



Ecological Appraisal Report:

**Land to the Rear of Ynysygored Cottages,
Bronheulog Terrace,
Aberfan,
Merthyr Tydfil,
CF48 4QD**

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Summary

I & G Ecological Consulting were commissioned to undertake a preliminary ecological appraisal of an area of land, approximately 0.06 hectares in size located off Bronheulog Terrace, in Aberfan, CF48 4QD, in order to determine the ecological baseline of the site, as well as to identify any ecological constraints, necessary for informing the design of an ongoing planning application. In addition to the 0.06 hectares that were surveyed in relation to the current proposed development, the adjacent habitats were also mapped in order to provide flexibility in design, hereafter referred to as 'the site'.

The proposed development consists of the creation of one traveller pitch over permeable hardstanding, to include the construction of a dayroom, as well as the installation of one static and one touring caravan; with the static caravan being relocated from its existing location. The proposed development will utilise native tree planting and earth banks as a form of semi-natural screening, surrounding the pitch.

A desk study was undertaken in August 2023, with the purpose of determining any existing ecological information pertaining to the proposed management site, as well as surrounding habitats. A Phase 1 Habitat Survey was undertaken in August 2023, with the aim of identifying the habitats present on site and relating them to any relevant legislation.

The habitats present within the wider survey area include neutral semi-improved grassland, amenity grassland, and bare ground, with boundary features including fencing. This report presents the findings of both a desk study and a site appraisal undertaken in August 2023. The report aims to identify any ecological constraints present in relation to the proposed development, such as the presence of protected species and habitats, whilst providing recommendations for further surveys and mitigation measures where required.

1. INTRODUCTION

1.1 Background

I & G Ecological Consulting were commissioned to undertake a preliminary ecological appraisal of an area of land, approximately 0.06 hectares in size located off Bronheulog Terrace, in Aberfan, CF48 4QD, in order to determine the ecological baseline of the site, as well as to identify any ecological constraints, necessary for informing the design of an ongoing planning application. In addition to the 0.06 hectares that were surveyed in relation to the current proposed development, the surrounding habitats were also mapped in order to provide flexibility in design, hereafter referred to as 'the site'.

This report presents the findings of both a desk study and a site appraisal undertaken in August 2023. The report aims to identify any ecological constraints present in relation to the proposed development, such as the presence of protected species and habitats, whilst providing recommendations for further surveys and mitigation measures where required.

1.2 Site Details

The site is located easternly adjacent to Bronheulog Terrace, located centrally at Ordinance Survey Grid Reference (OSGR) SO 07309 01439. The fields throughout the site are used to graze horses, which were observed on the day of the survey.



Figure 1. Location of site, Grid Ref: SO 07309 01439

1.3 Proposed Development

The proposed development consists of the creation of one traveller pitch over permeable hardstanding, to include the construction of a dayroom, as well as the installation of one static and one touring caravan; with the static caravan being relocated from its existing location. The proposed development will utilise native tree planting and earth banks as a form of semi-natural screening, surrounding the pitch. Please refer to accompanying design drawings (01d, 02e, 03d, 04c, 05b, 06a and 07b – AVH835).

1.4 Relevant Planning Policy and Legislation

- 1.4.1 The Environment Wales Act (EWA) Section 6 (Welsh Government, 2016) places a duty on public authorities to 'seek to maintain and enhance biodiversity' and seek to 'promote the resilience of ecosystems'. The duty replaces the Section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, and applies to those authorities that fell within the previous duty. Section 7 lists both Priority Species and Habitats of Principle Importance for the purpose of maintaining and enhancing biodiversity in relation to Wales.

1.4.2 Furthermore, Edition 11 of Planning Policy Wales (PPW) (Welsh Government, 2011) establishes the land use planning policy for Wales, as set forth by the Welsh Government. It provides a structure for the effective formulation of Local Planning Authorities' development plans, supported by twenty-one Technical Advice Notes (TANs) organized around different topics. Specifically, TAN 5 - Nature Conservation and Planning gives guidance on how the land use planning system should support the safeguarding and enhancement of biodiversity and geological conservation.

PPW 11 aims to maintain and establish areas where:

- The role of landscapes, historic environments, habitats, biodiversity, and the unique characteristics of coastal, rural, or urban environments in contributing to natural and distinctive places are recognised, appreciated, protected, and improved.
- Further fragmentation of habitats is avoided wherever possible, and green networks, corridors, and habitat connections within developed areas are protected and improved.
- The features and characteristics of sites designated for their landscape or nature conservation significance are fully evaluated and safeguarded, while the network of sites is acknowledged as the foundation for improving the resilience of ecosystems.
- The opportunity to enhance the resilience of ecosystems is seized in all areas by addressing issues such as building on floodplains, diffuse pollution, soil compaction and sealing, ensuring the protection of peat resources, and improving coastal flood defense strategies in urban areas and coastal margins.

Paragraph 3.36 of PPW outlines the utilization of the Sustainable Management of Natural Resources (SMNR) methodology by the planning system, with the following identified as its primary components:

- Improving the resilience of ecosystems and ecological networks
- Halting and reserving the loss of biodiversity
- Maintaining and enhancing green infrastructure based on seeking multiple ecosystem benefits.

1.4.3 The Merthyr Tydfil Replacement Local Development Plan (LDP) 2016 - 2031 specifies the following policy in relation to biodiversity considerations of development proposals (MTCBC, 2020). Refer to Table 1 below.

Table 1. Merthyr Tydfil Local Development Plan

Policy BW5 – Natural Heritage	The Council will protect and support the enhancement of the County Borough's distinctive natural heritage. Development proposals will only be permitted where they maintain, enhance or do not cause harm to: • The landscape character of the countryside; • National and local nature conservation designations; • Trees, woodlands and hedgerows that have natural heritage value or contribute to the character and amenity of an area; and • Other biodiversity interests, including protected and priority species and ecological networks.
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2. METHODOLOGY

2.1 Desk Study

A desk study was conducted on the with the purpose of determining any existing ecological information pertaining to the proposed development site, as well as surrounding habitats. A biological data request was sent to Local Environmental Records Centre (LERC) Wales via Aderyn (available at: <https://aderyn.lercwales.org.uk/>) and returned on the 2nd August 2023, in order to obtain records of protected species within a 2km radius of the site, as well as designated sites for nature conservation. Additional species record data were obtained via the National Biodiversity Network (NBN) Atlas (available at: <https://nbnatlas.org/>) where possible. The Multi-Agency Geographical Information for the Countryside (MAGIC) website was also used to pull data on waterbodies within 0.25km of the site, following the guidance listed in the Great Crested Newt Conservation Handbook (Langton *et al.*, 2001).

