

Ecological Impact Assessment



Project: Walnut Way, Merthyr Tydfil

Instructed by: Merthyr Valley Homes

Reported by: Ecological Services Ltd
10 Mount Pleasant, Llanelly Hill, Abergavenny, Monmouth NP7 0NT
Reported by

Author	Date	Version
Ash Harris	12th January 2022	V2

T: 07305143857

E: ash@ecologicalservices.wales

W: www.ecologicalservices.wales

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Proposed Development Site Boundary

1. Introduction

The applicant is seeking planning permission to 2 residential bungalows within a plot of land adjacent to Walnut Way, Merthyr Tydfil. The proposed development site is centred at grid reference SO 05004 07649 and consists of semi improved grassland, tarmac footpath and a small area of tall ruderal vegetation.

A Preliminary Ecological Assessment (PEA) survey of the site was completed by Ecological Services Ltd on the 14th July 2021. The initial survey visit and plans covered land within the development site and to the north of Walnut Way. As plans have progressed the scale of the development proposals have been reduced to focus on the parcel of land to the south of Walnut Way only.

The PEA found the site to consist of mainly semi improved grassland. The site is bisected by a tarmac footpath and has a narrow band of tall ruderal vegetation along the eastern edge of the site. The site sits adjacent to a small area of woodland along the eastern edge of the development area. The woodland is outside of the site boundary. The report concluded that the site was suitable for a small number of common reptile species and that consideration to lighting and nesting birds will be required.

In order to undertake a full appraisal of the proposed development and the potential impacts and significance of impacts upon the habitats and species within the development site and adjacent habitats, an Ecological Impact Assessment (EclA) has been undertaken. An EclA helps provide a clear and methodical way to identify, quantify and evaluate the potential significant effects of a proposed plan or project.

1.1 Site Description

The proposed development site comprises a parcel of land to the south of Walnut Way which measures approximately 0.07ha. The site is centred at NGR SO 05008 07661, roughly rectangular in shape and flat. To the south and west of the site there is residential housing with its associated infrastructure. To the east of the site lies Galon Uchaf Park, an area of woodland and grassland. Approximately 450m away to the west of the site is an area of woodland and grassland and includes Cyfarthfa Castle and its grounds.

The nearest major watercourse is the Taf Fechan which lies approximately 1.37km away to the west of the site at its nearest point. There is a lesser un-named watercourse approximately 400m away to the west.

The wider landscape comprises further residential housing and associated infrastructure. Habitats within the site include semi improved grassland, tarmac pathways and scattered ruderal habitat.

1.2 Surveyor Experience

Aislinn Harris is a full member of Chartered Institute of Ecology and Environmental Management (CIEEM). Aislinn is an ecologist with 12 years experience undertaking a wide range of flora and fauna surveys. All survey work is undertaken following JNCC Phase 1 Survey Guidelines and CIEEM Guidelines for Preliminary Ecological Appraisal (2nd Ed 2017). Aislinn is a licenced bat ecologist (S085699-1) with a wide variety of experience undertaking bat activity surveys.

Vicky Hannaford completed the phase 1 survey of the site. Vicky is an ecologist with at least eight years experience. She has worked in larger consultancies previously completing a wide range of flora and fauna surveys, completed professional training courses and attended informal botanical meetings to gain valuable knowledge. This experience allows Vicky to assess and identify common habitats as per the JNCC Phase 1 Survey Guidelines. Vicky is also a licenced dormouse and great crested newt worker and holds licences from Natural Resources Wales for both species.

2. Legislation

The **Habitats Directive (Directive 92/43/EEC)** aims to '*contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States*'. The Directive requires the establishment and conservation of a network of sites within each member state which protect the rarest flora and fauna found across Europe. A number of species and habitats are listed in Annex 2 of the directive for which areas can be designated as a SAC. The aims of the Habitats Directive are transposed into British Law through the **Conservation of Habitats and Species Regulations 2017**.

The **Wildlife and Countryside Act (1981)** as amended provide the legislation framework and protection for SSSI. A SSSI is designated by a statutory nature conservation body such as Natural Resources Wales (NRW) for its make up of flora, fauna, geological and / or physiographical features. Each SSSI should have a citation which describes the site and its special features.

The Environment (Wales) Act 2016 is a wide reaching piece of legislation which seeks help improve the management of Wales' natural resources into the future. The Act sets out a Wales wide approach to planning and managing its natural resources at a national and local level in a sustainable manner. One main requirement for all public bodies, such as local councils, is to maintain and enhance biodiversity where possible within their duties.

2.1 Habitats

Statutory Designations

No statutory protected sites lie within or directly adjacent to the proposed development site.

Non Statutory Designations

There are no non-statutory protected sites within or directly adjacent to the proposed development site.

2.2 Species

Bats

All British bats are a European protected species and are protected under the Conservation of Habitats and Species Regulation 2017. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,

- Damage or destruction of a breeding site or resting place.

