

Beauly BESS

784-B066659

Beaver and Otter Survey Report

TNEI on behalf of Field

December 2024

**Document prepared on behalf of Tetra Tech Limited. Registered in England number:
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TETRA TECH

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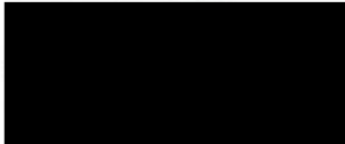
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APPENDICES

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GLOSSARY

Acronyms/Abbreviations	Definition
CIEEM	Chartered Institute of Ecology & Environmental Management
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EMP	Ecological Management Plan
EPS	European Protected Species
EPSL	European Protected Species Licence
Habitats Regulations	Conservation of Habitats and Species Regulations 2017 (as amended)
LERC	Local Ecological Record Centre
LBAP	Local Biodiversity Action Plan
LPA	Local Planning Authority
MCIEEM	Member of Chartered Institute of Ecology & Environmental Management
Natura 2000 site	A European site designated for its nature conservation value
NPPF	National Planning Policy Framework
PEA	Preliminary Ecological Appraisal
W&CA	Wildlife & Countryside Act 1981 (as amended)

EXECUTIVE SUMMARY

Contents	Summary
Site Location	The site is located approximately 1km south of Beaully in the Scottish Highlands and is centred at Ordnance Survey National Grid Reference NH 52446 44471.
Proposals	The development proposals consist of the creation and operation of a 100 MW battery energy storage system (BESS) with associated infrastructure, earthworks, drainage, accesses and ancillary works (including landscaping and biodiversity enhancement).
Scope of this Survey(s)	<p>The purpose of this report is to:</p> <ul style="list-style-type: none">• Undertake a desk study search of beaver and otter records within 2km of the site.• Survey the bank, sides and riparian zone of the River Beaully to determine the presence or likely absence of otter and beaver resting sites and field evidence of their activity.• Identify if any additional surveys are required to inform this assessment.• Determine if any potential impacts on beaver and (or) otter are likely to arise from the development.• Provide preliminary advice and outline strategies to avoid, mitigate, and compensate for any likely impacts.
Results	<p>Habitats identified in proximity to the site and adjacent to the River Beaully were considered of high suitability for beaver and otter.</p> <p>The development proposals are unlikely to have adverse effects on beaver and otter due to a lack of habitat loss, severance of connectivity, killing and injury and disturbance during the construction and operational phase.</p>
Recommendations	It is recommended that a pre-commencement badger survey is conducted. Additionally, construction works should operate under a Species Protection Plan to avoid accidental harm to beavers, otters and other mammals during the construction phase. To complete the works without a license there must be a high level of confidence that using Reasonable Avoidance Measures under a SPP will be adhered to and that there will be no offence committed by the proposed actions.

1.0 INTRODUCTION

1.1 BACKGROUND

Tetra Tech was commissioned by TNEI on behalf of Field Beaully Ltd in October 2024 to undertake a beaver *Castor fiber* and otter *Lutra lutra* survey and assessment to support a planning application for the creation of a Battery Energy Storage System (BESS) and associated development, located at an area of land at Dunballoch Farm near Beaully, in The Highland Council (THC) administrative area, hereafter referred to as “the Site”.

This report has been prepared by Assistant Ecologist Bethany James BSc (Hons) and the conditions pertinent to it are provided in Appendix A.

1.2 SITE LOCATION

The site is located approximately 1km south of Beaully in the Scottish Highlands and is centred on Ordnance Survey National Grid Reference NH 52446 44471 (Figure 1). It comprises of a large grassland pasture which, at the time of the survey, hosted grazing sheep. There are two electrical pylons within the field with overhead cables running from east to west. The southeast of the site is bound by an old dry-stone dyke, behind which is an area of extensive woodland. The wider landscape is largely a mix of pastoral and arable farmland, conifer plantations and areas of mixed woodland. The River Beaully flows from south to north, separated from the southwest site boundary by a narrow, broadleaved riparian woodland.

1.3 DEVELOPMENT PROPOSALS

The development proposals consist of the creation and operation of a Battery Energy Storage System (BESS) of up to 100 MW with associated infrastructure, access and ancillary works (including landscaping to achieve biodiversity net gain).

1.4 SURVEY OBJECTIVES

The objectives of this survey and assessment are to:

- Identify any internationally, nationally and locally designated sites with otter and beaver as qualifying features within to 2km from the site.
- Extrapolate any otter and beaver records attributable to the site and its surrounds from the Highland Biological Recording Group (HBRG) data.
- Conduct field survey to ascertain the presence or likely absence of beaver and otter resting sites and collate field evidence of both species within influence of the site boundary.
- Determine scope for additional surveys and/or monitoring of beaver and otter required to inform this assessment, and the design, planning and construction phases.
- Highlight risks or impacts to beaver and otter which are reasonably foreseeable to arise from the development.
- Provide species protection strategies to avoid and mitigate for the predicted risks and impacts.

- Confirm the need for species licensing based on current design proposals and collated field evidence.

