



PROPOSED DEVELOPMENT:

YSGOL SANTES TYDFIL, MERTHYR TYDFIL

PRELIMINARY ECOLOGICAL ASSESSMENT

2024

ISSUE 1VB

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YSGOL SANTES TYDFIL, MERTHYR TYDFIL

Ecological Assessment

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NON-TECHNICAL SUMMARY

An ecological assessment was undertaken of land at Ysgol Santes Tydfil, Merthyr Tydfil.

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 managed amenity grassland, scrub and scattered trees.

There are no trees or buildings present on the site, scheduled for removal that are suitable for roosting bats.

There isn't enough scrub onsite to support dormice, and there are no records within 2km, food sources are not abundant at the site. As such, providing that this habitat is cleared in accordance with a method statement and ecological supervision, there will be no requirement for further survey effort. If at any point dormice or evidence of dormice are found, all works will cease and a licence from Natural Resources Wales must be applied for prior to works recommencing.

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 are records within the data search, however, these records are isolated by roads and infrastructure.

No evidence of badger activity was recorded within or immediately adjacent to the site boundary. It is possible that badgers will use the site for foraging, however, no evidence of badger was found throughout. It is unlikely that badgers will use the site for sett building to the high levels of disturbance present at the site.

It should be assumed that all areas of hedgerow will be utilised by nesting birds during the breeding season. There is no habitat suitable for ground nesting species.

The site provides reptiles with potential habitat for some foraging, basking, sheltering and hibernation purposes.. It is likely that reptiles will be present, however, due to a number of factors justified within this report, the number of reptiles present if any are likely to be low.

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

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

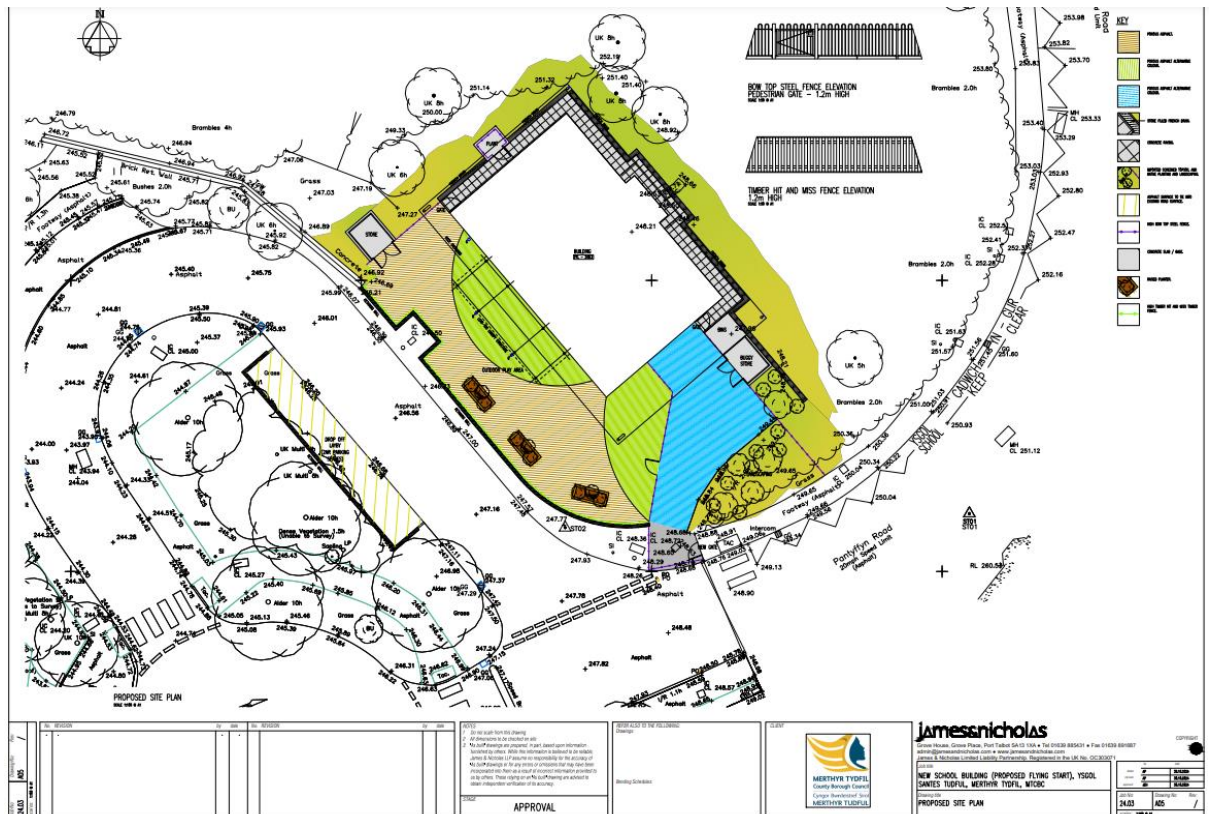
The red line development site boundary is located on land at Ysgol Santes Tydfil, Merthyr Tydfil.

