



ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE



PRELIMINARY ECOLOGICAL APPRAISAL

GWERN Y PALE

Project name: GWERN Y PALE, NEW ROAD, DOLYWERN, GLYN
CEIRIOG

Grid Reference: SJ21573771

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1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

Planning permission will be sought for the restoration and partial rebuilding of a detached house at Dolywern, near Glyn Ceiriog.

Arbor Vitae were commissioned by James Crompton to undertake a Preliminary Ecological Appraisal in order to assess the impact of the development on habitats and protected species.

1.2 SCOPE OF SURVEY

The survey is primarily designed to:

- Identify and record habitats and important ecological features on site;
- Evaluate the potential of the proposed development site to provide opportunities for protected species;
- Determine any likely impact which the development and landscape proposals may have on these.
- Identify opportunities for the enhancement of habitats and biodiversity features on site.

1.3 KEY PRINCIPLES

All ecological surveys conducted by Arbor Vitae Environment Ltd are underpinned by the following key principles, as outlined by CIEEM (2018):

Avoidance - Seek options that avoid harm to ecological features (for example, by locating on an alternative site).

Mitigation - Adverse effects should be avoided or minimized through mitigation measures, either through the design of the project or subsequent measures that can be guaranteed – for example, through a condition or planning obligation.

Compensation - Where there are significant residual adverse ecological effects despite the mitigation proposed, these should be offset by appropriate compensatory measures.

Enhancements - Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.

2 SITE DESCRIPTION

2.1 LOCATION, LANDSCAPE, AND BACKGROUND

The house is located in the Ceiriog Valley 1 km to the east of the village of Glyn Ceiriog. It occupies a rural site on the south-facing slopes of the valley. The house is situated at approximately 210 metres AOD in a secluded location and in a sparsely populated area. It is surrounded by small fields, large hedgerows and several small woodlands which lie within the vicinity of the house. A minor road passes to the south of the boundary and the Afon Ceiriog flows in the valley below at a distance of approximately 80 metres.

3 SURVEY METHODOLOGY

3.1 DESK STUDY

An initial desk study was carried out to gain background information regarding any protected species or designations within the area. The main sources of information were MagicMap, Shropshire Environmental Network and NBN Atlas.

3.2 SITE SURVEY

A site visit was made on 30/11/2023. The survey was carried out in accordance with CIEEM (2017) best practice guidelines. The objective of the survey was to find and record any signs of use by protected species and to note the habitat features present.

An assessment of the available habitats both on and adjacent to the site led to consideration of the potential of the site for the following protected species:

- Badger
- Bats
- Breeding birds

The survey methodology was tailored to evaluate the area for these species in the following ways:

Badger

An area within 50 metres of the site was closely searched for the following signs of badger activity:

- Setts,
- Tracks and footprints,
- Latrines,

- Snuffle holes.

Bats

The objective of the survey was to find and record any signs of use by bats, for example:

- Droppings, sometimes in concentrations below roost sites
- Feeding signs such as butterfly and moth wings
- Staining of timber, brickwork around access points

The general structure of the building was assessed for its potential to provide bats with roosting opportunities.

Breeding birds

The site was assessed in terms of its suitability to support breeding bird populations. Hedgerow habitat and nearby potential habitat were assessed and recorded.

3.3 PERSONNEL

The survey was carried out by Willaim Prestwood BSc: Ecologist with 35 years' experience.

3.4 CONSTRAINTS

Breeding birds would not have been present at the time of the survey but previous nesting and appropriate nesting sites would have been apparent.

4 SURVEY RESULTS

4.1 DESK STUDY

The desk study found that within 3kms of the site there were the following designations:

Name	Designation	Distance from site
AFON CEIRIOG (PART OF AFON DYFRDWY SSSI)	SSSI	80 METRES
BERWYNS	SSSI	2.4 KMS
PANDY QUARRIES	SSSI	1.9 KMS
The search included Ramsar, SSSI, SAC, SPA, LWS, NNR and LNR. ¹		

Results from the desk study revealed that within a 1km radius of the proposed development site the following protected species have been recorded:

Species	Distance	Protection
Mammals		
Otter	0.1 km	European Protected Species, Wildlife and Countryside Act 1981.
Badger	0.5 km	Protection of Badgers Act 1992, Wildlife and Countryside Act 1981.
Hedgehog	0.3 km	Schedule 6, Wildlife and Countryside Act 1981.
Reptiles		
Slow worm	0.3km	Wildlife and Countryside Act 1981.