Baseline ecological results are generally considered valid for a period of eighteen months from the date of the survey (i.e. until May 2026), after which the validity of this assessment should be reviewed to determine whether further updates are necessary. It is suggested that baseline data is maintained valid until pre-construction checks, as recommended in section 4 of the report. The recommendations within this report should be reviewed (and reassessed if necessary) should there be any changes to the red line boundary or development proposals which this report was based on.

2.0 METHODOLOGY

2.1 HISTORIC SURVEYS

A Preliminary Ecological Appraisal (PEA) was undertaken on site on the 8th August 2024, identifying field evidence of, and suitable habitat for, beaver and otter in the vicinity of the site boundary. A PEA report was issued October 2024 (ref: 784-B066659 Beaully BESS PEA Report Issued 20241014) (Tetra Tech Ltd., 2024).

2.2 DESK STUDY

The desktop study comprised two elements:

- A data search obtained from The National Biodiversity Network (NBN) Atlas in July 2024 and Highland Biological Recording Group (HBRG) in September 2024.
- Online element including a search using: NatureScot Sitelink (<https://sitelink.nature.scot>), Scotland's Environment Map (<https://map.environment.gov.scot/sewebmap>), and Ordnance Survey (OS) and Aerial Imagery (<https://www.bing.com/maps>).

The geographical extent of the search area was related to the significance of sites and potential zones of influence, this included a search for any designated sites within 2km supporting otter and beaver.

2.3 FIELD SURVEYS

Otter and beaver surveys were undertaken on the 6th November 2024 by Tetra Tech Associate Director Doug Blease MCIEEM and Assistant Ecologist Bethany James BSc (Hons). The UKHab map (Tetra Tech Ltd., 2024) and OS mapping were used to quantify the survey area adjacent to the site boundary and 250m upstream and downstream of the site extents. All field signs were mapped using a handheld GPS device (Survey 123 software).

Survey weather conditions were 14-16°C, 80% cloud cover, dry and with a light breeze.

Note that scientific names are provided at the first mention of each species and common names (where appropriate) are then used throughout the rest of the report for ease of reading.

Biosecurity

All surveys were conducted in accordance with Tetra Tech Biosecurity Policy (2024).

2.3.1 Beaver

The survey was completed in accordance with the standard methodology describe in the *Eurasian Beaver Handbook* (Campbell-Palmer, et al., 2016) and *Standing advice for planning consultations – Beavers* (NatureScot, 2024).

Habitat-based assessment

A precursory habitat-based assessment (HBA) was completed during the August 2024 Preliminary Ecological Appraisal, any changes to habitat were noted during the November 2024 survey. Surveyed habitats were given a suitability rating of high and were assessed on the following features:

- Watercourses and surrounding terrestrial habitats, providing resting places, security and supporting foraging and commuting beaver.
- Vegetation availability such as riparian woodland, herbaceous and woody plants.

Presence / likely absence survey

A systematic search of all bankside habitat within/adjacent to the site (as shown on Figure 1) was carried out for beaver field signs in accordance with the Eurasian Beaver Handbook (Campbell-Palmer, *et al.*, 2016). This comprised searching the banks of the River Beaulieu, adjacent to the site, to a distance of 250m (extended to include otter survey extents) upstream and downstream of the site where accessible and searching for beaver field signs outlined in Table 1.

Table 1 Beaver field signs along with code and description (NatureScot, 2020)

Code	Field Sign	Description
C	Woody feeding	Cutting or gnawing of woody vegetation (shrubs, saplings and trees)
H	Soft feeding	Feeding on herbaceous vegetation
Ag	Crop feeding	Feeding on agricultural crops
D	Dam	Dams are classified as active/maintained or old/breached
Ca	Cache	Cut, stored woody vegetation
Di	Canal/digging	Beaver digging into substrate or creation of canals leading inland to access more foraging grounds
Bu	Burrow	Entrances usually below normal water levels and can extend inland forming complex underground systems
L	Lodge	Dwellings where the nest chamber protrudes from the surface and has been built up using sticks and mud
SM	Scent mound	A pile of material (usually mud) scraped together by the beaver on which a distinctive scent (castoreum/ anal-gland secretion) is deposited
SS	Scent site	A small area of concentrated multiple scent mounds
FS	Feeding station	A location at the edge of the water to which a beaver repeatedly takes, for consumption, material obtained elsewhere
FT	Feeding trail	Created by the frequent passing of a beaver from the water to a location inland
P	Prints	Rarely found, but characteristic footprints can be observed in soft ground and muddy areas or on lodge where mud has been freshly added

The survey area was mapped with the positions of the above field signs, as shown in Figure 2.

2.3.2 Otter

The survey was completed in accordance with the guidance outlined in *Monitoring the Otter* (Chanin, 2003). This included:

Habitat-based assessment

A precursory habitat-based assessment (HBA) was completed during the August 2024 Preliminary Ecological Appraisal, any changes to habitat were noted during the November 2024 survey. This comprised a field survey to determine whether otter habitat preferences were supported. Surveyed habitats were given a suitability rating of high and were assessed on the following features:

- Watercourses and surrounding terrestrial habitats, providing resting places and supporting foraging and commuting otter.
- Available structures, debris or riparian woodland.

