species.

Water Vole

Water voles are partially protected under Schedule 5, Part 4 of the Wildlife and Countryside Act 1981 (as amended). It is an offence to 'intentionally or recklessly':

- damage, destroy or obstruct access to any structure or place which a water vole uses for shelter or protection; or to
- disturb a water vole while it is occupying a structure or place which it uses for that purpose.
- Knowingly causing or permitting any of the above acts to be carried out is also an offence.
- In some cases licences may be issued by Scottish Natural Heritage (SNH) to enable certain otherwise illegal activities to take place for social, economic or environmental reasons (including development) as long as:
- the licensed activity will contribute to significant social, economic or environmental benefit;
- there is no satisfactory alternative; and
- there will be no significant negative impact on the conservation status of the species.

Badger

Badgers are protected under the Protection of Badgers Act (1992) (as amended). Offences under the Act include:

- wilfully taking, injuring or killing a badger;
- cruelty to a badger;
- intentional or reckless interference with a badger sett;
- sale or possession of a badger; and
- marking or ringing of a badger.

Interfering with a badger sett includes:

- damaging or destroying a sett or any part of it;
- obstructing access to a sett;
- disturbing a badger while it is in a sett; and
- causing or allowing a dog to enter a badger sett.

Where an offence is committed the individual (as well as the body corporate, Scottish partnership or, as the case may be, unincorporated association) is guilty of the offence and is liable to be proceeded against and punished accordingly.

Licences can only permit someone to 'interfere' with a badger sett for the purpose of development. A licence cannot permit the removal, translocation or killing of badgers for the purpose of development. Interference primarily means anything that might:

- disturb any badger in a sett; and
- damage or block the tunnels that radiate from a sett's entrances.

Licences aren't generally issued during the breeding season (30 November to 1 July). Activities that necessarily involve disturbance should be scheduled to take place outside of this period.

Planning Legislation

Fourth National Planning Framework (NPF4) 2022

The most relevant sections of NPF4 are outlined below:

- NPF4 Policy 3(a) sets out the requirements for all proposed developments to "contribute to the enhancement of biodiversity, including where relevant, restoring degraded habitats and building and strengthening nature networks and the connections between them. Proposals should also integrate nature-based solutions, where possible."
- NPF4 Policy 3(c) states that proposals for local development must "include appropriate measures to conserve, restore and enhance biodiversity, in accordance with national and local guidance. Measures should be proportionate to the nature and scale of development."
    i. Nature Scot published the "Developing with Nature Guidance" in support of the delivery of NPF4 policy 3(c)
- NPF4 Policy 3(d) states "Any potential adverse impacts, including cumulative impacts, of development proposals on biodiversity, nature networks and the natural environment will be minimised through careful planning and design. This will take into account the need to reverse biodiversity loss, safeguard the ecosystem services that the natural environment provides, and build resilience by enhancing nature networks and maximising the potential for restoration."
- NPF4 policy 4(f) states that "Development proposals that are likely to have an adverse effect on species protected by legislation will only be supported where the proposal meets the relevant statutory tests. If there is reasonable evidence to suggest that a protected species is present on a site or may be affected by a proposed development, steps must be taken to establish its presence. The level of protection required by legislation must be factored into the planning and design of development, and potential impacts must be fully considered prior to the determination of any application."
- NPF4 policy 5 is in place to protect carbon-rich soils, restore peatlands and minimise disturbance to soils from development.
- NPF4 policy 5(a) states
  "Development proposals will only be supported if they are designed and constructed:
    i. In accordance with the mitigation hierarchy by first avoiding and then minimising the amount of disturbance to soils on undeveloped land; and
    ii. In a manner that protects soil from damage including from compaction and erosion, and that minimises soil sealing."

The mitigation hierarchy is to first AVOID (by removing the impact at the outset), then seek to MINIMISE (by reducing the impact), then RESTORE (by repairing damaged habitats) then finally OFFSET (by compensating for residual impact that remains, with preference to on-site over off-site measure).

- NPF4 policy 5(b) states
  "Development proposals on prime agricultural land, or land of lesser quality that is culturally or locally important for primary use, as identified by the LDP, will only be supported where it is for:
    i. Essential infrastructure and there is a specific locational need and no other suitable site;
    ii. Small-scale development directly linked to a rural business, farm or croft or for essential workers for the rural business to be able to live onsite;
    iii. The development of production and processing facilities associated with the land produce where no other local site is suitable;
    iv. The generation of energy from renewable sources or the extraction of minerals and there is secure provision for restoration;

  In all of the above exceptions, the layout and design of the proposal minimises the amount of protected land that is required."

