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PRELIMINARY ECOLOGICAL APPRAISAL REPORT

**TY DYSGU, MARKET ST, DOWLAIS, MERTHYR
TYDFIL CF48 3HW**

**MERTHYR TYDFIL COUNTY BOROUGH
COUNCIL**

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A	Draft	15/11/2022	Dr Amy Williams Schwartz ACIEEM Senior Ecologist	Richard Dodd CEcol MCIEEM Principal Ecologist	
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The evidence which we have prepared and provided is true and has been prepared and provided in accordance with the guidance of The Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

SUMMARY

Purpose	- Wildwood Ecology was commissioned by Merthyr Tydfil County Borough Council (the client) to undertake a Preliminary Ecological Appraisal (PEA) of Ty Dysgu, Market St, Dowlais, Merthyr Tydfil CF48 3HW - The site is the subject of a planning application for the construction of a new school building.
Work undertaken	A PEA was undertaken consisting of a field survey and desk study undertaken in November 2022 following the Chartered Institute of Ecology and Environmental Management (CIEEM) Preliminary Ecological Appraisal (2017) guidelines and standard Phase 1 Habitat Survey protocol (JNCC, 2010).
Key issues	- The development may result in impacts on wildlife and habitats affecting the following protected species: - Bats - Amphibians - Nesting birds - West European hedgehog
Recommendations	<u>Bats</u> - No further surveys required. - No additional external lighting to be installed. If lighting is required, then a lighting plan will be required taking into account recommendations from BCT/ILP Guidance Note 08/18 to ensure no additional artificial lighting on the stone wall around the north of the site. - Installation of an integrated bat box on the new building (facing south, south-east, or south-west) will provide enhancement on the site for bats. <u>Amphibians</u> - No further surveys required. - Removal of the pond should take place during the autumn, winter, or late summer, in order to avoid impacting any common and fast-breeding amphibian species (e.g., common frogs) that may have laid eggs in the pond. - Installation of a new, fenced, deeper pond would be recommended on the site (which could tie in with SUDS requirements) to provide enhanced habitat for amphibians. <u>Nesting birds</u> - Any vegetation clearance/tree felling will take place outside of the bird nesting season. In the event that clearance work has to be undertaken during the nesting season (generally from 1st March until 31st August, although birds are known to nest outside of these dates in suitable conditions), a nesting bird check will be required and must be carried out

	by a suitably qualified person. Any active nests identified should be protected until the young have fledged. • Installation of a house sparrow terrace (facing between north and east) on the new building will provide additional nesting opportunities for this species. <u>Hedgehogs</u> • No further surveys required. • Cautious working (i.e. two-stage clearance of scrub, with checks before clearance to ground level) is advised to prevent killing or injury to this species. <u>Invertebrates</u> • No further surveys required. • Any landscape planting as part of the new build should use native species of local provenance to benefit local invertebrates.
Conclusions	• Providing that the recommendations outlined within this report are successfully implemented, it should be possible for the proposed development to proceed and for there to be no long-term impacts upon the key protected species present at the site. • This ecological report will remain valid for a period of 18 months from the date of the last survey – i.e. until May 2024.

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1 INTRODUCTION

- 1.1 Wildwood Ecology was commissioned by Merthyr Tydfil County Borough Council (the client) to undertake a Preliminary Ecological Appraisal (PEA) of Ty Dysgu, Market St, Dowlais, Merthyr Tydfil CF48 3HW (the site) centred at grid reference SO 06918 07912.

Site description

- 1.2 The aerial image of the site (Figure 1) shows the site to consist of an area of land which is part of a larger school site. There is a building and another section of another building within the redline boundary, but these are going to be unaffected by the proposals. Most of the site is amenity grassland, with some areas of hard standing, scattered trees, and small areas of scrub. A small pond is present at the north of the site.



Figure 1 – Aerial image of the site (red line shows the site boundary). Image used under licence (©2023 Google). Imagery date 20/07/2022.

- 1.3 The distant aerial image of the site (Figure 2) shows the habitat surrounding the site to consist of primarily residential housing, with scattered areas of woodland, grassland, and scrub in the wider area.



Figure 2 – Distant aerial image of the site (red line shows the site boundary). Image used under licence (©2023 Google). Imagery date 20/07/2022.

Proposed development

- 1.4 The site is the subject of a planning application for the construction of a new school building.

Purpose of this report

- 1.5 The purpose of this report is to provide sufficient information for the local planning authority to fully assess the potential ecological impacts of the proposed development, or to identify what further information is required before a full assessment can be made.
- 1.6 The result of the PEA has been used to inform whether further surveys are required, or to establish the need for, and extent of, any mitigation or compensation measures required as part of the proposed development.

2 METHODOLOGY

Desk study

- 2.1 A biodiversity desk study was undertaken in relation to the site in November 2022. The sources consulted and the type of information obtained are summarised in Table 1.

Table 1 – Sources of biodiversity and ecological records.

Source	Information requested (search buffer from site centre/boundary)
South East Wales Biodiversity Records Centre (SEWBRc)	- Protected and priority species (2km) - Sites of local importance/designation (1km)
Multi-Agency Geographic Information for the Countryside (MAGIC) ¹	- International statutory designations (5km) - National statutory designations (2km)

- 2.2 The search buffers are considered to be sufficient to cover the potential zone of influence (Zol²) of the proposed development.
- 2.3 The impact of the proposed development on the biological integrity of any nearby designated protected sites has been fully considered.
- 2.4 No previous survey information was available for the site itself.