Presence / likely absence survey

The River Beaulieu was surveyed for otter field evidence within and directly adjacent to the site plus 250m upstream and downstream of the site. In accordance with best practice guidance (Chanin, 2003), this comprised a detailed search for the presence or absence of otter signs and the location of likely sites for these, as follows:

- Footprints;
- Spraints: The number of spraints were recorded, and placed into three categories: Dried fragmented (Df); Dried intact (Di); Not fully dry (Nd);
- Anal jelly: Number and location;
- Feeding remains: Number, location and type (such as fish/bird amphibian/crayfish remains);
- Mammal paths: Number, location and whether well-used;
- Slides: Number, location and whether well-used; and
- Resting places: These were described in terms of level of activity/inactivity including spraints, footprints, signs of wearing around entrance holes if present and whether above/below ground and were given a suitability rating of negligible-high. Resting place suitability for use as a natal holt was also recorded with a rating of negligible-high, based upon features including distance from watercourse, type of watercourse (i.e. river/stream/ditch), whether located within dense vegetation or open habitat, and availability of play areas. Potential resting places were also recorded.

The survey area was mapped with the positions of the above field signs, as shown in Figure 2. All field signs were mapped using a handheld GPS device (Survey 123 software).

2.4 LIMITATIONS

The otter and beaver survey was completed during appropriate weather conditions as there was no heavy rain for at least five days before the survey dates. Evidence of grazing sheep was apparent along the east bank of the River Beaulieu which made searching for discreet field signs of otter difficult in some areas.

Note: the absence of spraint or other signs does not necessarily preclude otters from the area.

Any absence of desk study records cannot be relied upon to infer absence of a species/habitat as the absence of records may be a result of under-recording within the given search area.

A vegetated island feature within the river channel is present upstream of the site and this was not accessible for field survey. As otter are known to be active in the area it is likely more field evidence would be present on this island although fluctuating water levels are expected to reduce opportunity for otter holts or beaver lodges to be present here.

The western bankside was not subject to targeted study however the immediate bank formation was searched for features using close focus binoculars from approximately 60m. The western bank is well used by visiting public with frequent dog walkers accessing the area and which will reduce the likelihood for otter and beaver to adopt secure resting sites.

Notwithstanding the limitations highlighted above, the survey effort applied is considered sufficient to meet the aims of the survey and this report, in accordance with the aforementioned guidelines.

Baseline ecological results are generally considered valid for a period of **18 months** (i.e. until June 2026) from the date of the survey, after which the validity of this assessment should be reviewed to determine whether further updates are necessary. It is suggested that baseline data is maintained valid until pre-construction checks, as recommended in section 4 of the report. Note that the recommendations within this report should be reviewed (and reassessed if necessary) should there be any changes to the red line boundary or development proposals which this report was based on.

3.0 BASELINE CONDITIONS

3.1 DESK STUDY

3.1.1 Previous Survey Results

A PEA survey was completed by Tetra Tech Consultant Ecologist Ash Ronaldson BSc (Hons) and Assistant Ecologist Bethany James BSc (Hons) on 8th August 2024. At the time of the survey, fresh and old woody feeding signs were observed along the banks of the River Beaully, approximately 400m from the western site boundary and 500m – 1km from the northern site boundary.

No direct evidence of otter presence was found within the site boundary and buffer area during the PEA survey.

3.1.2 Local Records Centre

The data provided by HBRG and NBN included two records of otter within 2km of the site, the closest record was from 2004 and located 1.2km east from the site. No records of beaver were returned.

The River Beaully is hydrologically linked to the Beaully Firth Site of Special Scientific Interest (SSSI) located 0.88km north-northeast of the site; Inner Moray Firth Special Protection Area (SPA)/Ramsar 0.88km north and Moray Firth SPA 5.57km northeast of the site. These sites and the wider River Beaully catchment are known to support beaver and otter.

3.2 FIELD SURVEY

3.2.1 Habitat-based Assessment

Descriptions and photos of the habitats through the survey area are detailed in the October 2024 PEA report. The location of field signs recorded during the survey are provided in Figure 2.

Habitats present on site remain unchanged since the PEA survey and the site mainly comprises modified grassland, neutral grassland, mixed deciduous and broadleaved woodland and scrub. The broadleaf, riparian woodland present along the banks of the river, which continues adjacent to the western site boundary, offers suitable feeding opportunities for beaver. The River Beaully, adjacent to the site, provides suitable habitat for commuting, resting and foraging for beaver and otter. Both sides of the river catchment have succumbed to erosion, exposing tree roots during low water levels which provide suitable locations for otter resting places and beaver bank lodges or burrows (TN17). Areas of the riverbank, directly adjacent to the site boundary, have been degraded by sheep grazing and present fewer resources for both beaver and otter. Collectively the surrounding habitats of the proposed site are considered to have high suitability for beaver and otter.

