



**Land adjacent 1 Percy Road,
Cynonville, Port Talbot**

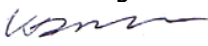
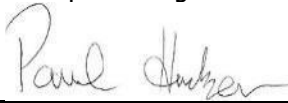
Preliminary Ecological Appraisal

May 2024

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Document Verification Table

Land adjacent 1 Percy Road, Cynonville, Port Talbot Preliminary Ecological Appraisal				
Revision	Date	Prepared by	Checked by	Verified by
1.0	31 May 2024	Kelly Brown Senior Ecologist 	Isabel Humphries Assistant Ecologist 	Paul Hudson MCIEEM Principal Ecologist 

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Summary

Brief and Site Location	Acer Ecology Ltd. were instructed by Kevyn Davies to conduct a preliminary ecological appraisal of land adjacent to 1 Percy Road, Cynonville, Port Talbot, SA13 3HL, within the boundary of Neath Port Talbot County Borough Council (Ordnance Survey Grid Reference centred at: SS 8246 9519).
Development Proposals	The proposed development works comprise the construction of two detached dwellings with integral garages.
Impacts to Key Receptors	The development may result in adverse impacts to common reptiles. Recommendations to avoid this can be found in Section 4 of the report.
Invasive Species	The development may result in the spread of montbretia an invasive plant species. Measures to prevent this are set out in Section 4.
Required Actions	The following provisional recommendations have been developed based on the development proposals available at the time of writing. They may be subject to change upon receipt of the final design: • Design amendment: a patch of bluebells was recorded from the north-western aspect of the site. These could be translocated within the landscape design for the site. • Further Survey: • Reptile surveys (seven visits between in April, May or September inclusive); • Precautionary measures- • The hedgerow and dense scrub should be removed outside of the bird nesting season (March to September inclusive); and • A pre-commencement badger survey should be conducted prior to works starting on site. It is recommended that during the construction phase any steep sided holes left open overnight should be equipped with a mammal ladder. • Precautionary measures for common amphibians during clearance of the small artificial pond within the south-western aspect of the site. • Mitigation measures- • A sensitive lighting strategy should be produced as part of the planning conditions for the site. • Compensation and enhancement measures- • Broad recommendations include hedgerow planting, wildflower grassland creation, hedgehog and SuDs enhancements.
Licensing Requirements	None required.
Conclusions	The full extent of ecological impacts and potential constraints of the proposed development cannot be fully determined, based on the results of the preliminary ecological appraisal survey alone. Further survey work is required before the ecological impacts of the proposed development can be assessed, as detailed in Section 4.2. It is unlikely that the results of these further surveys will be a fundamental constraint to the proposed development although they may identify the need for mitigation. If development works do not begin within eighteen months to two years of the date of this report of this report, an update survey is likely to be required in accordance with guidance from Natural Resources Wales (NRW), (CIEEM, 2019) and

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	BS 42020:2013, to determine if conditions have changed since those described in this report.
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1. Introduction

1.1. Brief and Site Location

Acer Ecology Ltd. were instructed by Kevyn Davies to conduct a preliminary ecological appraisal of land adjacent to 1 Percy Road, Cynonville, Port Talbot, SA13 3HL, within the boundary of Neath Port Talbot County Borough Council (Ordnance Survey Grid Reference centred at: SS 8246 9519)¹. The assessment documents the baseline ecological condition of the survey area, which is shown by the red line boundary on Plan 1. Designated sites, habitats, protected and notable species of conservation interest that could be affected by the proposed works are identified, and subsequent recommendations provided.

This assessment will provide initial recommendations based on the development proposals available at the time of writing. They should be revised upon finalisation of the design.

1.2. Site Description

The site proposed for development measures approximately 0.0.72 ha, and comprises a previous allotment garden which has been uncultivated for approximately 12 months which mainly comprised species-poor semi-improved grassland at the time of survey. The site is situated in the village of Cynonville, 7km north-east of Port Talbot. The site is surrounded by residential dwellings to the north and east with expansive tree-lined fields to the south and west. Afan Argoed Country Park is located 46m north of the site across the A4107. The site is characterised by a gentle gradient which slopes down from 156m south to 146m north above sea level.

1.3. Proposed Works

The proposed development works comprise the construction of two detached dwellings with integral garages. A planning application has not been submitted at the time of writing.

Existing & Proposed plans can be found in Drawings 1 & 2.

1.4. Scope of the Study

The study comprised the following:

- A desk study to identify existing information on statutory and non-statutory sites of nature conservation interest, and records of notable or protected habitats or species within the site and its surrounding area;
- A Phase 1 Habitat Survey of the site, extended to search for evidence of, and potential for, protected fauna; and
- Identification of potential ecological constraints to the proposed works at the site and assessments of impacts including appropriate mitigation measures where necessary.

¹ Latitude and Longitude: fairly.cycle.subsystem / what3words: 51.643233 , -3.7000403

1.5. Reporting

This report aims to:

- Outline the methodology used during the survey;
- Present the baseline ecological information;
- Provide an ecological evaluation of on-site habitats, including an assessment of the potential for protected species;
- Assess the potential impacts of the development proposals on ecological receptors;
- Assess the potential ecological constraints to the proposals; and
- Provide recommendations for further survey, avoidance, mitigation and enhancement where appropriate.

2. Methods

2.1. Scope of Assessment

This assessment has been undertaken following the approach detailed in the Chartered Institute of Ecology and Environmental Management's 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (CIEEM, 2018). The assessment has focussed on 'Important Ecological Features' that are present within the 'Zone of Influence' of the project. Important Ecological Features, as detailed in Box 14 of the CIEEM's Guidelines comprise:

- Habitats and Species of Principal Importance for the Conservation of Biodiversity in Wales;
- Legally protected species; and
- Red Listed or rare species (based on Red Data Book lists, Birds of Conservation Concern and species considered to be nationally rare/scarce).

The Zone of Influence (ZoI) is the area over which the development proposal could have an influence on ecological features. The ZoI will vary for different features, although the ZoI for this development proposal is considered to comprise the land within the red line boundary as well as immediately adjacent habitat features.

2.2. Desk Study

2.2.1. Protected Sites, Habitats and Species

Existing information on designated sites and protected species was obtained from the sources detailed in Table 1.

Table 1: Sources of Data

Source	Data	Radius of Search
Natural resources Wales (NRW) Geographical Information Systems (GIS) Layers	Statutory and non-statutory nature conservation designated sites	Ramsar/Special Area of Conservation (SACs)/Special Area of Protection (SPAs)/Site of Special Scientific Interest (SSSIs) National Nature Reserves (NNRs), Local Nature Reserves (/LNRs), Ancient Semi-Natural Woodland, (ASNW), Restored Ancient Woodland Sites (RAWS) and Plantation on Ancient Woodland Sites (PAWS) - 2km ² SACs (designated for bats) - 10km
South East Wales Biological Records Centre (SEWBRc)	Protected species records (SEWBRc unique reference: 0245-105) Site of Importance for Nature Conservation (SINC)	1km. 1km.

All available records of bat roosts, badger, dormouse, amphibians and reptiles were considered. For other species, only records collected within the last 10 years were considered relevant.

2.2.2. Landscape Context

The site and wider landscape were assessed and characterised using aerial images, Ordnance Survey maps and SEWBRc data. The presence of off-site features and habitats, which add to the ecological value within the wider area (for example, ponds within 0.5km of the site) were identified. Where appropriate, such features were scoped into the detailed assessment of impacts presented in Section 3.

2.2.3. Ancient Woodland

Although ancient woodland is not a designated site as such, it is often listed as a designated site due to its ecological significance and associated protection. Ancient woodland has therefore been included within the non-statutory designated site section of this report.

2.2.4. Planning Authority

The Neath Port Talbot County Borough Council Planning Portal² was consulted to determine if any previous survey information was available for the site, or immediate surroundings.

2.3. Field Study

2.3.1. Personnel

The field survey was undertaken in good weather on the 16th May 2024 by Kelly Brown³.

2.3.2. Vegetation and Habitats

The vegetation and habitat types present within the survey area were categorised and mapped in accordance with the standard⁴ The UK Habitat Classification (version 2) codes (UK Hab 2023). Dominant and conspicuous plant species were recorded for each habitat. Target notes were used to record information on features of ecological interest, such as evidence of, or habitats with potential to support, protected species, or where any features of interest too small to map were recorded. Following the completion of the survey, a colour-coded habitat plan was digitised using QGIS to show the extent and distribution of the different habitat types present within the site (see Plan 3).

Habitats of principal importance detailed within Section 7 of Environment Wales Act 2016 were identified and assessed to ecological value of the features of the site.

² <https://planningonline.npt.gov.uk/online-applications/>

³ Kelly holds a Field Identification Skills Certificate (FISC) Level 4 botanical qualification and holds NRW survey licences for bats, dormice and great crested newts.

⁴ Some additional categories were also used if applicable e.g. broadleaved trees indicated by green filled circles rather than using secondary codes.

Invasive plant species listed on Schedule 9⁵ of the Wildlife and Countryside Act 1981 (as amended), such as Himalayan balsam (*Impatiens glandulifera*), giant hogweed (*Heracleum mantegazzianum*) and Japanese knotweed (*Fallopia japonica*) were also noted during the survey, if present.

2.3.3. Protected and Notable Species

Evidence of, and habitats with, potential to support protected or notable species were noted, especially species meeting any of the following criteria:

- Listed under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species (Amendment) (EU Exit) [‘CHSAEU’] Regulations 2019;
- Listed under Section 7 of the Environment (Wales) Act 2016 as being of principal importance for maintaining and enhancing biodiversity in Wales;
- Listed as a local priority for conservation, for example in the relevant Local Biodiversity Action Plan (LBAP);
- Red Listed using International Union for the Conservation of Nature (IUCN) criteria (e.g. in one of the UK Species Status Project⁶ reviews, in the Species of Conservation Concern Red, Amber or Near Threatened List⁷, Birds of Conservation Concern in Wales⁸, or, where a more recent assessment of the taxonomic group has not yet been undertaken, listed in a Red Data Book);
- Listed as a Nationally Rare or Nationally Scarce species (e.g. in one of the Species Status Project reviews) or listed as a Nationally Notable species where a more recent assessment of the taxonomic group has not yet been undertaken; and/or
- Endemic to a country or geographic location (it is appropriate to recognise endemic sub-species, phenotypes, or cultural behaviours of a population that are unique to a particular place).

Only those species with potential to be present on-site are mentioned within this report. The methodologies used were as follows:

Birds

Any birds observed during the field survey were recorded, in addition to features capable of supporting nesting birds (e.g. trees, hedgerows, buildings, bramble, ruderal vegetation and rough grassland etc.). The site was also assessed for its actual and potential suitability to support Wildlife and Countryside Act 1981 (as amended) Schedule 1 species.

A comprehensive bird survey, such as a breeding bird survey, was not undertaken as this was beyond the scope of the assessment.

⁵ Schedule 9 species of plants and animals are ones that do not naturally occur in Great Britain but have become established in the wild and represent a threat to the natural fauna and flora.

⁶ The Species Status project is the successor to the JNCC’s Species Status Assessment project, providing up-to-date assessments of the threat status of various taxa using the internationally accepted Red List guidelines (<http://jncc.defra.gov.uk/page-1773>).

⁷ Eaton *et al.* (2015) Birds of conservation concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. British Birds 108: 708-746.

⁸ Johnstone, I. and Bladwell, S. (2016) Birds of Conservation Concern in Wales 3: the population status of birds in Wales. Birds in Wales 13 (1).

Bats

Preliminary Ground-level Roost Assessment

There are no trees present within the survey area, therefore a preliminary ground-level assessment was not carried out.

Buildings Assessment

There are no buildings present within the survey area, therefore a building assessment was not carried out.