Field survey

- 2.5 A field survey was undertaken on 07 November 2022.
- 2.6 All habitats present within the site with the potential to support rare, protected, or otherwise notable species of flora or fauna (together with any direct signs) were noted.
- 2.7 In the context of this report, rare, protected, or otherwise notable species of flora or fauna were those considered to meet any of the following criteria:
- Species protected by legislation (see Appendix V);
 - UK Post 2010 UK Biodiversity Framework priority species or Local Biodiversity Action Plan (LBAP) species;
 - Nationally rare or nationally scarce species;
 - Species of Conservation Concern (e.g. JNCC Red List, RSPB/BTO Red or Amber Lists).
- 2.8 A PEA habitat map was drawn up incorporating target notes used to highlight features of particular ecological interest (see Appendix I).
- 2.9 The Wildlife and Countryside Act (1981) as amended, makes it an offence to release or allow to escape into the wild any animal, plant or micro-organism not ordinarily resident in the UK (as listed in Schedule 9 of the Act). Plant species listed in Schedule 9 were searched for during the survey. Examples

¹ <http://magic.defra.gov.uk/MagicMap.aspx>

² Zol definition – ‘the areas/resources that may be affected by the biophysical changes caused by activities associated with a project’ (CIEEM, 2018).

include species such as Japanese knotweed (*Fallopia japonica*) and Himalayan balsam (*Impatiens glandulifera*).

Surveyor information

2.10 The PEA was undertaken by Amy Williams Schwartz. See Table 2 for further information.

Table 2 – Surveyor information.

Surveyor	Licences	Ecological experience
Amy Williams Schwartz Ph.D., M.Sc., B.Sc. (Hons.), ACIEEM Ecologist	Bat GCN	Experienced in surveying for a wide range of protected species including great crested newt (GCN), reptiles, and bats within a consultancy and volunteer capacity. PhD in wildlife/road interactions in the UK, and experienced in performing academic ecological research projects, as well as species identification.

Limitations and assumptions

- 2.11 The desk study and field survey will not produce a comprehensive list of plants and animals as this will be limited by factors that influence their presence (e.g. activity and dormancy periods). An assessment can however be made of the habitats within the survey area, their nature conservation value and potential to support protected or priority species.
- 2.12 No other limitations were encountered, or assumptions made during either the desk study or the field survey and it is considered that with the access gained and recording undertaken an accurate assessment of the site's ecological value has been made.

3 RESULTS

Desk study

Designated sites (statutory)

- 3.1 There were no international statutory designations within 5km of the site and no national statutory designations within 2km.

Designated sites (non-statutory)

- 3.2 There were two local non-statutory designations within 1km of the site (see Table 3).

Table 3 – Summary of designated sites in range of the site.

Site name	Designation	Description / key reason for designation	Distance & direction
B-lines	Local non-statutory	"The B-Lines are a series of 'insect pathways' running through our countryside and towns, along which we are restoring and creating a series of wildflower-rich habitat stepping stones."	Site is part of this designation
Blaenmorlais	SINC	A large area supporting a mosaic of upland habitats at the western edge of Merthyr Common. Mainly acid grasslands with acidic flushes, grass-heaths, dry heathlands, marshy grasslands, bracken slopes and smaller areas of wet heathland and scrub. The site also contains small disused quarries (Garth Quarries) and acid scree. A section of the Nant Morlais within the site has steep valley sides with rocky outcrops. A large pond in the south of the site supports a regionally rare plant, and several uncommon dragonflies. To the north the site contains an area of limestone spoil tips supporting unimproved upland calcareous grassland, as well as some limestone outcrops and scree.	0.95km N

Priority and protected species

3.3 Table 4 summarises the priority and protected species records found within the local area.

Table 4 – Priority and protected species records found in the vicinity of the site.

Protected & priority		# of records (# species)			Further information (from site)
Groups	Species	Onsite	<500m	>500m	
Bats	Common pipistrelle	-	-	3	Closest record: field sighting 1.3km from site.
	Soprano pipistrelle	-	-	1	Closest record: field sighting 1.9km from site.
	Unidentified pipistrelle	-	-	4	Closest record: field sighting 1.4km from site.
	Brown long-eared bat	-	-	2	Closest record: bat care call 1.2km from site. Closest roost: 1.4km from site.
	Unidentified long-eared bat	-	-	1	Closest record: hibernating bat 1.9km from site.
	Noctule	-	-	1	Closest record: field sighting 1.7km from site.
	Serotine	-	-	1	Closest record: foraging/commuting 1.6km from site.
	Lesser horseshoe bat	-	-	3	Closest record: roost 1.2km from site.
	Daubenton's Bat	-	-	1	Closest record: hibernating bat 1.4km from site.
	Unidentified <i>Myotis</i>	-	-	1	Closest record: field sighting 1.7km from site.
	Unidentified bat	-	-	2	Closest record: unspecified record 1.1km from site.
	TOTALS	-	-	20 (7+)	
Mammals (excluding bats)	European otter	-	-	3	Closest record: animal dead on road 1.1km from site.
	European badger	-	-	1	Closest record: animal dead on road 1.1km from site.

Protected & priority		# of records (# species)			Further information (from site)
Groups	Species	Onsite	<500m	>500m	
	Polecat	-	-	1	Closest record: animal dead on road 1.8km from site.
	West European hedgehog	-	3	21	Closest record: field sighting 0.3km from site.
	Brown hare	-	-	1	Closest record: field sighting 2.0km from site.
	<i>TOTALS</i>	-	<i>3 (1)</i>	<i>27 (5)</i>	
Amphibians	Great crested newt	-	-	8	Closest record: unspecified record 1.3km from site.
	Palmate newt	-	-	9	Closest record: field sighting 0.9km from site.
	Common toad	-	-	20	Closest record: field sighting 0.7km from site.
	Common frog	-	-	15	Closest record: spawn 0.9km from site.
	<i>TOTALS</i>	-	-	<i>52 (4)</i>	
Reptile	Common lizard	-	-	2	Closest record: field sighting 1.4km from site.
	Slow worm	-	-	1	Closest record: animal found dead on pavement 1.4km from site.
	<i>TOTALS</i>	-	-	<i>3 (2)</i>	
Birds	Schedule 1	-	-	<i>63 (20)</i>	Closest records: barn owl, common scoter, corncrake, Dartford warbler, osprey, red kite, snow bunting, and woodlark 0.6km from site. Other Schedule 1 records include avocet, fieldfare, green sandpiper, greenshank, hen harrier, kingfisher, little ringed plover, merlin, peregrine, redwing, whimbrel, and whooper swan.
	Non-schedule 1	-	<i>1 (1)</i>	<i>223 (21)</i>	Closest record: house sparrow 0.4km from

