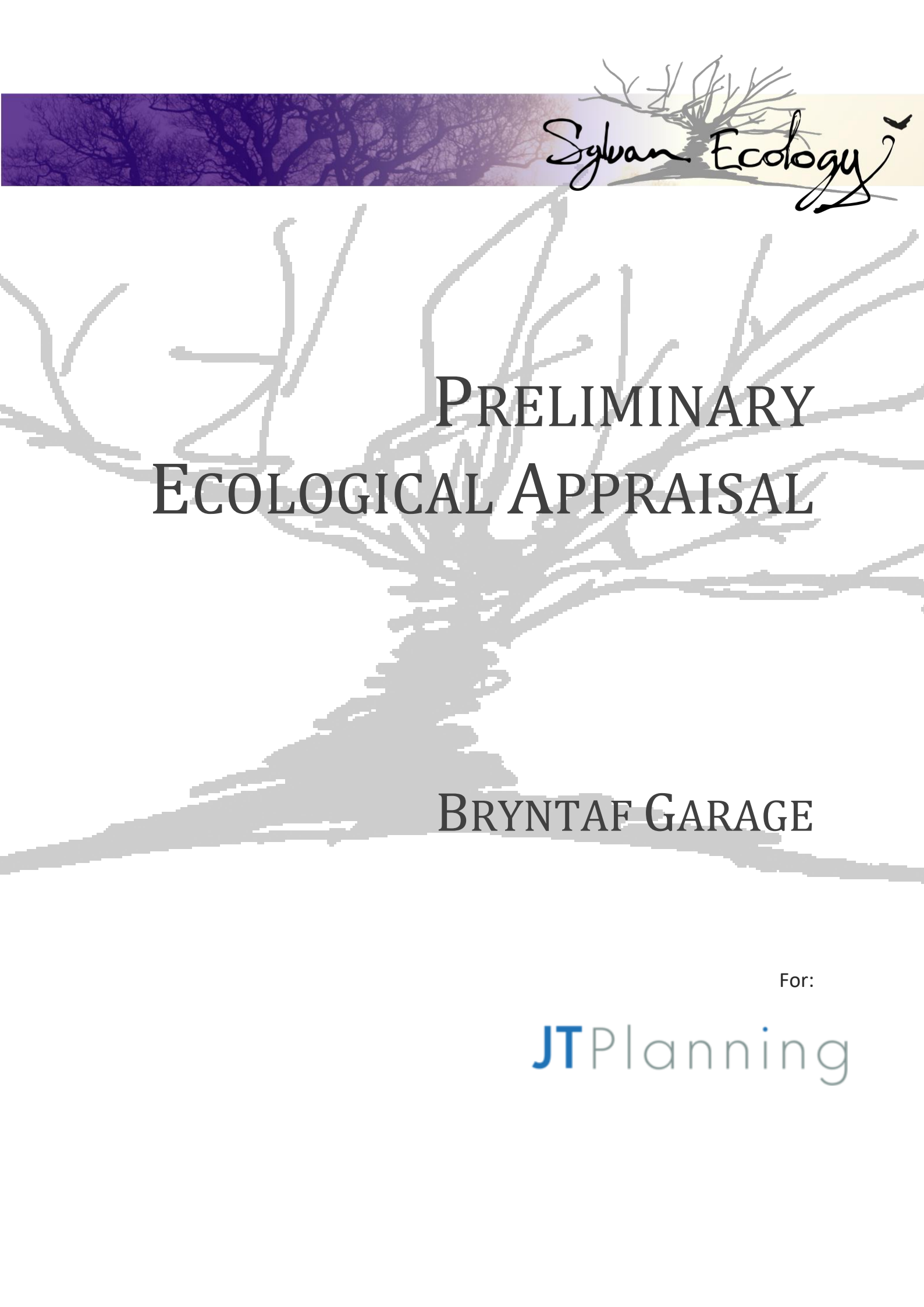


A large, faint, light-gray silhouette of a tree with many branches is centered on the page, serving as a background for the title text.