2.2 Field Survey

2.2.1 Phase One Habitat Survey

A Phase One Habitat Survey was conducted by a suitably qualified ecologist at 15:00 on 5th August 2023, using the methodology outlined in the Handbook for Phase 1 habitat survey (JNCC, 2010). Additionally, the habitats present on site were assessed for their potential to support protected species, with visual surveys used to search for physical sightings, or incidental records of such species. The site boundary is included in Figure 2 below.

Target incidental may relate to the following:

- Evidence of badger – setts, well-worn paths and runs, snagged hair, latrines, sites and foraging.
- Evidence of otter - spraint marking, slides, hovers or sites.
- Evidence of dormouse – nests or foraged hazel nuts with characteristic round gnawing holes.
- Evidence of birds – nests.
- Evidence of bats – bat droppings or urine staining adjacent to a Potential Roost Feature (PRF).
- Evidence of reptile – sloughs.
- Evidence of amphibians – spawn.
- Evidence of water vole – droppings, latrines, foraging signs and footprints.
- Suitable habitat for marsh fritillary butterfly – the presence of Devil's bit scabious (*Succisa pratensis*), the marsh fritillary's food plant.

Any pernicious weeds under Schedule 9, Section 14 of the Wildlife and Countryside Act 1981 (as amended) were also noted and mapped during the site survey. These species include Japanese Knotweed (*Fallopia japonica*) and Himalayan Balsam (*Impatiens glandulifera*).



Figure 2. Site Boundary (Blue) and the Proposed Development Footprint (Red)

2.2.2 Preliminary Ground Level Roost Assessment (PGLRA) of Trees

Any trees within the site were assessed for their potential to support roosting bats on the day of the survey, via the presence of any PRFs. Suitable PRFs vary by species, but in trees, may include dense ivy, woodpecker holes, loose bark, areas of hollow trunk, hazard beams, and other forms of cavity. Where it was not possible to fully assess the trees from the ground, using binoculars, the trees were noted for additional surveying or assigned a precautionary bat roosting potential score. Such features were assessed using the guidelines set out in Bat Surveys for Ecologists (Collins, J., 2016).

2.3 Limitations

A species may be perceived as absent within the surrounding area during the desk study due to lack of records returned, however this is not the case, as it may be a consequence of lack of surveying in the search buffer area.

The findings presented within this report are valid for an 18-month period following the survey, in line with CIEEM (2019) guidance. Should the proposed development scope change in any way, then an updated Preliminary Ecological Appraisal will be required.

3. DESK STUDY

A number of protected and notable species records were returned within 2km of the centre of the proposed development site. All records will not be listed here, however the most significant, those which are considered to potentially be affected by the development of the site, will be briefly summarised. The full data are available upon request to those nominated on the request form, as some data may be classified as sensitive. The significant findings from the data search are summarised below.

3.1 Birds

The data search returned 86 entries of birds which are listed on Schedule 1 of the Wildlife and Countryside Act (1981) within 2km of the site, comprising of: kingfisher (*Alcedo atthis*), brambling (*Fringilla montifringilla*), red kite (*Milvus milvus*), barn owl (*Tyto alba*), peregrine (*Falco peregrinus*), redwing (*Turdus iliacus*), fieldfare (*Turdus pilaris*), goshawk (*Accipiter gentilis*), crossbill (*Loxia curvirostra*) and merlin (*Falco columbarius*).

The data search returned 169 entries of birds which are listed on Section 7 of Principal Importance under the Environment (Wales) Act 2016 within 2km of the site, comprising of: song thrush (*Turdus philomelos*), starling (*Sturnus vulgaris*), dunnoek (*Prunella modularis*), black-headed gull (*Chroicocephalus ridibundus*), herring gull (*Larus argentatus*), spotted flycatcher (*Muscicapa striata*), house sparrow (*Passer domesticus*), bullfinch (*Pyrrhula pyrrhula*), cuckoo (*Cuculus canorus*), willow tit (*Poecile montanus*), kestrel (*Falco tinnunculus*), tree pipit (*Anthus trivialis*), skylark (*Alauda arvensis*), lesser redpoll (*Acanthis cabaret*), curlew (*Numenius arquata*), wood warbler (*Phylloscopus sibilatrix*), pied flycatcher (*Ficedula hypoleuca*), grey partridge (*Perdix perdix*), yellowhammer (*Emberiza citrinella*), reed bunting (*Emberiza schoeniclus*), nightjar (*Caprimulgus europaeus*), linnet (*Linaria cannabina*), lapwing (*Vanellus vanellus*), grasshopper warbler (*Locustella naevia*) and ring ouzel (*Turdus torquatus*).

3.2 Mammals

The data search returned 121 entries of terrestrial mammals which are categorised as priority species within 2km of the site, such as: common pipistrelle (*Pipistrellus pipistrellus*), Eurasian otter (*Lutra lutra*), polecat (*Mustela putorius*), West European hedgehog (*Erinaceus europaeus*), bat (*Chiroptera*), noctule bat (*Nyctalus noctula*), hazel dormouse (*Muscardinus avellanarius*), Eurasian badger (*Meles meles*), Eastern grey squirrel (*Sciurus carolinensis*), brown long-eared bat (*Plecotus auritus*), soprano pipistrelle (*Pipistrellus pygmaeus*), pipistrelle bat species (*Pipistrellus spp.*), myotis bat species (*Myotis spp.*), Natterer's bat (*Myotis nattereri*) and American mink (*Neovison vison*).

3.3 Invertebrates

The data search returned 33 entries of invertebrates which are listed in Section 7 of Principal Importance under the Environment (Wales) Act 2016 within 2km of the site, comprising of: buff ermine (*Spilosoma luteum*), broom moth (*Ceramica pisi*), small square-spot (*Diarsia rubi*), cinnabar (*Tyria jacobaeae*), small pearl-bordered fritillary (*Boloria selene*), grayling (*Hipparchia semele*), shoulder-striped wainscot (*Leucania comma*), dusky brocade (*Diloba*

caeruleocephala), dark-barred twin-spot carpet (*Xanthorhoe ferrugata*) and small heath (*Coenonympha pamphilus*).