Protected & priority		# of records (# species)			Further information (from site)
Groups	Species	Onsite	<500m	>500m	
					site. Other species records include black-headed gull, bullfinch, cuckoo, curlew, dunnock, goldeneye, grey partridge, herring gull, kestrel, lapwing, lesser redpoll, linnet, marsh tit, pied flycatcher, reed bunting, skylark, song thrush, starling, tree pipit, and wood warbler.
Invertebrates	Totals:	-	-	56 (13)	Closest record: dingy skipper 0.6km from site. Also marsh fritillary 0.6km from site. Other species records include broom moth, buff ermine, cinnabar, ghost moth, grayling, rustic, shoulder-striped wainscot, small heath, small phoenix, wall, and white-clawed crayfish.
Plants	see further info	-	-	3 (2)	Closest record: historic sighting of small-white orchid 0.6km from site. Other species records include bluebell 1.7km from site.
Fungi and slime moulds	see further info	-	-	2 (2)	Closest record: dark-purple earthtongue 0.6km from site. Other species records include nail fungus 1.1km from site.

Field survey

Timing and conditions

3.4 Prevailing weather conditions during the field survey are summarised within Table 5.

Table 5 – Summary of weather conditions during the PEA.

Date	Weather conditions			
	Temp [°C]	Cloud cover [Oktas]	Wind speed [Beaufort scale]	Rain
07/11/2022	13	8	3	Drizzle

- 3.5 The distribution and extent of habitats observed within the site is illustrated in the PEA plan (see Appendix I). An accompanying species list (including scientific names) can be found in Appendix IV.
- 3.6 The habitats present onsite are described in detail in Table 6 using the standard Phase 1 survey habitat classification hierarchical alphanumeric reference codes (JNCC, 2010).
- 3.7 Please also refer to Table 6 for a list and description of the onsite target notes. The positions for these target notes are highlighted in the PEA plan in Appendix I.
- 3.8 The site was classified according to the following habitat types: scrub, broad-leaved scattered trees, coniferous scattered trees, poor semi-improved grassland, standing water, fence, wall, buildings, and other habitat (hard standing).

Table 6 – Habitats and linear features present onsite.

Habitat type / Linear feature	Species present	Other observations
<i>A2.1 Scrub (dense/continuous)</i> Some small areas of scrub are present around the northern boundary of the site.	Bramble, broadleaf dock, cotoneaster sp., dogwood, fuchsia, rosebay willowherb, willow sp.	• Very limited connectivity between the areas of scrub and the wider landscape due to the presence of the large stone wall.
<i>A3.1 Broad-leaved, parkland and scattered trees</i> Five maturing broad-leaved trees are present on site.	Alder, cherry, silver birch.	• Current plans show three trees due to be removed. • No trees have potential roost features (PRFs) for bats.
<i>A3.2 Coniferous, parkland and scattered trees</i> Two mature conifer trees are present on site.	-	• Current plans show both conifers remaining on site. • Neither trees have visible PRFs.

<i>B6 Poor semi-improved grassland</i> Most of the site consists of short (c. 5cm high sward) poor semi-improved grassland, which is obviously frequently mown.	Broad-leaved dock, cock's-foot, creeping buttercup, daisy, dandelion, ivy, meadow buttercup, ragwort, red fescue, ribwort plantain, strawberry, white clover, yarrow	
<i>G1 Standing water</i> A small (approx. 2m x 1.5m, shallow (<30cm deep after heavy rain) pond under willow scrub.	-	Pond clearly dries very frequently due to grassland vegetation visible under the surface.
<i>J2.4 Fence</i> Some short metal railings are present around the south-eastern corner of the site and around existing buildings.	-	
<i>J2.5 Wall</i> A tall stone wall is present around the northern boundary of the site.	-	The wall will be unaffected by the current proposals.
<i>J3.6 Buildings</i> A small building is present to the west of the site, and a section of the existing main school building.	-	The existing buildings will be unaffected by the current proposals.
<i>J5 Other habitat</i> Areas of hard standing (existing school car park and paths) are present.	-	

Invasive species

3.9 No stands of invasive species were identified onsite.

Onsite fauna

3.10 The presence of the following species were observed or detected around the site during the survey: carrion crow, jackdaw, and magpie.

4 INTERPRETATION AND ASSESSMENT

- 4.1 The proposed development will require displacement of onsite habitats and disturbance to their associated features. This section concerns an assessment of ecological impacts resulting from the proposed development.
- 4.2 The following interpretation and assessment is provided to ensure full compliance with legislation and both local and national planning policy (see Appendix V).

Designated sites

- 4.3 There were no statutory, but two non-statutory designated sites identified within the vicinity of the site (see Table 3). The closest non-statutory site was a Buglife 'B-Lines' designation, which the site is part of. The closest SINC is Blaenmorlais, which is 0.95km N of the site.
- 4.4 Given the scale of the proposed development, and the lack of likely impacts beyond the site boundary, the nearby designated sites are sufficiently well separated so that no impacts on their designated features are anticipated as a result of the works.