The majority of the site appears to comprise of managed amenity grassland. The site is mown regularly.

There is a scrub surrounding the northern and eastern elevations of the site. There are a small number of scattered trees present on the site.

The wider landscape comprises of housing and associated infrastructure with a number of SINCS beyond this to the north which are made up of grassland and patches of broad-leaved woodland.

It is proposed to erect a new flying start building within the school grounds.



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. A buffer of 2000m was applied to locally designated sites.

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).

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

N/A

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 69m away.

One SSSI's was identified within the data search.

Nine non statutorily designated sites, e.g. Sites of Importance for Nature Conservation were identified within the data search.

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 via Merthyr Tydfil County Borough council.

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 - UK designated sites within 2km of the proposed development site:

Site	Designation
Cwm Glo Y Glyndrys	SSSI

There are no features present on the development site that Cwm Glo Y Glyndrys or Cwm Taf Fechan woodlands are designated for. The site is isolated by roads and other infrastructure. As a result it is unlikely that this site will be affected and will therefore not be considered further in this report.

3.5.2 Non-statutory designations

The following SINC's are found within 2000m of the site

Cyfarthfa Park
Cwm Taf Fechan
Afon Taf
Merthyr Common South
Glynmil
Rhydycar West
Cwm Taf Fields & Cefn Coed Tip
Cwm Glo
Merthyr Common Central

There are roads and other infrastructure that separate the site from the SINC's. It is extremely unlikely that these SINC's will be affected by the proposed development and they will therefore not be mentioned further in this report.

3.5.3 Species: SEWReC data search

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

The closest records are of hedgehog, kestrel, herring gull and sparrow.

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:

- Amenity grassland
- Scrub
- Scattered trees

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

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

The habitats are shown on **the phase 1 map located in the appendix.**

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 10th October 2024.

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 on 10th October 2024 using the Phase 1 habitat survey technique. Nomenclature follows Stace (1997)¹. The survey was carried out by Beth Evans.

Features of note are assigned Target Notes (TN) and referenced accordingly and described at **Appendix E**.

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

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 at Appendix C.

- Amenity grassland
- Scattered trees

Photos are located at **Appendix A**

4.5.1.1 *Amenity grassland*

This habitat is found across the main body of the site. The habitat is frequently managed and has an extremely short sward.

4.5.1.2 *Scattered trees*

There is a small number of willow species present on the northern/eastern corner of the site. These will be retained in their entirety. There is a single non-native young tree in the middle of the site that will be removed as part of the development.

There is scrub habitat outside of the boundary of the site. This will be retained in its entirety.

4.5.2 Protected species assessment

4.5.2.1 Bats

The closest record for members for this group is from approximately 2130m from the centre of the proposed development site and refers to myotis bats

There are no mature trees present on the development site to be removed. There are no buildings on site that are suitable for roosting bats.

It is likely that bats will use the site for foraging.

This group will be considered further in this report.

4.5.2.2 Amphibians & great crested newt

There are no waterbodies on the development site which could be used by this group for breeding purposes. The terrestrial habitat on the site could provide amphibians with suitable foraging and sheltering habitat. There are records of great crested newt from approximately 2123m away, however, the records are isolated from the site by roads, housing and associated 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 will be required.

4.5.2.3 Dormouse

There are no records of dormice within the data search. It is possible that should dormice be present they will use the scrub boundaries of the site, however, these will be retained. Dormice are not known in the locality so providing that any suitable habitat (scrub) is removed in line with a method statement and ecological supervision, it is considered unlikely that dormice will pose a constraint on the development.