3.2.2 Survey Results

Table 2 Beaver Survey Results

Target Note No.	Field Sign	Description of evidence
1	C - Woody feeding	Observed on the banks of the River Beaulieu, approximately 60m from the southern site boundary.
3	C - Woody feeding	Observed approximately 85m from the southern site boundary, 13m inland of the River Beaulieu.
9	C - Woody feeding	Observed on the banks of the River Beaulieu, approximately 150m from the southern site boundary.
15	C - Woody feeding	Observed on the banks of the River Beaulieu, approximately 230m from the western site boundary.

Table 3 Otter Survey Results

Target Note No.	Field sign	Description of evidence
5	Footprint	Observed in the muddy bank of the River Beaulieu, approximately 120m from the southern site boundary.
6	Footprint	Observed in the muddy bank of the River Beaulieu, approximately 120m from the southern site boundary.

Table 4 Incidental Field Evidence

Target Note No.	Field sign	Description of evidence
2	Mammal burrow	Observed on the upper banks of the River Beaulieu, approximately 70m from the southern site boundary. No diagnostic signs were found around the burrow (typical of rabbit).
4	Badger <i>Meles meles</i> snuffle hole	Badger foraging signs found approximately 90m from the southern site boundary on the riverbank.
7	American mink <i>Neovision vison</i> print	Observed in the muddy bank of the river, approximately 125m from the southern site boundary.
8	Badger dung pit	Observed on the upper, sloped bank of the river, approximately 267m from the southern site boundary.
10	Mammal burrow	Observed on the upper sloped bank of the river, approximately 175m from the southern site boundary and 190m inland from the water's edge. No diagnostic signs were found around the burrow (typical of rabbit).
11	Potential badger outlier sett	Burrow typical of badger observed on the upper sloped bank of the river, approximately 65m from the southern site boundary.
12	Mammal burrow	Observed on the sloped bank, directly adjacent to the southwestern site boundary. No diagnostic signs were found around the burrow (typical of rabbit).

13	Mammal burrow	Observed on the sloped bank, directly adjacent to the southwestern site boundary. No diagnostic signs were found around the burrow (typical of rabbit).
14	Badger dung pit	Observed in the vegetated banks of the river, approximately 80m from the western site boundary.
16	Pine marten <i>Martes martes</i> scat	Observed in the riparian woodland, approximately 320m from the western site boundary.

4.0 DISCUSSION

4.1 IMPACTS

Following the desk study and field survey, beaver and otter have been confirmed as being active within the riparian habitat adjacent to the proposed development site. No resting sites were discovered although mammal burrows are present which could be used by otter opportunistically.

The proposed development design plan incorporates a SuDs that does not directly drain into the river catchment (attenuation pond to a soakaway), limiting any habitat fragmentation or loss.

The landscape plan aims to augment and enhance the riparian woodland, including the exclusion of sheep grazing (except for the 5m corridor being left open to allow sheep to access the river itself), which would be a benefit to both species by producing fodder for beaver and cover for otter activity on a bankside not disturbed by human activity. As such, it is possible to develop and operate the BESS project with no adverse effects on beaver and otter through loss of habitat or severance of connectivity.

Killing, injury and disturbance of both species can be avoided during the construction and operational phase through implementing good practice measures. Maintaining baseline data on otter and beaver activity and monitoring the habitat including nearby mammal burrows for signs of use by otter, will be required leading up to and during the construction phase. It is anticipated that during the BESS operational phase, staff attending this site will be made aware, through their induction process, of local wildlife and how to limit any risk that their actions on site may present to protected species.

The outcomes of this study do not suggest that European Protected Species Licensing is required at this time. Any changes in design or baseline data may result in a review of the need for a licencing process.

4.2 PRE-COMMENCEMENT SURVEY

As otter and beaver are dynamic species, it is recommended that baseline data is maintained leading up to a pre-commencement otter and beaver survey. Should no licensable constraints become apparent the construction phase should operate under a non-licensed method statement (included with a Construction Environment Management Plan) to avoid accidental harm to otter and beaver as detailed in Table 5.

4.2.1 Beaver

It is recommended that a pre-commencement beaver survey is timetabled into project plan and conducted as close to the construction period as possible. This is to enable checks for any new lodges, burrows (or associated dams) that may have become occupied and allow for adaptations to the species protection plan.

4.2.2 Otter

It is recommended that a pre-commencement otter survey is timetabled into project plans and conducted as close to the construction period as possible (combined with the beaver survey detailed above). This is to enable checks for any new holts or resting places that may have become occupied and allow for adaptations to the species protection plan.

4.3 SPECIES PROTECTION PLAN

The Construction Environmental Management Plan (CEMP) will include a Species Protection Plan (SPP), detailing the measures to be implemented and audited during construction and operation to avoid and minimise the risk of negative impacts to otters and beavers on or near to the site.

In order to complete the works **without a license** there needs to be a high level of confidence that using Reasonable Avoidance Measures under a SPP, as highlighted in Table 5 below, will be adhered to and that there will be no offence committed by the proposed actions.

