



PROPOSED DEVELOPMENT:

**LAND ADJACENT TO 1 MANSFIELD TERRACE, TWYNYRODYN,
MERTHYR TYDFIL**

ECOLOGICAL ASSESSMENT

DECEMBER 2023

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Proposed Development: Land adjacent to 1 Mansfield Terrace

Ecological Assessment

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CONTENTS

NON-TECHNICAL SUMMARY.....	2
1 INTRODUCTION	3
1.1 OBJECTIVE	3
1.2 METHODOLOGY	3
1.3 SITE DESCRIPTION	4
1.4 PROPOSED DEVELOPMENT	5
1.5 STUDY AREA	6
2 REGULATORY FRAMEWORK	7
2.1 INTERNATIONAL	7
2.2 NATIONAL (UK)	7
2.3 NATIONAL (WALES)	8
2.4 LOCAL AND REGIONAL	8
2.5 PLANNING FRAMEWORK	8
2.6 PREVIOUS SURVEYS	8
2.7 CONSTRAINTS	8
3 DESK STUDY.....	9
3.1 SUMMARY	9
3.2 BACKGROUND	9
3.3 METHODOLOGY	9
3.4 CONSTRAINTS	9
3.5 RESULTS	10
3.6 PREVIOUS SURVEYS	11
4 PHASE 1 HABITAT SURVEY	12
4.1 SUMMARY	12
4.2 BACKGROUND	12
4.3 METHODOLOGY	12
4.4 CONSTRAINTS	13
4.5 RESULTS	13
4.6 REPTILES	19
4.7 BREEDING BIRDS	22
4.8 INVERTEBRATES	25
5 CONCLUSION AND RECOMMENDATIONS	27
6 REFERENCES	29
APPENDIX A - PHOTOS	30
APPENDIX B – SPECIES LIST	33
APPENDIX C – Target note	34
APPENDIX D- REPTILE MITIGATION STRATEGY	35
APPENDIX D- METHOD STATEMENT (BATS)	37

NON-TECHNICAL SUMMARY

An ecological assessment was undertaken of land adjacent to 1 Mansfield Terrace, Merthyr Tydfil, in support of a planning application for a residential development.

The work involved a phase 1 habitat survey to categorise the habitats present, an assessment of the site's ability to provide suitable habitats for protected species and recommendations for further survey and actions if considered necessary.

The habitats on and adjacent to the site comprise of former garden which is now reverting to natural habitat, fence and a building.

There were no waterbodies on or immediately adjacent to the site which could be suitable for use by breeding great crested newts (or other amphibians).

There is no suitable dormouse habitat within the site boundary.

No evidence of badger activity was recorded within or immediately adjacent to the site boundary. It is unlikely that badgers will use the site due to the open and disturbed nature of it.

The onsite building does not offer bats with any obvious roosting potential. The building will however, need to be dismantled in line with a method statement and ecological supervision.

The site provides reptiles with some limited potential habitat for foraging, basking, and sheltering purposes. The site is disturbed, relatively isolated by gravel roadways and a road to the south and is only likely to provide a small number of reptiles with suitable habitat. Google imagery appears to suggest that the site has been cleared on occasion.

All site clearance works should be undertaken in accordance with a method statement and ecological supervision to ensure that reptiles are not harmed at any stage of the project.

The habitat is likely to support common and widespread species of invertebrate.

Mitigation will be required and is outlined within the various habitat and species sections contained herein.

1 INTRODUCTION

1.1 OBJECTIVE

The objectives of this report are to:

- identify the habitats present on the site;
- identify the potential for protected species to be present on site;
- using the information gathered to determine whether there may be any impacts (both positive and negative) on protected species present;
- provide recommendations for further survey as necessary; and
- suggest outline mitigation and enhancement ideas and principles

1.2 METHODOLOGY

To achieve the objectives set out above, the following actions were taken:

- Field based assessments in respect of
 1. Habitats;
 2. Protected species, primarily:
 - i. Bats;
 - ii. Dormice;
 - iii. Otters;
 - iv. Amphibians (particularly great crested newt);
 - v. Badgers
 - vi. Reptiles; and
 - vii. Breeding birds

The impact assessment has been undertaken by ecological feature rather than by section i.e. each subject is discussed and assessed separately and summarised in conjunction with the others.

1.3 SITE DESCRIPTION

The red line development site boundary is located at land adjacent to 1 Mansfield Terrace, Merthyr Tydfil.

The majority of the site comprises of semi-improved grassland. There is a disused building present in the middle of the site. The building is severely dilapidated. The building is more of a cabin than a dwelling with a ridge that runs from north east to south west. The materials of the building are a mix of wood and bitumen. There are rubble piles present on the site.

The wider landscape comprises of fields and patches of broadleaved woodland. There are roads and tracks around the entire perimeter of the site.