4.5.2.4 Badgers

There is suitable habitat for foraging but due to the location, openness and nature of the site, the land is unlikely to be suitable for sett excavation.

This species will not be mentioned further in this report.

4.5.2.5 Breeding birds

There are multiple records for members of this group within the data search but none from the site.

Birds heard and seen on and adjacent to the site include robin and dunnoek.

There is suitable habitat within the boundaries of the site and the scattered trees.

The habitats on the site are not considered to be suitable for ground nesting birds given the small overlooked nature of the site, the high levels of disturbance on the site (horses), the availability of avian predator perches and the presence of predators.

Scrub and tree nesting species will be considered further in this report.

4.5.2.6 Reptiles

The closest record is of a common lizard approximately 350m from the site.

The site offers some habitat for this species for foraging, basking, sheltering and hibernation purposes and it should be assumed that slow worm (*Anguis fragilis*), common lizard (*Lacerta vivipara*) and grass snake (*Natrix natrix*) use the site. It is likely that the population densities of these species are at perhaps lower levels given the amount of disturbance at the site (horses) and due to the fact that the grass sward is so short. It is likely that small numbers of reptiles may be present on the interfaces between grassland habitat and longer vegetation.

This group will be considered further in this report.

4.5.2.7 Invertebrates

It is likely that common and widespread invertebrates will utilise the site.. It is possible that some Section 7 species will use the site. There are records of section 7 species within the data search.

4.5.3 Other features

None.

5 PROTECTED SPECIES

5.1 BATS

5.1.1 Summary

There is a single willow tree with a small number of snapped branches and gnarls on the eastern corner of the site. Given the tree species and the nature of the snaps, it is unlikely that bats will roost in this tree. The tree will be retained in its entirety and protected from site lighting to ensure that no roosting bats are impacted should it be used by them. Further assessments may be considered necessary should the tree be scheduled for removal.

It is likely that a small number of bats species will forage over the site and boundaries. However, given the presence of adjacent habitats, it is considered much more likely that bats will make use of these due to the lack of mature vegetation and trees on the site. Albeit it is still possible that foraging bats will make use of the site, in particular the woodland edge.

5.1.2 Ecology

British bats are small flying nocturnal mammals that feed exclusively upon insects. There are 17 species resident in Britain, ranging in size from the smallest, soprano pipistrelle (*Pipistrellus pygmaeus*) up to the largest noctule (*Nyctalus noctula*), serotine (*Eptesicus serotinus*) and greater horseshoe bat (*Rhinolophus ferrumequinum*). Bats are active from April through to October and hibernate when insects are in short supply in the winter months. Bats emerge from hibernation in late March - early April and move into their transition / intermediary roosts. Female bats will move to maternity sites by the beginning of May and will give birth to a single baby between June and early July. The baby is reared solely by the mother and is weaned and independent by end of August. After breeding, bats move to transition / intermediary roosts and females will visit males at mating roosts. During the autumn, bats feed voraciously to gain weight for the hibernation ahead.

Although traditionally trees, caves and rock faces were used by roosting bats and are still used, many different structures are used nowadays by bats, which take advantage of readymade (man made) roosts. Structures used frequently include bridges, ice-houses, pill-boxes, disused railway tunnels, houses and barns etc. Bats have home ranges which vary from species to species; from just 3-4km from the roost for the smaller bats while the larger noctule may fly 20km or more. Threats to bats include habitat destruction and the severance of commuting routes, use of agricultural pesticides, intensification of farming methods and deliberate persecution by man. Bats have few natural predators; however, the domestic cat is probably the most efficient predator.

5.1.3 Legislation

5.1.3.1 Conservation of Habitats & Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations (2017) provides safeguards for European Protected Species (those listed under Annex IV Habitats Directive). With regards to bats, this makes it an offence to:

- Deliberately (or recklessly in Scotland) capture, injure or kill a bat
- Deliberately (or recklessly in Scotland) disturb a bat in a way that would (significantly in Scotland) affect its ability to survive, breed or rear young (or hibernate or migrate in England, Wales and Northern Ireland) or (significantly in England, Wales and Scotland) affect the local distribution or abundance of the species.
- Damage or destroy a roost (this is an 'absolute' offence)

- Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat

It is possible to undertake damaging activities under the auspices of a European Protected Species Licence issued by Natural Resources Wales which provides a derogation from the Regulations, meaning that an otherwise illegal operation carried out under licence is lawful.