Note:

In the event that beaver and/or otter are observed on site at any stage during site clearance, construction or operation then works should stop and an appropriately qualified ecologist contacted for advice.

Table 5 Reasonable Avoidance Measures for works potentially affecting beaver/otter

Project element	Avoidance measures
Construction methods and special precautions	<ul style="list-style-type: none"> (a) Maintain baseline ecological data and monitor potential resting sites such as the overhanging riverbanks and mammal burrows. (b) Pre-commencement checks will be undertaken by an ecologist to search for new beaver lodges, burrows (or associated dams) or otter holts or resting places have been created since previous survey; allowing time for any potential adaptation to the SPP or licensing which may be required. (c) An Ecological Clerk of Works will be appointed to guide the project in relation to protected species constraints and good environmental practice. (d) Assurance of site staff/operative awareness of protected species will be made through appropriate induction and toolbox talks. (e) Vehicle speed limits will be implemented on site to reduce the risk of harm to otter, beaver or other commuting mammals present in the locale. (f) Loss and destruction of beaver fodder resource and food caches during winter months (November to March) will be avoided by retaining all riparian woodland vegetation. (g) Checks of stored materials such as pipes, voids beneath cabins/containers/stockpiles will be undertaken frequently for signs of otter. Suspected field signs will be reported promptly to the project ecologist/clerk of works. (h) Cover or backfill trenches and other excavations before nightfall. Alternatively, slope the sides to 45° or less, or leave a ramp to allow beaver, otter and other mammals to easily exit. (i) Cap any temporarily exposed open pipes to prevent beavers, otters or other mammals from gaining access.

Location & Layout	<ul style="list-style-type: none"> (j) The site's logistics compound will not be located at the riverbank.. (k) The design layout and landscaping plan avoids severance of riparian woodland. (l) Landscaping includes habitat enhancement such as improvements to the existing riparian woodland by removing livestock grazing effects, augmenting native species planting to promote structural diversity and woodland expansion, bolstering the screening effect that the woodland provides between the operational battery site and the river channel. This will also create a cohesive sheltered corridor which otter and beaver can utilise for the purpose of commuting and foraging adjacent to the site minimising the risk of disturbance to these species. (m) The site's temporary and permanent lighting scheme will be designed accordingly to avoid direct illumination of adjacent habitat features (riparian woodland, woodland edges, scrub, riverbanks and water courses) and commuting routes; and limit the use of unnecessary lighting, or light spill, during construction and operation. This includes the use of motion activated operational lighting and passive infrared security lighting. (n) The design suggests that palisade and acoustic fencing will be installed around the development which is expected to prevent otter from accessing these sites during operation.
Timing & duration	<ul style="list-style-type: none"> (a) Work will be planned efficiently to keep the duration of construction as short as possible. (b) Construction works which are undertaken after sunset and before sunrise will be cognisant of the presence of otter and beaver in the adjacent habitats and will be planned to minimise the spill of noise, vibration and lighting to the riparian zone of the River Beaulieu. .

5.0 SUGGESTIONS FOR ECOLOGICAL ENHANCEMENT

It is a requirement of the National Planning Framework 4 (NPF4) to provide enhancements for biodiversity as part of development. The following measures are proposed to enhance the site for beaver/otter:

Table 6 Recommended enhancement measures for works potentially affecting beaver/otter

Project element	Suggestions for enhancement
Habitat connectivity	<ul style="list-style-type: none"> (a) Augment riparian habitat with appropriate planting to increase the robustness of a connected sheltered corridor for otter to move and rest freely along the river. (b) Liaise with the landowner to reduce livestock grazing along the riverbanks whilst allowing a narrow access for livestock to gain drinking water. (c) Improve habitat connectivity for beaver with riparian tree planting using appropriate native species or set aside land for riparian buffer strips. (d) Introduce species such as willow <i>Salix spp.</i>, aspen <i>Populus tremula</i>, hazel <i>Coryllus avellana</i> and oak <i>Quercus spp.</i> to planting schemes which are favourable to beaver.
Invasive non-native species	<ul style="list-style-type: none"> (a) Assist in the monitoring and control American mink on the River Beaulieu catchment and support the work of the Scottish Mink Initiative / Scottish Invasive Species Initiative. (b) Monitor and control any non-native invasive plant species which may occur on the river embankments adjacent to the site.

6.0 CONCLUSIONS

Due to the hydrological connectivity between the Beaulieu Firth SSSI and the field signs noted during the survey, beaver and otter are confirmed as active in proximity to the proposed development site.

By implementing sensitive design and a Species Protection Plan and maintaining baseline data as valid leading up to and during construction, the development proposals are considered unlikely to cause adverse effects on beaver and otter during construction and operational phases.

The site's landscaping plan has the potential to provide enhanced resources for beaver and otter.

Provided the Species Protection Plan and Reasonable Avoidance Measures outlined in this report are adhered to, it is anticipated that this design could be brought forward for this site without the need for a European Protected Species License and would be compliant with current local and national biodiversity planning policy.

