



Sylvan Ecology

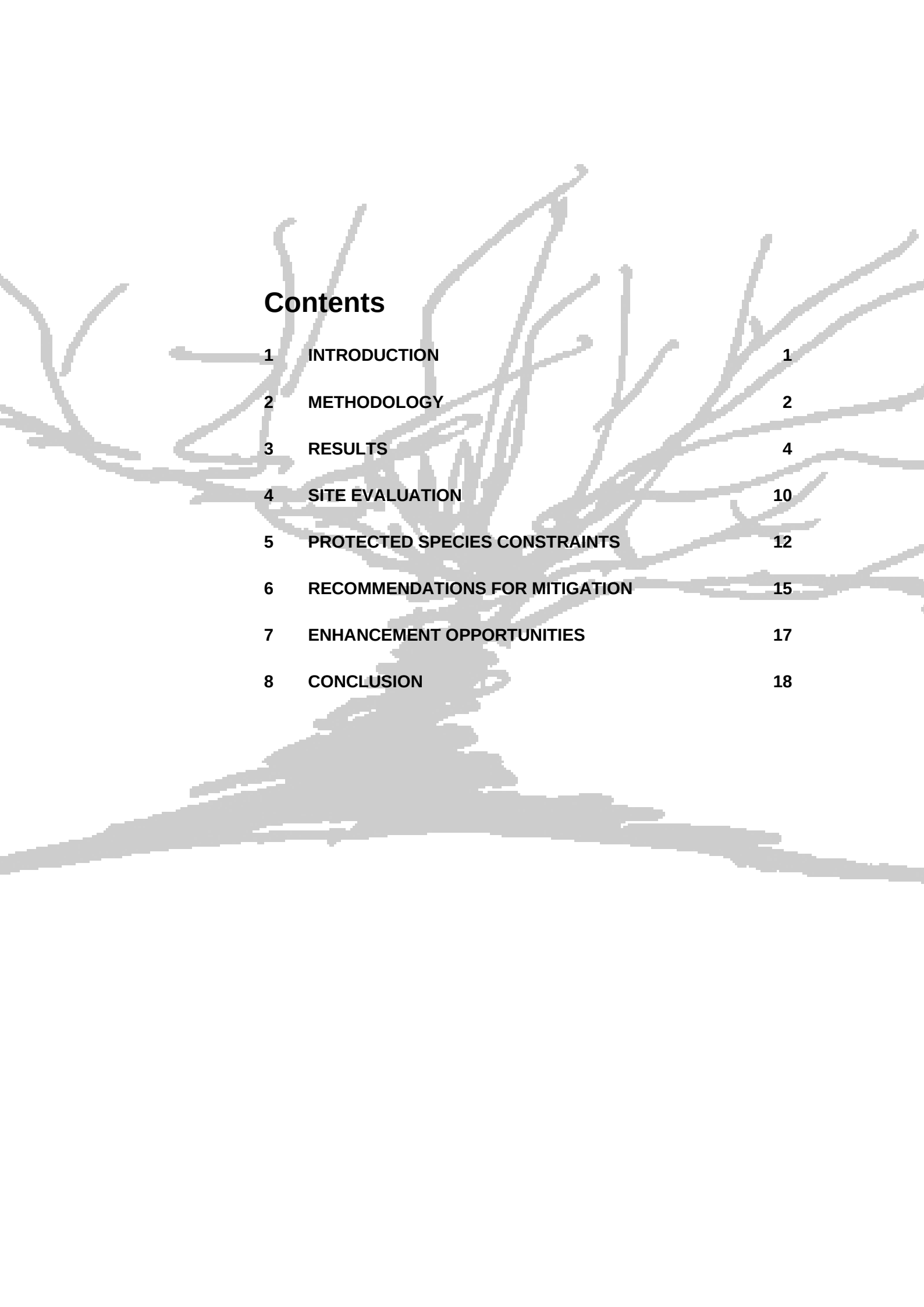
PRELIMINARY
ECOLOGICAL APPRAISAL

BRYNTEG, STABLES YARD

For:

SUSAN JONES

Project: Brynteg, Stables Yard		
Project Number	M046	
Title	Preliminary Ecological Appraisal	
Document Number	M046- PEA Report-V1.3	
Client	Susan Jones	
Issue Date	13/06/22	
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EXECUTIVE SUMMARY