Terrestrial Habitat Assessment

A preliminary assessment of the value of the site for bats (and any potential roost sites therein) was made in accordance with Table 4.1 of the Bat Surveys for Professional Ecologists (Collins, 2023) (see Appendix 5 and 6). The assessment was based on the relative abundance and quality of habitat features within the site, and surrounding landscape, suitable for roosting, foraging and commuting bats.

Landscape features suitable for foraging and commuting bats include linear landscape features such as watercourses, transport corridors (e.g. roads, sunken lanes railways), walls, hedgerows, coppice, woodland fringe, tree lines, ditches and areas of scrub and pasture.

Dormice

The habitats on site are not suitable for supporting dormice. In addition, no records of dormice within 1km of the site have been provided by SEWBRc. Therefore, no adverse impacts are envisaged to occur. This species is therefore not mentioned further in this report.

Furthermore, no woodland or scrub surrounding the site will be cleared. In addition, no records of dormice within 1km of the site were provided by SEWBRc. Therefore, no adverse impacts to this species are envisaged to occur. This species is therefore not mentioned further in this report.

Great Crested Newts

The survey area was appraised for its suitability to support great crested newts (*Triturus cristatus*) (GCN). The assessment was based on guidance outlined in the Herpetofauna Workers' Manual (Joint Nature Conservation Committee, 2003) and the Great Crested Newt Conservation Handbook (Langton, Beckett & Foster, 2001).

Ordnance Survey maps and aerial images of the land surrounding the site were consulted to determine if any waterbodies or watercourses were present within the site or within 0.5km of it. One watercourse, the Afon Avan was identified within the study area (see Plan 5).

However, flowing water is considered to be unsuitable for supporting GCN (English Nature, 2001). This watercourse was therefore deemed unsuitable for supporting GCN.

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Considered in addition to the absence of records of GCN within 1km of the site, the likelihood of GCN being present on site is considered to be negligible. No adverse impacts to GCN are therefore anticipated and this species is not mentioned further in this report.

Flowing water bodies and standing water bodies within 0.5km of the site but separated from the site by hard barriers, therefore, are considered unlikely to support GCN and were not included in this assessment.

Otters, Water Voles and White-Clawed Crayfish

The nearest suitable watercourse for otters is the Afon Avan, approximately 180m north of the proposed development site. This watercourse is separated from site by residential properties to the north of Percy Road and Pen-Twyn Road. Due to the urbanised nature of the development to the area between the site and this watercourse, there is negligible likelihood of otters, water voles or white-clawed crayfish being present within the site, and they are not mentioned any further in this report.

Badgers

Earth embankments, wooded copses, hedgerows and dense bramble beds are habitat features that often contain evidence of badgers (*Meles meles*). Where present on-site and within a 30m buffer adjacent to the site, these and other suitable habitat features were searched for such evidence. Where present, the location of badger signs such as setts, runs, dung pits or latrines, prints, hair and foraging snuffle holes, were recorded.

Reptiles

An assessment of the suitability of on-site habitats to support reptiles was made. Reptiles require a diverse range of habitats to meet their needs such as hedgerows, scrub, rough grassland, woodpiles, rubble, banks and compost heaps. The potential of the site to provide hibernation opportunities and spring/summer/autumn habitat was also assessed, with reference to guidance provided in the Herpetofauna Workers' Manual (Joint Nature Conservation Committee, 2003), the Reptile Management Handbook (Edgar, Foster & Baker, 2011) and the Reptile Mitigation Guidelines Technical Note TIN 102 (Natural England, 2013). The following factors were considered: vegetation type and structure; insolation (sun exposure); slope aspect; topography; surface geology; habitat connectivity; habitat size; prey abundance; refuge opportunity; hibernation opportunity; egg-laying potential for grass snake (*Natrix helvetica*); public pressure; percentage of shade; levels of disturbance and management regime.

A targeted presence/likely absence reptile survey was not undertaken as it was beyond the scope of this assessment.

Hedgehogs

The site's potential to support hedgehog was assessed using guidance on habitats of importance in Hedgehogs and Development (People's Trust for Endangered Species, 2022)⁹ with the following habitats

⁹ <https://www.hedgehogstreet.org/wp-content/uploads/2022/08/PTES-BHPS-Hedgehogs-and-development-guide-2022.pdf>

particularly favoured: dense scrub to build hibernation nests in during the winter; short grass to forage in for invertebrate prey; longer grass to forage in and to make nests in during the summer; areas of leaf litter to collect and use for hibernation nests; log piles and decaying vegetation to forage in and hibernate in; and hedgerows and boundary vegetation that are important corridors for travel and nesting sites.

Other Species

General habitat suitability and incidental sightings of other animal species were also noted.

2.3.4. Assessment of Ecological Value

The value of the habitats and features of the site have been provisionally evaluated and graded in accordance with the Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland (CIEEM, 2018). The level of value of specific ecological receptors is assigned using a geographic frame of reference, i.e. international value being most important, then national, regional, county, district, local and, lastly, within the immediate zone of influence of the site only. Brief descriptions of how Acer Ecology interprets these categories are set out in Appendix 4.

Potential impacts on important ecological features (species, habitats and ecosystems¹⁰) are identified and assessed. Mitigation measures have been devised following the mitigation hierarchy and appropriate mechanisms for securing mitigation measures have been identified.

2.3.5. Limitations

General Temporal Limitations

Any ecological survey can only identify what was present on-site at the time the survey was conducted and habitat usage by species can change over time.

Incomplete Survey Information

Full surveys for the protected species listed previously have not yet been carried out. For some species of fauna for which evidence has been found or which are considered likely to occur on site, further targeted survey is advisable at a more appropriate time of year (see Section 4).

¹⁰ The 2018 EcIA Guidelines from CIEEM make it clear that an EcIA should consider the impacts upon ecosystems, as well as habitats and species. Statements to this effect are found throughout the document including in sections 1.3, 1.9, 2.3, 4.1 and 4.8 etc.

3. Baseline Ecological Conditions, Evaluation and Development Impacts

The baseline conditions and evaluation of the *in-situ* habitats and the actual/potential presence of protected species are discussed in this section. Potential impacts on protected sites, *in-situ* habitats and protected or notable species arising from the proposed development are identified, including both direct and indirect impacts and those associated with construction and operational stages.

A summary of relevant legislation and planning policies relating to protected sites, habitats and species is provided in Appendices 2 and 3.

3.1. Statutory Nature Conservation Designated Sites

Statutory Sites (SACs or SSSIs) Designated for Bats within 10km of Site

No SACs or SSSIs specially designated for bats lie within 10km of the site.

Country Parks within 2km of Site

The proposed development site lies within 2km of the following statutory sites:

Table 2: Statutory Sites Designated Within 2km

Site Name and Designation	Description	Distance and Direction from Development Site	Development Impacts
Afan Argoed Country Park ¹¹	Discover famous mountain bike trails, waymarked walks and family friendly cycle routes set in the backdrop of the stunning Afan Valley, South Wales. Stroll or trek through our lush green valley where traces of our industrial past have been gently reclaimed by nature.	50m north of the development site.	Considering the distance between the designated site and the proposed development site, the nature of it's designating features, the somewhat limited ecological connectivity, and the small-scale of the proposals, no adverse impacts are anticipated as a result of the development.

3.2. Non-statutory Nature Conservation Designated Sites

SINCs

The proposed development site lies within 2km of the following non-statutory sites:

Table 3: Non-Statutory Sites Designated Within 2km

Site Name and Designation	Description	Distance and Direction from Development Site	Development Impacts
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¹¹ <https://afanforestpark.com/>

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Afan Mineral Railway SINC ¹²	A linear site running along the middle of the Afan Valley. Comprises riparian woodland, grassland, heath and bracken slopes. Species present include otter.	0.1km north of the development site.	Considering the distance between the designated site and the proposed development site, the nature of it's designating features, the somewhat limited ecological connectivity, and the small-scale of the proposals, no adverse impacts are anticipated as a result of the development.
NPT ASNW	No citation.	0.2km east of the development site.	Considering the distance between the designated site and the proposed development site, the nature of it's designating features, the somewhat limited ecological connectivity, and the small-scale of the proposals, no adverse impacts are anticipated as a result of the development.

Ancient Woodland Sites

The following table shows the ancient woodland sites within 2km of the site:

Table 4: Ancient Woodland Sites Within 2km

Ancient Woodland Site	Number within 2km of Site
Ancient Semi-Natural Woodland (ASNW) ⁷³	17
Restored Ancient Woodland Sites (RAWS) ⁷⁴	Four
Plantations on Ancient Woodland Sites (PAWS) ⁷⁵	21
Nearest Area of Ancient Woodland	An unnamed area of ASNW located 0.2km north-west of the development site
Development Impacts	None due to the distance distances between these woodlands and the proposed development site, together with the small scale of the works. They are therefore not mentioned further in this report.

3.3. Habitats and Vegetation

The habitats within the site comprised a previous allotment garden which has been uncultivated for approximately 12 months which mainly comprised species-poor semi-improved grassland at the time of survey. A stone wall was present on the southern boundary which was vegetated with ferns, areas of dense scrub and fruit bushes. An ornamental hedgerow was present on the eastern boundary. Piles of wood and disused metal sheeting was scattered throughout the site. A small artificial pond was present in the south western aspect. The results of the general survey of habitats and vegetation are shown on Plan 5. A botanical species list is provided in Appendix 4.

¹² <http://citations.lercwales.org.uk/sinc/npt/NPTSINC017.pdf>

The site consists of the following elements which are described in detail below. These comprise:

Other Neutral Grassland (G3c);

Dense Scrub (H3); and

Other hedgerow (H2b).

3.4. Habitat Descriptions

3.4.1. Other Neutral Grassland (G3c)

The majority of the site comprises species-poor neutral grassland. The grassland had no signs of recent management with an average height of 25-40cm. The grassland was dominated by grasses with few flowering species present. The species comprised abundant Yorkshire-fog *Holcus lanatus*, with frequent sweet vernal grass *Anthoxanthum odoratum*, creeping bent *Agrostis stolonifera*, dandelion *Taraxacum officinale* agg and rough meadow grass *Poa trivialis* with occasional red fescue *Festuca rubra*, common sorrel *Rumex acetosa*, broadleaved dock *Rumex obtusifolium*, cock's-foot *Dactylis glomerata*, hedge woundwort *Stachys sylvestris*, yellow loosestrife *Lysimachia vulgaris*, field woodrush *Luzula campestre*, creeping thistle *Cirsium arvense*, wood avens *Geum urbanum* and garden rhubarb *Rheum rhabarbarum* with rare cleavers *Galium aparine*, red clover *Trifolium pratense*, columbine *Aquilegia vulgaris* and one plant of cuckoo flower *Cardamine pratensis*. Montbretia *Crocsmia x crocosmiiflora* was present within the north eastern and eastern aspects of the grassland (TN10 and TN11). A small patch of bare ground was present in eastern aspect of the site which comprised abundant bare ground with scattered broadleaved willowherb *Epilobium montanum* and annual pearlwort *Sagina apetala* (TN12). Patches of a species of an unidentified sedge was present along the road on southern boundary outside of the site boundary fenceline (TN13).