3.4 Plants

The data search returned 44 entries of plants which are categorised as priority species (listed in Schedule 1 of the Wildlife and Countryside Act, 1981, and / or listed in the Local Biodiversity Action Plan for Merthyr Tydfil County Borough Council) within 2km of the site, comprising of: unbranched bur-reed (*Sparganium emersum*), bird cherry (*Prunus padus*), water chickweed (*Myosoton aquaticum*), bluebell (*Hyacinthoides non-scripta*), wild mignonette (*Reseda lutea*), small cudweed (*Filago minima*), viper's-bugloss (*Echium vulgare*), black-poplar (*Populus nigra*), woolly thistle (*Cirsium eriophorum*), shoreweed (*Littorella uniflora*), heath spotted-orchid (*Dactylorhiza maculata*), spiked water-milfoil (*Myriophyllum spicatum*), cornflower (*Centaurea cyanus*), dwarf elder (*Sambucus ebulus*), heath dog-violet (*Viola canina*), brown sedge (*Carex disticha*) and small pondweed (*Potamogeton pusillus*).

3.5 Reptiles

The data search returned 28 entries of reptiles which are categorised as priority species (listed in Schedule 5 of the Wildlife and Countryside Act, 1981, and / or Section 7 of Principal Importance under the Environment (Wales) Act 2016) within 2km of the site, comprising of: grass snake (*Natrix natrix*), slow-worm (*Anguis fragilis*) and common lizard (*Zootoca vivipara*).

3.6 Amphibians

The data search returned 11 entries of amphibians which are categorised as priority species (listed in Schedule 5 of the Wildlife and Countryside Act, 1981, and / or Section 7 of Principal Importance under the Environment (Wales) Act 2016) within 2km of the site, comprising of: common frog (*Rana temporaria*) and common toad (*Bufo bufo*).

3.7 Invasive Non-native species

The data search returned 67 entries of INNS within 2km of the site. Species of note recorded include: Japanese knotweed (*Fallopia japonica*), wall cotoneaster (*Cotoneaster horizontalis*), Himalayan balsam (*Impatiens glandulifera*), butterfly-bush (*Buddleja davidii*), cotoneaster (*Cotoneaster spp.*), monkeyflower (*Mimulus spp.*), Eastern grey squirrel (*Sciurus carolinensis*), Canada goose (*Branta canadensis*), New Zealand pigmyweed (*Crassula helmsii*), nuttall's waterweed (*Elodea nuttallii*), New Zealand willowherb (*Epilobium brunnescens*), Himalayan cotoneaster (*Cotoneaster simonsii*), American mink (*Neovison vison*), greater periwinkle (*Vinca major*) and Eurasian eagle-owl (*Bubo bubo*).

3.8 Statutory Designated Sites

The desk study returned no records of statutory designated sites located within 2km of the site.

3.9 Non-Statutory Designated Sites

The desk study returned 16 records of non-statutory designated sites located within 2km of the site, all designated as Adopted Sites of Importance for Nature Conservation (SINC):

- Afon Taf (0.07km east)
- Glamorganshire Canal (0.13km west)
- Merthyr Common South (0.29km north-east)
- Cnwc (0.39km west)
- St Tydfil Forest (East) (0.43km east)
- Merthyr Vale (0.62km south)
- West of Aberfan (0.78km south-west)
- Mynydd Merthyr (0.81km south-west)
- Mynydd y Capel Common (0.83km south)
- Buarth-waunydd (0.91km north-west)
- Troed-y-Rhiw (0.92km north)
- Cwm Bargoed (1.1km east)
- Gethin Forest (1.34km west)
- Cwm Fedw (1.41km east)
- Graig Gethin (1.67km north)
- Cefn Forest (1.76km south-west)

3.10 Ancient Woodland Inventory

Forty-two Ancient Semi-Natural Woodlands (ASNW), 14 Restored Ancient Woodland Sites (RAWS), 6 Plantation on Ancient Woodland Site (PAWS) and 3 Ancient Woodland Site of Unknown Category (AWSUC) are found within 2km of the site. The nearest woodland listed on the Ancient Woodland Inventory is an area of RAWS, located 0.12km west.

3.11 Waterbodies

Refer to Table 2 for a list of waterbodies within 0.25km of the site.

Table 2. Waterbodies within 0.25km of the site

Waterbody ID	OS Grid Reference	Description
Afon Taf	SS 99024 88275	0.07km to east of site, separated by woodland buffer.



4. SITE APPRAISAL

The habitats present within the wider survey area include neutral semi-improved grassland, amenity grassland, and bare ground, with boundary features including fencing. The completed Phase One Habitat Map is provided in Appendix B, with accompanying photographs in Appendix C. Weather on the day of the survey was overcast with intermittent showers, with heavy rainfall for the hours prior to the survey.

4.1 B2.2 Neutral Semi-Improved Grassland

The entirety of the site to the east of the paddock is neutral semi-improved grassland. The area that is found adjacent to the fence line has been mown (Photograph 1), with the sward possessing a uniform height of approximately 10cm with frequent tussocks. Here, false oat grass (*Arrhenatherum elatius*) dominates, with Yorkshire fog (*Holcus lanatus*) and perennial ryegrass (*Lolium perenne*) found frequently. Bracken (*Pteridium aquilinum*), common nettle (*Urtica dioica*), common hogweed (*Heracleum sphondylium*) and creeping buttercup (*Ranunculus repens*) are found occasionally in this habitat, with bramble (*Rubus fruticosus*) and hedge bindweed (*Calystegia sepium*) found rarely. Species composition in the area of unmown grass is largely the same (Photograph 2), with the addition of rarely occurring rosebay willowherb.

4.2 J1.2 Amenity Grassland

Amenity grassland is found the west of the paddock (Photograph 3), with the grass here showing signs of regular mowing. The grassland is connected to the drive to the south. Perennial ryegrass dominates this habitat, with Yorkshire fog found frequently. White clover (*Trifolium repens*) and creeping buttercup are found frequently, with the only other species record identified within the short sward belonging to greater plantain (*Plantago major*), occurring occasionally.