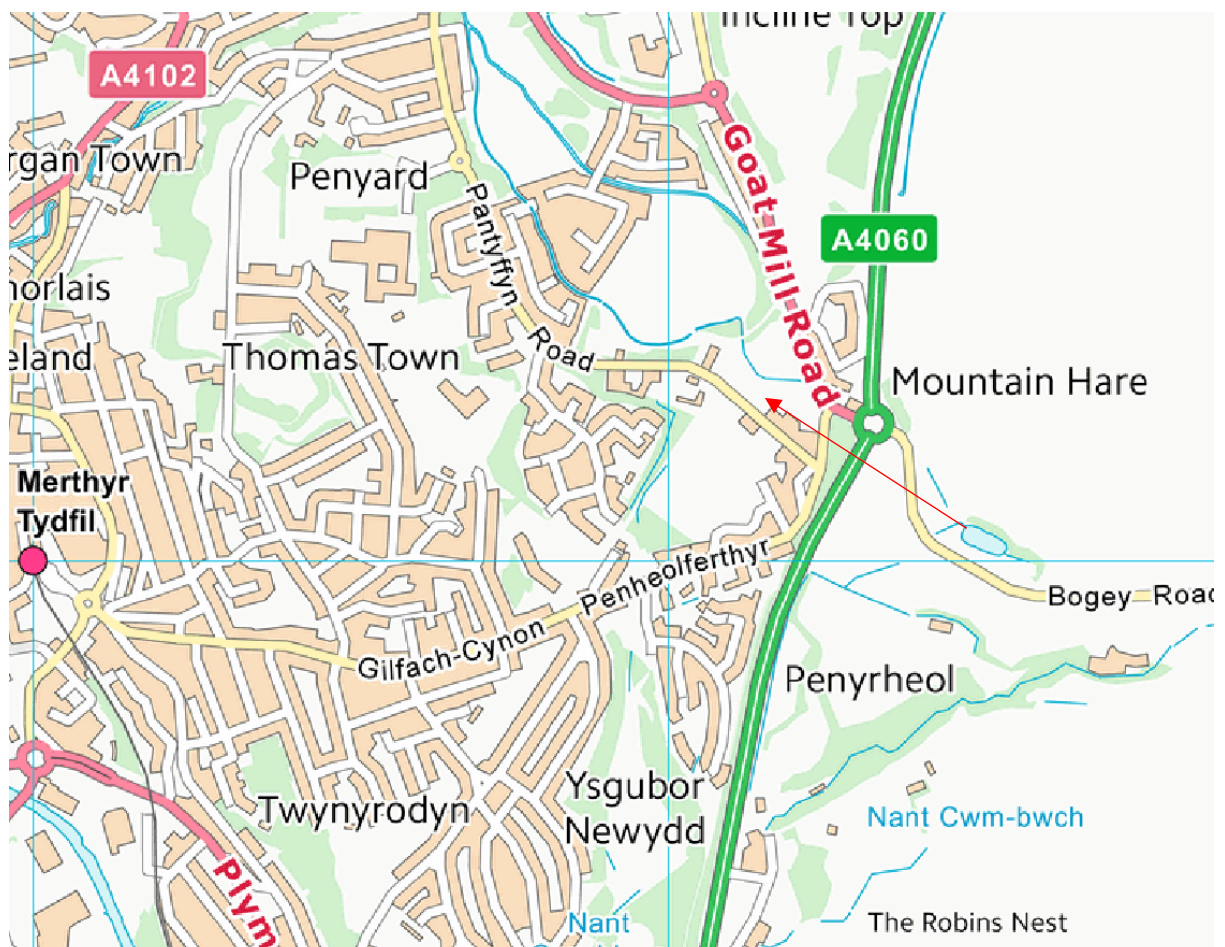
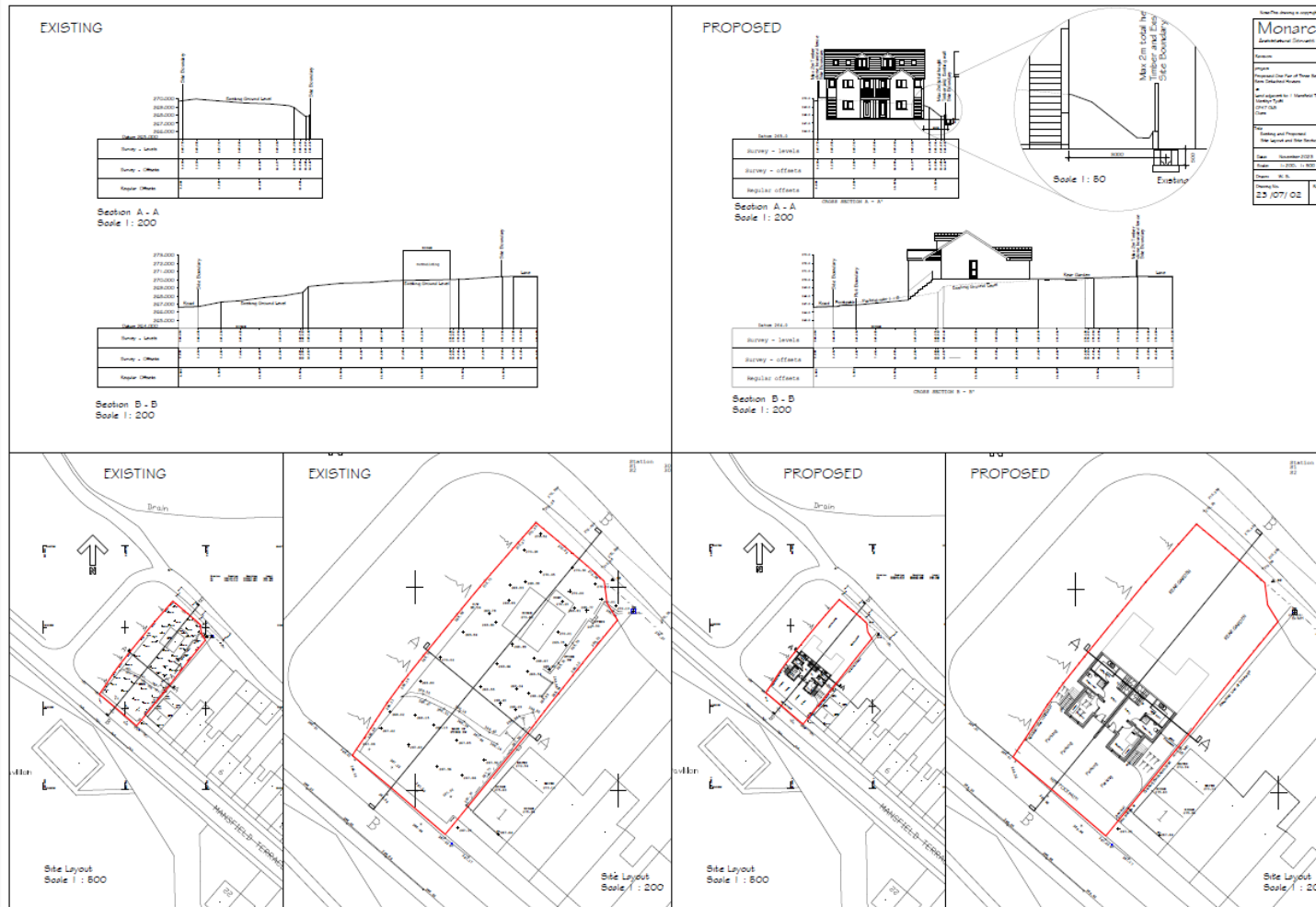


Figure 1: General location of site (arrowed red) Contains Ordnance Survey data © Crown copyright and database right 2021

1.4 PROPOSED DEVELOPMENT



1.5 STUDY AREA

The field survey looked at the red line development area itself and up to 20m from the site boundaries wherever possible.

The biological records search covered a search radius of 2000m from the centre of the development site for protected sites (international, national and local), protected and priority species, other species of conservation concern and locally important species.

2 REGULATORY FRAMEWORK

2.1 INTERNATIONAL

European Union legislation requires that member states designate sites for the protection of habitats and species included in the annexes of both Council Directive 92/43/EC on the Conservation of Natural Habitats and of Wild Flora and Fauna (the Habitats Directive) and Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive). This legislation is implemented in the UK by the Conservation of Habitats and Species Regulations 2017 (as amended) (“the Habitat Regulations”). This results in sites being designated as Special Areas of Conservation (SACs) and Special Protection Areas respectively (SPAs).