ECOLOGICAL LAND DESIGNATION	
There are no statutory designated site within 2km of the site. The application site is covered by a non-statutory B-lines designation.	
HABITATS	
The site is considered to be, of low/moderate ecological value. The habitats on site with the highest ecological values are the trees and hedgerows.	
PROTECTED SPECIES	
BATS	Negligible Impact – <i>No roosting potential, and low foraging and commuting suitability for commoner light tolerant species</i> – Recommendations: <i>impacts negated through mitigation.</i>
REPTILES	Negligible Impact – Negligible potential for reptiles on site – Recommendations: <i>impacts negated through mitigation</i>
DORMOUSE	No Impact – No potential for dormice on site.
BIRDS	Potential low Impact – The area may be used by a small number of commoner birds – Recommendations: <i>impacts negated through mitigation</i>
GCN	No Impact – No potential for GCN on site.
INVERTEBRATES	Negligible Impact – No potential for priority species on site – Recommendation: <i>Potential enhancement opportunities.</i>
CONCLUSION	
Providing the recommended mitigation measures 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 *Dowlais Stables* in the village of Dowlais to the northwest of Merthyr Tydfil.

Ecological Context

- 1.2 The application site is in a residential location to the northwest of Merthyr Tydfil. All associated land for the development (herein referred to as the application site) is located at:
- central OS grid reference: SO 06680 07896
 - nearest post code: CF48 3LE

- 1.3 The site comprises of approximately 0.04 acres of hard standing, scattered trees, ephemeral vegetation, hedgerows, and a shed. The immediate surrounding area is predominantly residential. The greater surrounding habitats are predominantly residential, there are also abandoned industrial areas, dense scrub, and small sections of woodland. The surrounding landscape has moderate potential for roosting, foraging, and commuting bats.

Aims of Study

- 1.4 The aims of the study are to:
- determine the types of habitats 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 1km of the application site (Package B) was provided by South East Wales Biodiversity Records Centre (SEWBReC) 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 2km 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 July 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 this study. The presence of protected species was noted where possible,

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



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.



3 RESULTS

Desk Study

- 3.1 Information relating to protected and notable species within 1km of the site was provided by LERC Wales' Biodiversity Information & Reporting Database, who also provided information relating to statutory designated sites; LERC Reference: 0212-418.

Desk Study - Habitats

Statutory & Non-Statutory Designated Sites for Nature Conservation.

- 3.2 There are no statutory designated sites within 1km of the application site. The background check found one non-statutory designated site; the application site is within the Buglife B-Lines area. B-Lines aims to create flower-rich grassland locations, in the best areas to create an insect highway across the country.

Desk Study - Species

Bats

- 3.3 LERC provided 15 records for at least three species of bat within 2km of the application site. These are common pipistrelle (*Pipistrellus pipistrellus*), Lesser Horseshoe Bat (*Rhinolophus hipposideros*), and brown long-eared bat (*Plecotus auratus*). In addition, SEWBReC hold a record for an unidentified bat (*Chiroptera*).
- 3.4 The nearest record provided by LERC is for a *Chiroptera* that was commuting and foraging 848m from site in 2020.

Great Crested Newt (GCN)

- 3.5 LERC provided three records for GCN within 2km of application site, the closest record is 1.2km from site (dated 1986).

Reptiles

- 3.6 LERC provided no records for reptiles within 2km of the application site.

Badgers

- 3.7 LERC provided one badger records within 2km of the site; the closest record is 1km from site (dated 2020).

*Dormouse*

- 3.8 LERC provided no records for dormice within 2km of the application site.

Invertebrates

- 3.9 SEWBRc provided eleven records for five different priority species of invertebrates within 2km of the application site. The species are, *Tyria jacobaeae* and *Hipparchia semele*, *Coenonympha pamphilus*, *Erynnis tages*, and *Lasiommata megera*.

Habitat assessment

- 3.10 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. Seven habitat types were identified within, or on the boundary of the site, as follows:

- Hard standing;
- Defunct spp poor hedgerow;
- Scattered trees;
- Stone walls;
- Ephemeral vegetation and;
- Buildings.
- With areas of Amenity grassland just outside the application site.

Hard standing

- 3.11 The majority of the site is dominated by hard standing. The space is a two bay, brick, parking area, with concrete slabs for a shed. The hard standing has negligible ecological value and negligible potential to support fauna.

Photo 1: Overview of hard standing.