4.3 J4 Bare Ground

The paddock area encompasses the majority of the site (Photograph 4), with this paddock used frequently to house horses. The substrate is heavily disturbed, consisting mainly of exposed dirt and mud, with some small areas of ruderal vegetation, with species composition indicative of nutrient enrichment. In this habitat, creeping thistle (*Cirsium arvense*), common hogweed, common nettle, broadleaved dock (*Rumex obtusifolius*), creeping buttercup, perennial ryegrass, greater plantain are found occasionally. Bracken and white clover are found rarely.

4.4 Boundary Features

4.4.1 J2.4 Fence

Fencing surrounds the paddock, as well as adjacent paddocks in the surrounding land.

4.5 Protected Species Assessments

4.5.1 Incidental Records

No incidental species records were recorded on the day of the survey.

4.5.2 Invasive Non-Native Species (INNS)

No INNS were recorded on the day of the survey.

4.5.3 Preliminary Ground Level Roost Assessment

No trees are found within the site boundary.

5. ECOLOGICAL ASSESSMENTS

5.1 Designated Sites

5.1.1 Statutory Designated Sites

No Statutory Designated Sites are found within 2km of the site. As such, Statutory Designated Sites will not be considered further in this report.

5.1.2 Non-Statutory Designated Sites

The closest Non-Statutory Designated Site is the Afon Taf, located 0.07km east of the site, behind a lining of broadleaved semi-natural woodland. This will help mitigate much of the disturbance the proposed development may bring, with adverse impacts considered unlikely due to the localised nature of the proposed development. Appropriate recommendations in relation to cautionary guidance are provided in Section 6. Any change in design will require an updated consultation by a suitably qualified ecologist.

5.1.3 Ancient Woodland Inventory

The closest woodland listed on the Ancient Woodland Inventory is an area of RAWs, located 0.12km from the site. The works required to fulfil the proposed design will be relatively localised, with adverse impacts considered unlikely. Appropriate recommendations in relation to cautionary guidance are provided in Section 6. Any change in design will require an updated consultation by a suitably qualified ecologist.

5.2 Habitats, Flora and Fauna

Guidelines have been provided to assess the importance of an ecological feature value within a geographical context, as recommended within the CIEEM Guidelines for Ecological Impact Assessment (2016) and the CIEEM Guidelines for Ecological Report Writing (Dec. 2015). Please refer to Table 3 and 4 below.

Table 3. Ecological Value Assessments

Importance	Examples of features
International & European	European designated or proposed sites such as Ramsar Sites, Special Protection Areas, Special Areas of Conservation, World Heritage sites or Biosphere Reserves; or otherwise meeting criteria for European or International designation. Sites supporting populations of European important species. Species listed within the Annex's of The Conservation of Habitats & Species Regulations 2010
National	Nationally designated sites such as Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs), areas of key habitats and species 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. Species listed within the schedules of the Wildlife & Countryside Act 1981.
Regional	Sites containing viable areas of threatened habitats and species listed in a regional Biodiversity Action Plan, sites exceeding Site of Importance for Nature Conservation (SINC) criteria. Sites supporting viable populations of 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.
High Local	Sites meeting the criteria for a county, vice county or metropolitan area designation (such as SINC), which may include amenity and educational criteria in urban areas. Ancient semi-natural woodland. Designated Local Nature Reserves. Sites containing viable areas of any key habitat type or species identified in the Local Biodiversity Action Plan (LBAP). Sites supporting viable breeding populations of species known to be county/metropolitan rarities e.g., featuring in county 'red data book' or LBAP, or supplying critical elements of their habitat requirements.
Moderate Local	Undesignated sites or features considered appreciably to enrich the habitat resource within the context of the Borough or District, or included in the Borough or District LBAP. Amenity and educational functions will be recognised in urban areas. Sites with viable breeding populations of species listed as rare in the District or Borough LBAP or supplying critical elements of their habitat requirements.
Low Local	Undesignated sites or features considered appreciably enriching the habitat resource within the context of the Parish or neighbourhood.
Negligible	Low-grade and widespread habitats.

Table 4. Impact level Criteria

Severe	Permanent impacts
Major	Loss of feature and/or quality and integrity of feature; severe damage to key characteristics, features or elements.
Moderate	Loss of feature, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.
Minor	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements
Negligible	Very minor loss or detrimental alteration to one or more characteristics, features or elements
Neutral	No impacts

5.2.1 Neutral Semi-Improved Grassland

The unmown area of semi-improved grassland may offer suitable habitat for breeding birds, invertebrates, reptiles and small mammals. Bats may forage on invertebrate populations which reside in this habitat. However, within the development footprint, the habitat is of relatively low species-richness, with a large portion of the habitat mown, resulting in a short, uniform sward height. The habitat value has been assessed as **negligible**. Under the current proposed design, loss or damage to this habitat would be **major** without mitigation, as the proposed design will mostly see the removal of the majority of this habitat on site.

5.2.2 Amenity Grassland

The area of amenity grassland may offer opportunistic habitat for birds, invertebrates, reptiles and small mammals. Bats may forage on invertebrate populations which reside in this habitat. Terrestrial-phase amphibians may use the habitat when commuting and foraging. The habitat value has been assessed as **negligible**. Under the current proposed design, loss or damage to this habitat would be **moderate** without mitigation, as the proposed design will see the removal of a small part of this habitat in order to facilitate the installation of the hardstanding.

5.2.3 Bare Ground

The area of bare ground may offer opportunistic habitat for birds, invertebrates, reptiles and small mammals. Bats may forage on invertebrate populations which reside in this habitat. Terrestrial-phase amphibians may use the habitat when commuting and foraging. The habitat value has been assessed as **negligible**. Under the current proposed design, loss or damage to this habitat would be **moderate** without mitigation, as the proposed design will see the removal of a small part of this habitat in order to facilitate the installation of the hardstanding.

5.3 UK BAP Priority Habitats and Species

UK BAP priority habitats and species were those that were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP). As a result of devolution, conservation action is now focused at a country-level rather than a UK-level, and the UK BAP was succeeded by the UK Post-2010 Biodiversity Framework in July 2012. The UK list of priority species, however, remains an important reference source and has been used to help draw up statutory lists of priority species and habitats in the four countries of the UK.