7.0 REFERENCES

- Campbell-Palmer, R., Gow, D., Campbell, R., Dickinson, H., Girling, S., Gurnell, J., . . . Rosell, F. (2016). *The Eurasian Beaver Handbook: Ecology and Management of Castor Fiber*. Pelagic Publishing.
- Chanin, P. (2003). Ecology of the European Otter. *Conserving Natura 2000 River Ecology Series No. 10*.
- Chanin, P. (2003). Monitoring the Otter *Lutra lutra*. *Conserving Natura 2000 Rivers Monitoring Series No. 10*.
- NatureScot. (2020). *NatureScot Research Report 1274 - Survey of the Tayside Area Beaver Population 2020-2021*.
- NatureScot. (2024). *Standing advice for planning consultations - Beavers*. Retrieved from NatureScot: <https://www.nature.scot/doc/standing-advice-planning-consultations-beavers>
- Tetra Tech Ltd. (2024). *Preliminary Ecological Appraisal Report*.

FIGURES

Figure 1 – Site Location Plan

Figure 2 – Beaver and Otter Survey Results



Site Location Plan
Beauly BESS



TNEI on behalf of Field

Legend

Site Boundary

Notes:

Drawn by: AARON.HOWARD
Checked by: Bethany James

Figure No. 1
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12 December 2024

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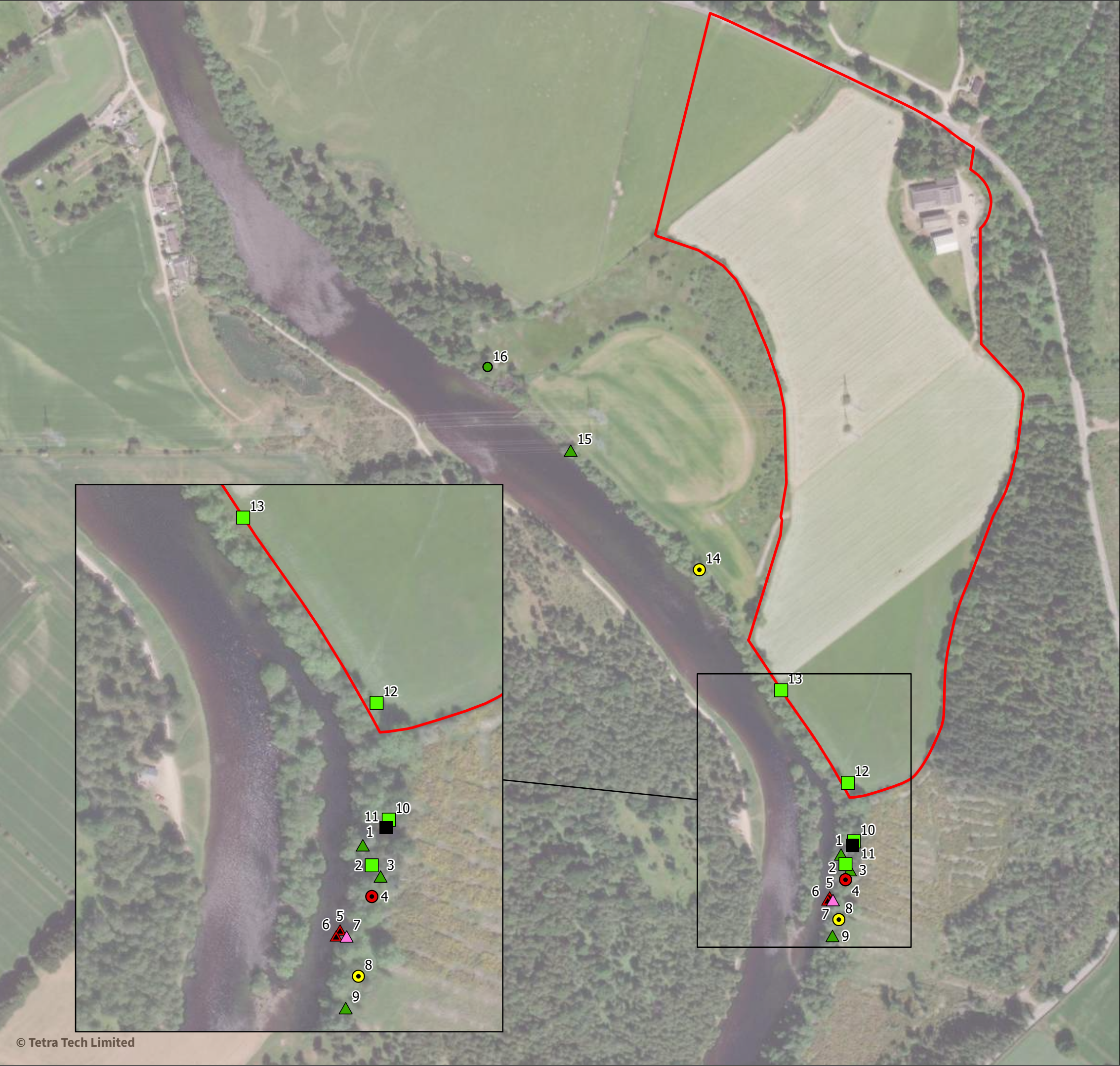
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Beaver / Otter Survey Results