3.12

Ephemeral vegetation

Small area of land, lined with a plastic membrane and topped with ornamental gravel. Small patches of weeds have started to grow up out of the stone. Composition of the weeds is dominated by hawksbeard (*Lapsana communis* L.) with frequent herb Robert (*Geranium robertianum* L.) and broadleaved dock (*Rumex obtusifolius* L.); occasional Broadleaf willowherb (*Epilobium montanum* L.), dandelion (*Taraxacum officinale*) and Yorkshire fog (*Holcus lanatus*), with rare common nettle (*Urtica dioica*), *Cotoneaster franchetii* and common bent (*Agrostis capillaris*).

Photo 2: Overview of Ephemeral vegetation



3.13

Scattered trees (ST)

There are three scattered broad-leaved trees within the application site. These are an immature *Prunus cerasifera* and two very young *Prunus domestica*. All the trees are young with negligible suitability for roosting bats and nesting birds. All three trees are in poor physical condition and have negligible arboricultural value.



Photo 2: Overview of trees on site.



Defunct spp poor hedgerow

Offsite - Neighbours hedge

3.14

PH-1: Unmanaged, scattered pieces of vegetation within the neighbouring property, that partially overhang the boundary wall. Species composition include abundant Lawson's cypress (*Chamaecyparis lawsoniana*), with frequent *Cotoneaster horizontalis*, blackcurrant bush (*Ribes nigrum* L.), cherry (*Prunus cerasus*), hazel (*Corylus avellana*), *Viburnum tinus*, and *buddleja davidii*.

Onsite

3.15

PH-2: Small group of Cupressaceae trees, likely western redcedar (*Thuja plicata*). The trees have potential to support nesting birds, an inspection on site found no active nest.



Photo 3: Overview of boundary vegetation

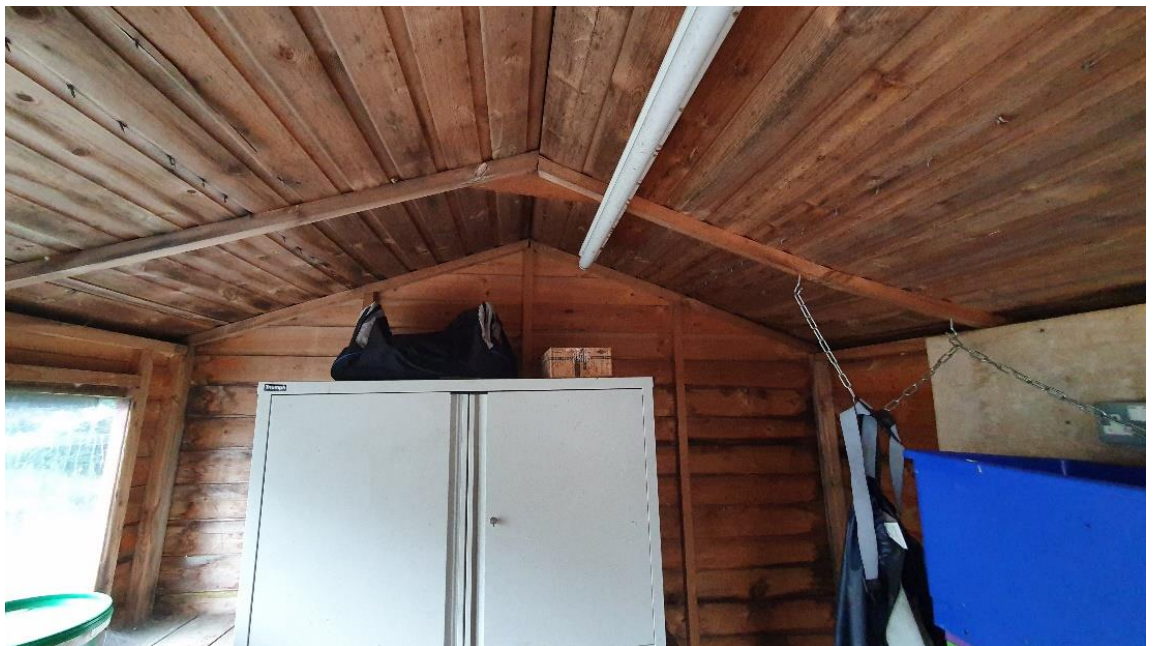


3.16

Buildings

There is a shed within the application site. The bitumen lining of the shed is intact and in good order. The rest of the shed is in good condition and offers negligible suitability for roosting bats.

Photo 2: Shows the inside of the shed. The wood is in good order with no sign of damp or holes for bats to gain access.