Photo 1: Other neutral grassland within the eastern aspect of the site



Photo 2: Other neutral grassland within the central aspect of the site



Photo 3: Example of the species composition of the grassland

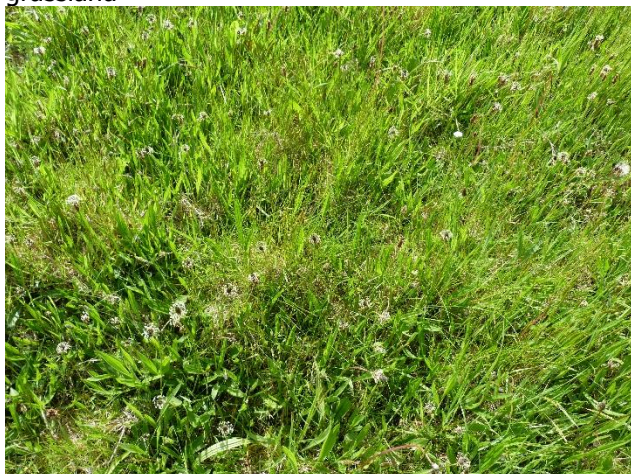


Photo 4: TN13



3.4.2. Dense Scrub (H3)

A stone wall was present along the southern boundary of the site which was vegetated with ferns *Dryopteris sp* with bramble scrub and unmanaged grassland. The scrub continued into the western aspect of the site which comprised bramble scrub and ferns. These areas had no signs of recent management at the time of survey. The species present comprised abundant male fern *Dryopteris sp* with frequent bramble *Rubus fruticosus* agg, harts tongue fern *Asplenium scolopendrium*, Yorkshire-fog and black currant *Ribes nigra* with occasional rose *Rosa sp*, foxglove *Digitalis purpurea*, creeping bent, sweet vernal grass, lady fern *Athyrium filix-femina*, honeysuckle *Lonicera periclymenum*, nettle *Urtica dioica*, herb Robert *Geranium robertianum* and ivy *Hedera helix* with rare hedge woundwort, spear thistle *Cirsium vulgare*, ash *Fraxinus excelsior*, hawthorn *Crataegus monogyna*, willow *Salix sp*, garden rhubarb, hazel *Corylus avellana*, bush vetch *Vicia sepium*, sedge *Carex sp*, lilac *Syringa vulgaris*, garden privet *Ligustrum ovalifolium*, wild strawberry *fragaria vesca* and blackthorn *Prunus spinosa*. Montbretia was present within the south eastern and central aspects of the stone wall (TN02 and TN03). A patch of locally frequent English bluebells *Hyacinthoides non-scripta* was present in the north-western aspect of the site (TN07).

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Photo 5: Dense scrub and ferns along the southern boundary



Photo 6: Dense scrub and cultivated shrubs within the western aspect



Photo 7: Dense scrub within the south-eastern aspect of the site



Photo 8: TN07 within the western aspect of the site



3.4.3. Other Hedgerow (H2b)

A small section of ornamental hedgerow was present along the eastern boundary and north-eastern corner of the site. The hedgerow was approximately 0.5m tall and 1m wide. The hedgerow was dominated by garden privet with occasional hawthorn and raspberry *Rubus idaeus* along the northern section.

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Photo 9: Other hedgerow along the eastern boundary, looking east



Photo 10: Other hedgerow along the eastern boundary, looking west



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Table 5: Habitats Recorded on Site					
Phase 1 Habitat	UK Habs Habitat	NVC Habitat	Description	Ecological Value	Development Impacts
Dense Scrub (A2.1)	Dense Scrub (H3);		On the southern and western aspects of the site.	Site value	This habitat is likely to be lost in its entirety to facilitate the development.
Intact Species-poor Hedgerow (J2.1.2);	Other hedgerow (H2b);		A privet hedgerow is present on the eastern aspect and north-eastern aspects of the site.	Site value	This habitat is likely to be lost in its entirety to facilitate the development.
Semi-improved Grassland (B6)	Other neutral grassland (G3c);		A majority of the habitat present within the site boundary.	Site value	This habitat is likely to be lost in its entirety to facilitate the development.
Montbretia	Schedule 9 invasive plant.		Scattered throughout the southern and eastern aspects of the site.	See Section 3.3	See Section 3.3.

3.5. Invasive Plant Species

Species	Occurrence on Site	Legislation	Assessment of Potential Development Impacts
Montbretia	Montbretia is present along the southern boundary (TN02 and TN03) and within the eastern aspect of the grassland (TN10 and TN11)	Schedule 9 invasive plant ⁴⁷ . A non-native species that poses a conservation threat to native biodiversity and habitats, such that further releases should be regulated. This species has a negative effect on the biodiversity of the site.	Montbretia will require eradication from the site. Detailed recommendations are provided in Section 4.

Photo 11: TN03, along the southern boundary



Photo 12: TN10, within the north-eastern aspect



Photo 13: TN11, along the eastern aspect



3.6. Protected and Notable Species

3.6.1. Notable Plant Species

Data Trawl Results

SEWBReC returned records of 17 rare and/or 'notable' plants (including species regarded as 'Locally Important', LBAP species and UK Red Data Book-listed species).

Acer Ecology

Two priority plant species were recorded within 1km of the site, namely: bluebell (*Hyacinthoides non-scripta*), and red hemp-nettle (*Galeopsis angustifolia*).

However, bluebell is mainly protected from sale via its listing under Schedule 8 of the Wildlife and Countryside Act.

Four plant listed as species of conservation concern were recorded within 1km of the site, namely: welsh poppy (*Meconopsis cambrica*), yellow vetchling (*Lathyrus aphaca*), tufted loosestrife (*Lysimachia thyrsiflora*), and *Pyrola rotundifolia subsp. maritima*.

11 plant listed as locally important species were recorded within 1km of the site, namely: round-leaved mint (*Mentha suaveolens*), fragrant agrimony (*Agrimonia procera*), hieracium umbellatum subsp. umbellatum (*Hieracium umbellatum subsp. umbellatum*), luzula multiflora subsp. multiflora (*Luzula multiflora subsp. multiflora*), small cudweed (*Filago minima*), knotted pearlwort (*Sagina nodosa*), dwarf spurge (*Euphorbia exigua*), little kneeling eyebright (*Euphrasia confusa*), common slender eyebright (*Euphrasia micrantha*), slender club-rush (*Isolepis cernua*), and wintergreen (*Pyrola rotundifolia*).

Field Survey Results

No plant species, which individually are considered to be of either of national, regional or local significance were recorded on the site.

A small patch of bluebells were recorded from the site which are protected from sale. These could be translocated within the landscape proposals for the site if possible.

3.6.2. Birds

Desk Study Results

SEWBRc returned records of 33 priority bird species within 1km of the site, namely: goshawk (*Accipiter gentilis*), skylark (*Alauda arvensis*), tree pipit (*Anthus trivialis*), cuckoo (*Cuculus canorus*), dartford warbler (*Curruca undata*), reed bunting (*Emberiza schoeniclus*), peregrine (*Falco peregrinus*), kestrel (*Falco tinnunculus*), brambling (*Fringilla montifringilla*), herring gull (*Larus argentatus*), linnet (*Linaria cannabina*), grasshopper warbler (*Locustella naevia*), red kite (*Milvus milvus*), house sparrow (*Passer domesticus*), golden plover (*Pluvialis apricaria*), marsh tit (*Poecile palustris*), dunnoek (*Prunella modularis*), bullfinch (*Pyrrhula pyrrhula*), starling (*Sturnus vulgaris*), redwing (*Turdus iliacus*), song thrush (*Turdus philomelos*), fieldfare (*Turdus pilaris*), barn owl (*Tyto alba*), lesser redpoll (*Acanthis cabaret*), nightjar (*Caprimulgus europaeus*), spotted flycatcher (*Muscicapa striata*), wood warbler (*Phylloscopus sibilatrix*), firecrest (*Regulus ignicapilla*), merlin (*Falco columbarius*), crossbill (*Loxia curvirostra*), willow tit (*Poecile montanus*), leach's petrel (*Hydrobates leucorhous*), and honey-buzzard (*Pernis apivorus*).

21 birds listed as species of conservation concern were recorded within 1km of the site, namely: long-tailed tit (*Aegithalos caudatus*), mallard (*Anas platyrhynchos*), meadow pipit (*Anthus pratensis*), swift (*Apus apus*), grey heron (*Ardea cinerea*), greenfinch (*Chloris chloris*), dipper (*Cinclus cinclus*), whitethroat

Acer Ecology

(*Curruca communis*), snipe (*Gallinago gallinago*), swallow (*Hirundo rustica*), common gull (*Larus canus*), lesser black-backed gull (*Larus fuscus*), grey wagtail (*Motacilla cinerea*), wheatear (*Oenanthe oenanthe*), cormorant (*Phalacrocorax carbo*), willow warbler (*Phylloscopus trochilus*), green woodpecker (*Picus viridis*), goldcrest (*Regulus regulus*), woodcock (*Scolopax rusticola*), mistle thrush (*Turdus viscivorus*), and redstart (*Phoenicurus phoenicurus*).

SEWBReC also returned two birds listed as locally important species within 1km of the site, namely: jackdaw (*Coloeus monedula*), and wren (*Troglodytes troglodytes*).

One bird listed as other bird species (i.e. invasive species) were recorded within 1km of the site, namely: bar-headed goose (*Anser indicus*).

Field Survey Results and Evaluation of Ecological Value of Site for Birds

No birds were recorded from within the site boundary during the survey.

A majority of the habitats present within the site boundary provide negligible potential to support nesting birds. No trees were present within the site boundary. The area of dense scrub and ornamental hedgerow provide suitable habitat to support nesting birds however the hedgerow is subject to routine maintenance and the scrub is relatively scattered. A small area of shrubs including garden privet and lilac was present within the south-eastern aspect of the site which provides suitable nesting habitat.

Impact Assessment of Proposed Development on Birds

The following direct impacts to nesting birds may occur as a result of the development:

- The small areas of dense scrub along the southern and western aspects, ornamental hedgerow along the eastern and north eastern aspect and shrubs within the south-eastern aspect may be removed to facilitate the development.
- Death or injury to adults or destruction of nests during vegetation clearance of the shrubs and dense scrub. However, such impacts can be avoided either via the retention of the habitat, or by timing works so that they occur outside of the nesting bird season (September to February inclusive), and by adopting sensitive working practices as detailed in Section 4; and
- Permanent nesting habitat loss at a small-scale.

The following indirect impacts to nesting birds may occur as a result of the development:

- Habitat degradation; and
- Increases in disturbance levels.

3.6.3. Bats

Desk Study Results

Acer Ecology

SEWBRc returned a total of three records of bat roosts within 1km of the site. The roost records are summarised in the table below.

Table 6: Bat Roost Records

Species	Total Number of Records	Distance to Nearest Record	Most Recent Record	Maximum Count
Common pipistrelle (<i>Pipistrellus pipistrellus</i>)	One	0.17km	2011	Five
Brown long-eared (<i>Plecotus auritus</i>)	One	0.17km	2011	Three
Pipistrelle bat species (<i>Pipistrellus sp.</i>)	One	0.17km	2011	-

In addition to the roost records, SEWBRc returned records of bats foraging or commuting within 1km of the site. These included: soprano pipistrelle (*Pipistrellus pygmaeus*), common pipistrelle, brown long-eared, Daubenton's (*Myotis daubentonii*) and noctule (*Nyctalus noctula*).

Field Survey Results and Evaluation of Ecological Value of Site for Bats

No trees or buildings were present within the site boundary.

Potential Foraging and Commuting Habitat

The site is collectively considered to provide low quality foraging and commuting habitat for bats in isolation due to the lack of suitable foraging habitat. The site comprises neutral grassland with no trees present with limited linear features present within the site boundary. Additionally, street lighting is present on telegraph poles on the eastern and western aspects of the site which is likely to illuminate the northern boundary of the site which further reduces the suitability of the site for foraging and commuting bats. The wider site comprises higher quality foraging and commuting habitat due to the linked back gardens adjacent to the site, the expansive tree-lined fields and the close proximity of Afon Avan which is located 180m north of the site which form a continuous habitat corridor and connect the site to the wider landscape.

Impact Assessment of Proposed Development on Bats

The following indirect impacts to bats may occur as a result of the development:

- Clearance of the habitat to facilitate the development will result in fragmentation of ecological connectivity for commuting bats within the site; and
- Due to the change of use of the site, increases in artificial lighting levels will be significant, both during the construction phase and the operational phase of the development. If this lighting envelops the retained wet woodland and trees within the site, it could adversely affect foraging and commuting bats.

3.6.4. Dormice

Desk Study Results

SEWBRc did not return any published records of dormice from 1km of the site.