The field survey identified the on-site habitats as having the potential to provide some limited opportunities for the following groups which are also listed under UK BAP: bats, birds, small mammals, amphibians, reptiles and invertebrates.

5.4 Ecosystem Resilience

Area loss can cause populations of organisms to decline due to a decrease in habitat size. The habitats present on site are of low-grade and relatively widespread, particularly in the local area, therefore if proposed development site is cleared without any mitigation for development, the impact on ecosystem resilience is expected to be **low**.

6. CONCLUSIONS AND RECOMMENDATIONS

The combination of desk and field surveys undertaken at the proposed development site identified that the site has a **negligible** ecological value. The majority of the site is of limited ecological value, with the proposed development itself occupying a relatively small surface area. This offers opportunities in relation to Biodiversity and Resilience of Ecosystems Duty (Section 6 Duty).

Recommendations necessary for the informing of the design process are provided below, as well as recommendations for biodiversity enhancement in order to fulfil the Biodiversity and Resilience of the Ecosystems Duty (Section 6 Duty). Where a species has been omitted, they are not considered a constraint to the proposed development.

6.1 Biodiversity and Resilience of Ecosystems Duty (Section 6 Duty)

- 6.1.1 The Environment (Wales) Act 2016 introduced an enhanced biodiversity and resilience of ecosystems duty (Section 6 Duty) applicable to Local Authorities. This duty filters through to all those participating in the Planning process.
- 6.1.2 Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity.
- 6.1.3 It is therefore recommended, that in order to provide a net enhancement for the development, new native planting should be incorporated into the development using species of local provenance.
- 6.1.4 In order to provide a net benefit for biodiversity it is recommended appropriate trees in the surrounding area, as well as buildings in the proposed development, should incorporate artificial habitats such as bat bricks / boxes, bird boxes / bricks or Swift / swallow cups; the details of which should be agreed with the LA ecologist. Further recommendations are given on a case-by-case basis below.

6.2 Non-Statutory Sites / Ancient Woodland

- 6.2.1 Appropriate guidelines, such as the Pollution Prevention Guidelines (PPG) (NetRegs, 2012) and the CIRIA C741 Environmental Good Practice on Site Guide (Charles and Edwards, 2015) should be adhered to at all times during the construction of the proposed development.

6.3 Grassland Habitats

- 6.3.1 Mitigation for loss of habitat may, in part, take the form of improved management for biodiversity on the remaining areas of land within ownership.
- 6.3.2 Where possible, the species composition of any retained or created grassland post-development should be preserved, with the planting of the species identified during this Preliminary Ecological Appraisal.
- 6.3.3 Furthermore, subsequent management of the remaining on-site habitat should aim to achieve a good mosaic of sub-habitats, including areas of short turf, bare ground, long grass, and a limited amount of scrub.

6.4 Badger

- 6.4.1 Although the nearest record of badger returned in the desk study is 0.75km away from the site, the habitat in the wider survey area is suitable for sett creation and foraging badger. General construction safeguards should be implemented during any on-site management which, which will also protect other species groups using the site. These include:
- Any mammals should be protected from accessing materials through the use of spoil-proof fencing.
 - Fencing off and covering of open excavations, in order to prevent animals becoming trapped or injured. Mammal ladders should be erected to allow any animals that may become trapped to leave the groundworks.
 - Chemicals, such as fuels, should not be stored within 25m of waterbodies.
 - If possible, access routes and machine should be chosen with the minimisation of sediment run-off as a priority

6.5 Otter

- 6.5.1 No records of otter were returned within 2km of the site, therefore the above guidelines for badger will also safeguard any otters in the event that they are opportunistically utilising the site for terrestrial habitat.

6.6 Bats

- 6.6.1 The nearest record of bat returned in the desk study belonged to an unidentified *Myotis* species (*Myotis sp.*) located 0.2km away from the site. No trees are found within the proposed development footprint and under the current design no tree felling is to take place, however should this change, a suitably qualified ecologist should be consulted. Further recommendations may be proposed following this consultation.

6.7 Birds

- 6.7.1 Copious records of birds were returned during the desk study. All nesting birds are protected under Section 1 of the Wildlife and Countryside Act of 1981. Therefore, all vegetation clearance should be planned outside the nesting bird season. If management works must commence any time between the 1st of March and the end of August, it is recommended that a nesting bird check will be undertaken on the site by a suitably experienced ecologist. If an active bird nest is found, the nest area will be marked, and will be protected from disturbance or harm as advised by the Ecologist. Management procedures will not commence in the identified area until an Ecologist can confirm the young have fledged and the nest is vacant.

6.8 Reptiles

- 6.8.1 The nearest record of reptile returned in the desk study belonged to grass snake, located 0.47km away from the site. The habitat within the wider survey area presents common species of reptile (slow-worm and common lizard) with foraging opportunities and suitable habitat. As such, management in suitable reptile habitat should take place outside of the active season (March to October inclusive). Should works be required to be undertaken within this period, it is recommended that a Reptile and Amphibian Mitigation Method Statement should be prepared and communicated to any contractors taking place in the management, in order to protect animals during site clearance and construction, which will likely detail a phased approach to vegetation clearance, as well as the careful removal of any refugia within the area of scrub / woodland by hand. Following such guidelines will also help safeguard terrestrial phase amphibians and small mammals that may be present on site.

7. LEGISLATION

7.1 Otters and the Law

7.1.1 The otter is a European Protected Species (EPS). It is against the law to damage or destroy an otter breeding site or resting place, or deliberately to capture, kill, injure or disturb an otter.