**Amenity grassland (AG)**

3.17

There are a couple small areas of amenity grassland, adjacent to and parallel to the application site. The grassland is well maintained, regularly mown and has low ecological value. Composition is dominated by perennial rye grass (*Lolium perenne*) and Yorkshire fog (*Holcus lanatus*) with abundant white clover (*Trifolium repens*), and creeping buttercup (*Ranunculus repens*), with occasional daisy (*Bellis perennis*), ribwort plantain (*Plantago lanceolata*) and dandelion (*Taraxacum officinale*).

Target note

3.18

Target notes for site are listed below:

- TN1: woody vegetation, opportunities for nesting birds.

Fauna

3.19

The following species' evidence of their presence were incidentally recorded during the course of the survey:

- Magpie.



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 CIEEM² (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 low/medium ecological value.

² CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.



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

Habitat	Reason for Valuation
Low Value	
Amenity grassland	Common habitat type outside the application site. Botanically species-poor, provides limited potential for fauna.
Ephemeral vegetation	Common habitat type and botanically species-poor, limited in extent, provides limited potential for fauna
Moderate Value	
Defunct spp poor hedgerow	There are hedgerows of poor quality on site, none of the hedgerows meet the UK <i>Biodiversity Action Plan</i> Priority Habitat Description of a hedgerow and are not classed as a priority habitat. These hedgerows are not covered by the <i>Hedgerow Regulations 1997</i> . Provides potential for nesting birds.
Scattered trees	Low grade trees, and species poor. Provides no potential for nesting birds or roosting bats.

Designated sites

- 4.5 There are no statutory designated sites within 1km of the application site.
- 4.6 The application site is within the Buglife B-Lines area. B-Lines aims to create flower-rich grassland locations, in the best areas to create an insect highway across the country. This provides an opportunity for site enhancement.

Site evaluation

- 4.7 The key ecological features on site, are the hedgerows and scattered trees. These are considered to be of low grade and value at the zone-of-influence only, i.e. site level. The remaining habitats, including the grassland, are considered to be of low ecological value.



5 PROTECTED SPECIES CONSTRAINTS

Bats

Building

- 5.1 As part of the habitat survey an internal/external examination of the shed was undertaken to assess likely suitability for roosting bats. The shed is considered to be of negligible importance to roosting bats.

Trees

- 5.2 None of the trees within the application site have any bat roost potential.

Foraging and commuting habitats

- 5.3 The applications site has limited unbroken connectivity with the surrounding environment and is considered to be of low value to foraging / commuting bats. There are two streetlamps within the application site, there is also a building directly opposite with dormer windows, and a building to the north of site with dormer windows and external streetlamps. As a result, it's unlikely any additional lighting from the new development will have a negative impact on bats, as any bat species present are likely to light tolerant species such as pipistrelles. However mitigation will still be put in place to reduce any additional impact from lighting.

Legislation

- 5.4 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

Habitat

- 5.5 Birds' nests were not noted during the site visit; the hedgerows offer nesting opportunities for birds on site. To reduce the likely impact on birds, mitigation measures will be introduced to ensure the conservation of nesting birds. Assuming that the recommended precautionary mitigation measures will be adopted (See section 7: *Mitigation*), it is not anticipated birds will preclude the sites development.

Legislation

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

5.6 Reptiles prefer to reside in areas with a network of longer vegetation (for cover) adjacent to suitable basking habitat such as shorter vegetation. Poor quality reptile habitat occurs in patches on site, this habitat is isolated, with negligible off-site connectivity.

5.7 Based upon the desk study records and the habitats present on site, there is a negligible possibility of reptiles being present within the application site.

Legislation

5.8 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.

Dormice

5.9 Poor quality dormouse habitat occurs in patches on site, it is however isolated with no off-site connectivity.

5.10 Based upon the desk study records and the habitats present on site, there is a no possibility of dormice being present within the application site.

GCN

5.11 There is a pond approximately 300m to the southwest of the application site. There are however many significant obstacles between the pond and the application site; making commuting from one to the other impossible. The obstacles include Dowlais High Street a secondary road, several minor roads, and a small built-up residential area; the application site is also within a largely walled community making potential access difficult.

5.12 GCN tend to migrate on wet or humid nights, remaining subterranean during daytime. This limits the distances covered to approximately 10 –



50m per night³, as long as easily accessible, suitable, subterranean habitat is location throughout the commuting route.

- 5.13 Based upon the desk study records and the habitats present on and off site, there is a no possibility of GCN being present within the application site.