A wide range of amber and red-listed bird species have been recorded within 1 kilometre of the site including dipper, wood warbler, pied flycatcher and redstart.

4.2 HABITATS ON SITE

All habitats are classified using JNCC's Phase 1 Habitat Survey Handbook (JNCC, 2010).

¹ SSSI: Site of Special Scientific Interest, SAC: Special Area of Conservation, SPA: Special Protection Area, LWS: Local Wildlife Site NNR: National Nature Reserve, LNR: Local Nature Reserve.

Buildings

The house is a two-storey detached property constructed in 1936. It is built of brick and has been rendered and painted on the exterior. The roof is clad with slate with clay ridge tiles. Many slates are damaged or slipped and there is extensive moss growth on the roof surface. The first floor of the house is unsafe to enter but it is assumed that the house has, at least, a shallow attic space. The house has one dormer window. The south-facing gable end has weather boarding beneath the eaves and barge boards subtending the roof.

In general, the house is in a semi-derelict state due to damp, lack of maintenance and the growth of self-set trees adjacent to exterior walls. Ivy growth is extensive on all elevations of the house.

A small brick outhouse lies near to the main house and a wooden summer house sits in the garden to the east of the house.

4.3 ADJACENT HABITATS

Scattered scrub and mature trees

The house lies in a large garden which slopes from north to south where it joins the minor road. Having been abandoned for many years, the garden became overgrown with shrubs and semi-mature trees including ash, sycamore, larch and cherry. Due to their unsafe condition and the damaging impact they were having on the buildings, several trees have been felled. The garden retains several mature specimens including beech, oak, alder, cherry and Sitka spruce.

4.4 PROTECTED SPECIES

Badgers

There are no historical records of badger at the site and no field signs were found within the search area.

Bats

The house contains several Potential Roosting Features for bats including (externally) loose weather boarding, slipped, broken and missing slates and other crevices. There is access to internal spaces via broken windows.

Breeding birds

No evidence of breeding birds was seen although there is potential for the buildings to be used by breeding birds such as house sparrows, wrens and possibly swallows.

5 POTENTIAL ECOLOGICAL IMPACT

5.1 HABITAT ASSESSMENT

The buildings are of ecological value due to their potential to support bats and possibly breeding birds.

Mature trees and shrubs in the garden have potential to provide nest sites for breeding birds and also foraging sites for bats.

The proposed restoration works will have no impact on the nearby Afon Ceiriog SSSI/

5.2 PROTECTED SPECIES ASSESSMENT

Badger

The proposals will have no impact on badgers.

Bats

The house has moderate to high potential to support roosting bats. At least two activity surveys carried out at dawn and dusk in early spring/summer will be required to confirm whether or not the house (or other buildings) are in use as a roost site by bats. One further survey may be required if bats are present on the first two surveys.

If a bat roost is confirmed, a Protected Species Development Licence will be required in order to modify the bat roost and to provide mitigation.

Breeding birds

Further survey work will be required during the nesting season to determine whether the house is in use by breeding birds.

6 AVOIDANCE, MITIGATION AND ENHANCEMENT

6.1 HABITAT MITIGATION

The buildings are of no intrinsic interest ecologically, other than for the species they support. Habitat mitigation will be necessary in order to provide alternative facilities for bats and birds if these are proven to be present.

The loss of self-set shrubs and trees in the garden will be mitigated for by the planting of hedgerows and trees.

6.2 PROTECTED SPECIES MITIGATION

Bats

Details of mitigation will be determined by the results of the survey but may include provision of a bat loft and/or roosting boxes.

Breeding birds

If birds are using the site for nesting, any work which might disturb nesting birds would need to be carried on outside the nesting season.