Field Survey Results and Evaluation of Ecological Value of Site for Dormice

No signs of dormice were recorded during the survey. A majority of the habitats within the site boundary provide negligible potential to support dormice including the areas of neutral grassland. The area of dense scrub and the other hedgerow provide negligible potential to support dormice due to the scattered nature of the scrub and the lack of species diversity. The site is relatively isolated within the landscape, with roads present to the northern and southern boundaries separating the site from suitable habitat within the wider landscape.

Impact Assessment of Proposed Development on Dormice

The likelihood of dormice being present on site is considered to be negligible and no adverse impacts are subsequently anticipated. They are therefore not mentioned further in this report.

3.6.5. Great Crested Newt

Desk Study Results

SEWBRc did not return any records of GCN within 1km of the site. There are records of other amphibians, comprising four records of common frog (*Rana temporaria*), and two records of palmate newt (*Lissotriton helveticus*).

Field Survey Results

Aquatic Habitat

A small pond is present within the site boundary which was filled with water at the time of survey (TN06). The Afon Avan lies 180m north of the site boundary which is considered unsuitable to support breeding GCN therefore this waterbodies has been scoped out of the need for further survey.

Photo 14: TN06



Terrestrial Habitats

The areas of other neutral grassland and dense scrub provide moderate quality terrestrial habitat for this species. However, the site is relatively isolated within the landscape, with roads present to the northern and southern boundaries separating the site from suitable habitat within the wider landscape.

Evaluation of Ecological Value of Site for Great Crested Newt

The small pond provides suitable breeding habitat for common amphibians and the other neutral grassland and dense scrub provides moderate quality great crested newts however their distribution is limited throughout Neath Port Talbot which lies on the edge of their known range within the British Isles. The site lies within the geographical location Zone C which states 'location is unsuitable' to support populations of great crested newts within the HSI guidance note.

Impact Assessment of Proposed Development on Great Crested Newt

The likelihood of GCN being present on site is considered to be negligible and no adverse impacts are subsequently anticipated. They are therefore not mentioned further in this report.

The small pond provides suitable breeding habitat for common amphibians. This should be cleared under an ecological watching brief to move any common amphibians present within the site boundary during site clearance.

3.6.6. Badgers

Desk Study Results

SEWBRc did not return any records of badgers from within 1km of the site.

Field Survey Results

No setts or signs of badgers were observed on site or within 30m of the eastern or southern boundaries of the site.

Evaluation of Ecological Value of Site for Badgers

Although no evidence of badgers was recorded on site, there is considered to be some limited potential for them to venture onto the site from the surrounding landscape to forage sporadically.

Impact Assessment of Proposed Development on Badgers

The likelihood of badgers sett building on site is considered to be negligible and no adverse impacts are subsequently anticipated. Likewise, there is considered to be a low risk of badgers foraging or commuting across the site. However, precautionary measures including site protocols are detailed in Section 4 below.

3.6.7. Reptiles

Desk Study Results

Acer Ecology

SEWBRc returned 16 records of reptiles within 1km of the site. These included: four records of slow-worm (*Anguis fragilis*), five common lizard (*Zootoca vivipara*), one grass snake and six adder (*Vipera berus*).

Field Survey Results

The neutral grassland within the central aspects of the site and the dense scrub along the southern boundary and western aspect of the site provide suitable habitats to support common reptiles. Additionally, the residential gardens adjacent to the eastern boundary provide suitable habitat for species including slow-worm and common lizard. Suitable refugia was scattered throughout the grassland at the time of survey including piles of wood (TN01 and TN04) and sleepers and scrap metal (TN05).

Photo 15: TN01



Photo 16: TN04



Photo 17: TN03



Photo 18: Other wood pile in the centre of the grassland



Evaluation of Ecological Value of Site for Reptiles

The neutral grassland within the central aspects of the site and the dense scrub along the southern boundary and western aspect of the site provide suitable basking, refugia and hibernation opportunities for common reptile species. The site is relatively isolated within the landscape, with roads present to the northern and southern boundaries separating the site from suitable habitat within the wider landscape. However, the site has good connectivity to the wider landscape through the adjacent residential gardens.

High-quality habitat is present within the wider landscape on all aspects in the form of acid grassland and upland heathland within the Afan Argoed Country Park and the Afan Mineral Railway SINC.

Impact Assessment of Proposed Development on Reptiles

The following direct impacts to reptiles may occur as a result of the development:

- Death or injury during vegetation clearance; and
- Habitat loss at a small-scale on a permanent basis

The following indirect impacts to reptiles may occur as a result of the development:

- Increases in disturbance levels.

The proposed works will result in the loss of a small area of the potential reptile habitat within the site boundary. Clearance of the vegetation may therefore result in the accidental killing or injury of reptiles therefore recommendations for further work are outlined in Section 4.

3.6.8. Other Mammals

Desk Study Results

SEWBRc returned three records of other mammals within 1km of the site, comprising: one common hedgehog (*Erinaceus europaeus*), one brown hare (*Lepus europaeus*), and one weasel (*Mustella nivalis*).

Field Survey Results

No incidental observations of notable mammals were recorded during the survey.

Evaluation of Ecological Value of Site for Other Mammals

All of the habitats present within the site boundary provide suitable habitat to support hedgehogs however the small sized of the site is unlikely to support a large population.

The site has good connectivity between the residential properties on the eastern aspect and the wider landscape.

Impact Assessment of Proposed Development on Other Mammals

The presence of hedgehogs on site cannot be ruled out completely. Additionally, the site forms a small part of suitable habitat for hedgehogs within the wider landscape.

The following direct impacts to other mammals may occur as a result of the development:

- Death or injury during vegetation clearance; and
- Habitat loss at a small-scale on a permanent basis.

The following indirect impacts to other mammals may occur as a result of the development:

- Increases in disturbance levels.

The impact on potential hedgehog habitat on site is considered to be relatively low and permanent.

3.6.9. Invertebrates

Desk Study Results

SEWBRc returned records of 25 notable invertebrate species from within the study area, comprising:

17 priority invertebrate species were recorded within 1km of the site, namely: grey dagger (*Acronicta psi*), dusky brocade (*Apamea remissa*), small pearl-bordered fritillary (*Boloria selene*), broom moth (*Ceramica pis*), small heath (*Coenonympha pamphilus*), dingy skipper (*Erynnis tages*), autumnal rustic (*Eugnorisma glareosa*), ghost moth (*Hepialus humuli*), grayling (*Hipparchia semele*), wall (*Lasiommata megera*), dot moth (*Melanchra persicariae*), white ermine (*Spilosoma lubricipeda*), buff ermine (*Spilosoma lutea*), cinnabar (*Tyria jacobaeae*), small phoenix (*Ecliptopera silaceata*), brindled beauty (*Lycia hirtaria*), and dark-barred twin-spot carpet (*Xanthorhoe ferrugata*).

Two invertebrate listed as species of conservation concern were recorded within 1km of the site, namely: *Stenus palustris*, and *Diplocoelus fagi*.

Six invertebrate listed as locally important species were recorded within 1km of the site, namely: silver-washed fritillary (*Argynnis paphia*), emerald damselfly (*Lestes sponsa*), golden-ringed dragonfly (*Cordulegaster boltonii*), white-streak grass-veneer (*Agriphila latistria*), bleached pug (*Eupithecia expallidata*), and devon carpet (*Lampropteryx otregiata*).

Field Survey Results and Evaluation of Ecological Value of Site for Invertebrates

No incidental observations of invertebrates were recorded during the survey. The unmanaged areas of other neutral grassland within the wider site may be important nectar sources for a variety of bees and invertebrates.

Impact Assessment of Proposed Development on Invertebrates

The invertebrates using the site for habitat are unlikely to solely rely on the site for their continued survival. While some habitat loss will occur across the site, this can be more than offset by providing a range of new habitats within the development that will benefit invertebrates, Plans for enhancement planting across the site have potential to greatly increase the floristic diversity of the site, therefore introducing more opportunity for a wider range of invertebrates to utilise the site post-development.

4. Required Actions and Conclusions

The following recommendations are likely to be secured through planning conditions. They have been developed based on the development proposals available at the time of writing. However, they may be subject to change upon receipt of the final design. The implementation of these recommendations will ensure compliance with the Planning Policy Wales version 12 (Welsh Government, 2024)¹³, TAN 5 *Nature Conservation and Planning* (2009), Section 6 and 7 of the Environment Wales Act, 2016, the Conservation of Habitats and Species Regulations 2017 which has been updated by the Conservation of Habitats and Species (Amendment) (EU Exit) [CHSAEU] Regulations 2019 and Neath Port Talbot Local Development Plan¹⁴.

The recommendations aim to avoid or minimise adverse impacts on the environment and protected species, mitigate and compensate for losses where damage is unavoidable and promote opportunities to enhance biodiversity. There is a requirement that developments must provide net benefit for biodiversity.

4.1. Biodiversity and Ecosystem Enhancement Scheme/Green Infrastructural Plan

Local Authorities have a duty (known as the Biodiversity and Resilience of Ecosystems Duty) under the Environment (Wales) Act 2016 to seek to maintain and enhance biodiversity in the exercise of their functions. Section 6.4.12 of Planning Policy Wales states that '*Where biodiversity enhancement proportionate to the scale and nature of the development is not proposed as part of an application, significant weight will be given to its absence, and unless other significant material considerations indicate otherwise, it will be necessary to refuse permission*'.

Where possible the existing on-site habitat will be retained to ensure that species are not adversely affected by the development. Native species of local provenance grown in the UK will be used for any new planting on the site. A soft and hard landscaping plan will need to be provided to inform the Green Infrastructure Statement and demonstrate Net Biodiversity Benefit (NBB) and include:

- Detailed planting/sowing specifications including species, size, density spacing, cultivation protection (fencing, staking, guards) and methods of weed control;
- Details of surfacing, boundary treatments and landscaping structures including design, location, hedgehog accessibility, size, colour, materials and openings;
- Details of planting of rainwater gardens and other sustainable urban features (if proposed);
- Details of the immediate and ongoing management of the site; and
- Details of the funding mechanisms in place to plan can be successfully implemented.

¹³ Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions ... and in so doing promote the resilience of ecosystems. Development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity.

¹⁴ https://www.npt.gov.uk/media/7321/ldp_written_statement_jan16.pdf?v=20170727124344

A biodiversity and ecosystem enhancement scheme will need to be provided. This could include the incorporation of permanent bat roosting feature(s), hedgehog homes and nesting opportunities for birds. A Green Infrastructure Statement will need also to be produced for the site. This should ensure that all elements of green infrastructure are coordinated from the outset, so that biodiversity, trees, soils, landscaping, SuDS, amenity, access, recreation and climate change mitigation and adaptation are integrated into a scheme which delivers multiple benefits. Ideally the Green Infrastructure Statement should be a strategy which informs the design and layout of a scheme and details how a functionally connected habitat can be created that will increase biodiversity.

4.2. Further Work

If the development proposals cannot be amended to avoid adverse impacts to reptiles, then the following further surveys are recommended. The surveys will be required before the planning application can be determined. Targeted mitigation and any protected species derogation licenses will only be available following the completion of these surveys:

4.2.1. Reptile Survey

Works should not commence until further surveys have been carried out to assess the potential impact to reptiles on site.

Surveys to determine the presence/ likely absence of reptiles should be carried out between April to May and September (inclusive). The survey will follow the advice provided by the Herpetofauna Workers' Manual (Gent and Gibson, 2003), and comprise a 'direct search' and the monitoring of artificial and naturally occurring refugia placed in areas of the site assessed as being most attractive to reptiles (e.g. longer grass, scrub margins etc.).