Beaulieu BESS



TNEI on behalf of Field

Legend

- Site boundary
- C - Woody feeding
- Otter footprint
- Incidental Field Evidence
 - Badger dung pit
 - Badger snuffle hole
 - Mammal burrow
 - Potential badger outlier sett
 - Mink footprint
 - Pine marten scat

Notes:

Drawn by: CARYS.LAWSON
Checked by: Bethany James

Figure No. 2
Revision No. A
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0 40 80 120 160 Meters
Scale 1:4,000 @A3

British National Grid
NGR: 252069E 844286N

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APPENDICES

APPENDIX A – REPORT CONDITIONS

APPENDIX B – FIELD SURVEY NOTES

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APPENDIX A: REPORT CONDITIONS

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The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections'. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The “shelf life” of the Report will be determined by a number of factors including; its original purpose, the Client’s instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.





The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Tetra Tech accept no liability for issues with performance arising from such factors.

APPENDIX B: FIELD SURVEY NOTES

Target Note	Description	Photograph
TN1	<p>Beaver foraging</p> <p>British National Grid (m): 252370E, 843943N</p> <p>WGS84 (Lat/Long): 57.4617°N, -4.4627°E</p>	 <p>The first photograph shows a beaver gnawing on a tree trunk near a body of water. The second photograph shows a beaver gnawing on a tree trunk. The third photograph shows a beaver gnawing on a tree trunk.</p>
TN2	<p>Mammal burrow - no diagnostics</p> <p>British National Grid (m): 252375E, 843932N</p> <p>WGS84 (Lat/Long): 57.4616°N, -4.4626°E</p>	 <p>The photograph shows a mammal burrow in the ground, surrounded by fallen leaves and ferns.</p>

		 
TN3	<p>Beaver foraging</p> <p>British National Grid (m): 252380E, 843926N</p> <p>WGS84 (Lat/Long): 57.4615°N, -4.4625°E</p>	  



TN4	<p>Badger snuffle hole</p> <p>British National Grid (m): 252375E, 843915N</p> <p>WGS84 (Lat/Long): 57.4614°N, -4.4626°E</p>	  
TN5	<p>Otter footprint</p> <p>British National Grid (m): 252358E, 843898N</p> <p>WGS84 (Lat/Long): 57.4612°N, -4.4628°E</p>	







TN6	<p>Otter print</p> <p>British National Grid (m): 252356E, 843895N</p> <p>WGS84 (Lat/Long): 57.4612°N, -4.4629°E</p>	
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TN7	<p>American mink footprint</p> <p>British National Grid (m): 252361E, 843894N</p> <p>WGS84 (Lat/Long): 57.4612°N, -4.4628°E</p>	













		
TN8	<p>Badger dung pit</p> <p>British National Grid (m): 252368E, 843872N</p> <p>WGS84 (Lat/Long): 57.461°N, -4.4627°E</p>	





		
TN9	<p>Beaver foraging</p> <p>British National Grid (m): 252361E, 843856N</p> <p>WGS84 (Lat/Long): 57.4609°N, -4.4628°</p>	 




		
TN10	<p>Mammal burrow</p> <p>British National Grid (m): 252384E, 843956N</p> <p>WGS84 (Lat/Long): 57.4618°N, -4.4624°E</p>	  
TN11	<p>Potential badger outlier sett</p> <p>British National Grid (m): 252382E, 843952N</p> <p>WGS84 (Lat/Long): 57.4617°N, -4.4625°E</p>	

		  
TN12	<p>Mammal burrow</p> <p>British National Grid (m): 252378E, 844019N</p> <p>WGS84 (Lat/Long): 57.4623°N, -4.4626°E</p>	 

		 
TN13	<p>Mammal burrow</p> <p>British National Grid (m): 252306E, 844118N</p> <p>WGS84 (Lat/Long): 57.4632°N, -4.4638°E</p>	  

		
TN14	<p>Badger dung pit</p> <p>British National Grid (m): 252218E, 844247N</p> <p>WGS84 (Lat/Long): 57.4643°N, -4.4654°E</p>	  
TN15	<p>Beaver foraging</p> <p>British National Grid (m): 252081E, 844375N</p> <p>WGS84 (Lat/Long): 57.4654°N, -4.4677°E</p>	

		
TN16	<p>Pine marten scat</p> <p>British National Grid (m): 251992E, 844464N</p> <p>WGS84 (Lat/Long): 57.4662°N, -4.4693°E</p>	  

TN17	Eroded and overhanging banks of the river, suitable habitat for otter and beaver.	  
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APPENDIX C: LEGISLATION AND POLICY

Habitats Directive

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, or the 'Habitats Directive', is a European Union directive adopted in 1992 in response to the Bern Convention. Its aims are to protect approximately 220 habitats and 1,000 species listed in its several Annexes.

In the UK, the Habitats Directive is transposed into national law via the Conservation of Habitats and Species Regulations 2017 (as amended) in Scotland, and via the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland.