Invertebrates

- 5.14 Various priority species were identified from the desk study. The habitats on site are not suitable to support the identified species, the only species that could possibly utilise the application site is *Tyria jacobaeae*, however there was no Common Ragwort (*Senecio jacobaea*) on site.

- 5.15 Based upon the desk study records and the habitats present on site, invertebrates are not anticipated to preclude the sites development.

Badgers

- 5.16 Based the habitats present on and just off site, no impact on badgers in anticipated and badgers are not anticipated to preclude the sites development.

Wild mammals

- 5.17 No mammal signs were noted during the survey, however, the site may be used by other wild mammals such as hedgehog, which, as of 2007, has been added to the UK BAP priority species list, on account of its rapid decline.
- 5.18 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.

³ Jehle & Artntzen (2000): *Post-breeding migrations of newts (Triturus cristatus and T. marmoratus) with contrasting ecological requirements* – journal of zoology.



6 RECOMMENDATIONS FOR MITIGATION

Breeding bird habitat

- 6.1 Although it is recommended that every effort be made to design existing habitats into the new development, wherever practicable, the loss of some nesting bird habitat may occur to accommodate the development. It is recommended that clearance of nesting bird habitat should be undertaken in the period August to February inclusive. Should it prove necessary to remove any breeding bird habitat during the breeding season, the area should be checked in advance for the presence of birds' nests. Once checked, if there is no evidence of breeding birds, clearance work should be completed within 48 hours of inspection. If any active nests are found in this area, then vegetation clearance must cease and an appropriate buffer zone should be established. This buffer must be left intact until it has been confirmed that the young have fledged and the nest is no longer in use.

Wild Mammals

- 6.2 It is recommended that good building practices are adopted during the construction phase to safeguard any individual animals which venture onto the proposed development area. Such practices would include covering of all deep holes and trenches overnight and/or the provision of planked escape routes for any trapped wildlife.

Bat Lighting Mitigation

- 6.3 Should external lights be incorporated into the design, then the design should attempt to minimise the amount of light spillage into surrounding areas, via the use of baffles and hoods. Baffles and hoods will be used to direct lighting to ideally less than 45° above the horizontal. There will be a full horizontal cut-off with no light more than 90° above the horizontal. Baffles and hoods should be used to ensure no light illuminates boundary habitat or trees.
- 6.4 Blue-white short wavelength lights can have a significant impact on the invertebrate prey of bats by mimicking daylight and will not be used.
- 6.5 No uplighters i.e. up lighting trees, buildings and vegetation will not be incorporated.
- 6.6 All lighting on site should be in accordance with the guidance set out in:



Bat Conservation Trust and Institute of Lighting Professionals
(2018) *Guidance Note 08/18: Bats and artificial lighting in the UK*. ILP,
Rugby

Building

- 6.7 Light spill from windows can greatly increase ambient light levels in an area. To reduce the ambient light from windows, all new buildings should be constructed with recessed lighting rather than pendant. The downward facing, recessed lights have significantly less light spill than pendant lights.

Reptiles

- 6.8 There is a low possibility that slow worms could be present beneath the plastic sheeting covered by stone and ephemeral vegetation. This habitat should be made unsuitable for reptiles by hand (under supervision by a suitably qualified ecologist) to ensure no reptiles are harmed if present. This should be conducted outside the hibernation season (November to February inclusive) to avoid the risk of injuring hibernating reptiles.



7 ENHANCEMENT OPPORTUNITIES

- 7.1 The development is currently in the preapplication phase, and a final site design has not been agreed upon. A variety of enhancement options could be implemented at the site, although the details of this will depend on the final development proposals.
- 7.2 A number of possible options are included below:
- A bat box and bird box will be incorporated into the design of the new building.
 - The incorporation of hedgehog gaps into all ridged boundaries (13cm x 13cm) to allow free passage of hedgehogs across the site.
 - Any planting could be designed to benefit pollinators and contribute to the Buglife B-Lines area.



8 CONCLUSION

- 8.1 Providing the recommended mitigation measures 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: Habitat Map



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LEGEND

-  Amenity grassland
-  Hard standing
-  Shed
-  Ephemeral veg
-  Defunct, spp poor hedge
-  Stone wall
-  Wooden fence
-  Canopy Spread
-  Tree stem
-  Site boundary

PHASE 1 HABITAT MAP

Brynteg, Stables Yard

Date: Aug 2021

Drawn by: D.P.
© Google Earth Data

Scale:

Drawing N^o: v1.1



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