A variety of different types of refugia should be used. Refugia will comprise primarily squares of roofing felt, carpet tiles and/ or corrugated metal tins of varying sizes but mainly 60 x 60cm. Naturally occurring refugia including discarded logs, timber and large rocks etc. will also be checked. Where possible, artificial refugia should be laid in south-facing positions in areas deemed least likely to be tampered with. Refugia will be left undisturbed on site for two weeks, prior to commencement of the survey to allow the reptiles on the site sufficient time to find and start utilising them. The refugia will then be checked on at least seven separate occasions, non-consecutively, in suitable weather conditions (warm, overcast periods with low wind speeds) in order to record any reptile species beneath or basking upon them. As a guideline, it is recommended that the optimal time to survey reptiles is between 08:30 and 11:00 or 16:30 and 19:00, and when the air temperature is between 9°C and 18°C¹⁵ (Froglife, 1999). Heavy rain and wind are deemed unsuitable for surveying reptiles (Froglife, 1999). Ideally, the survey will be spread out across the survey season.

¹⁵ Natural England's Reptile Mitigation Guidelines recommend that the temperature is between 10-20°C.

The survey results will determine whether reptiles are present on the site, and if so, will provide the basis for designing and implementing a reptile mitigation strategy prior to the start of the development.

4.3. Precautionary Measures

4.3.1. Timing of Works for Birds

Vegetation clearance of the hedgerow along the eastern boundary and the small areas of dense scrub and shrubs along the southern boundary and within the western aspect should be carried out outside of the bird nesting season (March-September inclusive). If this is not possible the works should be supervised by and suitably qualified ecologist. Any nests recorded should be left in-situ until the young have fledged.

4.3.2. Precautionary Measures for Badgers

A pre-commencement badger survey should be conducted prior to works starting on site to check for badger setts which may be excavated within the site boundary prior to the development commencement.

it is recommended that during the construction phase any steep sided holes left open overnight should be equipped with a mammal ladder (a reinforced plywood board >60cm wide set at an angle of no greater than 30° to the base of the pit) to prevent entrapment.

4.3.3. Common Amphibians

The construction phase has the potential to impact common amphibians due to the removal of the small artificial pond. To reduce to the risk of harm these following measures should be included within the construction work package:

- The artificial pond should be removed by hand by a suitably qualified ecologist where it is safe to do so. Any captured common amphibians should be transported in a suitable cloth bag or container and released in suitable nearby habitat;
- The works should be carried out between March and October (inclusive), with overnight temperatures above 5 degrees centigrade; and
- If, in the unlikely event, a great crested newt is found during the removal of the pond or during vegetation clearance. All works must **stop**, an ecologist should be contacted to advise on the way forward and a mitigation licence must be issued by Natural Resources Wales before works can commence legally.

4.4. Mitigation Measures

Full details of mitigation measures will be devised after completion of the further surveys detailed above and the finalisation of development proposals. Broad mitigation measure for the habitats present within the site boundary are given below:

4.4.1. Montbretia Eradication Strategy

Montbretia has colonised parts of the southern and eastern aspects of the site which will be eradicated from the site as far as possible and appropriate measures implemented to prevent the accidental spread of this species during the development. Invasive plant material is considered a 'controlled waste' and must be disposed of in accordance with, and environmental permit issued under, the Environmental Permitting (England and Wales) Regulations 2007. A dedicated invasive species management plan to eradicate this species from the site will be required from a specialist invasive species consultant.

4.4.2. Sensitive Lighting Strategy

Proposed lighting comprises external low-level lighting will be implemented above the access doors to the ISO containers.

A sensitive lighting strategy is recommended throughout the construction and operational phases. This will mitigate against any light disturbance to species such as commuting/foraging bats using the broadleaf woodland to the north of the site. Any unnecessary lighting of these habitats which could be used by commuting/foraging bats will be avoided, thus creating a 'dark corridor' (see Plan 6 – proposed dark corridor) to avoid causing disturbance. In addition, no works will be undertaken at night.

The lighting design for the site will be of a 'bat-friendly' specification, complying with the Institute for Lighting Professional's and Bat Conservation Trust's guidance (2023) and kept to the minimum level which meets the needs of security and health and safety.

External lighting will be minimised and installed at low-level only (i.e., no higher than eaves level and lower than 2.4m) and directed downward (i.e., below the horizontal plane with no upward tilt). Fully shielded lights with front and side hoods/shields or cowls will be installed to prevent upwards and horizontal light spill. The lighting source will not be visible. Any security lights used will operate on a passive infrared (PIR) motion sensor sensitive to large objects only, to avoid constant triggers by bat passes and with timers set on a short duration (i.e., a maximum 'on' time of one minute) to reduce the amount of 'lit time'.

The lights will either have an integrated LED light source or use LED bulbs. They will be low intensity (i.e., circa 11 watts) and have a warm white colour temperature of 3000K or less (ideally 2700K if commercially available). White, blue, and green lighting sources including mercury or metal halide, CPO and CDO (ceramic discharge metal-halide) bulbs which have a significant effect on bats will be avoided.

4.5. Enhancement Measures and Biodiversity Net Gain

4.5.1. Hedgerows and trees

New sections of native species hedgerow should be planted along the boundaries of the site to ensure that there is no-net loss of foraging and commuting habitat for bats in the long term and to provide a habitat corridor on the boundaries of the site. Some standard trees should be allowed to develop either side of any access gaps to provide continuous canopy cover around the site boundary to develop a more complex habitat in the long term; approximately 1 per 40m length of hedge.

The species planted should be proficient fruiting/nut bearing species which are known to benefit a range of species including hazel dormice, birds and small mammals. The species should be native and of local provenance to provide a large species-rich diversity. Species could include, but are not limited to species which are already present within the site; oak, birch, sweet chestnut, hazel, rowan, hawthorn, guelder rose, blackthorn, beech and hornbeam. Retained hedgerows should be managed in an appropriate way to optimise their biodiversity value.

4.5.2. Grassland

Any areas of neutral grassland could be enhanced with native wildflower seed mix to increase the species-richness of the grassland which was herb-poor at the time of survey to benefit a range of wildlife.

These areas could be planted with a seed mix suitable for the local soil conditions and geology of the site. The types of ready-made mixtures which could be used include a Welsh meadow seed mix¹⁶ which is harvested from two hay meadows in West Pembrokeshire and North Carmarthenshire to ensure local provenance.

4.5.3. Hedgehogs

The development of the site will also result in the loss of potential habitat for hedgehogs. It is recommended that the landscape design for the proposed development should incorporate some compensatory habitats for foraging and resting hedgehogs and allow their unrestricted movement through residential gardens by leaving gaps at the bottom of garden fences.

4.5.4. SuDS

As of 7th January 2019, all construction work in Wales with drainage implications, of 100m² or more, is required to have SuDS to manage on-site surface water (whether they require planning permission or not). These SuDS must be designed and constructed in accordance with the Welsh Government Standards for Sustainable Drainage¹⁷.

A SuDS should be designed within the site boundary as part of the proposals which could be in the form of a pond or linear swales. The chosen waterbody could be planted with a native species-rich aquatic plug plants¹⁸ and a native species-rich marginal plant collection¹⁹, and a selection of native shrubs, which will serve several purposes: to shield the feature, creating an aesthetically pleasing screen; to enhance ground-water absorption; and to increase the ecological value of the retained boundary features.

In order to prevent the gradual encroachment of scrub, an active management regime will be required, in which thinning, and the removal of scrub occurs every three years. In order to avoid the risk of adversely affecting nesting bird species, the management will take place during November to February inclusive.

¹⁶ [Welsh Meadow Seed | Packets | British Wildflower Seeds | British Wildflower Meadow Seeds](#)

¹⁷ <https://gov.wales/sites/default/files/publications/2019-06/statutory-guidance.pdf>

¹⁸ [Pond Collection: Starter Pond Collection | British Pond Plants](#)

¹⁹ [Plant Collections | Aquatic Plants for Margins | British Pond Plants](#)

4.6. Longevity of Report

If development works do not begin within eighteen months to two years of the date of this report, an update survey is likely to be required in accordance with guidance from NRW²⁰, CIEEM (2019) and BS 42020:2013²¹, to determine if conditions have changed since those described in this report.

4.7. Conclusions

The full extent of ecological impacts and potential constraints of the proposed development cannot be fully determined, based on the results of the preliminary ecological appraisal survey alone. Further survey work will be required before such assessments can be comprehensively made, as detailed in Section 4.2.

At this stage, the site's ecological value is not considered to represent a fundamental in-principal constraint to the proposed development.

²⁰ As set out in Point 5 of the NRW *Bat Surveys - Frequently Asked Questions* and Point 4 of the guidance included within the NRW European Protected Species Development Application Form.

²¹ As set out in Section 6.2.1, point 7 which states that ecological information should not normally be more than two/three years old, or as stipulated in good practice guidance).