Scottish Planning Policy (SPP) – 2014

Scottish Planning Policy requires that the presence (or potential presence) of legally protected species is factored into the planning and design of development proposals, and that any impacts on protected species are fully considered prior to the determination of planning applications. Where impacts on a protected species cannot be avoided, certain activities may only be undertaken with a licence from NatureScot.

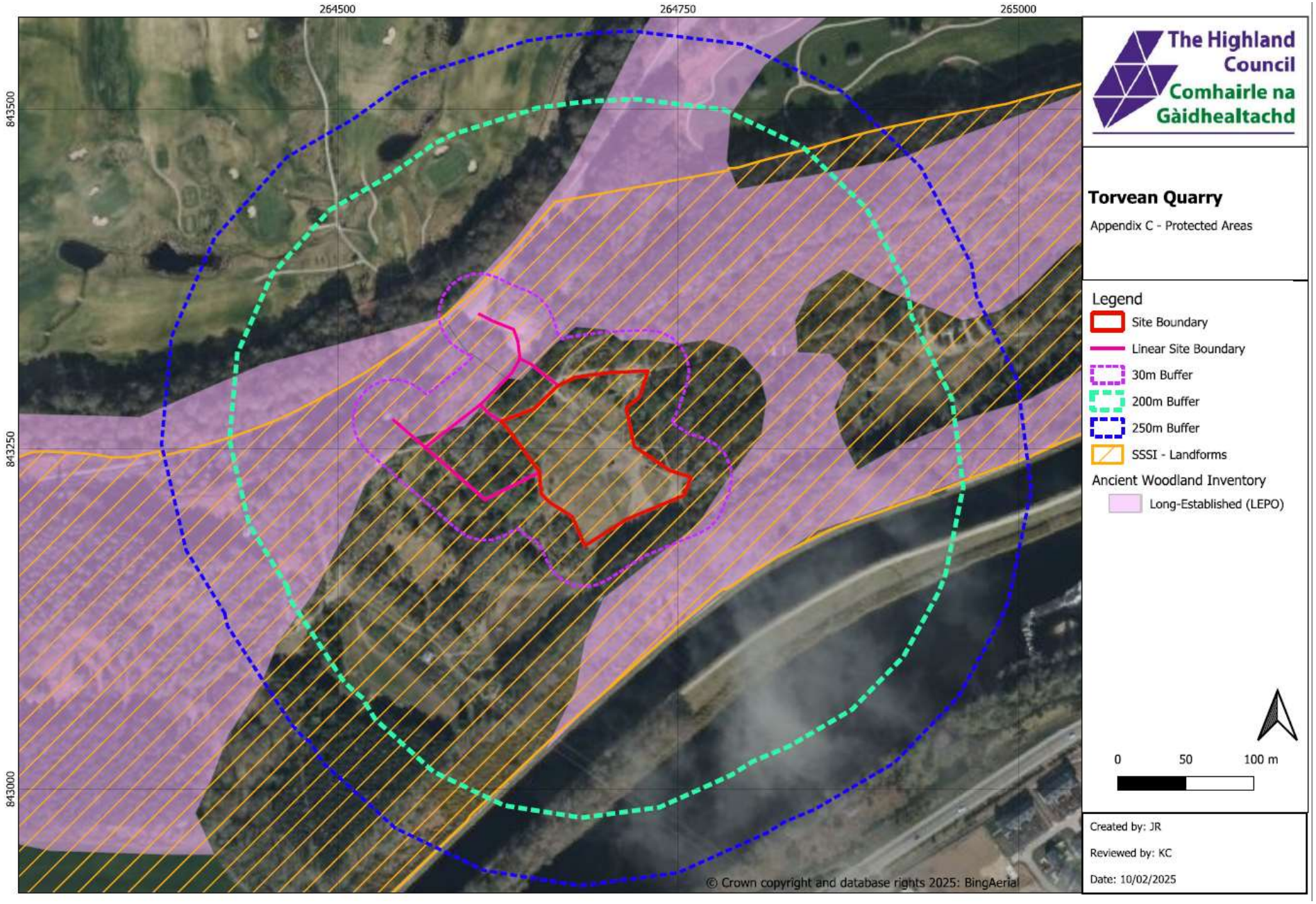
- Policy principle 194 within SPP states the planning system should "conserve and enhance protected sites and species, taking account of the need to maintain healthy ecosystems and work with the natural processes which provide important services to communities."