It should be noted as the UK is no longer a member state, protection enacted under the Conservation of Habitats and Species Regulations 2017 (as amended) will continue to apply in UK law through the Conservation of Habitat and Species (amendment) (EU Exit) Regulations 2019 and the European Withdrawal Act 2018 following the implementation of Brexit.

2.2 NATIONAL (UK)

The Wildlife and Countryside Act 1981 (as amended) allows sites to be designated as Sites of Special Scientific Interest (SSSI) for one or all of the following categories:

- Flora;
- Fauna;
- Habitat; and
- Geological importance.

European designated sites are automatically designated as SSSIs prior to their designation.

Other relevant legislation includes:

- The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (as amended);
- The Wildlife and Countryside Act 1981 (as amended);
- Countryside and Rights of Way Act 2000;
- Environment (Wales) Act 2016
- Wild Mammals (Protection) Act 1996;
- The Protection of Badgers Act 1992; and
- The Hedgerow Regulations 1997.

Section 40 of the Natural Environment and Rural Communities Act 2006 (as amended) requires all public bodies to have regard wherever possible to conserving biodiversity. Section 42 of the Act requires that a list of habitats and species of Principle Importance for the Conservation of Biological Diversity in Wales be produced; however, this has been replaced by Section 7 of the Environment (Wales) Act 2016 Priority Habitats and Species lists.

The Environment (Wales) Act 2016 requires that all public authorities, when carrying out their functions in Wales, seek to “maintain and enhance biodiversity” where it is within the proper exercise of their functions. In doing so, public authorities must also seek to “promote the resilience of ecosystems”.

This ensures that biodiversity is an integral part of the decisions that public authorities take in relation to Wales. It also links biodiversity with the long-term health and functioning of our ecosystems, therefore helping to align the biodiversity duty with the framework for sustainable natural resource management provided in the Act.

In Wales, this legislation replaces and enhances the Natural Environment and Rural Communities Act (2006) which sought to raise the profile of biodiversity and to make sure that it is considered in all local authority decisions by ensuring that “Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.”.

Other elements of NERC 2006 may still apply.

Biodiversity Action Plans (BAPs) are tools which are used to monitor, manage and enhance those habitats and species which are of significance to an area or organisation, The United Kingdom BAP lists a number of priority habitats and species which are of conservation concern.

2.3 NATIONAL (WALES)

Planning Policy Wales (Welsh Government, 2016) and Planning Policy Wales Technical Advice Note 5: Nature Conservation and Planning (Welsh Assembly Government, September 2009) set out the protection given to wildlife (sites, habitats and species) by the planning system operational in Wales.

2.4 LOCAL AND REGIONAL

The proposed development is wholly within the Merthyr Tydfil County Borough Council (MTCBC) area of responsibility. Therefore, all policies adopted by that Planning Authority will apply, including policies which may not be specific to nature conservation or the natural environment but that may apply or be relevant and should be considered during the planning process.

There are a number of habitats and species which are of a high priority to MTCBC. These have been determined following examination of the UK BAP and the Environment (Wales) Act Section 7 list of Priority Species and Habitats and those habitats and species determined to be locally important by the Local Biodiversity Partnership.

2.5 PLANNING FRAMEWORK

The proposed development will be undertaken wholly under the auspices of the Town and Country Planning Act 1990 (as amended).

2.6 PREVIOUS SURVEYS

There are no known previous surveys of this site.

2.7 CONSTRAINTS

There were no constraints to the survey.

3 DESK STUDY

3.1 SUMMARY

There are no records of any priority or protected species, species of local conservation concern or other species of conservation concern from the site or immediately adjacent to it. The closest records are from 128m away.

There is one SSSI and eight SINCS within 2km of the development site.

3.2 BACKGROUND

A desk study provides background information on historical and current biological data which can identify ecological constraints, mitigation, and biodiversity enhancement opportunities.

3.3 METHODOLOGY

The South East Wales Biodiversity Records Centre (SEWBrEC) was consulted in order to provide biological information on the presence of species and sites on or adjacent to the site (0212-726).

A 2000m search buffer was applied to priority and protected species, species of local conservation concern and other species of conservation concern, statutorily designated sites (for nature conservation purposes) and 1000m locally designated sites.

The Multi-Agency Geographical Information System (MAGIC) website (www.magic.gov.uk) and the Local Biodiversity Action Plan (LBAP) for MTCBC were also consulted.

3.4 CONSTRAINTS

There were no constraints to the data search

3.5 RESULTS

3.5.1 Statutorily protected sites

3.5.1.1 European designated sites

There are no European Designated Sites within 2000m of the development site.

3.5.1.2 United Kingdom designated sites

There is one United Kingdom Designated Sites within 2000m of the development site.

Table 3 - Statutorily designated sites within 2km of the proposed development site:

Site	Designation	Grid reference	Area (ha)	Distance from site
Cwm Glo Y Glyndrys	SSSI	SO065115	181.3	1873m

Cwm Glo a Glyndrys is of special interest for its extensive areas of marshy grassland, species-rich neutral grassland and acid grassland, and for the association of these habitats with others including woodland and heath. It is also of special interest for its outstandingly diverse assemblage of grassland fungi, including 32 species of waxcap *Hygrocybe* spp, making it one of the best sites in Britain

The SSSI is nearly 2km from the site and is not connected in any way and will therefore not be mentioned further in this report.

3.5.2 Non-statutory designations

There are eight SINCS within 2000m of the development site.

Afon Taf (1246m)

Glynmil (693m)

Cyfarthfa Park (1853m)

Cwm Glo (1840m)

Pentrebach Fields (1971m)

Pentrebach Tip (1999m)

Merthyr Common South (785m)

Rhydyar West (1742m)

There are no ecological connections to any of the listed site. There are no features present on the development site that the SINC is designated for. The majority of the site is species poor. It is considered unlikely that the proposed development will affect the integrity of any SINC. SINCS will not be mentioned further in this report.

3.5.3 Species: SEWBreC data search

There are no species records for the proposed development site or its immediate vicinity.

However, there are multiple records for protected species within 2000m of the site, the closest of which is a hedgehog, 128m away from the site.

3.6 PREVIOUS SURVEYS

None known.

4 PHASE 1 HABITAT SURVEY

4.1 SUMMARY

A number of habitats were recorded across and adjacent to the survey area. These included:

;

- Overgrown garden/grassland;
- Rubble piles/brash
- Building

The potential for a number of protected species was recorded, including habitats suitable for:

- Bats;
- Badgers;
- Dormice
- Breeding birds;
- Reptiles
- Invertebrates

The habitats are shown on **Figure 3** below.

4.2 BACKGROUND

The Phase 1 habitat survey was carried out to assess the existing habitats, identify any protected habitats or species that may be present, determine the impact of the proposed works on them, and identify any mitigation measures that may be necessary. This was done by undertaking both a desk study and field survey.