5. References and Bibliography

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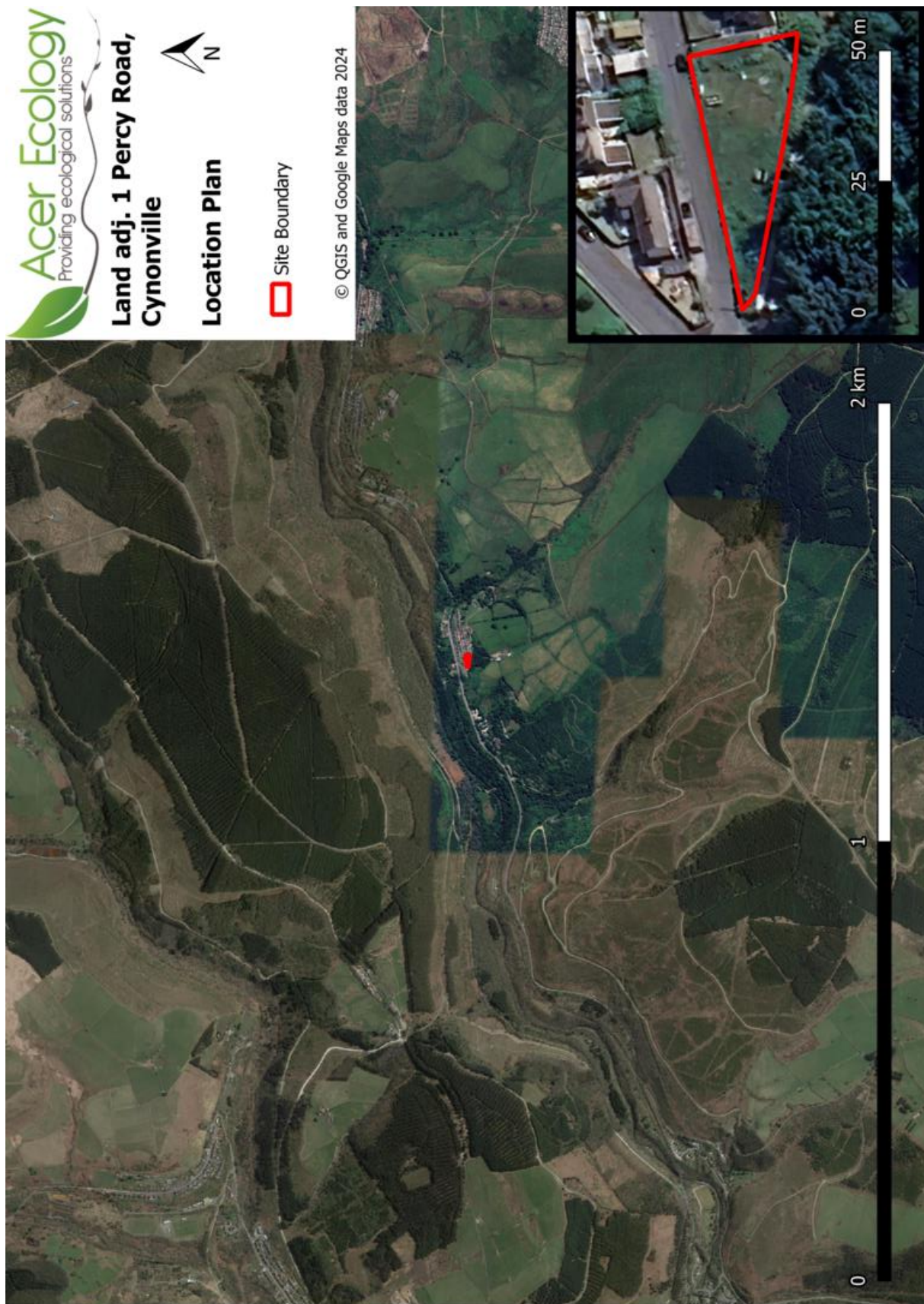
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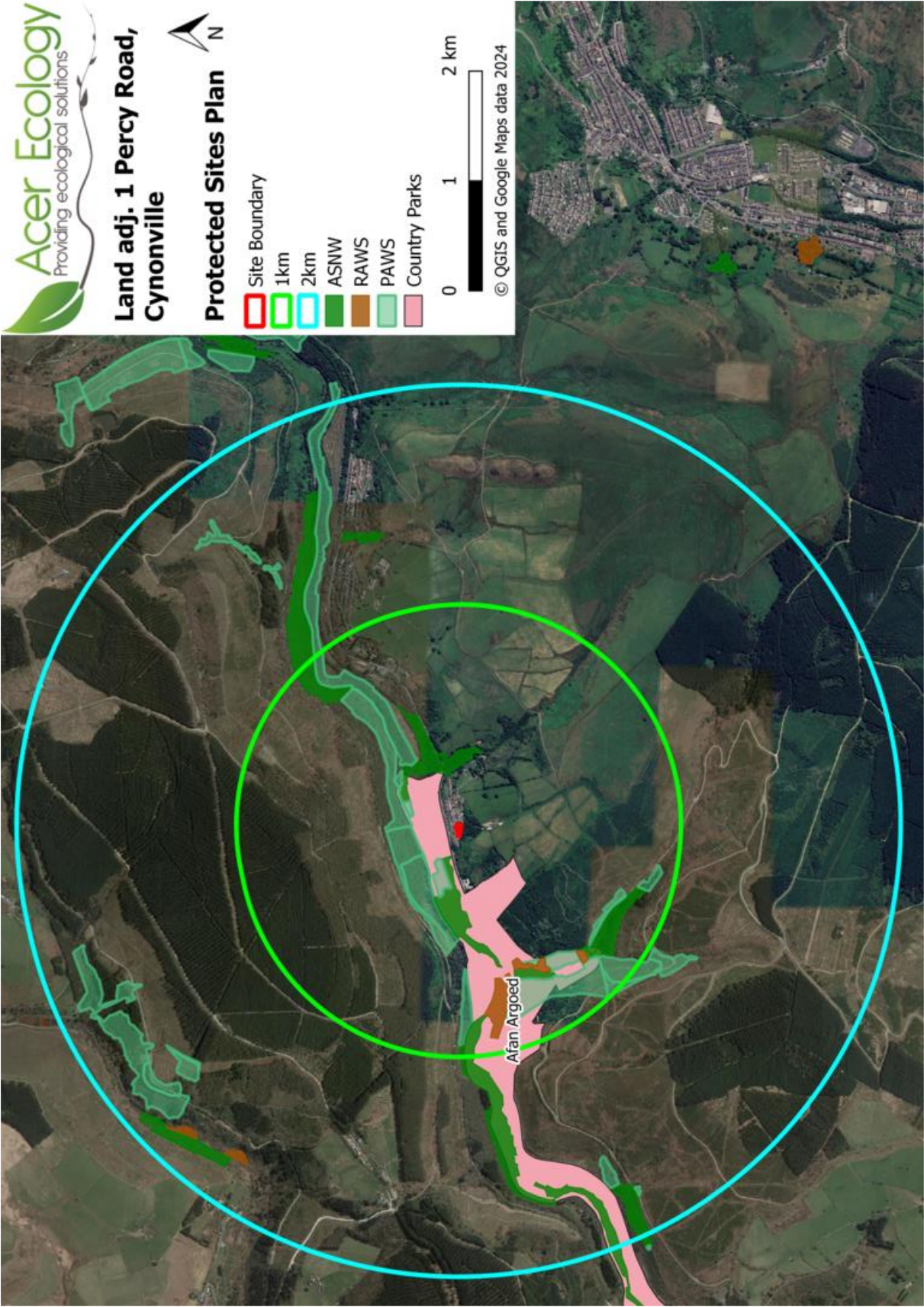
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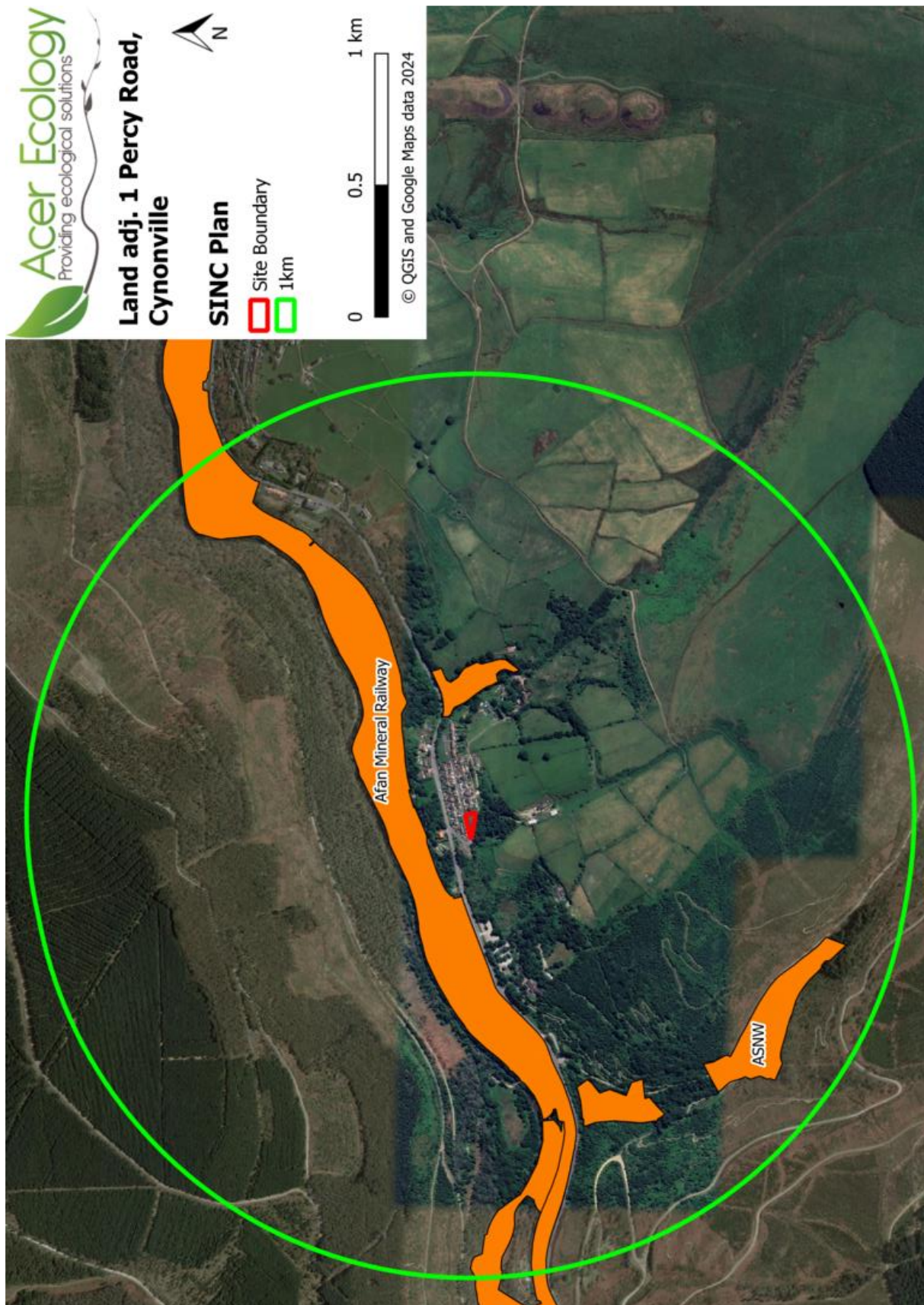
Plan 1: Site Location



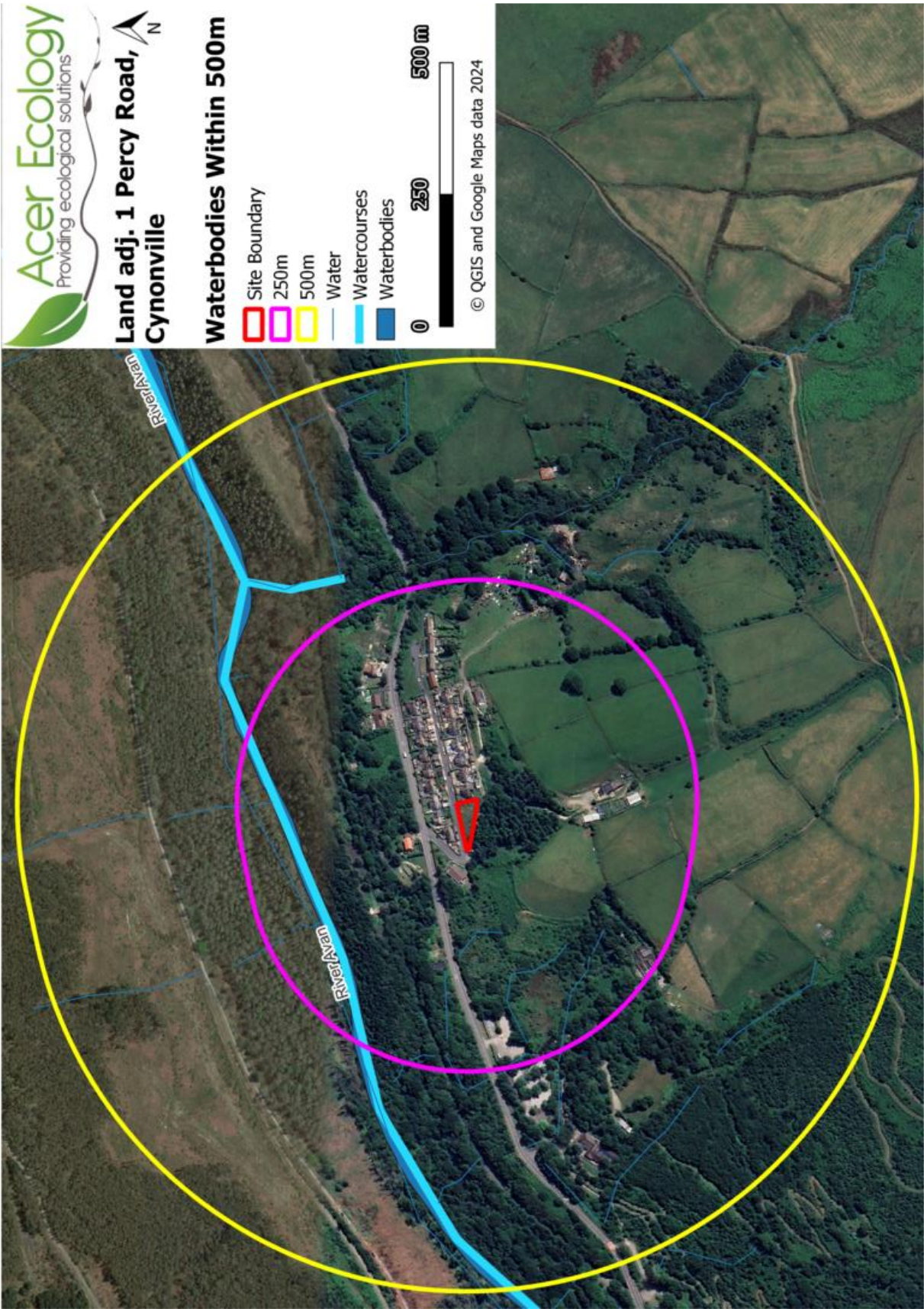
Plan 2: Site Location and Protected Sites Within 2km



Plan 3: Site Location and SINCs Within 1km



Plan 4: Location of Water Bodies Within 0.5km



Plan 5: Habitats and Vegetation



Appendix 1: Proposed Development Works



Appendix 2: Legislation and Policy Relating to Statutory and Non-Statutory Designated Sites and Planning Policy Relevant to Site

SINCs

SINCs are a class of nature conservation designations collectively referred to as 'Wildlife Sites'. Wildlife Sites are so-called 'third tier' sites, generally ranked below sites which are of international (first tier) or national (second tier) biodiversity significance, but which are considered to have '*substantive nature conservation value*' at the regional or district level. They are usually designated at the county or county borough level by the relevant local planning authority, and are recognised as a planning constraint in the relevant statutory development plan.