Schedule 5 of The Wildlife and Countryside Act (1981) also protects all species of British bat and their roosting locations. British bats are protected from intentional or reckless disturbance and or obstruction of their roosting places. Barbastelle, bechstein, noctule, brown long eared, common pipistrelle, soprano pipistrelle, greater horseshoe and lesser horseshoe bats are also listed in section 7 of the Environment (Wales) Act 2016 which makes them a key species to sustain and improve biodiversity

Nesting Birds

All breeding birds are protected under schedule 1 of the Wildlife and Countryside Act (1981) as amended. Under this Act it is an offence to:

- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built.
- Intentionally take or destroy the egg of any wild bird

Enhanced protection is afforded to species listed on Schedule 1 of the Act, this additional protection makes it an offence to:

- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

Reptiles

Reptile such as the slow worm, common lizard, adder and grass snake are protected under the Wildlife and Countryside Act 1981(as amended). They are protected from killing, injuring and sale. In Wales sand lizard, smooth snake, adder, grass snake, slow worm and common lizard are listed in section 7 of the Environment (Wales) Act 2016 which makes them a key species to sustain and improve biodiversity.

3. Preliminary Ecological Assessment

3.1 Desktop Study

A data search was undertaken via Aderyn (Reference DERF 0212-252) for the proposed development site and surrounding area. A summary of records within 500m and the wider area can be found within the Preliminary Ecological Assessment by Ecological Services dated 10th August 2021.

2.1 Protected Sites

A data search for species records was undertaken for the proposed development site and surrounding area. The search also considered statutory and non-statutory protected sites.

Statutory Protected Sites

There are three statutory protected sites within 2km of the proposed development site. Cwm Taf Fechan Woodland is a Sites of Special Scientific Interest (SSSI) and Local Nature Reserve located 1.2km away. Cwm Glo A Glyndyrys SSSI is located 1.9km away.

Non-Statutory Protected Sites

There are a number of Sites of Importance for Nature Conservation (SINC) within the local area. The closest such site is 510m away. There are several areas of Ancient Semi Natural Woodland within 2km of the site. The nearest Ancient Semi Natural Woodland lies approximately 500m away to the west of the site.

2.2 Potential Impacts to Protected Sites

Due to the localised nature of the development it would appear unlikely that there will be any potential negative impacts on protected sites in the local area.

3.2 Likely Significant Effects

For full details of the previous survey work completed at site, survey methodology and results please see the reports by Ecological Services Ltd detailed below:

- ‘*Preliminary Ecological Assessment*’ dated 10th August 2021 V1 by Ecological Services Ltd

When considering the development proposals, habitats and species noted within the site boundary it is considered that the below species may be impacted by the development

Bats

A small number of common bat species are thought likely to forage across the proposed development area and adjacent woodland. Insensitive lighting of the site and light spill onto the adjacent woodland could affect how nocturnal species such as bats use the area.

Wildlife friendly lighting design will be required.

Reptiles

The open grassland within the site boundary is considered suitable for a small number of common reptiles species to use for foraging and commuting purposes during the spring, summer and autumn months. **Precautionary measures for site clearance works will be required.**

Birds

Nesting opportunities occur in the trees adjacent to the south east section of the site. It is understood the trees adjacent to the site are to be retained. Works within close proximity to trees could potentially cause disturbance to nesting birds. **Precautionary measures for the disturbance of bird nesting sites will be required.**

4. Impact Assessment

The role of a EclA is to address significant effects which the project may have. For the purpose of this assessment significant impacts will be those that affect legally protected sites and species within and directly adjacent to the proposed development site.

The EclA process presents a hierarchy of approaches to ensure a project of plan lowers its potential impacts. The works should seek to

- **AVOID** - Consider options to avoid any potential harm to an ecological feature,
- **MITIGATE** - If negative effects are unavoidable, measures should be implemented to minimise and reduce potential effects,
- **COMPENSATE** - If negative effects are still likely to be experienced despite measures to reduce impacts being implemented appropriate compensatory measures should be implemented.
- **ENHANCEMENT** - Works should always seek to provide net benefits for biodiversity to help meet the section 7 requirements of the Environment Act (Wales) 2016.

The scope of the proposed development works has been reviewed and streamlined to ensure only works necessary are to be undertaken. The new access pointing site is considered to have the highest potential ecological impact however this work is required to improve highways safety. The development proposals have the potential to negatively impact on:

- Bats
- Reptiles
- Nesting Birds

4.1) **Ecological Feature - Bats**

The site is likely to support a small number of common bat species occasionally foraging and commuting. The eastern edge of the site and woodland is the area considered most likely to be used by bats.