The survey was undertaken on 12th December 2023.

Phase 1 habitat survey is a way of recording the basic habitat data to form a baseline level of knowledge of the ecology of a site and provide recommendations for future surveys if considered necessary.

4.3 METHODOLOGY

4.3.1 Desk study:

A biological data search was undertaken. Refer to section 3 above.

4.3.2 Field survey:

Experienced surveyors from BE Ecological Ltd carried out a habitat assessment and mapping exercise in December 2023 using the Phase 1 habitat survey technique. Nomenclature follows Stace (1997)¹. The survey was carried out by Beth Evans.

A full species list is at **Appendix D**.

¹ Stace, C (1997). *New Flora of the British Isles* (2nd Ed.). Cambridge University Press

4.4 CONSTRAINTS

There were no constraints.

4.5 RESULTS

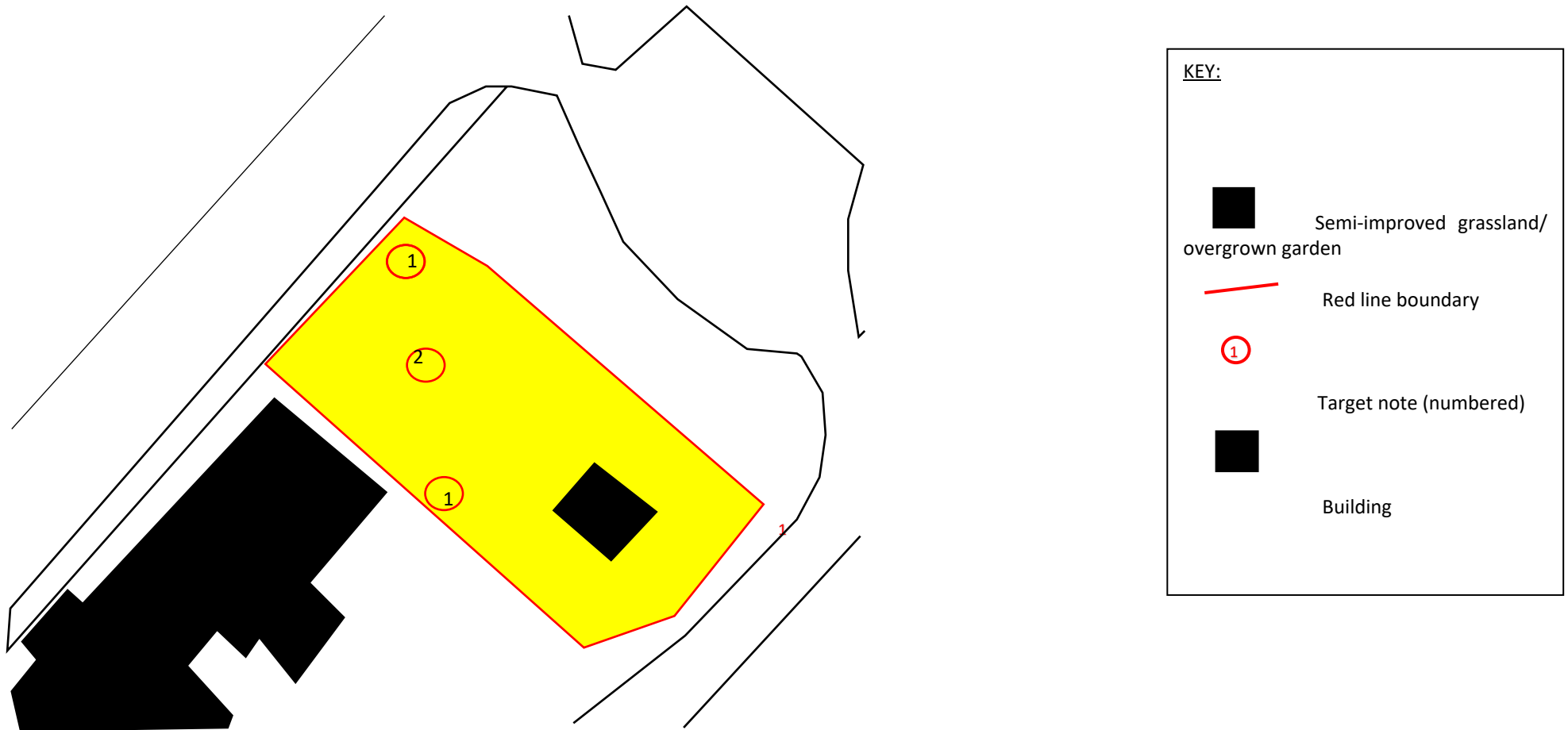
4.5.1 Habitats

The following habitats were found on the site and are mapped on **Figure 3** below:

- Overgrown garden/semi-improved grassland
- Building

Photos are located at **Appendix A**.

Figure 3 – habitat survey results



4.5.1.1 Target Note 2

This habitat is found across the main body of the site. The habitat is an overgrown/unmanaged garden/parcel of land that appears to have been cleared over the years which has resulted in some of the original garden plants re-establishing (very few), however, they are now being outcompeted by native species and forming a habitat more in line with semi-improved grassland.

4.5.1.2 Buildings

There is an onsite building present in the middle of the site. The building is deteriorating. This habitat will be mentioned further in this report in terms of bats and birds.

4.5.2 Protected species assessment

4.5.2.1 Bats

The closest record for members for this group is from approximately 227m from the centre of the proposed development site. It refers to a pipistrelle bat in flight. The closest roosting record is of a pipistrelle maternity roost approximately 600m from the site.

There are no trees present on the site that could offer bats with any roosting potential.

There is a single storey cabin within the grounds of the property. The building was the subject of a preliminary roost assessment as follows:

4.5.2.2 Survey objectives

- To carry out an initial bat inspection survey the building
- To present the above details and if necessary further surveys, recommendations for mitigation, future research and compensation within this report.
- To carry out a scoping survey for breeding birds

4.5.2.3 Surveyor information

The inspection survey was undertaken by Beth Evans. Beth is the owner of BE ECOLOGICAL LTD and has a postgraduate degree in Environmental Biology: Conservation & Resource Management, specialising in British bats. Beth has 11 years' experience of ecological surveys, both in a small scale and large multi-disciplinary context. Beth also holds Natural Resources Wales and Natural England bat licences to disturb and handle bats.

4.5.2.4 Internal and external inspection

An initial inspection survey was carried out on 12th December 2023 by Beth Evans to search the building, both internally and externally to identify potential bat roosting areas and signs of bat use including; live bats, dead bats, droppings, urine staining, grease marks and discarded prey items. The buildings and all areas/items of interest were recorded and photographed. Extension ladders/steps were used to safely access areas where no safe access was available the survey was conducted using, close focus binoculars and/or a high powered lamp.