7.1.2 Otters are fully protected by the following pieces of legislation:

- The Conservation of Habitats and Species Regulations 2017 (regulation 42) fully protects otters, making it **an offence to**:-
 - *Intentionally or deliberately capture, injure or kill an Otter.*
 - *Damage or destroy a breeding or resting place of an Otter, or intentionally or recklessly damage or destroy any structure or place used for shelter or protection*
 - *Intentionally or recklessly disturb an Otter in a place used for shelter or protection, or deliberately disturb Otters in such a way as to be likely significantly to affect (i) the ability of any significant group of Otters to survive, breed, rear or nurture their young, or (ii) the local distribution or abundance.*
 - *Intentionally or recklessly obstruct access to a place used for shelter or protection.*
 - *Possess an Otter (alive or dead), or any part of an Otter*
- Schedule 5 of the Wildlife and Countryside Act 1981 (as amended by the CROW [Countryside Rights of Way] Act 2000) fully protects otters, making it **an offence to**:-
 - *Intentionally or recklessly disturb any otter while it is occupying a structure or place which it uses for shelter or protection*
 - *Intentionally or recklessly obstructs access to any structure or place used by an otter for shelter or protection*
 - *Sell, offer or expose for sale any otter*

7.1.3 For any disturbance to occur a derogation or **EPS licence** must be gained from Natural Resources Wales. To gain an EPS Licence from Natural Resources Wales (NRW), NRW must be satisfied that;

- i. granting the licence would not be detrimental to the Favourable Conservation Status (fcs) of the populations of species concerned within its natural range.
- ii. the derogation (licence) is in the public interest of Health and Safety or for other reasons of over-riding public interest, including those of a socio-economic nature or will have a benefit of primary importance to the environment.
- iii. there is no satisfactory alternative to the derogation which would allow the described development to proceed but which would avoid or reduce the need for any adverse impact to the species.

7.1.4 Otters are also protected by;

- Natural Environment and Rural Communities Act 2006 and now the Environment (Wales) Act 2016.
- Annex II Habitats Directive (protection through Special Areas of Conservation)
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in Wales

7.2 Bats and the Law

7.2.1 Bats are protected by the following pieces of legislation:

- Schedule 5 and 6 of the Wildlife and Countryside Act 1981 (as amended by the CROW [Countrywide Rights of Way] Act 2000)
- The Environmental Damage (Prevention & Remediation) Regulations 2009 – A protected species and its habitat is protected under this legislation as well as others.
- The Conservation of Habitats and Species Regulations 2017 (regulation 42) fully protects all bats and their roosts, making it **an offence to deliberately kill, injure or capture** (take) bats; *to deliberately disturb bats; damage or destroy bat roosts* or resting places (this is considered an “Absolute Offence” as damage and destruction may detrimentally effect the Continuous Ecological Functionality of that roost / resting place); possess or transport a bat or any part of a bat; sell (or offer for sale) or exchange bats or parts of bats.
- For any disturbance to occur a derogation or **EPS licence** must be gained from Natural Resources Wales. To gain an EPS Licence from Natural Resources Wales (NRW), NRW must be satisfied that;
 - i. the licence would not be detrimental to the Favourable Conservation Status (fcs) of the populations of species concerned within its natural range.
 - ii. the derogation (licence) is in the public interest of Health and Safety or for other reasons of over-riding public interest, including those of a socio-economic nature or will have a benefit of primary importance to the environment.
 - iii. there is no satisfactory alternative to the derogation which would allow the described development to proceed but which would avoid or reduce the need for any adverse impact to the species.

7.2.2 Bats are also protected by;

- Appendix III of the Bern Convention
- Appendix II of the Bonn Convention (including the Convention's Agreement on the conservation of Bats in Europe)
- Natural Environment and Rural Communities Act 2006 and now the Environment (Wales) Act 2016.
- All bats are listed in Annex IV of the EC Habitats Directive and the British species listed in Schedule 2 of the Habitats Regulations 1994 (as amended) and are therefore designated as *European Protected Species*. These *protected* species are afforded enhanced

protection and more stringent licensing provisions than those protected by the Wildlife and Countryside Act (WACA) alone.

7.3 The Hazel Dormouse and the Law

7.3.1 The hazel dormouse is a European Protected Species (EPS). It is against the law to damage or destroy a dormouse breeding site or resting place (summer or hibernation nest), or deliberately to capture, kill, injure or disturb a dormouse.

7.3.2 Dormice are fully protected by the following pieces of legislation:

- The Conservation of Habitats and Species Regulations 2017 (regulation 42) fully protects dormice, making it **an offence to:** -
 - *Intentionally or deliberately capture, injure or kill a dormouse.*
 - *Damage or destroy a breeding or resting place of a dormouse, or intentionally or recklessly damage or destroy any structure or place used for shelter or protection*
 - *Intentionally or recklessly disturb a dormouse in a place used for shelter or protection, or deliberately disturb dormouse in such a way as to be likely significantly to affect (i) the ability to survive, breed, rear or nurture their young, and includes in the case of animals of a hibernating or migratory species, to hibernate or migrate or (ii) the local distribution or abundance.*
 - *Intentionally or recklessly obstruct access to a place used for shelter or protection.*
 - *Possess a dormouse (alive or dead), or any part of a dormouse*
- Schedule 5 of the Wildlife and Countryside Act 1981 (as amended by the CROW [Countryside Rights of Way] Act 2000) fully protects dormice, making it **an offence to:** -
 - *Intentionally or recklessly disturb any dormouse while it is occupying a structure or place which it uses for shelter or protection*
 - *Intentionally or recklessly obstructs access to any structure or place used by a dormouse for shelter or protection*
 - *Sell, offer or expose for sale any dormouse*

7.3.3 For any disturbance to occur a derogation or **EPS licence** must be gained from Natural Resources Wales. To gain an EPS Licence from Natural Resources Wales (NRW), NRW must be satisfied that;

- i. granting the licence would not be detrimental to the Favourable Conservation Status (fcs) of the populations of species concerned within its natural range.
- ii. the derogation (licence) is in the public interest of Health and Safety or for other reasons of over-riding public interest, including those of a socio-economic nature or will have a benefit of primary importance to the environment.

- iii. there is no satisfactory alternative to the derogation which would allow the described development to proceed but which would avoid or reduce the need for any adverse impact to the species.

7.3.4 Dormice are also protected by;

- Natural Environment and Rural Communities Act 2006 (England) and the Environment (Wales) Act 2016.
- Annex II Habitats Directive (protection through Special Areas of Conservation)
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in Wales

7.4 Reptiles and the Law

7.4.1 All of the UK native reptiles are protected by law. The common species of reptiles found in this locality are common lizard, slow-worm, adder and grass snake. It is illegal to intentionally kill or injure these species under Section 9 (1) of the Wildlife and Countryside Act 1981 (as amended).