5.1.3.2 *Wildlife & Countryside Act 1981*

The Wildlife & Countryside Act 1981 (as amended) is the legislation for England and Wales for nature conservation, making it an offence to:

- Intentionally or recklessly disturb a bat in or at a roost;
- Intentionally or recklessly obstruct access to a roost;
- Intentionally destroy, damage or otherwise disturb a roost (whether bats are present or not); and
- Intentionally or recklessly kill, injure or take (capture) a bat.

5.1.3.3 *The Environment (Wales) Act, 2016*

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.

5.1.3.4 *Desk study*

Please refer to **section 4.5.2.1** above.

5.1.4 **Bats - impact characterisation**

It is likely that bat foraging habitat over the development site will be modified by the development.

5.1.5 **Bats - impact assessment without mitigation**

It is considered that there will be **no adverse** impacts on roosting bats as a result of the development.

There may be impacts on foraging bats as a result of reduction in habitat and increased site lighting. All boundaries will remain completely unlit in order to avoid any impacts on bats that may roost within the boundaries of the site.

5.1.6 Bats - mitigation measures

Mitigation will be required

Protection and mitigation measures will include:

- Retention of the flight lines along all boundaries as unlit dark corridors;
- New planting will be required to enhance the area for bats
- Any site lighting will conform to that recommended for bats

The following will need to be included within the development:

- Provision of pole mounted bat boxes or boxes on houses;
- Sympathetic landscape planting to provide bats with foraging habitat.

5.1.7 Bats - impact characterisation with mitigation

It is considered that there will be **no adverse** impacts on roosting bats as a result of the development.

5.1.8 Bats - 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**

5.2 BREEDING BIRDS

5.2.1 Summary

A full breeding bird survey was not undertaken as it should be assumed that all the boundaries and the trees on site may be used by nesting birds.

It should be assumed that all scrub and tree vegetation on the site is used by birds for breeding purposes during the nesting season.

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

5.2.2 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.

5.2.3 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.

5.2.4 Methodology

5.2.4.1 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;

5.2.5 Constraints

There were no constraints to the assessment.

5.2.6 Results

5.2.6.1 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.

5.2.6.2 Habitat assessment

The scrub surrounding the site and the trees on the site are 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 the scattered trees 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, all of which could be used by avian predators and subject of regular disturbance due to it being intensely managed.

5.2.7 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.

5.2.8 Breeding birds - impact characterisation

It is anticipated that the main body of the site will be cleared in its entirety. It is considered that one non-native tree will be removed.

5.2.9 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.

5.2.10 Breeding birds - mitigation measures

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

- All vegetation pruning should be undertaken outwith the breeding season i.e. between mid-August / September and April inclusive;
- Any clearance close to the start and end of this period should 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; and
- Any post-development landscaping plan should include the provision of scrub &/or shrub habitats that can be utilised by breeding birds.

Consideration should be given to including measures to benefit birds within the development e.g. installation of bird boxes on new buildings.

Bird boxes will be erected on the houses on completion of the builds.

5.2.11 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.

5.2.12 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**.

5.3 REPTILES

5.3.1 Summary

No reptile survey was undertaken at the site. There is a small amount of habitat suitable for reptiles within the site. However, this is likely to be vastly reduced due to its short sward and intense management.

A full trapping and translocation exercise is not considered necessary as long reptile presence is assumed and clearance of the site is undertaken in strict adherence to a method statement designed to prevent harm to any reptiles. A methodology for this will be required at any reserved matters stage.

5.3.2 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 (*Naatrix 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.

5.3.3 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.

5.3.4 Methodology

5.3.4.1 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.

5.3.5 Results

5.3.5.1 Desk study

There are records of slow worm, grass snake and common lizard within 2000m of the site, the closest record refers to a common lizard approximately 1750m from the site.

5.3.5.2 Habitat assessment

The site is considered to be generally sub-optimal for reptiles as described in the summary section above.

5.3.6 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.

5.3.7 Reptiles - impact characterisation

It is anticipated that the site will be largely cleared of vegetation, thereby removing the majority of the suitable habitat for this group. It is still possible that in the absence of mitigation, reptiles are likely to be killed or injured during the clearance for the site.

5.3.8 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.

5.3.9 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 (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 outwith 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 outwith 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 Ecological Mitigation Strategy (MS) will be included to include nesting birds, reptiles and invertebrates.