4.5.2.5 Survey limitations

Any survey for bat species can only be a series of snapshots in time. Bats are highly mobile, long lived creatures (capable of living up to 30 years, sometimes longer) with complex social structures and utilising multiple roost sites within a year. The implications of this are that surveys and surveyors have to make informed assumptions based on observations, recorded data, local information and a detailed knowledge of the species.

4.5.2.6 Inspection survey

4.5.2.7 External survey results

The survey carried out by BE Ecological Ltd revealed no droppings or evidence of bats on the exterior of the buildings and failed to find any suitable, obvious points of ingress for bats. The building is a dilapidated cabin rather than a building. The roof is made from ply and corrugated metal. There are no obvious gaps at eaves level.

Please see appended plates for photographs of the building exterior.

4.5.2.8 Internal survey results

Internally the building has at some point been used as storage. It appears to have been lived in some time ago. The building is extremely damp with the floor rotting away. The ceilings are a combination of ply and timber. There are no obvious gaps at eaves level and no obvious roosting potential.

No bats or evidence of bats was found throughout the interior.

4.5.2.9 Identified roosts and conclusion

The building was not identified as a bat roost on this date. To safeguard the presence of roosting bats, the removal of the building will be undertaken in line with a method statement and ecological supervision.

It is likely that bats will use the site and boundaries for foraging and will be able to continue to do so on completion of the development.

This group will not be considered further in this report other than in relation to mitigation for indirect impacts and a method statement for the removal of the building.

4.5.2.10 Amphibians & great crested newt

There are no waterbodies on the development site which could be used by this group for breeding purposes. Despite there being records of great crested newt close by (397m confirmed record), it is considered unlikely that they will make use of the habitats to be affected by the proposed development due to their isolation by roads, housing and other infrastructure.

It is considered that amphibians are unlikely to pose an ecological constraint to the development and that only common species (frog and toad with the possibility of smooth and / or palmate newts) are likely to be present on the site. Therefore, it is considered that this group can be safely dealt with via a reasonable avoidance method statement to prevent harm to individuals during site clearance. A method statement is attached at **Appendix F**.

If at any point a great crested newt is found, all works must cease and Natural Resources Wales consulted.

This group will not be considered further in this report.

4.5.2.11 Dormouse

There is no suitable habitat for dormice present on the site. There are no records of dormice within the data search.

The reptile method statement will also safeguard the unlikely presence of dormice.

This species will not be considered further in this report.

4.5.2.12 Badgers

The closest record of badger is 698m from the site.

There is no suitable habitat on site for badgers, the site is too disturbed for sett building. It is possible but unlikely that badgers will use the site for foraging.

This species will not be considered further in this report.

4.5.2.13 Breeding birds

There is breeding bird habitat on site in the form of brash piles. This group will be considered further in this report.

4.5.2.14 Reptiles

The site offers some limited habitat for this species for foraging, basking and sheltering purposes and it should be assumed that low numbers of slow worm (*Anguis fragilis*) and common lizard (*Lacerta vivipara*) may use the site. It is likely that the population densities of these species are at perhaps lower levels given the proximity of housing, tracks and roads.

This group will be considered further in this report.

4.5.2.15 Invertebrates

It is likely that common and widespread invertebrates will utilise the site and possibly some section 7 species. This group will be mentioned further in this report.

4.5.3 Other features

None.

4.6 REPTILES

4.6.1 Summary

A full trapping and translocation exercise is not considered necessary as long as clearance of the site is undertaken in strict adherence to a method statement designed to prevent harm to any reptiles.

4.6.2 Ecology

Reptiles are ectothermic, meaning they have to rely on external heat sources to warm their blood sufficiently to allow foraging and other activity. During the winter they are in brumation (similar to hibernation), emerging in April (or when the temperatures are consistently warm enough). Males tend to emerge before females, to enable them to prepare for mating. Females emerge a few weeks later and mating takes place. Female reptiles in the UK generally breed every other year to allow them to build up sufficient energy reserves. Grass snakes are the UK's only egg-laying reptile, eggs are laid in summer in warm piles of decomposing vegetation (or similar) and left to develop and hatch on their own. Young reptiles are born/hatch in late summer/early autumn. Brumation (hibernation) starts again as temperatures fall in the autumn.

The four more commonly occurring species of reptile in the UK (adder (*Vipera berus*), grass snake (*Natrix natrix*) slow worm (*Anguis fragilis*) and common lizard (*Lacerta vivipara*) have different preferences for habitat and diet. Adders generally prey on small mammals in drier habitats, grass snakes primarily hunt amphibians in wetter areas and aquatic habitats, slow worms take small, slow-moving invertebrates and inhabit drier areas and common lizards prey on small, faster-moving invertebrates and tolerate both wet and dry habitats.

4.6.3 Legislation

The four common species listed above are protected by the Wildlife and Countryside Act 1981 (as amended) against killing, injury and sale.

Smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*) are not found in this area, having very specific geographical distribution within Britain, and so will not be referred to in this report despite the higher legislative protection afforded to them.

4.6.4 Methodology

4.6.4.1 Habitat assessment

The habitat assessment looked for features which would be attractive to reptiles such as:

- south facing banks;
- varied profile ground form;
- basking areas;
- vegetation cover;
- structurally diverse vegetation;
- potential hibernation sites; and
- evidence of suitable prey sources.

4.6.5 Results

4.6.5.1 Desk study

There are records of common lizard and slow worm within 2km of the site.

4.6.5.2 Habitat assessment

The site is likely to offer some value to slow worm and common lizard.

4.6.6 Reptiles – evaluation

Reptiles are protected by UK legislation and therefore they are of **medium to high national** ecological importance.

No reptiles were found throughout the course of the survey.

Overall the site appears to be generally of **low local (site)** value to reptiles.

4.6.7 Reptiles - impact characterisation

It is likely that only small numbers of reptiles will be present and likely on a non-permanent basis. It is still possible that in the absence of mitigation, reptiles could be killed or injured during the clearance for the site.

4.6.8 Reptiles - impact assessment without mitigation

It is considered that in the absence of mitigation there would be a **probable minor short term adverse** impact at a **local (site)** level.

4.6.9 Reptiles - mitigation measures

As long as reptile presence is assumed and site clearance is undertaken in accordance with an appropriate method statement, it is considered that a full trapping and translocation exercise is not required, and that habitat manipulation and denial is an appropriate method of ensuring that reptiles are not harmed during the site clearance.