Habitat assessment

- 4.5 The scrub habitat is un-managed, small, with a mix of non-native and some native species – the native species present are common for this habitat type. The scrub habitat onsite may provide only very limited foraging and shelter opportunities for wildlife and is considered to be of **negligible ecological importance**.
- 4.6 The scattered trees present on site may be of use to nesting birds (but contain no potential roost features for bats) so are considered to be of **site ecological importance**.
- 4.7 The poor semi-improved grassland present on site is heavily managed with a short sward and a mix of typical, common species for this habitat, and is considered to be of **negligible ecological importance**.
- 4.8 The pond present on site, although likely to be dry for periods of the year, still adds habitat diversity and a water source for animals using the site and is therefore considered to be of **site ecological importance**.

Priority and protected habitats

- 4.9 The following priority habitats (as listed in Section 7 of the Environment (Wales) Act 2016) were present onsite: ponds.
- 4.10 There is a small pond (approx. 2m x 1.5m) present at the north of the site (see Figure 5). The pond is very shallow (<15cm deep), and plastic-lined. It is likely that the pond is entirely dry during much of the summer; it was holding water during the survey but there had been recent heavy rainfall; grassland species such as creeping buttercup are visible under the surface.

Priority and protected species

4.11 The following priority species (as listed in Section 7 of the Environment (Wales) Act 2016) were present or likely to be present onsite:

Bats

- 4.12 The local records search returned 20 records of at least seven bat species in the vicinity of the site (see Table 4).
- 4.13 The existing buildings on site will not be affected by the construction of the new building. The current proposed site plans show three trees due to be removed, but these trees have negligible suitability for roosting bats, due to the lack of presence of potential roost features.
- 4.14 The tall stone wall at the north of the site has potential for roosting bats – although this wall will not be impacted by the current proposals.
- 4.15 There is unlikely to be a negative impact on bat species as a result of the proposed development.

Hazel dormouse

- 4.16 The local records search did not return any records of hazel dormouse in the vicinity of the site.
- 4.17 There is a very small amount of scrub present on site, and woodland to the north. If they were present in the adjacent woodland, dormice could potentially access the site by climbing down the wall, but the scrub on site is of low value to dormice, containing only a small amount of bramble and no other species of particular value to this species. In addition, the adjacent woodland has no direct connectivity to wider areas of woodland.
- 4.18 The above combined with the lack of records in the area means that it is highly unlikely that dormice will be present on site.
- 4.19 There will not be an impact on hazel dormouse as a result of the proposed development.

European otter

- 4.20 The local records search returned three records of European otter in the vicinity of the site (see Table 4) – the closest record was an animal dead on the road 1.1km from site.
- 4.21 There is a pond present on the site but it does not contain fish and is unlikely to frequently contain amphibians, so offers very poor foraging value for otters. Otters are therefore unlikely to use the site.
- 4.22 There will not be an impact on European otter as a result of the proposed development.

Great crested newt

- 4.23 The local records search returned eight records of great crested newt in the vicinity of the site (see Table 4) – the closest record was for an unspecified record 1.3km from site.

- 4.24 The site does contain a pond, but it is very small and shallow (see Section 4.7), and of poor suitability for great crested newts. It is likely to be dry for much of the summer. In addition, the surrounding habitat is of negligible suitability for great crested newts, due to the short grassland sward height and very small amount of on-site scrub habitat.
- 4.25 It is possible that other amphibians such as common frog may occasionally use the pond to breed.
- 4.26 There is unlikely to be a negative impact on great crested newt as a result of the proposed development.

Reptiles

- 4.27 The local records search returned three records of two reptile species (common lizard and slow worm) in the vicinity of the site (see Table 4) – closest records for both species were 1.4km from site.
- 4.28 The grassland present on site appears to be frequently managed, as the sward height is very short (c.5cm) and is therefore unsuitable for reptiles.
- 4.29 There is some scrub edge in two patches that could potentially provide cover for reptiles, but connectivity from this scrub to wider habitat is poor for reptiles due to the presence of the solid stone wall along the northern edge of the site and/or having to cross a large expanse of very short grassland.
- 4.30 There is unlikely to be a negative impact on reptile species as a result of the proposed development.

Nesting birds

- 4.31 The local records search returned a number of records of bird species in the vicinity of the site, including some Schedule 1 designated species (see Table 4). In addition, several bird species were encountered onsite during the PEA.
- 4.32 A small amount of scrub habitat will be removed, and the current proposals show two trees to be removed, both of which have some suitability for nesting birds.
- 4.33 There may be a negative impact on nesting bird species as a result of the proposed development.

European badger

- 4.34 The local records search returned a number of records of European badger in the vicinity of the site (see Table 4).
- 4.35 It is very unlikely that badgers will utilise the site, as the wider school site is fully enclosed by either large stone walls or strong metal fencing.
- 4.36 There will not be an impact on European badger as a result of the proposed development.

West European hedgehog

- 4.37 The local records search returned 24 records of west European hedgehog in the vicinity of the site (see Table 4) – the closest record was for a field sighting 0.3km from site.
- 4.38 Hedgehogs may use the small amount of scrub present on site for shelter. It is possible that hedgehogs could use the grassland habitat for foraging, and the pond as a water source (when it contains water).
- 4.39 There is unlikely to be a negative impact on west European hedgehog as a result of the proposed development.

Invertebrates

- 4.40 The local records search returned 56 records of 13 invertebrate species in the vicinity of the site (see Table 4).
- 4.41 The majority of the site affected by the development is amenity grassland, which is frequently managed to a short sward so offers little value for invertebrates.
- 4.42 The pond is also likely to be of little value to many invertebrate species, as the pond frequently drying means that many aquatic invertebrates (e.g., odonata) would not be able to successfully breed within it.
- 4.43 There will not be an impact on invertebrate species on the population level as a result of the proposed development.

Invasive species

- 4.44 There were no stands of invasive species found onsite.

5 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 Wildwood Ecology was commissioned to undertake a Preliminary Ecological Appraisal (PEA) of Ty Dysgu, Market St, Dowlais, Merthyr Tydfil CF48 3HW
- 5.2 The site is the subject of a planning application for the construction of a new school building.