General Avoidance Measures

The following measures should be implemented to decrease the likelihood of killing/injuring small animals such as amphibians and hedgehogs:

- If piles of rubble, logs, bricks, other loose materials or other potential refuges are to be disturbed, this should be done by hand and carried out during the active season (March to October) when the weather is warm to allow animals to disperse naturally.
- All building materials, rubble, bricks and soil must be stored on raised platform (e.g. wooden pallets) to prevent their use as refuges by wildlife.
- Where possible, trenches should be opened and closed in the same day to prevent any wildlife becoming trapped. If it is necessary to leave a trench open overnight then it should be provided with a means of escape in the form of a shallow ramp.
- Any open pipework should be capped overnight. All open trenches and pipework should be inspected at the start of each working day to ensure no animal is trapped.
- Any common reptiles or amphibians discovered should be allowed to naturally disperse. Advice should be sought from an appropriately qualified and experienced ecologist if large numbers of common reptiles or amphibians are present.

6.3 ECOLOGICAL ENHANCEMENT

The boundaries of the site are to be planted with mixed native species hedgerows. A small field to the east of the garden is to be planted with a mixed orchard using traditional and local varieties of fruit trees.

In order to provide shelter, breeding and hibernating opportunities for a variety of wildlife, we recommend that a nest box scheme is adopted as follows:

- Three Woodcrete general purpose bat boxes, suitable for crevice-dwelling species should be installed into mature trees within the boundary hedgerows. No lighting should be installed in the vicinity of the boxes. They should be at least 3m from the ground and face south or south west.
- Two Woodcrete cavity nesting bird boxes with 28mm or 32mm access holes. These should be positioned within mature trees on the boundary of the site and the access should face away from the prevailing wind.

7 SUMMARY

Planning permission will be sought for the restoration and partial rebuilding of a detached house near Glyn Ceiriog. Arbor Vitae we invited to carry out a Preliminary Ecological assessment to evaluate any potential impact which the proposals might have on habitats or protected species.

The house has been unoccupied for many years and is in a state of semi-dereliction. The unmaintained garden has become overgrown with a range of self-set shrubs and trees.

The house occupies a rural location on a south-facing slope to the north of the Afon Ceiriog and adjacent to a minor road. The house is within 80 metres of an SSSI, the Afon Ceiriog, but this will be unaffected by the proposed restoration works.

The house was assessed as having good potential to support roosting bats given the range of Potential Roosting Features. At least two activity surveys will be required in spring/early summer to confirm whether bats are using the house or other structures in the garden.

The house also has the potential to provide nest sites for breeding birds and this will be assessed during the breeding season.

The inevitable loss of self-set shrubs and trees from the garden will require mitigation and new native hedge planting, and an orchard, are planned.