The framework for the identification and designation of 'Wildlife Sites' is set out in various Government documents, and is referred to in *Planning Policy Wales (2024)* and *Technical Advice Note (Wales) 5: Nature Conservation & Planning*. Defra published *Local Sites: Guidance on their identification, selection and management in 2006*²².

Environment (Wales) Act 2016

The Environment (Wales) Act Section 6 duty, or the Biodiversity Duty, requires public authorities to seek to maintain and enhance biodiversity and in so doing promote the resilience of ecosystems. In fulfilling this duty, planning authorities must have regard to the list of habitats and species of principal importance for Wales, published under Section 7 of the Environment (Wales) Act 2016.

The Section 6 duty requires that developments should not be permitted which result in net loss of value to biodiversity, and must seek to achieve biodiversity net gain. Where net loss cannot be achieved through avoidance or mitigation, compensation is required.

Future Wales - the National Plan 2040

Future Wales is the national development framework, setting the direction for development in Wales to 2040. It is a development plan with a strategy for addressing key national priorities through the planning system, including sustaining and developing a vibrant economy, achieving decarbonisation and climate-resilience, developing strong ecosystems and improving the health and well-being of our communities. Future Wales - the national plan 2040 is the national development framework and it is the highest tier plan, setting the direction for development in Wales to 2040. It is a framework which will be built on by Strategic Development Plans at a regional level and Local Development Plans. Planning decisions at every level of the planning system in Wales must be taken in accordance with the development plan as a whole.

Planning Policy Wales (2024)

²²

<https://webarchive.nationalarchives.gov.uk/ukgwa/20111108175609/http://archive.defra.gov.uk/rural/documents/protected/localsites.pdf>

The primary objective of PPW is to ensure the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales, as required by the Planning (Wales) Act 2015, the Well-being of Future Generations (Wales) Act 2015 and other key legislation.

Planning Policy Wales (PPW) Edition 12 (Welsh Government, 2024) states that planning authorities must follow a stepwise approach to maintain and enhance biodiversity and build resilient ecological networks by ensuring that any adverse environmental effects are firstly avoided, then minimized, mitigated, and as a last resort compensated for; enhancement must be secured wherever possible. The first priority for planning authorities is to avoid damage to biodiversity and ecosystem functioning. Where there may be harmful environmental effects, planning authorities will need to be satisfied that any reasonable alternative sites that would result in less harm, no harm or gain have been fully considered.

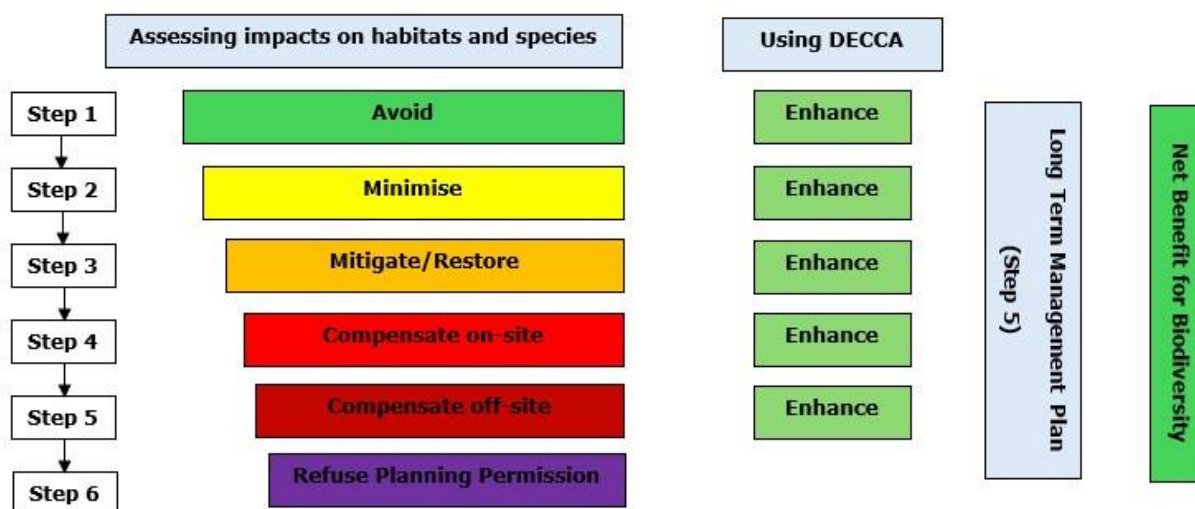
On 11th October 2023 Julie James MS Minister for Climate Change finalised policy for inclusion in the next iteration of Planning Policy Wales (version 12)²³. The new chapter 6 came into force with immediate effect. This was followed by the publication of version 12 of Planning Policy Wales in February 2024. The main changes to policy can be summarised as follows:

Green Infrastructure: stronger emphasis on taking a proactive approach to green infrastructure covering cross boundary considerations, identifying key outputs of green infrastructure assessments, the submission of proportionate green infrastructure statements with planning applications and signposting Building with Nature standards.

Net Benefit for Biodiversity and the Step-wise Approach: further clarity is provided on securing net benefit for biodiversity through the application of the step-wise approach, including the acknowledgement of off-site compensation measures as a last resort, and, the need to consider enhancement and long-term management at each step.

²³ <https://www.gov.wales/sites/default/files/publications/2023-10/annex-addressing-the-nature-emergency-through-the-planning-system.pdf>

The use of the green infrastructure statement as a means of demonstrating the stepwise approach is made explicit. The importance of strategic collaboration to identify and capture larger scale opportunities for securing a net benefit for biodiversity is recognised.



Trees and Woodlands: closer alignment with the stepwise approach, along with promoting new planting as part of development based on securing the right tree in the right place.

Technical Advice Notes

Planning Policy Wales is supported by a series of more detailed Technical Advice Notes (TANs), of which TAN 5: Nature Conservation and Planning (2009)²⁴ is of relevance.

Neath Port Talbot Council Local Development Plan

Biodiversity net-gain policy is not specifically mentioned however policy EN 6 states that development must 'conserve and where possible enhance the natural heritage importance of the site or mitigation measures will need to be agreed'. The Local Biodiversity Action Plan (2014) focuses to 'achieve no net loss of listed habit and species, and a gain in the (perceived or actual) extent / population of listed habitats and species' (pg.15).

Relevant ecological policies include:

- SP15 Biodiversity and Geodiversity;
- SP16 Environmental Protection; and
- EN7 Important Natural Features.

²⁴ <https://www.gov.wales/sites/default/files/publications/2018-09/tan5-nature-conservation.pdf>

Biodiversity Net Gain

Planning Policy Wales (PPW) 11 states that “*planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means that development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity*” (NBB) (para 6.4.5 refers). This policy and subsequent policies in Chapter 6 of PPW 11 respond to the Section 6 Duty of the Environment (Wales) Act 2016.

DECCA is the framework that Natural Resources Wales (NRW) has developed for evaluating ecosystem resilience to demonstrate a net benefit for biodiversity (NBB)²⁵. This is based on the following attributes:

- Diversity, extent, condition and connectivity;
- Adaptability, recovery and resistance; and
- Aspects of ecosystem resilience.

To comply with these requirements the main ecosystems on site and within the zone of influence need to be identified and set out how the diversity, extent, connectivity and condition of those ecosystems will be maintained and enhanced post-development. Recent changes to Planning Policy Wales²⁶ mean that some additional guidance will be required.

²⁵ <https://cdn.cyfoethnaturiol.cymru/media/693356/resilient-ecological-networks-practitioner-guide.pdf?mode=pad&rnd=132612537900000000>

²⁶ <https://www.gov.wales/addressing-nature-emergency-through-planning-system-update-chapter-6-planning-policy-wales>

Appendix 3: Protected and Invasive Species Legislation Relevant to Site

Birds

All wild British birds (while nesting, building nests and sitting on eggs), their nests and eggs (with certain limited exceptions) are protected by law under Section 1 of the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way Act 2000. Included in this protection are all nests (at whatever stage of construction or use) and all dependent young until the nest is abandoned and the young have fledged and become independent. Particularly rare species such as barn owl (*Tyto alba*) are listed on Schedule 1 which gives them additional protection from disturbance whilst nest building, whilst near a nest with eggs or young, or from disturbing the dependent young.

Section 10.8 of the Conservation of Habitats and Species Regulations 2017 state that Local authorities must use all reasonable endeavours to avoid any deterioration of habitats of wild birds.

Bats

All species of bats and their roosting sites are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 which continues to apply in UK law through the Conservation of Habitats and Species (Amendment) (EU Exit) [‘CHSAEU’] Regulations 2019.

All species of UK bats are designated as ‘European protected species’. Seven species of bat (soprano pipistrelle (*Pipistrellus pygmaeus*), barbastelle (*Barbastella barbastellus*), Bechstein’s (*Myotis bechsteinii*), noctule (*Nyctalus noctula*), brown long-eared (*Plecotus auritus*), lesser horseshoe (*Rhinolophus hipposideros*) and greater horseshoe bats (*Rhinolophus ferrumequinum*)) are listed under Section 7 of the Environment (Wales) Act 2016 as being of principal importance for maintaining and enhancing biodiversity in Wales.

Great Crested Newt

GCN is a ‘European protected species’ afforded full protection under UK legislation. This protection extends to the habitats which support GCN and it is generally assumed that the species might be present in terrestrial habitats up to 0.5km²⁷ of a breeding pond, depending on habitat quality, connectivity and population size. The GCN newt is a priority species in Wales under Section 7 of the Environment (Wales) Act 2016.

Regulation 55(2) of the Conservation of Habitats and Species Regulations 2017 defines the circumstances where derogation is allowed for an affected EPS and a licence could be issued by Natural England. All three test are to be met by the proposals prior to planning permission being allowed which include:

²⁷ Great Crested Newts have been recorded travelling long distances: 1.3km within a 7-week period by an immature individual GCN (Kupfer 1998, detailed in Jehle et al 2011); 250m in a study by Beebee and Griffiths (2000) and 120-360m in a study by Arntzen and Tenuis (1993). In addition, a study by Duff (1989) found that over half of a population overwintered in an area more than 120m away from the main breeding pond. However, long-distance movement of GCN is rare and most studies indicate that much shorter distances are typical (Jehle et al 2011). As a general rule, suitable habitats within 250m of a breeding pond are likely to be used most frequently (English Nature 2001).

1. The first test set out in Regulation 55(2)(e) deems that the need for the development should be in the interests of public health, public safety and an imperative reason of overriding public interest, which includes beneficial consequences of primary importance for the environment;
2. The second test set out in Regulation 55(9)(a) deems that there should be and 'no satisfactory alternative';
3. The third test set out in Regulation 55(9)(b) deems that the development should have no detrimental effect on the favourable conservation status of an EPS.

The GCN district licensing scheme can be used instead of making a GCN licence development application to Natural England.