5.3.10 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.

5.3.11 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**.

5.4 INVERTEBRATES

5.4.1 Summary

There are numerous records of invertebrate species within the records data search, due to the disturbance and habitats present on the site, it is considered that there will be a small number of common and widespread invertebrates present. In addition, there is a lot of disturbance to the site due to frequent cutting/mowing.

There are foodplants available for a range of species particularly within the site boundaries.

5.4.2 Ecology

Invertebrates are animals without spines or an internal skeleton, relying on their bodies to give them structure. There are over 40000 species of invertebrate in the United Kingdom, distributed across all terrestrial, aquatic and marine ecosystems. Their lifestyles are superficially at least similar; however, each genus has distinguishing characteristics, with each species within each genus having subtle differences resulting in each species occupying its own ecological niche.

Adults lay eggs which then hatch into larvae. The larvae then develop into adults. The processes involved in these three life stages are different from genus to genus and species to species and can be incredibly intricate, with sometimes very specific requirements, any interruption to which can cause any of the life stages can fail.

Adult animals generally have very specific food requirements, favouring single plant species or food source. Larvae and adults can be either plant eating or carnivorous dependent on species. The food source is a good indicator of how widespread a species may be: the more specific a food source, the more prone to range restrictions it may be.

Animals will generally be active during the spring, summer and autumn months and overwinter as eggs or larvae; some adults do go into hibernation over winter.

5.4.3 Legislation

No invertebrates are in receipt of international legal protection with the exception of the large blue (*Phengaris arion*) butterfly, protected by the Conservation of Habitats and Species Regulations 2017 (as amended) ; a number of other species are fully and partially protected by the Wildlife and Countryside Act 1981 (as amended). A number of species are listed on Section 42 of Species of Principal Importance to Wales and may, with others, be included within local planning authorities Biodiversity Action Plans (LBAPs).

5.4.4 Methodology

5.4.4.1 Habitat assessment

The proposed development site was subject of a walkover to assess its potential to provide suitable habitat for invertebrates. The features looked for included:

- Presence of a mosaic of multiple habitats;
- Presence of structural diversity in the habitats present;
- Presence of bare ground;
- Presence of common and likely food plants;
- Site aspect; and

- Previous and current land use.

5.4.5 Constraints

There were no constraints to the walkover.

5.4.6 Results

5.4.6.1 Habitat assessment

There is a small varied mosaic of habitats on the site. There is abundant invertebrate habitat within the surrounding areas.

There are some food plants present on site for numerous invertebrates including section 7 species.

5.4.7 Invertebrates – evaluation

There are limited food plants on site suitable for a range of invertebrate species. Species present are likely to be common and widespread only due to the sites habitats.

5.4.8 Invertebrates - impact characterisation

It is considered that there will be a loss of grassland that may support common and widespread species and possibly some species mentioned on section 7 of the environment wales act.

5.4.9 Invertebrates - impact assessment without mitigation

It is considered that there will be a **possible minor short term** adverse impact.

5.4.10 Invertebrates - mitigation measures

It is suggested the following measures are implemented as far as possible.

- Clearance is to be preferentially undertaken during the autumn and winter months
- Topsoil will be stripped, screened and stored ready for reuse in the landscaping areas
- Storage bunds will be no more than 1.8 high and firmed down well

5.4.11 Invertebrates - compensation measures

- The creation of new vegetated habitats
- The garden will be topsoiled with stored soil.
- Appropriate conservation management will be implemented.

5.4.12 Invertebrates - impact characterisation with mitigation

It is considered that there will be a **short term minor adverse impact**.

5.4.13 Invertebrates - significance of the impact

Without mitigation

It is considered that the significance will be ***slight***.

With mitigation

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

6 CONCLUSION AND RECOMMENDATIONS

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

Breeding birds should be assumed to be present on the site. Mitigation for these groups is therefore required. All site clearance should be undertaken under ecological supervision.

A viable Ecological Mitigation Strategy (MS) has been included in the appendix for nesting birds and reptiles.

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.

A wildflower meadow will be planted within the garden of the properties to benefit invertebrates. The wildflower areas will be seeded with Emorsgate EM3 <https://wildseed.co.uk/mixtures/view/4/special-general-purpose-meadow-mixture>

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 hibernaculum for reptiles will be included within the final design.