Designated sites

- 5.3 Designated sites in the vicinity of the site (see Table 3) are sufficiently well separated so that no impacts on their designated features are anticipated as a result of the proposed development.

Protected species

- 5.4 Recommendations regarding protected species are shown in Table 7.

Table 7 – Recommendations.

Species	Recommendations
Bats	- No further surveys required. - No additional external lighting to be installed. If lighting is required, then a lighting plan will be required taking into account recommendations from BCT/ILP Guidance Note 08/18 to ensure no additional artificial lighting on the stone wall around the north of the site.
Hazel dormouse	No further surveys required.
European otter	No further surveys required.
Great crested newt and other amphibians	- No further surveys required. - Removal of the pond should take place during the autumn, winter, or late summer, in order to avoid impacting any common and fast-breeding amphibian species (e.g., common frogs) that may have laid eggs in the pond. - Installation of a new, fenced, deeper pond would be recommended on the site (which could tie in with SUDS requirements) to provide enhanced habitat for amphibians.
Reptiles	No further surveys required.
Nesting birds	Any vegetation clearance/tree felling will take place outside of the bird nesting season. In the event that clearance work has to be undertaken during the nesting season (generally from 1st March until 31st August, although birds are known to nest outside of these dates in suitable conditions), a nesting bird check will be required and must be carried out by a suitably qualified person. Any active nests identified should be protected until the young have fledged.
European badger	No further surveys required.
West European hedgehog	No further surveys required.

	• Cautious working (i.e. two-stage clearance of scrub, with checks before clearance to ground level) is advised to prevent killing or injury to this species.
Invertebrates	• No further surveys required. • Any landscape planting as part of the new build should use native species of local provenance to benefit local invertebrates.

Biodiversity enhancement

- 5.5 Local Authorities have a duty (known as the 'Biodiversity and resilience of ecosystems duty') under the [Environment \(Wales\) Act 2016](#) to seek to maintain and *enhance* biodiversity in the exercise of their functions.
- 5.6 Where possible the existing onsite habitat will be retained to ensure that species are not adversely affected by the development. Native species of local provenance will be used for any new planting on the site to support The Action Plan for Pollinators in Wales, 2013 (<http://gov.wales/docs/desh/publications/130723pollinator-action-plan-en.pdf>).
- 5.7 Bird nesting boxes and bat roosting boxes will be incorporated within the proposed building. A range of types should be used in order to cover a variety of species. Many designs are available and we would initially recommend the following for this site:
- Bats - http://www.nhbs.com/habibat_bat_box_custom_brick_facing_tefno_183578.html
 - House Sparrow - http://www.nhbs.com/lsp_schwegler_sparrow_terrace_tefno_174850.html

Overall conclusion

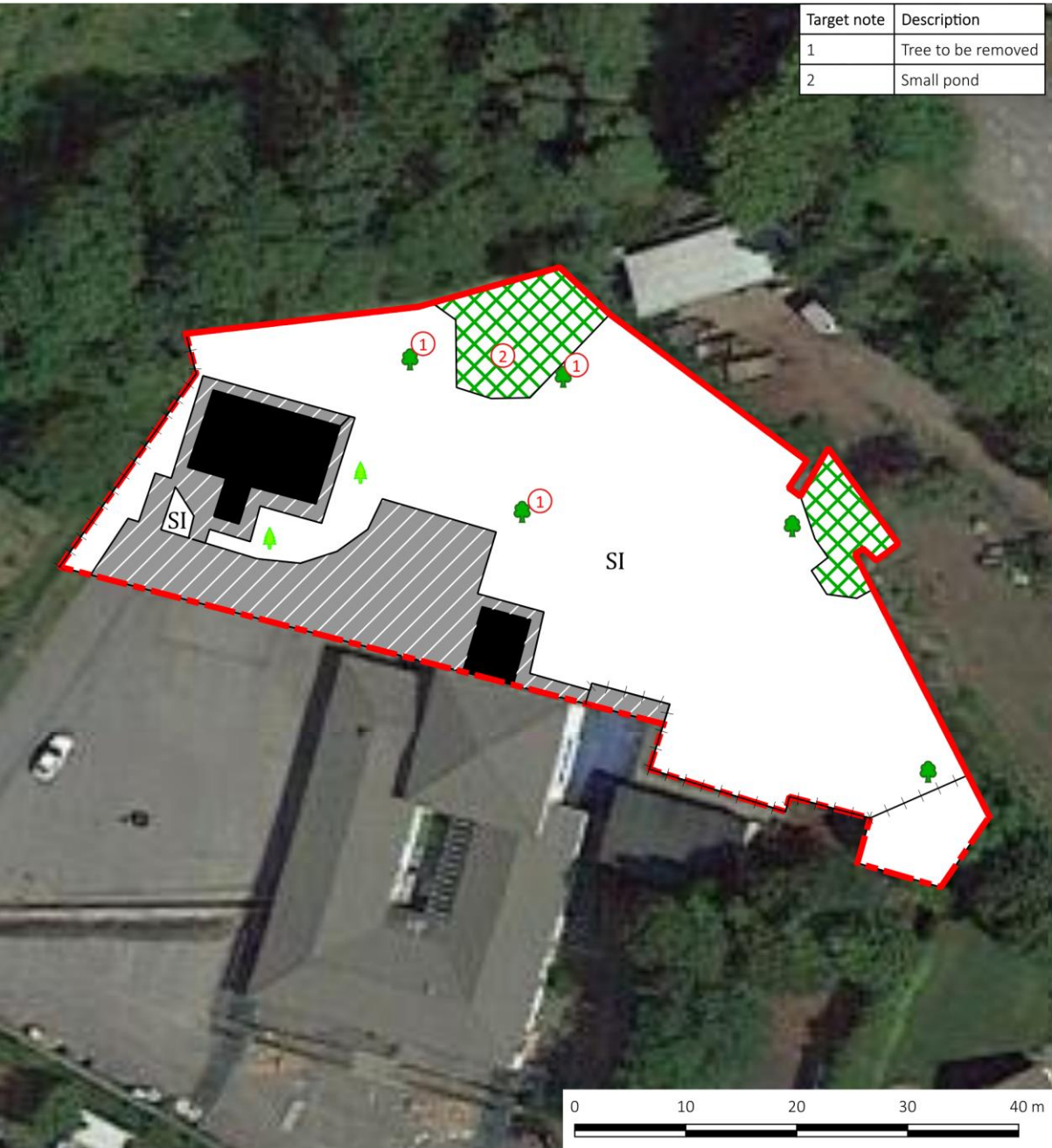
- 5.8 Providing that the recommendations outlined within this report are successfully implemented, it should be possible for the proposed development to proceed and for there to be no long-term impacts upon the key protected species present at the site.