Highland Wide Local Development Plan (HwLDP) 2012

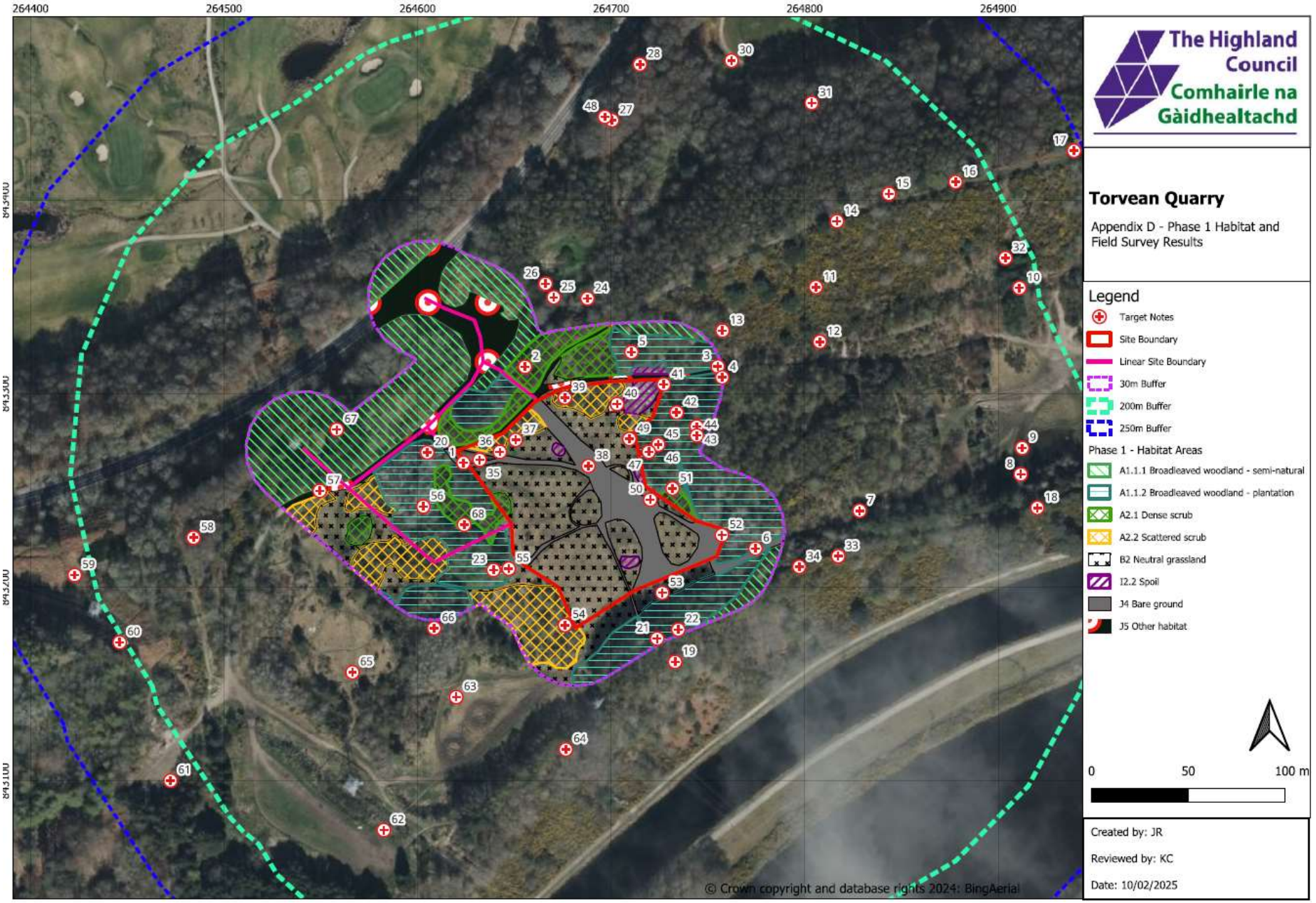
The most relevant policies within the Highland Wide Local Development Plan are briefly summarised below. For full details and exact wording please refer to the document.

- Policies 51 - Trees and Development
    - This policy provides protection to hedges, trees and woodlands on and around development sites.
- Policy 58 - Protected Species
    - This policy requires protected species surveys and mitigation plans to be developed if there is good reason to believe that a protected species may be present or affected by a proposed development. It outlines limited conditions where developments will be permitted if likely to have an adverse effect, individually and/or cumulatively, on protected species (including European Protected Species, protected birds, animals or plants).
- Policy 59 - Other Important Species
    - This policy considers the presence of and any adverse effects of development proposals, either individually and/or cumulatively, on other important species (including species listed in Annexes II and V of the EC Habitats Directive, priority species listed in the UK and Local Biodiversity Action Plans and species included on the Scottish Biodiversity List.)
- Policy 60 - Other Important Habitats and Article 10 Features
    - This policy seeks to safeguard the integrity of features of the landscape which are of major importance because of their linear and continuous structure or combination as habitat "stepping stones" for the movement of wild fauna and flora. (Article 10 Features).
    - It also considers a proposed development's individual or cumulative impact on Habitats listed in Annex I of the EC Habitats Directive, habitats of priority and protected bird species, priority habitats listed in the UK and Local Biodiversity Action Plans, habitats included on the Scottish Biodiversity List.