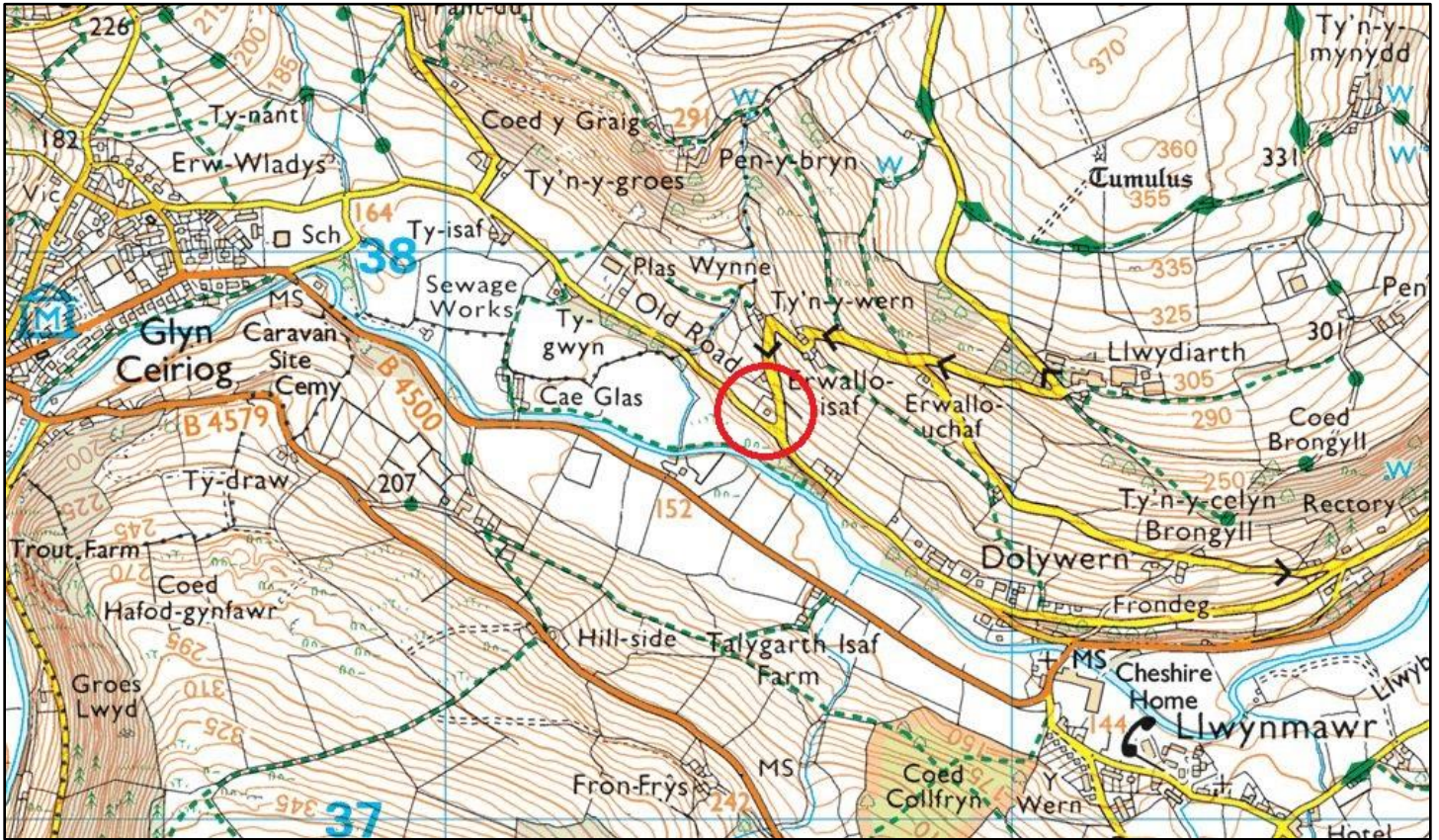
The mitigation necessary for bats or breeding birds will be informed by Phase 2 surveys. A European Protected Species Licence may be required if bats are using the house as a roost site.

Interim mitigation for bats and breeding birds is recommended in the shape of wildlife boxes.

8 REFERENCES

- Bat Conservation Trust (2018) Bats and artificial lighting in the UK. *Bats and the Built Environment series*, Guidance Note 08/18. Institution of Lighting Professionals.
- CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.
- Collins, J. (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.
- GOV.UK. (2015) Badgers: surveys and mitigation for development projects. [online] Available at: [Accessed 29 October 2021].
- Harris, S., Creswell, P. and Jefferies, D. (1989) Surveying Badgers. 1st ed. London: The Mammal Society, pp.3-21.
- Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2nd edition, Bat Conservation Trust.
- JNCC (2010) Handbook for Phase 1 habitat survey - a technique for environmental audit, ISBN 0 86139 636 7.
- Mitchell-Jones, T. (2004) Bat mitigation guidelines. External Relations Team, English Nature.
- Natural England (2002) Badgers and Development. 1st ed. Peterborough: Natural England, pp.2- 12.
- People's Trust for Endangered Species (2019) Hedgehogs and development. British Hedgehog Preservation Society. Accessed 11/04/2023. Available at: <https://www.hedgehogstreet.org/wp-content/uploads/2019/03/Hedgehogs-and-developers-ZR.pdf>

FIGURE 1 LOCATION



APPENDIX 1 PHOTOGRAPHS



THE HOUSE AS SEEN FROM
SOUTH EAST, WITH SUMMER
HOUSE



THE HOUSE AS SEEN FROM
SOUTH WEST



THE HOUSE AS SEEN FROM
NORTH



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