Conservation of Habitats and Species Regulations 2017 (as amended)

The 2018 amendments mainly related to the impact of the *People Over Wind* decision and some implications arising for neighbourhood plan development and a range of other planning tools including Local Development Orders and Permission in Principle – see here for full details:

<https://www.legislation.gov.uk/uksi/2018/1307/note/made>

The 2019 amendments related to the EU exit. Most of these changes involved transferring functions from the European Commission to the appropriate authorities in Scotland. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant. The obligations of a competent authority in the 2017 Regulations for the protection of sites or species do not change.– see here for full details:

<https://www.legislation.gov.uk/ukdsi/2019/9780111176573>

Otters are protected under the regulations, which make it an offence to deliberately kill, injure, disturb or capture them; damage or destroy their breeding sites and resting places - even if otters are not present; or possess, control or transport them (alive or dead).

Wildlife & Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK. This legislation is the chief means by which the 'Bern Convention' and the Birds Directive are implemented in the UK. Since it was first introduced, the Act has been amended several times.

The Act makes it an offence to (with exception to species listed in Schedule 2) intentionally:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use; or
- take or destroy an egg of any wild bird.

Or to intentionally do the following to a wild bird listed in Schedule 1:

- disturbs any wild bird while it is building a nest or is in, on or near a nest containing eggs or young; or
- disturbs dependent young of such a bird.

In addition, the Act makes it an offence (subject to exceptions) to:

- intentionally or recklessly kill, injure or take any wild animal listed on Schedule 5;
- interfere with places used for shelter or protection, or intentionally disturbing animals occupying such places; and
- The Act also prohibits certain methods of killing, injuring, or taking wild animals.

Natural Environment and Rural Communities Act 2006

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of Habitats and Species which are of Principal Importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning)

functions. The S41 list includes 65 Habitats of Principal Importance and 1,150 Species of Principal Importance. Beaver and otter are both listed under the NERC act.

Global IUCN Red List

The International Union for Conservation of Nature (IUCN) Threatened Species was devised to provide a list of those species that are most at risk of becoming extinct globally. It provides taxonomic, conservation status and distribution information about threatened taxa around the globe.

The system catalogues threatened species into groups of varying levels of threat, which are: Extinct (EX), Extinct in the Wild (EW), Critically Endangered (CE), Endangered (EN), Vulnerable (VU), Near Threatened (NT), Least Concern (LC), Data Deficient (DD), Not Evaluated (NE). Criteria for designation into each of the categories is complex and consider several principles.

Local Biodiversity Action Plan (LBAP)

Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level), and are usually drawn up by a consortium of local Government organisations and conservation charities.

Some LBAPs may also include Habitat Action Plans (HAP) and/or Species Action Plans (SAP), which are used to guide and inform the local decision making process.

Wild Mammals (Protection) Act 1996

This Act offers protection to all wild species of mammals, irrespective of other legislation, and focussed on animal welfare, rather than conservation.

Unless covered by one of the exceptions, a person is guilty of an offence if he mutilates, kicks, beats, nails or otherwise impales, stabs, burns, stones, crushes, drowns, drags or asphyxiates any wild mammal with intent to inflict unnecessary suffering.

Its application is typically restricted to preventing deliberate harm to wildlife (in general) during construction works etc.

National Planning Framework

National Planning Framework 4 (NPF4) is the top tier of planning policy. The Framework provides guidance to local authorities and other agencies on planning policy and the operation of the planning system.

“Policy 1 gives significant weight to the nature crisis to ensure that it is recognised as a priority in all plans and decisions. Policy 4 protects and enhances natural heritage, and this is further supported by Policy 5 on soils and Policy 6 on forests, woodland and trees. Policy 20 also promotes the expansion and connectivity of blue and green infrastructure, whilst Policy 10 recognises the particular sensitivities of coastal areas.

Protection of the natural features of brownfield land is also highlighted in Policy 9, and protection of the green belt in Policy 8 will ensure that biodiversity in these locations is conserved and accessible to communities, bringing nature into the design and layout of our cities, towns, streets and spaces in Policy 14.

Most significantly, Policy 3 plays a critical role in ensuring that development will secure positive effects for biodiversity. It rebalances the planning system in favour of conserving, restoring and enhancing biodiversity and promotes investment in nature-based solutions, benefiting people and nature. The policy ensures that Local Development Plans (LDPs) protect, conserve, restore and enhance biodiversity and promote nature recovery and nature restoration. Proposals will be required to contribute to the enhancement of biodiversity, including by restoring degraded habitats and building and strengthening nature networks. Adverse impacts, including cumulative impacts, of development proposals on the natural environment will be minimised through careful planning and design, taking into account the need to reverse biodiversity loss. Development proposals for national, major or Environmental Impact Assessment (EIA) development will only be supported where it can be

demonstrated that the proposal will conserve, restore and enhance biodiversity, including nature networks, so they are in a demonstrably better state than without intervention. Proposals for local development will include appropriate measures to conserve, restore and enhance biodiversity.”

See here for full details: <https://www.gov.scot/publications/national-planning-framework-4/>