PRELIMINARY ECOLOGICAL APPRAISAL

BRYNTAF GARAGE

For:

JTPlanning

Project: BRYNTAF GARAGE		
Project Number	J022	
Title	Preliminary Ecological Appraisal	
Document Number	J022- PEA Report-V1.1	
Client	JT Planning	
Issue Date	13/08/21	
Prepared by:	David Price	13/08/21
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EXECUTIVE SUMMARY

ECOLOGICAL LAND DESIGNATION	
There are no statutory designated sites within 2km of the site. There is a non-statutory designated site the <i>West of Aberfan SINC</i> approximately 40m west of site; no adverse impacts are foreseen on this SINC as a result of the proposed development.	
HABITATS	
The application site is considered to be of low ecological value. The habitat on site with the highest ecological value is the scrub.	
PROTECTED SPECIES	
BATS	Potential High Impact – Moderate potential for bats – Recommendation: <i>Further Surveys</i> .
REPTILES	Potential Moderate Impact – good habitat on site – Recommendation: <i>Further Surveys</i> .
BIRDS	Potential low Impact – The area may be used by a small number of commoner birds – Recommendations: <i>impacts negated through mitigation</i>
CONCLUSION	
Providing the recommended mitigation measures and additional surveys are adopted, relevant legislation will not be contravened and ecological issues will not preclude the development.	



1 INTRODUCTION

Background

- 1.1 Sylvan Ecology were commissioned to carry out a Preliminary Ecological Appraisal survey and desk study for a proposed development at Bryntaf Garage, Aberfan, Merthyr Tydfil.

Ecological Context

- 1.2 The application site is in a residential location to the west of Aberfan, of Abergavenny. All associated land for the development (herein referred to as the application site) is located at:

- central OS grid reference: SO 31830 14752
- nearest post code: NP7 8BB

- 1.3 The site comprises of 0.7 acres of semi-improved grassland, dense scrub and hard standing. The immediate surrounding area is predominantly residential to the north, south, and east; the site boundary to the west is a large, old quarry, cliff face, with a woodland above it. The greater surrounding area includes sections of woodland (some of which could be ancient) and a relatively intact network of hedgerows. The surrounding landscape has good potential for roosting, foraging and commuting bats.

Aims of Study

- 1.4 The aims of the study are to:
- determine the types of habitat that are present within the site;
 - assess the likely presence of protected species and species of principal importance for nature conservation within the site;
 - identify any potential ecological constraints to development within the site;
 - identify requirements for any additional ecological surveys needed to determine potential ecological impacts; and
 - describe measures to mitigate or compensate for any impacts on the ecological interest of the site.



2 METHODOLOGY

Desk Study

2.1 Existing ecological and nature conservation data relevant to the site were collated from various sources:

- Information relating to protected and notable species within 2km of the site was provided by South East Wales Biodiversity Records Centre (SEWBRc) who also provided information relating to statutory designated sites;
- The Magic website (<http://www.magic.gov.uk/>) was reviewed to determine whether there are any internationally important statutory designated sites for nature conservation, and for other statutory designated sites for nature conservation, within 5km from site; and
- Google Earth was used to review aerial photographs of the site and surrounding area in order to better understand the setting and ecological context of the site.

Field Survey

2.2 An ecology walkover was undertaken in accordance with the methodology set out in JNCC, 2010¹ by David Price MCIEEM in May 2021. The survey was carried out under optimal weather conditions, so the ground was soft enough to identify species specific prints.

2.3 The survey involved a site walkover of the area falling within site boundary shown on the map in Appendix A, in order to map the main habitat types present. Detailed target notes were made in relation to any notable features considered important to the ecology of the site: these are referred to by the prefix TN in order to assist cross-reference to the habitat map provided in Appendix A.

2.4 The survey was extended to include assessment of the potential of the site to support protected or notable species. Although this approach supports an initial analysis of the likely presence of protected or notable species, a comprehensive assessment may require specialist expertise and/or season-critical survey techniques, which fall beyond the scope of

¹ JNCC (2010) *Handbook for Phase 1 habitat survey - a technique for environmental audit*, Revised reprint 2010, JNCC. Peterborough



this study. The presence of protected species was noted where possible, but walkthrough surveys cannot usually confirm species presence or absence; only the likelihood of presence can be assessed.

2.5 This is a standard technique for obtaining baseline ecological information for areas of land, including proposed development sites.

2.6 The dominant and readily identifiable higher plant species identified in each of the various habitat parcels were recorded and their abundance was assessed on the DAFOR scale:

- D: Dominant
- A: Abundant
- F: Frequent
- O: Occasional
- R: Rare
- L: Locally, appended to any of the above five categories to reflect local distribution within the site.