This ecological report will remain valid for a period of 18 months from the date of the last survey - i.e. until May 2024. Further surveys may be required to update the site information if planning is not obtained or works do not commence within this time period.

6 REFERENCES

- Bat Conservation Trust and the Institution of Lighting Professionals (2018) Bats and artificial lighting in the UK; *Bats and the Built Environment* series (Guidance Note 08/18), The Bat Conservation Trust, London.
- CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Collins, J. (ed.) (2016) Bat surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.
- Institute for Environmental Assessment (1995). Guidelines for Baseline Ecological Assessment. E & FN Spon, Hong Kong.
- Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey; A technique for environmental audit. Reprinted by JNCC, Peterborough.

APPENDIX I: PEA PLAN



Key

Target notes

Trees

Linear

Wall

Boundary

Broad-leaved scattered tree

Coniferous scattered tree

Habitats

A.2.1 Scrub, dense/continuous

SI

J.3.6 Buildings

Hard standing

B.6 Poor semi-improved grassland

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Figure 3 - PEA plan showing habitats and features present on site.

APPENDIX II: PROPOSED DEVELOPMENT PLAN

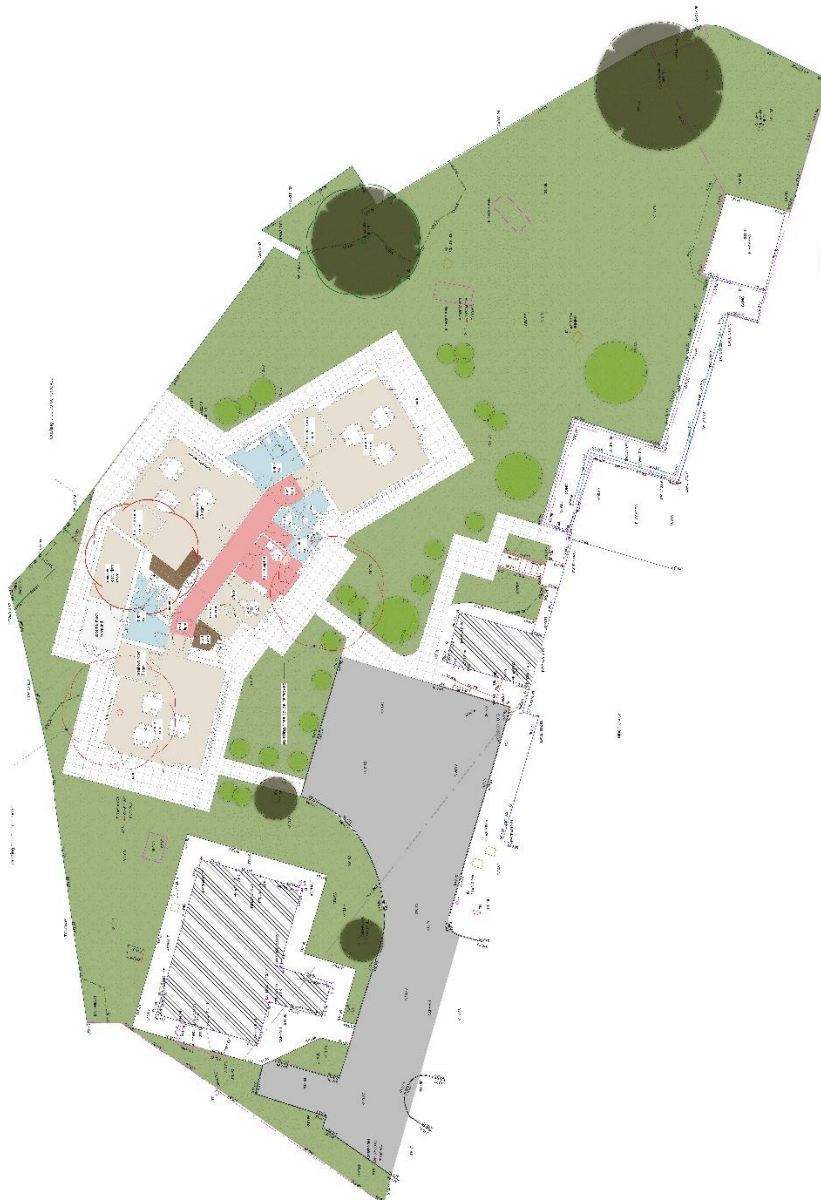


Figure 4 - Proposed site plan showing new building area.

APPENDIX III: SURVEY IMAGES



Figure 5 – View of the existing small pond on site.



Figure 6 – Looking towards area of scrub and pond (between young willows).



Figure 7 – Looking south towards existing school building.



Figure 8 – Looking east across amenity grassland.



Figure 9 – Looking west towards existing small building at the west of the site.



Figure 10 – Eastern patch of scrub (primarily non-native species).