Appendix C: Protected Areas



Appendix D: Phase 1 and Field Survey Results



Appendix E: Photographs



Photo 1: *broadleaved woodland, semi-natural*



Photo 2: *Broadleaved woodland – plantation*



Photo 3: *Dense scrub*



Photo 4: *Scattered scrub*



Photo 5: *Spoil*



Photo 6: *Neutral grassland, species poor*



Photo 7: *Bare ground*



Photo 8: *Other habitat, entrance to site*



Photo 9: *INNS, Snowberry*



Photo 10: *INNS Vinca minor*



Photo 11: *Bat PRF-I within survey area*



Photo 12: *Otter commuting habitat Caledonian Canal and line of trees*



Photo 13: *Badger path*



Photo 14: *Badger guard hair*



Photo 15: *Reptile, suitable refugia habitat*



Photo 16: *Old nest within survey area*

Appendix F: Target Notes

Target Note No.	Feature	Comment
9	Amphibian	Dead frog in water
23	Badger	All suitable foraging for badgers
2	Badger	Suitable foraging habitat
43	Badger	Badger snuffle holes and gardening
44	Badger	Path running alongside of track
45	Badger	snuffle hole
46	Badger	Path under scrub with feeding
22	Badger	Possible badger digging/feeding sign
7	Badger	Badger path on either side of track
10	Badger	Suitable Badger habitat
11	Badger	Thick habitat cover / suitability
12	Badger	Path
14	Badger	Path leading into gorse
15	Badger	Badger paths stay all along track
16	Badger	Path and hairs
20	Bat	Good commuting habitat
21	Bat	Limb snap area on Spruce = Low potential for individual bats
24	Bat	Low potential - individual bats potential under split bark
25	Bat	Low potential - dead elm individual bats behind bark flakes
27	Bat	Mature beech with rot hole at base - roost potential (low-med)
48	Bat	Low potential in 6 mature beech - small rot holes
5	Bird	Redwing, long tailed tit, crow spp., blackbird, woodpigeon, goldcrest, goldfinch, tit species
66	Bird	Suitable nesting habitat
67	Bird	Suitable nesting habitat
68	Bird	suitable breeding and nesting habitat
4	Bird	Old nest
18	Bird	Bullfinch
13	Deer	Tracks
17	Deer	Path
1	Habitat	Overview of habitat
35	Habitat	Rank grassland, species poor
36	Habitat	Black knapweed tall ruderal. Covering 3m2.
37	Habitat	Scrub evergreen. Mixed gorse and broom. Around site perimeter
38	Habitat	Bare earth on former quarry site. Sandy and gravel substrate with puddles
40	Habitat	Building ruins partially demolished. No PRFs
41	Habitat	Fly tipping of branches and broken tarmac. Reptile potential
42	Habitat	Birch, alder plantation. With woodcock.
49	Habitat	Fly tipped broken concrete patio slabs. Reptile potential
50	Habitat	Broom and gorse scrub on raised ground around perimeter of site
53	Habitat	Slope with trees pine, willow and birch. Cut through by bike trails
54	Habitat	Mixed broadleaved plantation with birch, elm rowan pine
8	Habitat	Standing water
55	Habitat	Garden escape geranium ground cover in woodland
56	Habitat	Woodland with light gorse underneath
58	Habitat	Mature broadleaved woodland with old trees with low bat features. On sunny bank
59	Habitat	Bracken under electricity wires
60	Habitat	Overview of habitat
61	Habitat	Turning area for vehicles surrounded by mixed woodland

62	Habitat	Site habitat overview
28	Habitat	Beech dominated
29	Habitat	Bracken with bike tracks through it
63	Habitat	Rank grass clearing within woodland/gorse cover
64	Habitat	Mature beech and willow trees overlooking canal with low bat features
65	Habitat	Open grass area within wood with rank grass and lots of St John's wort
31	Habitat	Beech dominated - bike trails still evident throughout
32	Habitat	Hemlock -area planted appro 20x10m
33	Habitat	non-native - Crocosmia 3 patches by path
39	INNS	Snowberry stand
47	INNS	Snowberry clump
51	INNS	Snowberry clumps
57	INNS	Vinca minor (garden escape) covering large area
26	INNS	Snowberry
30	INNS	Snowberry 5x3m patch
34	INNS	Snowberry
3	Other	Mammal track
6	Other	Mammal track
52	Other	Bivi camp informal
19	Other	Overview of site