7.4.2 All native UK reptiles are considered of 'principle importance' under Section 7 of the Environment (Wales) Act 2016. This places a duty on every public authority, in exercising its functions, to have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.

7.4.3 Under the National Planning Policy Framework (NPPF April 2012), the presence of any Protected Species (which includes all reptiles species) are a material planning consideration. The ODPM 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact within the Planning System, provide additional advice and support the NPPF.

7.5 Amphibians and the Law

7.5.1 All of the UK native amphibians are protected by law. The common species of amphibians in this locality are common frog, common toad, smooth newt and palmate newt. It is illegal to intentionally kill or injure these species under Section 9 (1) of the Wildlife and Countryside Act 1981 (as amended).

7.5.2 The common toad is considered of 'principle importance' under Section 7 of the Environment (Wales) Act 2016. This places a duty on every public authority, in exercising its functions, to have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.

- 7.5.3 Under the National Planning Policy Framework (NPPF April 2012), the presence of any Protected Species) which includes the Common Toad) are a material planning consideration. The ODPM 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact within the Planning System, provide additional advice and support the NPPF.

7.6 Birds and the Law

- 7.6.1 All species of bird are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended). Protection was extended by the Countryside and Rights of Way (CROW) Act 2000. Under the above legislation it is an offence to intentionally:
- kill, injure or take any wild bird;
 - take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
 - take or destroy an egg of any wild bird.
- 7.6.2 Certain species are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and receive protection under Sections 1(4) and 1(5). The protection was extended by the Countryside and Rights of Way (CROW) Act 2000. There are special penalties where the offences listed above are committed for any Schedule 1 species and it is also an offence to intentionally or recklessly:
- disturb any such bird when it is building its nest or while it is in or near a nest containing dependant young; or
 - disturb the dependant young of any such bird.

7.7 Badgers and the Law

- 7.7.1 The protection of Badgers Act 1992 makes it illegal to kill, injure or take a badger, or interfere with a sett. In addition, they are listed on Schedule 6 of the Wildlife & Countryside Act 1981, which prohibits certain methods of killing and capture.

7.8 Water Voles and the Law

- 7.8.1 Water voles are listed under Schedule 5 of the Wildlife & Countryside Act 1981, receiving full protection since 2008. The Wildlife & Countryside Act 1981 (as amended), lists the following offences: -
- Intentionally kill, injure or take water voles (Section 9 (1)).
 - Possess or control live or dead water voles or derivatives (Section 9 (2)).
 - Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection (Section 9 (4) (a & c)).
 - Intentionally or recklessly disturb water voles whilst occupying a structure or place used for that purpose (Section 9 (4) (b)).

- Sell water voles or offer or expose for sale or transport for sale (Section 9 (5)).
- Publish or cause to be published any advertisement which conveys the buying or selling of water voles (Section 9 (5)).

7.9 Environment Act (Wales) 2016

- 7.9.1 This act has replaced the section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, and applies to those authorities that fell within the previous duty. It came into force in May 2016.
- 7.9.2 Section 6 of the Act places a duty on public authorities to ‘seek to maintain and enhance biodiversity’ so far as it is consistent with the proper exercise of those functions. In doing so, public authorities must also seek to ‘promote the resilience of ecosystems’. Under Section 6, public authorities will be required to report on the actions they are taking to improve biodiversity and promote ecosystem resilience.
- 7.9.3 Section 7 of the Act places a duty on public authorities to take steps to maintain and enhance biodiversity. This section replaces the duty in section 42 of the NERC Act 2006. The Section 7 Priority Species under this act is a list of the living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. The Section 7 Priority Habitats is a list of the habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales.



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We confirm that in preparing this Report we have exercised reasonable skill and care, taking into account the project objectives, the agreed scope of the work and prevailing site conditions.

Advice in this report is based on the judgement of I&G Ecological Consulting and the interpretation of data gathered during the course of their survey on the property named in this document.

The findings and advice given during the course of this survey is provided by employees of I&G Ecological Consulting acting only on behalf of I&G Ecological Consulting.

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Appendix A. LERC Data Search