2.7 (These scores represent the abundance within the defined area only and do not reflect national or regional abundances).

2.8 Additionally, incidental records of fauna were also made during the survey and the habitats identified were evaluated for their potential to support legally protected species and other species of conservation concern, including Biodiversity Action Plan Priority species.

Limitations

2.9 The field survey was conducted at a suboptimal time of year for botanical recording. However, it cannot be discounted that further species may be present later in the year, that were not apparent at the time of survey. Nonetheless, the purpose of this report is not to compile a comprehensive species list but to establish habitat type and potential ecological constraints. Due to the nature of the site, it is considered that sufficient information was gathered for the purposes of this assessment.



3 RESULTS

Desk Study

- 3.1 Information relating to protected and notable species within 2km of the site was provided by South East Wales Biodiversity Records Centre (SEWBRc) who also provided information relating to statutory designated sites; LERC Reference: 0212-405.

Desk Study - Habitats

Statutory Designated Sites for Nature Conservation.

- 3.2 There are no statutory designated sites within 2km of the proposed development.

Non Statutory Designated Sites for Nature Conservation.

- 3.3 There is twelve Sites Important for Nature Conservation (SINC) within 2km of the proposed development; the closest being West of Aberfan SINC which is 40m to the west of the application site.

NRW priority area

- 3.4 There are areas of woodland within 2km of the application site that has been designated an NRW priority area.

Desk Study - Species

Bats

- 3.5 SEWBRc provided thirtyseven records for at least seven species of bat within 2km of the site. These are twenty-eight common and soprano pipistrelle bats (*Pipistrellus pipistrellus* & *Pipistrellus pygmaeus*), one whiskered/brandts (*Myotis mystacinus/brandtii*), one Natterer's bat (*Myotis nattereri*), four noctule bats (*Nyctalus noctule*), one Daubenton's bat (*Myotis daubentoniid*), and two brown long-eared bat (*Plecotus auratus*). In addition, SEWBRc hold records for unidentified pipistrelle bats *Pipistrellus* spp, unidentified myotis and unidentified Chiroptera. The nearest record provided by SEWBRc falls 165m from site at the Afon Taf footbridge (dated 2005).

Reptiles

- 3.6 SEWBRc provided twelve records for three of the four common reptiles species. The nearest record provided by SEWBRc falls 742m from the site boundary, is for a Slow-worm (*Anguis fragilis*) (dated 2007).

Badgers



- 3.7 SEWBRc provided four badger records within 2km of the site; the nearest was located approximately 1.1km north of the site in 2020.
- 3.8 The record check found no evidence of great crested newts or dormouse within 2km of site.

Habitat assessment

- 3.9 A map showing the habitats present within the proposed development site is given in Appendix A. Photographs depicting the main ecological features may be found below.
- 3.10 Six habitat types were identified within, or on the boundary of the site, as follows:
- Semi-improved neutral grassland;
 - Spp poor hedgerow;
 - Mixed semi-natural woodland;
 - Dense scrub;
 - Cliff face and;
 - Buildings.

Habitats

Semi-improved neutral grassland (SNG)

- 3.11 The majority of the site is dominated by semi-improved neutral grassland. The vegetation is divided into two types which are described below:
- SNG1: Small areas of species poor semi improved grassland. The grassland has been used as a dumping ground for various construction material and offers good potential for herptiles. Composition is dominated by cocks foot (*Dactylis glomerate*) and perennial rye grass (*Lolium perenne*) with frequent Yorkshire fog (*Holcus lanatus*), white clover (*Trifolium pratense*) and occasional red fescue (*Festuca rubra*). The herb species within the sward included occasional Creeping buttercup (*Ranunculus repens*) with rare Selfheal (*Prunella vulgaris*) and daisy (*Bellis perennis*).
 - SNG2: Area of rank grassland along the northern boundary. The grassland was up a large cliff face and was inaccessible from the site. Looking at the site from distance, it is believed spp composition is similar to SNG1.



Photo 1: Overview of SNG1



Hedgerows

3.12

There is a small, well managed hedge along the boundary of the residential property bordering the site to the north. The hedge is a single species cypress spp hedge, with negligible ecological value. The hedge is in the neighbouring property and will not be impacted by the development.