Therefore, the following mitigation will be adopted:

- Clearance will be conducted in accordance with a Method Statement (**Appendix B**) to ensure that should reptiles be found in the course of site clearance or any other development activity, they will not be harmed and can be adequately cared for;
- Clearance will only be undertaken during the reptile active season (April-October, inclusive) unless it is determined that some areas of the site are not suitable for hibernation, unless the ground is too wet for hibernation or temperatures are consistently above 12 for seven consecutive days;
- Clearance outside this period is possible, but depends on weather and temperatures being suitable to ensure that reptiles are likely to be active;
- There will be no clearance of hibernation habitat outside the active season unless temperatures allow;
- Reptiles will be excluded from entering or re-entering the site during clearance/operational phase of works by ensuring that the site is kept as bare ground i.e. clear of any vegetation or other shelter

- A viable mitigation strategy will be required to ensure that reptiles are adequately protected

4.6.10 Reptiles - impact characterisation with mitigation

It is considered that there will be an **unlikely minor short term adverse** impact at a **local (site)** level as a result of the proposed development.

4.6.11 Reptiles - significance of the impact

Without mitigation

It is considered that the significance of the impact is **slight**.

With mitigation

It is considered that the significance of the impact is **neutral**.

4.7 BREEDING BIRDS

4.7.1 Summary

A full breeding bird survey was not undertaken as it should be assumed that all the areas of brash are likely to be used by birds for nesting.

It should be assumed that brash piles could be used by breeding birds.

The areas of grassland and bare ground are not considered to be suitable for ground nesting species for breeding purposes as they are small, overlooked and subject of regular disturbance.

4.7.2 Ecology

Most British avian species are found breeding during the spring and summer months, between April and August, although some, such as pigeons, and doves will frequently breed at all times of year, as they are not dependent on small, soft-bodied invertebrates to provide food for their chicks. Some other species, such as barn owl (*Tyto alba*) have also been recorded breeding in the winter months, in years when winters have been mild, and small mammal prey plentiful, although such breeding attempts are unusual, with chicks frequently failing to fledge. The breeding season can be extended for most species if the weather is mild, and food plentiful.

Contrary to common belief, whilst some bird species, such as crows and rooks, nest high in trees, often more than 10m high, the majority of British breeding birds will nest within 2m of the ground (or on the ground) within dense scrub or within holes and other natural and manmade cavities in rocks and walls.

Most bird species take considerably less than 60 days from egg-laying to chick fledging, whilst others, such as barn owl, can take more than 90 days. Many, but not all British species will make multiple breeding attempts if environmental conditions and food availability allow.

4.7.3 Legislation

In Britain, all naturally occurring avian species are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended). The legislation protects all birds, their nests and eggs, and it is an offence to:

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

In addition, birds listed on Schedule 1 of the Act, such as the Red Kite (*Milvus milvus*), are afforded further protection, and it is an offence to:

- Intentionally or recklessly disturb the bird whilst nest building or while at (or near) a nest with eggs or young; and
- Disturb the dependant young of such a bird.

4.7.4 Methodology

4.7.4.1 Habitat assessment

Signs looked for included:

- Availability of nesting habitat;
- Availability of foraging habitat;
- Territorial displays by birds;
- Courtship displays;
- Territory establishment and holding behaviour;
- Nests;
- Food carrying;

4.7.5 Constraints

There were no constraints to the assessment.

4.7.6 Results

4.7.6.1 Desk study

There were no records of birds from the development site or immediately adjacent land, however, there were multiple records of birds from the data search.

4.7.6.2 Habitat assessment

The brash pile on site is suitable for nesting birds.

All habitats on the site were suitable for foraging purposes, providing a variety of food sources. It should be assumed that brash habitats are used for nesting purposes during the breeding season.

It is considered that the site does not provide suitable habitat for ground nesting species as the open areas are small, overlooked by numerous trees and buildings, all of which could be used by avian predators and subject of regular disturbance.

4.7.7 Breeding birds – evaluation

Birds should be considered to be of **high national** importance as a result of the legislation protecting them.

Within the context of the site, there is abundant suitable habitat for the smaller and more common species to utilise for nesting and foraging. It is therefore considered that birds are of a **medium local (site)** ecological importance.

4.7.8 Breeding birds - impact characterisation

It is anticipated that the brash piles will be removed to facilitate the development.

4.7.9 Breeding birds - impact assessment without mitigation

In the absence of mitigation, the removal of vegetation during the breeding season would result in the likely disturbance and destruction of nests and the disturbance, killing and injuring of birds (both adults and juveniles). This would constitute a **certain moderate medium term adverse** impact at a **local (site)** level.

4.7.10 Breeding birds - mitigation measures

Mitigation will be required and will include (but not be limited to) the following measures:

- All vegetation removal should be undertaken outwith the breeding season i.e. between mid-August / September and April inclusive;
- Brash clearance will only be undertaken following an assessment by a suitably experienced ecologist as the breeding season is not fixed and is subject to annual variation;
- Where clearance is required during the breeding season, all areas should be subject to an assessment no more than 48 hours in advance to check for the presence of breeding birds;
- Should evidence of breeding birds, in particularly nests, be recorded, no clearance may be undertaken within 15m of any nest site until such time as the nest is vacated naturally

Bird boxes will be erected on the house on completion of the build.

4.7.11 Breeding birds - impact characterisation with mitigation

It is considered that there will be a **possible minor short term adverse** impact at a **local (site)** level on breeding birds as a result of the proposed development.

4.7.12 Breeding birds - significance of the impact

Without mitigation

It is considered that the significance of the impact is **slight**.

With mitigation

It is considered that the significance of the impact is **neutral**.

4.8 INVERTEBRATES

4.8.1 Summary

No invertebrate survey was undertaken at this time due to the time of year the visit was carried out; however a brief habitat assessment indicated that the site can provide favourable habitat for this varied group, with the taller areas of grassland being the more diverse areas and most likely to provide suitable habitat.

There are records of invertebrates within the data search, the closest being grayling, small heath and dingy skipper, ghost moth, broom moth, buff ermine and small phoenix within 500m of the site. Cinnabar moth, shoulder striped wainscot, small blue, white ermine, dark brocade, knotgrass and rustic within 1000m.

4.8.2 Invertebrates - evaluation

No invertebrates are protected by legislation with the exception of the large blue butterfly (*Phengaris arion*); this species is not found in this region and will therefore not be considered further. Other species of invertebrate are listed on Schedule 7 of the Environment (Wales) Act 2016 and are therefore of a **high national (Welsh)** ecological importance. Of these, the marsh fritillary butterfly (*Euphydryas aurinia*) is present in good numbers in the area surrounding the development site with the Blaen Cynon SAC being designated for its presence.

Overall the site appears to be of a generally a **low to moderate** value to invertebrates as the dominant habitat type being in line with semi-improved grassland. There is some evidence of disturbance reducing the overall value of the site. There are a range of food plants suitable for invertebrates including some section 7 species.