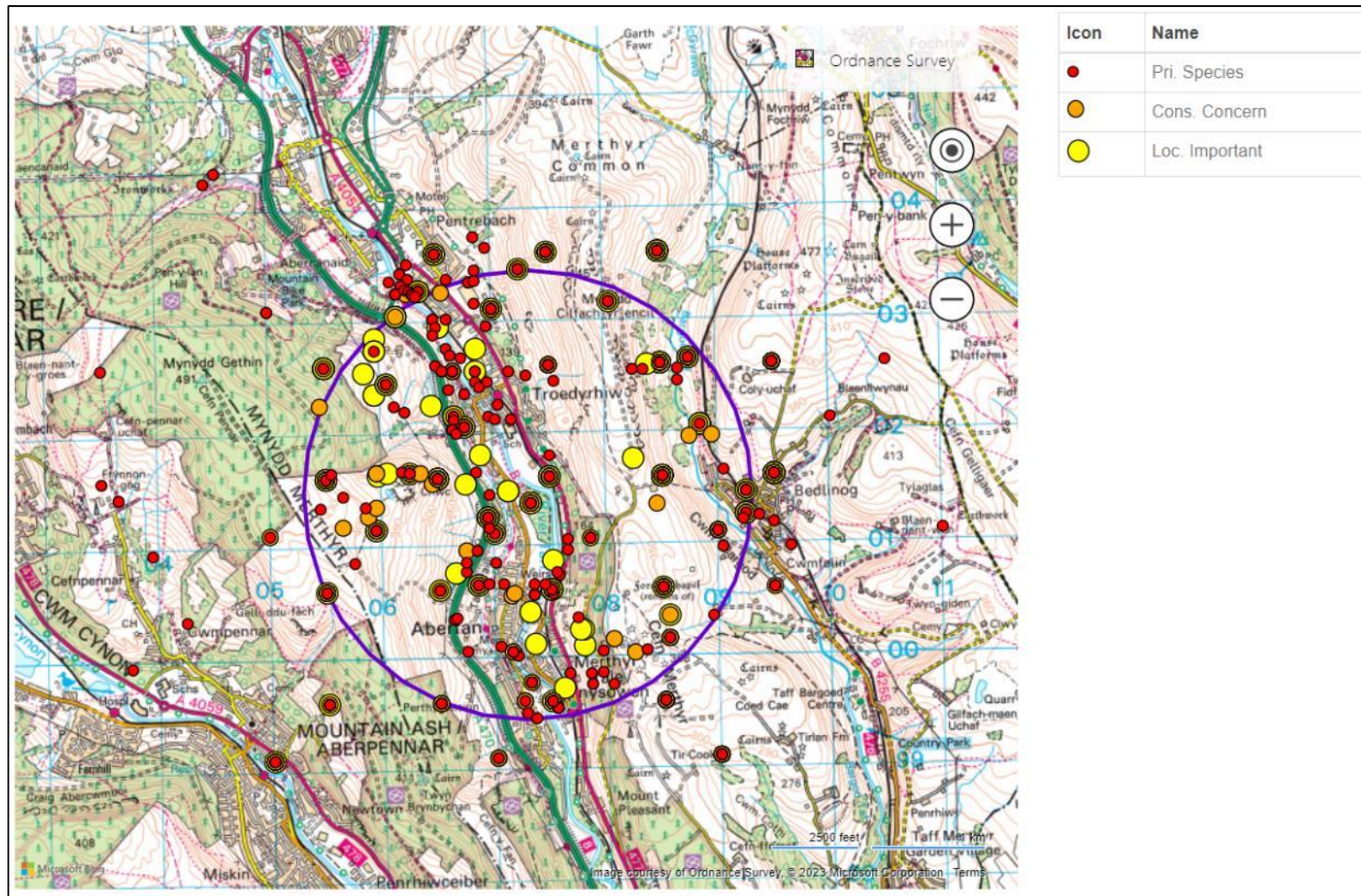


Figure 3. LERC Protected Species Data Search Records

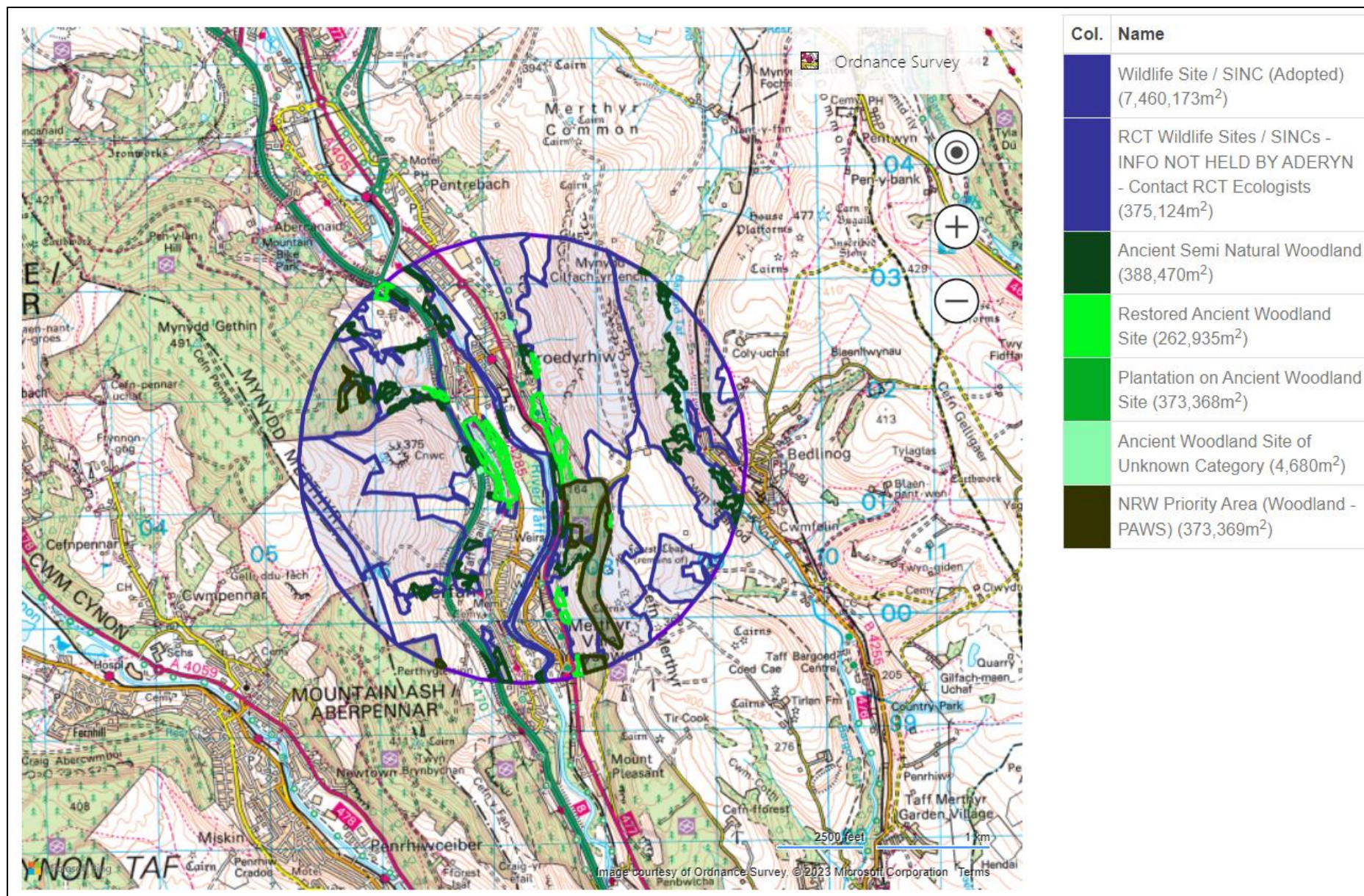


Figure 4.LERC Protected Sites Data Search

Appendix B. Phase One Habitat Plan



Legend

 **Fenceline**

 **Proposed Development Footprint**

 **Site**

 **B2.2 - Neutral grassland - semi-improved**

 **J1.2 - Cultivated/disturbed land - amenity grassland**

 **J4 - Bare ground**

Appendix C. Photographs



Photograph 1. Neutral Semi-Improved Grassland



Photograph 2. Neutral Semi-Improved Grassland (outside the proposed development footprint)



Photograph 3. Amenity Grassland



Photograph 4. Bare Ground in paddock