Potential Impacts

- Loss of foraging and commuting habitat on site,
- Light spill onto adjacent habitats

Measures to be Implemented

- All external lighting will be kept to the bare minimum required for health and safety reasons.
- Any external light sources installed as part of the construction works will be motion activated and set to the lowest time to remain lit that is possible.
- Any external light source will be directional and will only illuminate a doorway or footpath as required. A directional light source can be cowled or recessed back into the casing to prevent light spill.
- All lighting must meet the recommendations in the BCT Guidance Note 08/18 Bats and artificial lighting in the UK document <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>
- Permanent roosting provision will be incorporated into the development as per section 5.2 of this report. The bat boxes will be located to the south of the site away from the owl nesting provision to avoid conflict between species.

4.2) Ecological Feature - Reptiles

The site is likely to support a small number of common reptile species such as slow worm during the spring, summer and autumn months. There is no suitable habitat within the site boundary for hibernation use.

Potential Impacts

- Loss of foraging and commuting habitat on site,

Measures to be Implemented

- Vegetation within the site boundary will be subject to a two stage vegetation cut. This will naturally encourage reptiles out of the development site footprint.
- As the site is considered unsuitable for hibernation use no timing restrictions to the vegetation clearance is proposed.
- In the first stage the vegetation will be cut, using hand tools to a height of between 100-150mm. The cut material will be raked and removed from the site within 24 hours of cutting to avoid potential future colonisation by reptiles. Cutting will start at

the western boundary and move across to the east, encouraging any reptiles present into the adjacent woodland areas.

- During the second cut, vegetation will be cut to ground level (a maximum height 50mm) and the arisings raked and removed from the site as above. Any reptiles or other fauna will be treated as below.
- Any reptiles present should naturally move away of their own accord due to the disturbance from cutting. However if any reptiles or other fauna are encountered during this operation they will either be carefully collected and moved away to land adjacent to the western boundary of the site or allowed to do so of its own accord

4.3) Ecological Feature - Nesting Birds

Nesting birds have the potential to use the buildings within the proposed boundary. All buildings within the site boundary will be removed to allow the redevelopment works. All wild birds are protected while nesting with some exceptions for certain pest species. Barn Owl are listed on schedule 1 of the Wildlife and Countryside Act and are protected from disturbance all year round, not just during nesting season.

Potential Impacts

- Disturbance of the nesting birds.

Measures to be Implemented

- The habitat within the site boundary is not considered suitable for use by nesting birds. However the adjacent trees within the woodland to the east of site may possibly be used by nesting birds.
- It is understood that no tree removal is required as part of the development works. The site has been designed to locate the new dwellings to the west away from the adjacent woodland. Machinery and storage of materials is considered likely for the land to the east of the site outside of the new building footprint.
- Any pruning of trees adjacent to the development site will be completed **outside of the bird nesting season of March to August inclusive**. If this is not achievable an ecologist must inspect any vegetation with the potential for birds to be present, for active birds' nests prior to removal works beginning. If an active nest or activity indicating a nest might be present is identified a buffer zone of at least 5m, up to

20m depending on species, around the nest must be observed until the chicks have fledged. Only then can the vegetation be removed.

5. Enhancement Measures

The Environment Act (Wales) 2016 places a duty on all competent authorities to ensure that biodiversity is not only conserved but enhanced. The proposed development works create potential features that can be improved for the benefit of biodiversity.

5.1 Provision of Bird Nesting Opportunities

- 1 x Woodstone Build-in Swift Nest Box A in the north facing gable end of Plot B,

A total of 1 integrated bird boxes will be provided within the new development. The box will be built into the walls at the gable apex of the building.

5.2 Provision of Bat Roosting Opportunities

- 2 x Vivara Pro Build-In Woodstone Bat Box will be integrated into the south facing elevation of Plot A,

A total of 2 bat boxes will be provided within the new development. All boxes will be built into the walls at the gable apex of the building. No lighting will be placed within 2m of any bat box.

5.3 Fencing

Any fencing within the site boundary will incorporate features to ensure it is wildlife friendly. Should any close board timber fencing be used it will have either:

- a 13cm by 13cm gap cut at ground level every 3m or;
- it will have a continuous gap of 13cm from the base of the fence and ground along the entire fence line,

Any mesh fencing must have a continuous gap of 13cm from the base of the fence and ground along the entire fence line.

6. Management Responsibilities

The proposed development site owner will have the responsibility to ensure the measures within this document are fully and continually implemented during the life time of the project. All site sub contractors must be fully inducted and made aware of the ecological constraints and required working methods.

The housing within the site will be owned by Merthyr Valley Homes and will be 100% affordable housing. Merthyr Valley Homes will have the obligation to maintain each property and all areas of public space within the development boundary.

Bibliography

- Biodiversity: Code of practice for planning and development¹ published by the British Standards Institute (BS 42020:2013)
- CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- European Communities (2000) MANAGING NATURA 2000 SITES The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC

Appendix 1 - Proposed Development Site Layout