Figure 11 – Looking north-west from the south-east corner of the site.



Figure 12 – Looking towards the south-eastern corner of the site.

APPENDIX IV: SPECIES LIST

To be submitted to the appropriate Local Records Centre

Site Name: Ty Dysgu, Market St, Dowlais, **Provided by:** Wildwood Ecology Ltd
Merthyr Tydfil CF48 3HW

Grid ref: SO 06918 07912 **Verified by:** Amy Williams Schwartz

Common name	Scientific Name (if known)	Number	Comment
Birds			
Carrion crow	<i>Corvus corone</i>		
Jackdaw	<i>Corvus monedula</i>		
Magpie	<i>Pica pica</i>		
Plants			
Alder	<i>Alnus glutinosa</i>		
Bramble	<i>Rubus fruticosus</i> agg.		
Broad-leaved dock	<i>Rumex obtusifolius</i>		
Cherry	<i>Prunus</i> sp.		
Cock's-foot	<i>Dactylis glomerata</i>		
Cotoneaster sp.	<i>Cotoneaster</i> sp.		
Creeping buttercup	<i>Ranunculus repens</i>		
Daisy	<i>Bellis perennis</i>		
Dandelion	<i>Taraxacum officinale</i> agg.		
Dogwood	<i>Cornus sanguinea</i>		
Fuchsia	<i>Fuchsia</i> sp.		
Ivy	<i>Hedera helix</i>		
Meadow buttercup	<i>Ranunculus acris</i>		
Ragwort	<i>Senecio jacobaea</i>		
Red fescue	<i>Festuca rubra</i>		
Ribwort plantain	<i>Plantago lanceolata</i>		
Rosebay willowherb	<i>Chamerion angustifolium</i>		
Strawberry	<i>Fragaria ananassa</i>		
White clover	<i>Trifolium repens</i>		
Willow sp.	<i>Salix</i> sp.		
Yarrow	<i>Achillea millefolium</i>		
Fungi			
Field Blewit	<i>Lepista personata</i>		

APPENDIX V: PLANNING POLICY AND LEGISLATION

The following local and national planning policy and legislation relating to nature conservation and biodiversity status are considered of relevance to the current proposal.

Planning and biodiversity

Local Authorities have a requirement to consider biodiversity and geological conservation issues when determining planning applications under the following planning policies.

Planning Policy Wales (2021) and Technical Advice Note 5 (2009)

Planning Policy Wales (Edition 11, February 2021) sets out the land use planning policies of the Welsh Government, integrating with the Environment (Wales) Act (2016). The advice contained within Planning Policy Wales (PPW) is supplemented for some subjects by Technical Advice Notes (TANs).

TAN 5 (Welsh Government, 2009) specifically provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. The TAN provides advice for local planning authorities on the key principles of positive planning for nature conservation; nature conservation and Local Development Plans; nature conservation in development management procedures; development affecting protected internationally and nationally designated sites and habitats; and development affecting protected and priority habitats and species.

Under Section 2.4 within the TAN 5, 'when deciding planning applications that may affect nature conservation local planning authorities should':

- Pay particular attention to the principles of sustainable development, including respect for environmental limits, applying the precautionary principle, using scientific knowledge to aid decision making and taking account of the full range of costs and benefits in a long term perspective;
- Contribute to the protection and improvement of the environment, so as to improve the quality of life and protect local and global ecosystems, seeking to avoid irreversible harmful effects on the natural environment;
- Promote the conservation and enhancement of statutorily designated areas and undeveloped coast;
- Ensure that appropriate weight is attached to designated sites of international, national and local importance;
- Protect wildlife and natural features in the wider environment, with appropriate weight attached to priority habitats and species in Biodiversity Action Plans;
- Ensure that all material considerations are taken into account and decisions are informed by adequate information about the potential effects of development on nature conservation;
- Ensure that the range and population of protected species is sustained;

- Adopt a step-wise approach to avoid harm to nature conservation, minimise unavoidable harm by mitigation measures, offset residual harm by compensation measures and look for new opportunities to enhance nature conservation; where there may be significant harmful effects local planning authorities will need to be satisfied that any reasonable alternative sites that would result in less or no harm have been fully considered;

Legislation and biodiversity

Certain species of animals and plants found in the wild in the UK are legally protected from being harmed or disturbed. These species are listed in the Wildlife and Countryside Act 1981 (as amended) or are named as European Protected Species (EPS) in the Conservation of Habitats and Species Regulations 2017 (as amended). These two main pieces of legislation have been consulted when writing this report and are therefore described in detail within this section.

Other relevant legislation and policy documents that have been consulted include – The Environment (Wales) Act 2016; The Countryside and Rights of Way Act 2000; The Hedgerow Regulations 1997; Biodiversity Action Plans, both UK-wide (UKBAP) and Local plans (LBAPs), and The National Planning Policy Framework (NPPF). There is also legislation that legally protects certain animals - for example, the Protection of Badgers Act (1992) protects badgers and their setts, and the Deer Act (1991) places restrictions on actions that can be taken against deer species.

Environment (Wales) Act 2016

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 so doing, public authorities must also 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.

Public authorities will be required to report on the actions they are taking to improve biodiversity and promote ecosystem resilience.

Section 7 replaces the duty in section 42 of the NERC Act 2006. The Welsh Ministers will publish, review and revise lists of living organisms and types of habitat in Wales, which they consider are of key significance to sustain and improve biodiversity in relation to Wales.

The Welsh Ministers must also take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section, and encourage others to take such steps.

Wildlife & Countryside Act 1981 (as amended)

The Wildlife & Countryside Act 1981 (as amended) [WCA] is the primary legislation for England and Wales for the protection of flora, fauna and the countryside. Part I within the Act deals with the protection of wildlife.