The following sparrow terrace or similar will be integrated into the new properties <https://www.nhbs.com/vivara-pro-woodstone-house-sparrow-nest-box>

The following bat block https://www.nhbs.com/bat-block?bknfo=246596&ca_id=1495&adlocale=uk&gclid=CjwKCAiAnO2MBhApEiwA8q0HYTrIltmUdfXSsmZQgvmupqeYj1cFwdN5KLrnJOB2F_rfrsEINTpQV1BoCx1EQAvD_BwE or similar will be integrated in to the new properties

There will be no lighting of retained habitats, dark corridors will need to be implemented throughout the development to allow light intolerant species to continue using the site should they wish. Any new lighting (internal or external) will conform to the following guidelines: <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>. There will also be dark routes for access to the integrated bat boxes. A plan showing the areas to be kept dark will be included.

It is considered that a LEMP is required for the site. The LEMP will need to include details of the following:

- 1) Details of retained existing habitat
- 2) Details of new native planting
- 3) Wildflower areas (Emorsgate EM3)
- 4) Lawned areas (EL-1 Flowering Mixture)
- 5) A 5 year establishment, maintenance and management plan for retained and new habitat
- 6) Details of the above mentioned bat and bird boxes
- 7) Lighting details
- 8) Areas to be kept dark

- 9) A mitigation strategy for nesting birds, bats, reptiles and invertebrates
- 10) Details of gaps in all boundary fences (13cmx13cm) for passage of hedgehogs and other species