4.8.3 Invertebrates - impact characterisation

It is probable that the site clearance will result in the loss of habitats suitable for this group and that slow moving species may be killed or injured during the clearance.

4.8.4 Invertebrates - mitigation measures

The following measures will be adopted:

- Minimisation of vegetation removal through design;
- A phased site clearance to ensure that not all the habitat is cleared at once;
- Grasslands post development will be enhanced for invertebrates.

4.8.5 Invertebrates - impact characterisation with mitigation

It is considered that there will be an **unlikely minor short term adverse impact** at a **local (site)** level as a result of the proposed development.

4.8.6 Invertebrates - significance of the impact

Without mitigation

It is considered that the significance of the impact is **slight**.

With mitigation

It is considered that the significance of the impact is **neutral**.

5 CONCLUSION AND RECOMMENDATIONS

Overall the site is of a low ecological value at a local level due to the habitats present, the managed nature and the species that may reside on the site.

Any site lighting will conform to the following guidance to prevent any indirect impacts on foraging bats <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>.

To safeguard the possible presence of reptiles in low numbers, site clearance in respect of reptiles will be undertaken in line with a method statement and ecological supervision as a precautionary approach. This will also benefit other species (e.g. amphibians) which may otherwise be affected by site clearance. A viable mitigation strategy will be required prior to planning being granted (please see appendix).

It is considered that no other ecological surveys are required.

A retained area will be kept within the development (boxed yellow in the reptile method statement below). On completion of the works, this area will be overseeded with yellow rattle to reduce the growth of vigorous grasses.

Enhancement will then include maintenance and management of this area to benefit both reptiles and invertebrates. A cut will be undertaken once or twice a year. Cuttings would be removed and used to create onsite compost areas (to benefit reptiles) and a hibernacula will be introduced into the garden. The grass cutting regime would be designed to allow grasses and wildflowers to seed the area for the following season. These habitats will be cut twice per year using hand tools once in March/April and again no earlier than 15th July in order to mimic hay meadow management.

13cm x13cm gaps will be created at the bases of fences at the site boundaries to allow passage of hedgehogs across the site. Cautious working will be undertaken when clearing the site to prevent killing or injury to this species.

It is recommended that the mitigation measures, outlined in the various sections above are incorporated as far as is possible into the design process for this development. and construction methodologies.

Any proposed lawned areas will be seeded with EL1 – Flowering Lawn Mixture, this contains slow growing grasses with a selection of wild flowers that respond well to regular short mowing (<https://wildseed.co.uk/mixtures/view/56>).

Native planting will need to be included as part of the final design. A native species hedgerow will be planted on the south eastern boundary of the site. Species will be as of a local provenance as possible.

1 hibernaculum for reptiles will be included within the final design.

A Vivara Pro house sparrow nest boxes <https://www.nhbs.com/vivara-pro-woodstone-house-sparrow-nest-box> will be integrated into the north western elevation of the new build.

A bat block will be placed within the south eastern elevation of the new build. https://www.nhbs.com/bat-block?bkfno=246596&ca_id=1495&adlocale=uk&gclid=CjwKCAiAp8iMBhAqEiwAJb94z1jwagEOaWChQNM957K6fxiWJdhKNG_HFkgr8vKVOCKVXrGTXVHvkxoCiHAQAvD_BwE

An ecologist will undertake a compliance visit or visit to ensure that all ecological measures (bat and bird boxes, hibernaculum, gaps in fences, landscaping including lawned areas, wildflower areas and hedgerows have all been undertaken. A compliance report will be submitted to the LPA for written approval by the LPA ecologist.

A Landscape Habitat Management Plan and a lighting plan will be required as per the local planning authority ecologists request. The client as requested that these plans are conditioned rather than provided upfront.

6 REFERENCES

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- Welsh Assembly Government (2007). Planning Policy Wales Technical Advice Note 5: *Nature Conservation and Planning*.

APPENDIX A - PHOTOS

Plate 1- cabin interior



Plate 2- example of underside of cabin roof



Plate 3- example of closed eaves



Plate 4- photograph of cabin



Plate 5- grassland



APPENDIX B – SPECIES LIST

Target note 2

Black knapweed, hogweed, soft rush, perennial ryegrass, red fescue, Yorkshire fog, creeping bent, common bent, smooth meadow grass, rough meadow grass, rosebay willow herb, dandelion, silverweed, common sorrel, common nettle, ribwort plantain, bramble, meadow fescue, buttercup, meadowsweet and tufted hairgrass

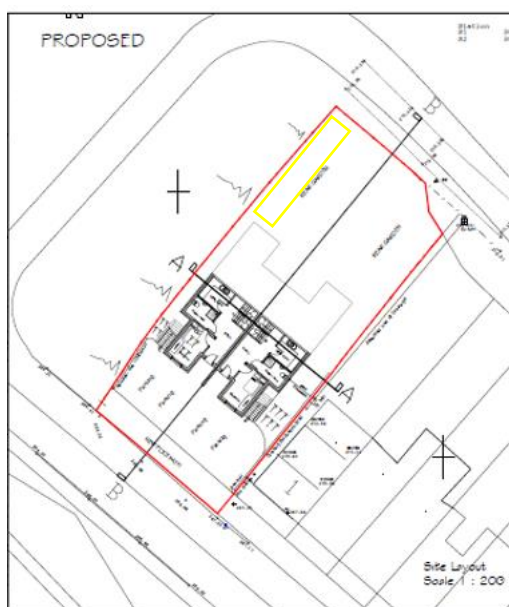
APPENDIX C – Target note

1= Rubble and brash pile

2= Over grown garden/grassland habitat being outcompeted by native species following clearance in previous years. Please note this habitat refers to all of the site. The site was target noted rather than classified due to the successional changes. The most appropriate habitat classification for the site is semi_improved grassland and this has now been mapped on the habitat plan.

APPENDIX D- REPTILE MITIGATION STRATEGY

1. Following a reptile habitat assessment, it was considered that the site has the potential to support a population of slow worm (*Anguis fragilis*), common lizard (*Lacerta vivipara*) and possibly grass snake (*Natrix natrix*). The presence of reptiles should therefore be assumed, hence the need for a Method Statement to ensure that works are carried out in such a way as to avoid harm to reptiles.
2. Vegetation will be cleared from directly affected areas only e.g. areas to be built on, used for storage, be part of the construction site or forming part of any landscaping scheme.
3. 20% of the site (boxed yellow in figure 5) will be left uncut with the cutting regime designed to push reptiles into this area.
4. Once cleared, the vegetation will be maintained as close to bare ground as possible either by ongoing repeated cutting using brush cutters with knife blades to ensure that there is no potential for reptiles to utilise the site after the initial clearance. This is the preferred method as it reduces the potential for killing and injuring of reptiles and other animals when using tractor towed flails and mowers.
5. All arisings will be raked off and spread (creating habitat piles) on unaffected land or removed from site for disposal. The orientation of the cutting will be designed to push reptiles into an area that will be left within the development (boxed yellow) once the areas for clearance have been identified. A hibernaculum will be placed within the retained area (boxed yellow).