Photo 2: Overview of the hedge and SNG2





- 3.13 **Mixed woodland (MW)**
Mixed woodland around the pond close to the manor house. The woodland canopy is dominated by mature to semi-mature birch and ash standards with frequent pine spp, and pedunculate oak. The understorey is composed of occasional cherry with frequent young ash, willow and birch trees.

Photo 3: Overview of the mixed woodland



- 3.14 **Dense scrub**
Areas of scrub around the site boundaries. Species composition is dominated by bramble (*Rubus fruticosus*), willow and hawthorn; with young ash, oak trees / saplings. There are also locally occasional Rosebay Willowherb (*Chamerion angustifolium*), bracken, and stinging nettle (*Urtica dioica*).

- 3.15 **Invasive Weed Species**
No schedule 9 species were found on site, however the survey was done outside the optimal time for assessment for invasive spp.

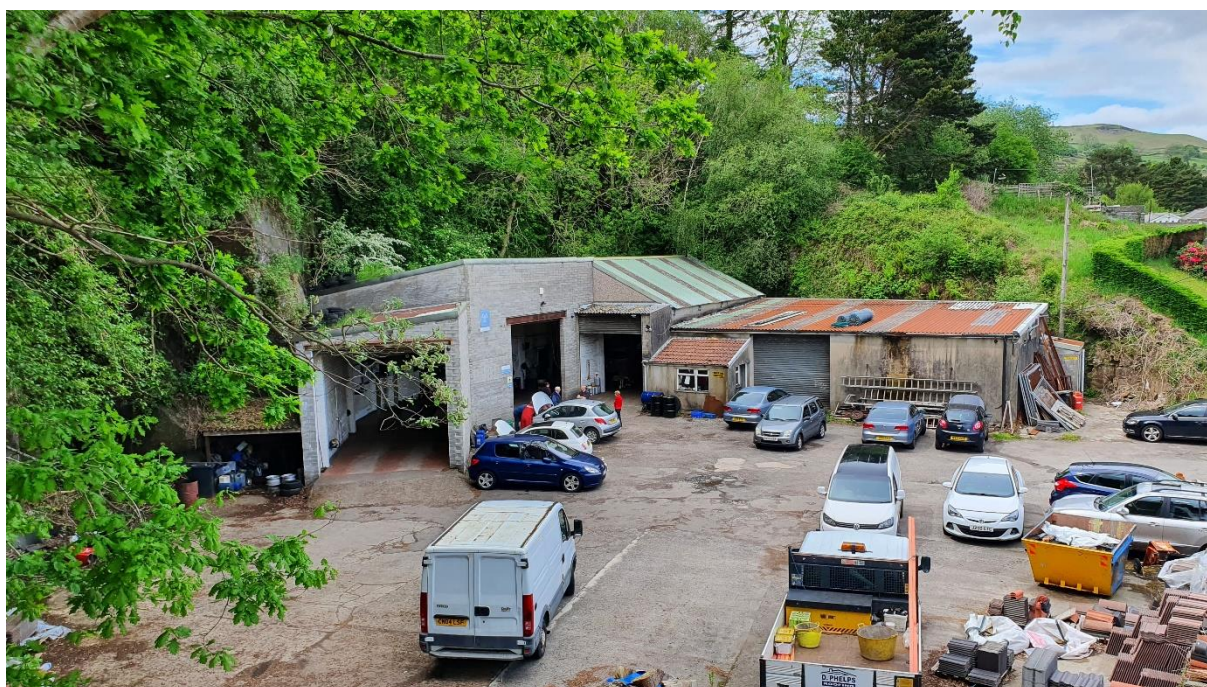


Buildings

3.16 The building on site consists of two workshops, and a storeroom, with a small lean to office room. The external walls are partially rendered breezeblocks; the roofs are corrugated steel and plastic which are partially lined probably asbestos boards. The small lean to office has a clay tile roof, there is no accessible loft space. The breezeblock/rendered walls allow no opportunities for crevice dwelling bats. The roof is in good condition and allows negligible access to the building. No evidence of nesting birds was found within the building.

3.17 The building has moderate potential for roosting bats.

Photo 4: Overview of the building and site



Fauna

3.18 No fauna was noted on site

Target Notes

3.19 The following target notes were noted on site:

- TN1: Large pile of brash (from cleared scrub), and building rubble, provide excellent herptile refugia.