Most European Protected Species offences are now covered under the Conservation of Habitats and Species Regulations (as amended) (see below), but

some 'intentional' acts are still covered under the WCA, such as obstructing access to a bat roost.

The WCA prohibits the release to the wild of non-native animal species listed on Schedule 9 (e.g. Signal Crayfish and American Mink). It also prohibits planting in the wild of plants listed in Schedule 9 (e.g. Japanese Knotweed and *Rhododendron ponticum*) or otherwise deliberately causing them to grow in the wild. This is to prevent the release of invasive non-native species that could threaten our native wildlife.

The provisions relating to animals in the Act only apply to 'wild animals'; these are defined as those that are living wild or were living wild before being captured or killed. It does not apply to captive bred animals being held in captivity.

There are 'defences' provided by the WCA. These are cases where acts that would otherwise be prohibited by the legislation are permitted, such as the incidental result of a lawful operation which could not be reasonably avoided, or actions within the living areas of a dwelling house.

Licensing: certain prohibited actions under the Wildlife and Countryside Act may be undertaken under licence by the proper authority. For example, scientific study that requires capturing or disturbing protected animals can be allowed by obtaining a licence – e.g. bat surveys.

Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) (which are the principal means by which the EC Habitats Directive is transposed in England and Wales) update the legislation and consolidate all the many amendments which have been made to the Regulations since they were first made in 1994.

These regulations provide for the:

- protection of European Protected Species [EPS] (animals and plants listed in Annex IV Habitats Directive which are resident in the wild in Great Britain) including bats, dormice, great crested newts, and otters;
- designation and protection of domestic and European Sites - e.g. Site of Special Scientific Interest [SSSI] and Special Area of Conservation [SAC]; and
- adaptation of planning controls for the protection of such sites and species.

Public bodies (including the Local Planning Authority) have a duty to have regard to the requirements of the Habitats Directive in exercising their function – i.e. when determining a planning application.

There is no defence that an act was the incidental and unavoidable result of a lawful activity.

Licensing: it is possible for actions which would otherwise be an offence under the Regulations to be undertaken under licence issued by the proper authority. For example, where a European Protected Species has been identified and the development risks deliberately affecting an EPS, then a 'development licence' may be required.

Species protection

The following protected species information is relevant to this report. Legislation is only discussed in relation to planning and development; other offences may exist.

Amphibians

The common frog, common toad, common newt, and palmate newt receive limited protection under the Wildlife and Countryside Act 1981 (as amended), making it illegal to sell or trade them.

The Great Crested Newt and Natterjack Toad are fully protected under the Conservation of Habitats and Species Regulations 2017 (as amended) as European Protected Species. It is illegal to:

- Deliberately capture, injure, kill, or disturb either species,
- Intentionally or recklessly obstruct access to any structure/place used for shelter or protection, or
- Damage or destroy a breeding site or resting place.

Badger

Badgers are protected in the UK under the Protection of Badgers Act 1992. Under the act it is an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat³ a Badger, or attempt to do so;
- To intentionally or recklessly interfere with a sett⁴ (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain; it is not intended to prevent properly authorised development.

Bats

All British bats are classed as European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence *inter alia* to:

- Deliberately kill, injure or capture a bat;
- Deliberately disturb bats;
- Damage or destroy a breeding site or resting place of a bat.

³ The intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence by constituting “cruel ill treatment” of a Badger

⁴ A sett is defined as “any structure or place which displays signs indicating current use by a Badger”. Advice issued by Natural England (June 2009) is that a sett is protected as long as such signs remain present, which in practice could potentially be for some time after the last actual occupation by Badger.

In addition, all British bats are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- Obstruct access to any structure or place which any bat uses for shelter or protection; or
- Disturb any bat while occupying a structure or place which it uses for that purpose.

If proposed development work is likely to destroy or disturb bats or their roosts, then a licence will need to be obtained from Natural England, which would be subject to appropriate measures to safeguard bats.

Birds

In the UK, the provisions of the Birds Directive are implemented through the Wildlife & Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 (as amended). All wild birds, their nests and eggs are protected it an offence to:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any such bird whilst it is in use or being built; or
- take or destroying an egg of any such wild bird.

The law covers all species of wild birds including common, pest or opportunistic species.

Special protection against disturbance during the breeding season is also afforded to those species listed on Schedule 1 of the Act.

Dormice

The hazel dormouse is classed as a European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence inter alia to:

- Deliberately capture, injure, or kill a dormouse;
- Deliberately disturb dormice;
- Damage or destroy a breeding site or resting place of a dormouse.

In addition, the dormouse is listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- Obstruct access to any structure or place which a dormouse uses for shelter or protection; or
- Disturb a dormouse while occupying a structure or place which it uses for that shelter or protection.

Otters

The European Otter, *Lutra lutra* is a European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence inter alia to:

- deliberately capture, injure or kill any wild otter;
- deliberately disturb wild otters;
- damage or destroy a breeding site or resting place of an otter.

In addition, the otter is listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- disturbs an otter while it is occupying a structure or place which it uses for shelter or protection; or
- obstructs access to such a place.

If proposed development work is likely to destroy or disturb otters or their resting places, then a licence will need to be obtained from Natural Resource Wales, which would be subject to appropriate measures to safeguard otters.

Reptiles

Adders, slow worms, grass snakes and common lizards are protected against killing and injuring under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it illegal to intentionally kill or injure a common reptile. As a result, reptiles must be removed from areas of development and relocated onto suitable release sites before any site works can commence.

Smooth snakes and sand lizards are European Protected Species under schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). This makes it illegal to carry out the following activities:

- Deliberately or recklessly disturb, capture or kill these animals;
- Deliberately or recklessly take or destroy eggs of these animals;
- Damage or destroy a breeding site or resting place of such a wild animal; or

Keep, transport, sell or exchange, or offer for sale or exchange, any live or dead animal, or any part of, or anything derived from such a wild animal.