7 REFERENCES

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APPENDIX A - PHOTOS

PHASE 1 HABITAT SURVEY PHOTOS

Plate 1- photograph of willow trees on site boundary



Plate 2- photograph of bank and scrub on north western elevation of the site



Plate 3- photograph of non-native tree



Plate 4- small number of PRfs from snapped limbs in willow tree

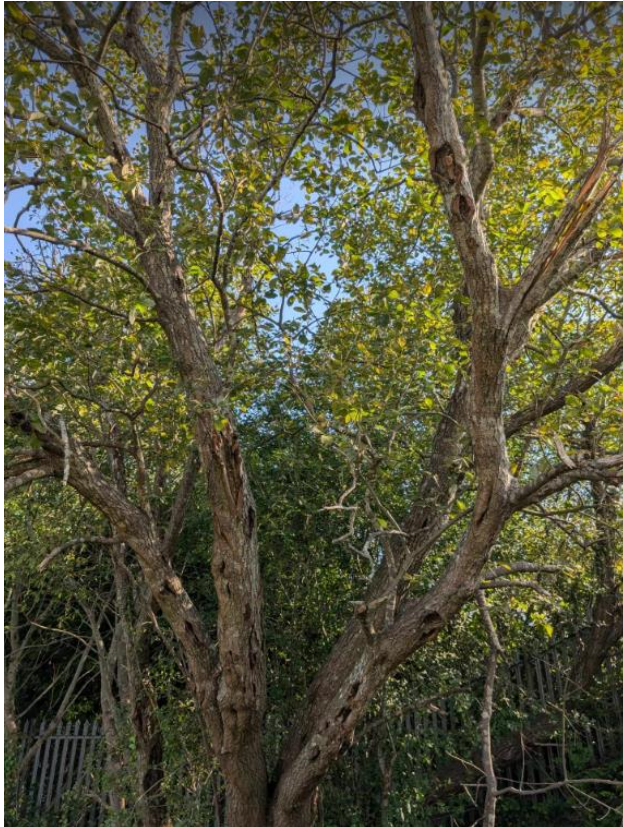


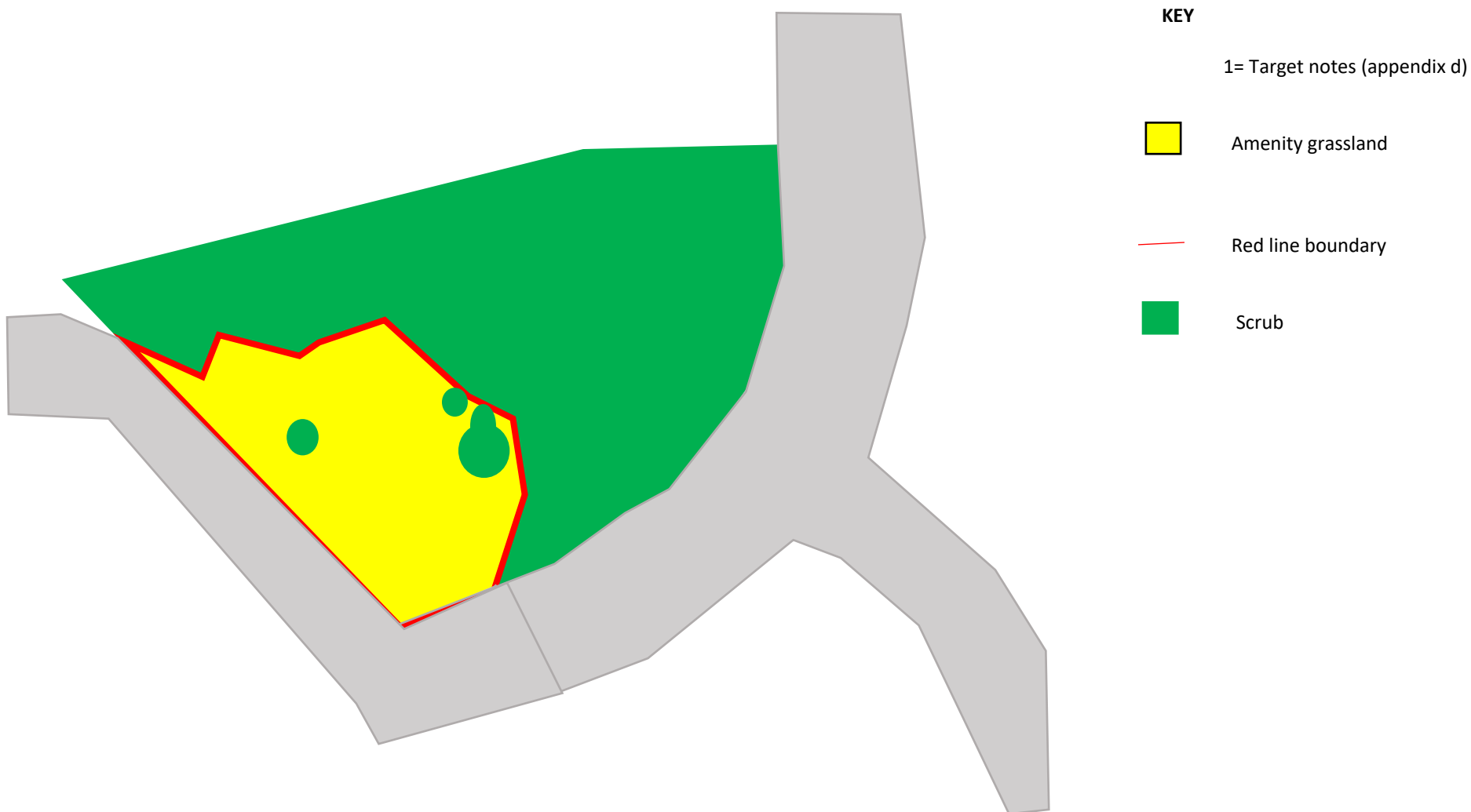
Plate 5- general view of site



APPENDIX B— SPECIES LIST

Perennial ryegrass, cleavers, creeping buttercup, broad-leaved dock, cocksfoot, red clover, white clover, daisy ,
bramble, ivy, willow (please note area is heavily mown on a regular basis and just been cut at the time of writing)

APPENDIX C – PHASE 1 MAP



APPENDIX D– Target Notes

N/A

APPENDIX E- 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: Ysgol Santes Tydfil, Merthyr Tydfil

Site description: Managed amenity grassland surrounded by scrub

Surrounding Area description: The site is immediately adjacent to existing residential development and a school. The wider landscape is made up of further residential development, associated infrastructure, intertwined with grassland, tree corridors and broad-leaved woodland. There are SINCS present further afield.

Development Impacts: Loss of vegetation (managed amenity grassland). Site lighting.

Step wise approach

Step 1- Avoidance- Impacts cannot be avoided on existing habitats due to small size of site and due to the need to develop the land to create additional school space.

Step 2- Minimise- Impacts have been minimised by retaining the boundary vegetation. Impacts on grassland cannot be minimised due to small size of site.