Photo 5: *Example of brash and rubble pile on sit (TN2)*



- TN2: Another large pile of brash (from cleared scrub), and building rubble, provide excellent herptile refugia.
- TN3: Building with moderate bat potential, no sign of nesting birds.
- TN4: Area of rank grassland and scrub. This area was up a small cliff face and was inaccessible for survey. It is believed however that the area will not be directly impacted by works and enough information has been gathered to make an appropriate assessment on the sites ecological value.
- TN5: Area of woodland, designated a SINC, just off site. The woodland will not be directly impacted by works.



4 SITE EVALUATION

Baseline Evaluation Criteria

- 4.1 Based on the desk study and site survey results, an ecological evaluation of the site was undertaken using a combination of evaluation criteria for habitats and species, although the general framework follows that provided by CIEEM (IEEM, 2006) (see Table 1 below).
- 4.2 Where relevant the evaluation was made with reference to the statutory protection afforded to species and habitats.
- 4.3 Legal protection does not always correspond to conservation value. Some species (e.g. badgers) are protected for reasons of animal welfare rather than conservation. Others are of national conservation value but are not protected by law (e.g. some Red Data Book species and UK BAP species).

Table 1: Determination of ecological value.

Ecological Value	Description and examples
High	Habitats or features that have high importance for nature conservation, such as statutory designated nature conservation sites of international or national importance or sites maintaining viable populations of species of international or national importance
Medium	Sites designated at a county or district level, e.g. Local Wildlife Site (LWS), ancient woodland site, ecologically 'important' hedgerows or ecological features that are notable within the context of a region, county or district
Low	Sites of nature conservation value within the context of a parish or neighbourhood, low-grade common habitats, such as arable fields and improved grasslands and sites supporting common, widespread species

- 4.4 The ecological evaluation of the habitats on site is summarised in Table 2 below. The habitats recorded on the site are relatively common and considered to be of medium ecological value.

Table 2. Summary of Ecological Evaluation of the Habitats on the Site.

Habitat	Reason for Valuation
Low Value	
Semi improved neutral grassland	Relatively common habitat type, low quality, botanically species-poor, limited in extent



Dense scrub	Common habitat type, potential nesting bird habitat, potential herptile refugia.
Hedgerows	The hedgerow is of low quality, botanically species-poor, provides limited potential for fauna, does meet the UK Biodiversity Action Plan Priority Habitat Description of a hedgerow and will not be classed as a priority habitat. This hedgerows is not covered by the <i>Hedgerow Regulations 1997</i> .
Moderate Value	
Mixed woodland	Relatively common habitat type, high grade trees, ample in extent, good potential habitat for fauna.

4.5

Site evaluation

The site is considered to be, of low ecological value. The key ecological feature assessed is the woodland, however this habitat is just off site and will not be impacted by works.



5 PROTECTED SPECIES CONSTRAINTS

Bats

Building

- 5.1 As part of the habitat survey an external examination of the on-site buildings was undertaken with binoculars to assess likely suitability for roosting bats. Although no direct evidence was identified, the buildings were determined to possess at least some features (access points and roosting sites) which could be exploited by bats.

Foraging and commuting habitats

- 5.2 Suitable bat foraging / commuting habitat (e.g. hedgerows, woodland and tall grassland) occurs throughout site, including habitats which may potentially be used by Annex II species, i.e. Lesser horseshoe bats which the background check shows have been recorded in nearby woods.

Legislation

- 5.3 All bat species are fully protected under *The Conservation of Habitats, & Species Regulations (amendment) (EU exit) 2019*. Taken together, this makes it an offence to intentionally or deliberately capture, kill or injure or disturb bats (whether in a roost or not), and intentionally or recklessly damage, destroy or obstruct access to their roosts

Birds

- 5.4 Although no nests were noted during the site visit, the areas of woody vegetation on site, offer nesting opportunities for birds. Birds, their eggs and active nests are protected under the *Wildlife and Countryside Act 1981*, as amended, with the exception of a number of species considered as pests. This protection includes the birds themselves. Their nests are also protected from damage or destruction, both whilst the birds are constructing and using them.

Reptiles

- 5.5 Reptiles prefer to reside in areas with a network of longer vegetation (for cover) adjacent to suitable basking habitat such as shorter vegetation and hard standing. In addition, reptiles like to hibernate in complex structures such as hedge banks, which are sheltered from the elements and less susceptible to fluctuations in weather conditions. Suitable reptile habitat occurs throughout the rough grassland and hedgerow habitat.
- 5.6 All British reptiles are protected under the *Wildlife & Countryside Act 1981*,



as amended, from killing and injury. Following the revision of the UKBAP priority species list in 2007, all native reptile species are now listed as UK priority species.