Dormice

Dormice are a 'European protected species' and afforded full protection under UK legislation. Dormice are listed under section 7 of the Environment (Wales) Act 2016 as being of principal importance for maintaining and enhancing biodiversity in Wales. Since 2000, the UK population has declined by over a half (51%), decreasing on average by 3.8% per year (PTES, 2019).

Otters

Otters are a 'European Protected Species'. Their breeding sites or resting places²⁸ are fully protected under UK legislation. Otter is a priority species in Wales Under Section 7 of the Environment (Wales) Act 2016.

Works affecting otter are subject to licensing procedures by NRW.

Water Voles

Water voles are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which prohibits the deliberate killing or injury of individuals, damaging, destroying or blocking access to their places of protection (either intentionally or through ignorance), disturbing them in a place of shelter, or possessing them. The habitats of common water voles are not specifically protected. Water voles are listed as a priority species in Wales under Section 7 of the Environment (Wales) Act 2016.

White-clawed Crayfish

White-clawed crayfish are listed in the Habitat's and Species Directive (Annex 2 non-priority species) and are listed in Wales under Schedule 5 of the Wildlife and Countryside Act (1981). They are also listed as priority species in Wales under Section 7 of the Environment (Wales) Act 2016.

Badgers

²⁸ Resting places are defined as 'areas that are essential to sustain an animal or group of animals when they are not active' (Anon 2007).

Badgers are protected under the Protection of Badgers Act 1992. Protection applies both to the animal itself and to its nesting burrows (setts), and current interpretation of the Act also confers some protection to key foraging areas.

Reptiles

With the exception of smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*) (which are afforded greater protection), common reptiles are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). They are given so-called 'partial protection', which prohibits the deliberate killing or injury of individuals. The habitats of common reptiles are not specifically protected. These species are listed as priority species in Wales under Section 7 of the Environment (Wales) Act 2016.

Marsh Fritillary

The marsh fritillary is fully protected in the UK under the Wildlife and Countryside Act 1981 (as amended) and is listed on Annex IIa of the EC Habitats Directive as a species for which key areas of habitat should be designated as Special Areas of Conservation (SACs). It is also listed on Appendix II of the 1979 Bern Convention on the Conservation of European Wildlife as a species requiring special protection, including protection of its habitats.

Current interpretation of the law affords protection to any site which is known to support marsh fritillary, whether or not the species is present in any given year. This has implications for any site which contains suitable habitats, and which occurs in an area where the species has been recorded in the past.

Marsh fritillary is a 'Priority Species' in both the UK Biodiversity Action Plan (UK BAP: UKSG 1995; UKBG 1998-99; BRIG 2007) and its Welsh equivalent (Section 7).

Hedgehogs

Hedgehogs are listed as a Red List mammal species in Britain and are protected under Schedule 6 of the Wildlife and Countryside Act (1981). They are "protected from being killed or taken by certain methods under Section 11(1) of the Wildlife and Countryside Act 1981. The methods listed are: self-locking snares, bows, crossbows, explosives (other than ammunition for a firearm), or live decoys. The species listed are also protected from the following activities: trap, snare or net, electrical device for killing or stunning, poisonous, poisoned or stupefying substances or any other gas or smoke, automatic or semi-automatic weapon, device for illuminating a target or sighting device for night shooting, artificial light, mirror or other dazzling device, sound recording, and mechanically propelled vehicle in immediate pursuit. They are also listed as priority species under Section 7 of the Environment (Wales) Act 2016.

The legislation afforded to hedgehogs in Section 7 of the Environment (Wales) Act 2016 means that every public authority must, in exercising its functions, have regard, so far as is consistent with the proper

exercise of those functions, to the purpose of conserving biodiversity²⁹. In effect, 'conserving biodiversity' includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat.

Harvest Mice

Harvest mice are listed as a Red List mammal species in Britain and are afforded partial protection under the Wildlife and Countryside Act (1981). They are listed as priority species under Section 7 of the Environment (Wales) Act 2016.

Additionally, harvest mice are listed a priority species listed under the UK Biodiversity Action Plan in light of population declines. The legislation afforded to harvest mice in Section 7 of the Environment (Wales) Act 2016 means that every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity³⁰. In effect, 'conserving biodiversity' includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat.

Montbretia

Montbretia is listed under Schedule 9³¹ of the Wildlife and Countryside Act (1981), as amended. This Act specifically prohibits the reckless or deliberate spreading of this species. Montbretia will require eradication from the site.

²⁹ Biodiversity conservation in respect to hedgehogs is interpreted as a commitment to restoring or enhancing their population.

³⁰ Biodiversity conservation in respect to hedgehogs is interpreted as a commitment to restoring or enhancing their population.

³¹ <https://www.legislation.gov.uk/ukpga/1981/69/schedule/9/part/II>

Appendix 4: Definitions of Site Value

International Value

Internationally designated or proposed sites such as Ramsar Sites, Special Protection Areas, Biosphere Reserves and Special Areas of Conservation, or non-designated sites meeting criteria for international designation. Sites supporting populations of internationally important species or habitats.

National Value

Nationally designated sites such as Sites of Special Scientific Interest (SSSIs), or non-designated sites meeting SSSI selection criteria (NCC 1989), National Nature Reserves (NNRs) or Nature Conservancy Review (NCR) Grade 1 sites, viable areas of key habitats within the UK Biodiversity Action Plan. Sites supporting viable breeding populations of Red Data Book (RDB) species (excluding scarce species), or supplying critical elements of their habitat requirements.

Regional Value

Sites containing viable areas of threatened habitats listed in a regional Biodiversity Action Plan, comfortably exceeding Site of Importance for Nature Conservation (SINC), but not meeting SSSI selection criteria. Sites supporting regionally significant areas of BAP habitats or large and viable populations Nationally Scarce species, or those included in the Regional Biodiversity Action Plan on account of their rarity, or supplying critical elements of their habitat requirements.

County Value/District Value

Site identified as a Site of Importance to Nature Conservation (SINC) at the district level; meeting South Wales Wildlife Sites Partnership (SWWSP) 2004 published designation criteria, but falling short of SSSI designation criteria, whether designated as a SINC or not. Ancient woodlands and sites supporting regionally significant areas of UK BAP habitat. Large scale examples of BAP habitats or areas supporting small populations of protected, UK BAP/ LBAP or threatened species (other than badger).

High Local

Habitats which just fail to meet Regional value criteria, but which appreciably enrich the ecological resource of the locality. Sites supporting species which are notable or uncommon in the county; or species which are uncommon, local or habitat-restricted nationally, and which might not otherwise be present in the area. Moderate scale examples of BAP habitats or areas supporting small populations of protected, UK BAP/LBAP or threatened species.

Local Value

Old hedges, woodlands, ponds, significant areas of species-rich grassland, small scale examples of BAP habitats or areas supporting small populations of protected, UK BAP/LBAP or threatened species. Undesignated sites or features which appreciably enrich the habitat resource in the context of their immediate surroundings, parish or neighbourhood (e.g. a species-rich hedgerow). Rare or uncommon species may occur but are not restricted to the site or critically dependent upon it for their survival in the area.

Site Value (within the immediate zone of influence)

Low-grade and widespread habitats. Woodland plantations, structured planting, small areas of species-rich grassland and other species-rich habitats not included in the UK or Local BAP.

Negligible

No apparent nature conservation value.

Acer Ecology

Appendix 5: Species Recorded

All species recorded by Acer Ecology, 2024

Taxonomic Name	Common Name	W	LM	CG	LDA	PMG	PIL	TF	Status
<i>Poa trivialis</i>	Rough meadowgrass								
<i>Rubus fruticosus</i> agg	Bramble								
<i>Rumex acetosa</i>	Sorrel								
<i>Agrostis stolonifera</i>	Creeping bent								
<i>Ranunculus repens</i>	Creeping buttercup								
<i>Holcus lanatus</i>	Yorkshire-fog								
<i>Plantago lanceolata</i>	Ribwort plantain								
<i>Gallium aparine</i>	Cleavers								
<i>Cirsium arvense</i>	Creeping thistle								
<i>Stachys sylvestris</i>	Hedge woundwort								
<i>Anthoxanthum odoratum</i>	Sweet vernal grass								
<i>Lysimachia vulgare</i>	Yellow loosestrife								
<i>Cardamine pratensis</i>	Cuckoo flower								
<i>Geum urbanum</i>	Wood avens								
<i>Rheum rhabarbarum</i>	Garden rhubarb								
<i>Aquilegia vulgare</i>	Columbine								
<i>Dryopteris sp</i>	Male fern								
<i>Asplenium scolopendrium</i>	Harts tongue fern								
<i>Rosa sp</i>	Rose								
<i>Lonicera periclymenum</i>	Honeysuckle								
<i>Cirsium vulgare</i>	Spear thistle								
<i>Digitalis purpurea</i>	Foxglove								
<i>Fraxinus excelsior</i>	Ash								
<i>Ribes nigra</i>	Black currant								
<i>Vicia sepium</i>	Bush vetch								
<i>Carex sp</i>	Sedge								
<i>Trifolium pratense</i>	Red clover								
<i>Luzula campestre</i>	Field woodrush								
<i>Syringa sp</i>	Lilac								
<i>Fragaria × ananassa</i>	Strawberry								
<i>Festuca rubra</i>	Red fescue								
<i>Crataegus monogyna</i>	Hawthorn								
<i>Urtica dioica</i>	Nettle								
<i>Dactylis glomerata</i>	Cock's-foot								
<i>Plantago majus</i>	Greater plantain								
<i>Chamerion angustifolium</i>	Rosebay willowherb								
<i>Geranium robertianum</i>	Herb-Robert								
<i>Sagina apetala</i>	Annual pearlwort								
<i>Athyrium filix-femina</i>	Lady fern								

Acer Ecology

<i>Salix</i> sp	Willow								
<i>Ligustrum ovalifolia</i>	Garden privet								
<i>Corylus avellana</i>	Hazel								
<i>Rubus idaeus</i>	Raspberry								
<i>Prunus spinosa</i>	Blackthorn								
<i>Crocosmia x crocosmiiflora</i>	Montbretia								WCA9

'Habitat Indicator Species' Totals (Wales Biodiversity Partnership 2008 ³²)									
		W	LM	CG	LDA	PMG	PIL	TF	

Key to Indicator Species (Wales Biodiversity Partnership 2008³³)

W - Woodland, LM – Lowland meadow, CG - Calcareous Grassland, LDA – Lowland Dry Acid Grassland, PMR Purple moor-grass and rush pasture, PIL – Post Industrial Land, TF Species-rich Tillage Fields and Margins

WCA 5 – Species protected under Schedule 5 of the Wildlife and Countryside Act

WCA 9 – Species listed under Schedule 9 of the Wildlife and Countryside Act

³² Wales Biodiversity Partnership (2008) Wildlife Sites Guidance Wales: A Guide to Develop Local Wildlife Systems in Wales. Wales Biodiversity Partnership/Welsh Assembly Government.

Appendix 6: Guidelines for Assessing the Suitability of Trees on Proposed Development Site for Bats

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.

PRFs can be further categorised according to the below:

Suitability	Description
PRF-1	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
PRF-U	Unknown if PRF could only be used by individuals or could be used by multiple bats and therefore used as a maternity roost.

Suitability	Description of Roosting Habitat
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A tree of sufficient size and age to contain PRFs but with none seen from the ground ³⁴ .
Moderate	A 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) the assessments in this table are made irrespective of conservation status, which is established after presence is confirmed.
High	A 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.

³⁴ This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015).

Appendix 7: Guidelines for Assessing Potential Suitability of Proposed Development Site for Bats

Table 4.1. Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

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 ^a	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 as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
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 ^b 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 ^c).	Habitat that could be used by small numbers of bats as flight-paths such as a 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 with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^b and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and 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 flight-paths 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 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 ^b and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	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.
a Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute). b For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance. c Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten <i>et al.</i>, 2016 and Jansen <i>et al.</i>, 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.		