6. Scrub will be cleared to ground level between September and March only, using a chainsaw and removed off site. Stumps and roots will only be removed by machine (under ecological supervision) once the clearance is complete and between April and September (or when temperatures are consistently above 12 degrees for a period of 7 days) to safeguard hibernating reptiles.
7. The grassland will be cut in three phases. The first phase will reduce the vegetation height to 75mm; the second will reduce it to ~30mm; the third phase will reduce the height to as close to ground level as possible. There will be a time delay of 48 hours between cuts.

8. After clearance, should the vegetation be allowed to regrow above 150mm high, it will be cut and raked as short as possible, ≤ 30 mm wherever possible.

9. Ground excavation may only take place during temperatures where reptiles are active.

10. Potential hibernacula will only be cleared while day time temperatures are consistently over 12°C for a period of at least seven days prior as otherwise reptiles may be killed or injured as a result of inconsistent (low) temperatures (during the day and night) and/or low prey availability. Potential hibernacula will only be dismantled by hand unless the supervising ecologist gives the approval for machine dismantling.

11. Habitat (e.g. hibernation sites for other species especially amphibians) can be identified and avoided by following this method statement.

12. All vegetation and site clearance will be supervised by a suitably experienced ecologist

APPENDIX D- METHOD STATEMENT (BATS)

1. A suitably licenced and experienced ecologist will be on site/call for the duration of the works.
2. Before any work begins on site, a briefing for contractors and other site-staff 'toolbox talk' will be given by an ecologist. The briefing will cover the issues in respect of protected species they may encounter on site, where they might find them, methods of working, and what they need to know to avoid committing an offence. Every briefing attendee will be provided with a copy of a Method Statement and the contact details of an ecologist and Natural Resources Wales.
3. Before any work commences, the building will be checked by the ecologist for the presence of bats and birds.
4. All suitable bat roosting features will need to be removed by hand and inspected by the onsite bat ecologist.
5. Suitable features will also need to be removed manually, one at a time, with the bed and underside inspected for bats/sign of bats by the onsite ecologist before moving onto the next.
6. Only when the onsite bat ecologist is happy that there is no further potential for bats, may he/she leave and the works continue with no supervision. A licensed bat ecologist will be on call for the remainder of the works. In the unlikely event that bats are found during a period that the licensed bat ecologist is not present on site, all works must cease and the licenced bat ecologist engaged.
7. If bats or their signs are found, a EPS licence may be required before works can legally resume.

ASSESSMENT AGAINST POLICY -PLANNING POLICY WALES: STEPWISE APPROACH AND GREEN INFRASTRUCTURE STATEMENT

On the 11th October 2023, ahead of PPW12 being published, the new Chapter 6 came into force with immediate effect.

Net benefit must be secured via planning applications using the step-wise approach, including the acknowledgement of off-site compensation measures and the need to consider enhancement and long-term management. Green Infrastructure Statements will be used to demonstrate the step wise approach. The following information will be used in order to show compliance with policy.

Proposed Development: Mansfield Terrace

Site description: Detached single storey cabin surrounded by grassland. The site is bounded by fences.

Surrounding Area description: The site is immediately adjacent to existing residential development to the south east, a council owned car park to the north west, with grasslands and patches of broad-leaved woodland further afield to the north and west. The wider landscape is made up of further residential development, associated infrastructure, again intertwined with grassland and broad-leaved woodland.

Development Impacts: Loss of vegetation (semi-improved grassland). Building to be removed. External lighting proposed.

Step wise approach

Step 1- Avoidance- Impacts cannot be avoided on existing habitats due to small size of site and due to the principle of development being agreed through extant outline planning permission.

Step 2- Minimise- Impacts cannot be minimised on existing habitats due to small size of site and due to the principle of development being agreed through extant outline planning permission.

Step 3- Mitigate/Restore- Mitigation will be via appropriate safeguarding method statements to ensure no harm to protected species and the retention of an area of grassland within the site. Cautious working will be undertaken when clearing the site to prevent killing or injury to hedgehogs. Any site lighting will conform to the following guidance to prevent any indirect impacts on foraging bats <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>.

Step 4- Compensation on site- Overseeding retained grassland with yellow rattle to control the growth of more vigorous grasses and provide greater species diversity. Any proposed lawned areas will be seeded with EL1 – Flowering Lawn Mixture (<https://wildseed.co.uk/mixtures/view/56>), this contains slow growing grasses with a selection of wild flowers that respond well to regular short mowing. The inclusion of these habitats within the development will allow a stepping stone habitat to the wider habitat, whilst allowing continued use of the site for a number of species. A hibernaculum will be included within the design to compensate for brash and rubble pile removal. 13cm x13cm gaps will be created at the bases of fences at the site boundaries to allow passage of hedgehogs across the site. All lighting will be controlled.

Biodiversity Enhancements Proposed

Enhancement will then include maintenance and management of the retained grassland area to benefit both reptiles and invertebrates. A cut will be undertaken once or twice a year. Cuttings would be removed and used to create onsite compost areas (to benefit reptiles). The grass cutting regime would be designed to allow grasses and wildflowers to seed the area for the following season. These habitats will be cut twice per year using hand tools once in March/April and again no earlier than 15th July in order to mimic hay meadow management. Emorsgate EM2 is the suggested species mix.

A Vivara Pro house sparrow nest boxes <https://www.nhbs.com/vivara-pro-woodstone-house-sparrow-nest-box> will be integrated into the north western elevation of the new build. The bat box will be positioned away from windows and at least 3m in height.

A bat block will be placed within the south eastern elevation of the new build. https://www.nhbs.com/bat-block?bkfno=246596&ca_id=1495&adlocale=uk&gclid=CjwKCAiAp8iMBhAgEiwAJb94z1jwagEOaWChQNM957K6fxiWJdhKNG_HFkgr8vKVOCKVXrGTxVHvkxoCiHAQAvD_BwE . The bird box will be positioned at least 3m in height.

A native species hedgerow will be planted on the south eastern boundary of the site. Species will be as of a local provenance as possible.

It is considered that subject to the above, that the proposed development would maintain and / or enhance biodiversity, build resilient ecological networks and deliver net benefits for biodiversity by providing additional connectivity, a more species diverse grassland with appropriate management, whilst providing new nesting and roosting opportunities within the development. The above will ensure that any adverse environmental effects are mitigated and compensated for where avoidance and minimization have not been possible.