- 5.7 Based upon the desk study records, reptiles have been recorded within 2km of site. Given that suitable reptile habitat has been identified within the site, it would be necessary to determine whether reptile species occur in the vicinity of proposed re-development areas, to inform the need for any mitigation and so avoid intentionally harming or injuring reptiles during any re-development works.

Wild mammals

- 5.8 No mammal signs were noted during the survey, however, the site may be used by other wild mammals such as polecats or hedgehog, which, as of 2007, has been added to the UK BAP priority species list, on account of its rapid decline. Based upon the desk study records, other notable species which have been recorded include stoat, weasel and polecat.
- 5.9 Wild mammal species are currently given limited protection under *the Wild Mammals (Protection) Act 1996*. This makes it an offence to intentionally cause this species unnecessary suffering by certain methods, including crushing and asphyxiation.



6 RECOMMENDATIONS FOR FURTHER SURVEY

Bats

- 6.1 Bat emergence surveys will be undertaken to determine if bats are using the building on site; the nature of the potential use and the species of bat. The survey methodology will be in accordance with the Bat Conservation Trust Bat Surveys Good Practice Guidelines.
- 6.2 Should bats be identified on-site, the survey findings (i.e. species present, abundance and distribution across the site) would be used to devise a suitable mitigation strategy

Reptiles

- 6.3 The extent of any works on site is currently unknown, depending on the extent of works being undertaken, and their location, its likely possible surveys will be required. Habitats suitable for reptiles (i.e. boundary habitat of hedgerows, woodland and walls) will be subject to presence / absence surveys. Presence / absence surveys require 7 survey visits undertaken according to recommended best practices (Froglife, 1999; Natural England, 2011), two survey methods would be used:
- a visual search for basking reptiles
 - checking of artificial refugia (placed at a minimum density of 50 refugia per hectare of suitable habitat, up to a maximum of 250 refugia in total)
- 6.4 Typically, the artificial refugia should be laid out for, if possible, a minimum of 2 weeks, prior to starting the reptile survey. The purpose of the reptile survey is to determine the presence or likely absence of reptiles at the site in order to avoid intentional killing or injury of individual reptiles (during the course of site clearance and site development), which is unlawful.
- 6.5 Should reptiles be identified on-site, the survey findings (i.e. species present, abundance and distribution across the site) would be used to devise a suitable mitigation strategy.



7 ECOLOGICAL CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES

Retention of existing habitats

- 7.1 It is recommended that effort be made to design existing habitats into the new development, as well as the provision of appropriate buffer zones along and around sensitive ecological habitat.

Enhancement

- 7.2 Measures to enhance the ecological value of the new development include the following:

Mammals and birds

- 7.3 A bat box and bird box will be incorporated into the design of the new building. The location of the boxes is shown in the proposed works and mitigation map.

- 7.4 The provision of hedgehog boxes and incorporation of gaps into all ridged boundaries (13cm x 13cm) to allow free passage of hedgehogs across the site.

Invertebrates

- 7.5 A wildflower area can be planted to benefit pollinators. Birds foot trefoil and white clover should be planted throughout any new grassy areas. Birds foot trefoil will continue to flower after being mown and offers nectar to honeybees, short tongued bumbles, long tongued bumbles and solitary bees. White clover will also continue to flower after mowing, it is a good source of pollen for honeybees and supplies nectar to honeybees, short tongued bumbles, long tongued bumbles and solitary bees.



8 CONCLUSION

- 8.1 Providing the recommended mitigation measures and surveys are adopted, relevant nature conservation legislation will not be contravened, ecological impacts of the development will be reduced to a minimum and ecological issues are not, based upon the available information, anticipated to preclude the sites development.

APPENDIX A: Proposed development



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LEGEND

- Semi improved grassland
- Dense scrub
- Mixed woodland
- Spp poor hedge
- Cliff face
- Buildings
- Hard standing
- Target note

PHASE 1 HABITAT MAP

Bryntaf Garage,

Date: Aug 2021

Drawn by: D.P.

© Google Earth Data

Scale:

Drawing N^o: v1.1

APPENDIX A: Proposed development





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