Step 3- Mitigate/Restore- Mitigation will be via appropriate method statements to ensure no harm to protected species and the retention of the site boundaries. 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- A wildflower meadow will be planted within the garden of the building to benefit invertebrates and reptiles. The wildflower areas will be seeded with Emorsgate EM3 <https://wildseed.co.uk/mixtures/view/4/special-general-purpose-meadow-mixture> 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>).

Biodiversity Enhancements Proposed

Native tree and shrub planting will be included within the final design.

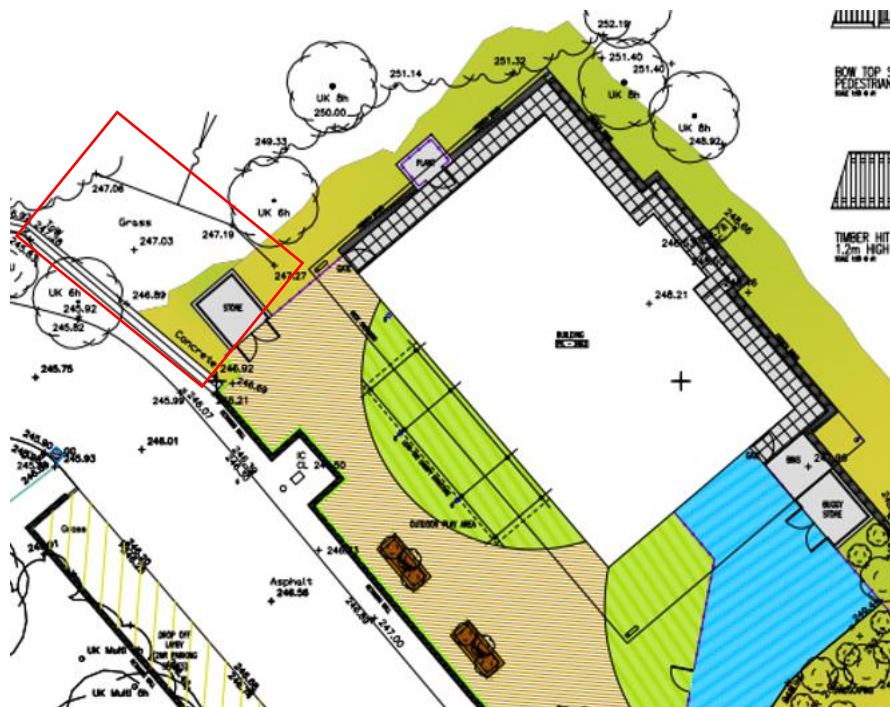
Areas of the site will be given over to wildflowers. It is proposed that this habitat is managed and enhanced to benefit wildlife. Emorsgate EM2 is the suggested species mix. In the first year, the selected areas will be scarified, with the seed sown in the autumn or spring at a sowing rate of 4grams/m2. In the first year. The areas will be mown once every 8 weeks in the first year using hand tools and to a height of 40-60mm with the cuttings removed if dense. If the seed is sown in the autumn and overseeded with yellow rattle, spring and summer cuttings should be avoided in the first year. Species such as dock will be dug out from the planted areas. Following this, 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 and improve the site for reptiles and other species groups. A hibernaculum will be installed within the development. Native tree and shrub planting will be included within the final design (please see associated landscaping plan). This will be managed for a minimum of 5 years.

Bat and bird boxes will be included within the final design. 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. Bat and bird boxes will be included in the final design.

The proposed scheme acknowledges the requirement to achieve a Net Benefit for Biodiversity and from the beginning this has been built into the planning of the project. It is recognised that the footprint of the scheme removes an area of managed grassland. Whilst the positive effects of removing this land from overmanaged amenity grassland are acknowledged, the applicant aims to deliver biodiversity enhancements at the local scale by offering the enhancements stated above on the site. The site will be subject to enhancements along with long term appropriate management.

As result of the ecological measures within this report, it is expected that there will be a demonstrable net benefit for biodiversity. The vegetated habitats to be impacted have been identified as being of relatively low value. All habitats will be retained/created/enhanced on site, as well as and will be subject to a long-term Habitat Management for the foreseeable future

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. In addition to this, the following method statement will also safeguard breeding birds
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. An area of the site (boxed red below) 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 red) once the areas for clearance have been identified . A hibernaculum will be placed within the retained area (boxed red).



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 $\approx 30\text{mm}$; 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