

PRELIMINARY ECOLOGICAL APPRAISAL

STRYT YR HWCH, MARCHWIEL, WREXHAM

GRID REF: SJ33794681



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ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE

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1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

A modern steel framed agricultural shed will be subject to planning permission for change of use. Once a dairy farm, it is planned to use the outbuildings as storage units for caravans.

Such operations have the potential to disturb protected species, if present, and therefore Arbor Vitae were commissioned by Roger Parry and Partners to undertake a Preliminary Ecological Appraisal.

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.

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

Stryt-yr-hwch farm is located at Marchwiell, just south of Wrexham (Figure 1). The surrounding land use is dominated by agricultural practices including arable and grazing land (Figure 2). The farm has recently stopped keeping a dairy herd and is looking to use the existing buildings as storage.

3 SURVEY METHODOLOGY

3.1 DESK STUDY

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

3.2 SITE SURVEY

One site visit was made on 24th July 2019 have made to survey the site. 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:

- Badgers
- Bats
- Breeding birds
- Great crested newts

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

Badger

An area within 50 meters 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.

Great crested newts

A desk study and a ground search were conducted to search for any areas of open water within 250 meters. Waterbodies were then assessed based on the Habitat Suitability Index for great crested newts (Oldham et al., 2000 and ARG UK, 2010).

3.2 PERSONNEL

The survey was carried out by Phillippa Stirling MSc: assistant ecologist.

3.3 CONSTRAINTS

There were no constraints on the survey being carried out according to accepted guidelines and standards.

4 SURVEY RESULTS

4.1 DESK STUDY

The desk study found that within 1km of the site there were the following designations:

- Sontley Marsh (SSSI) 0.6km

The search included Ramsar, SSSI, SAC, SPA, LWS 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:

- Great Crested Newt (EPS, WCA5)
- Grass snake (WCA5)

4.2 HABITATS ON SITE

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

Hardstanding

The farm yard is completely concreted throughout.

Buildings

Mostly modern steel-framed buildings exist within the yard. There are some traditional outbuildings present on site and these are of brick construction with slate roofs.

4.3 ADJACENT HABITATS

Agricultural land

The farm yard is surrounded by improved grassland fields used for grazing and some arable fields to the east.

Native hedgerow

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

The field boundaries are made up of native species hedgerow.

4.4 PROTECTED SPECIES

Badgers

There are no historical records of badger at the site and no field signs were found over the course of the survey.

Bats

There are no historical records of bats within 1km of the site. The steel-framed outbuildings were assessed in terms of their value to bat species and it was found that they had negligible potential as roosting sites for bats. All the buildings were open from at least one elevation and had corrugated sheet metal roofs.

Breeding birds

There was no immediate evidence of breeding birds within the buildings on site at the time of the survey.

Great Crested Newt

There is one pond mapped within 250m of the farm yard but upon inspection this appeared to be a vegetated piece of land used for farmyard run-off. No HSI was carried out on this area.

5 EVALUATION OF RESULTS AND POTENTIAL ECOLOGICAL IMPACT

5.1 HABITAT ASSESSMENT

No habitats will be impacted by the proposals. Caravans will be stored on hard-standing areas which will have no ecological impact.

5.2 PROTECTED SPECIES ASSESSMENT

Badger

The proposals will have no impact on badgers.

Bats

The buildings which are to be used as storage have negligible potential as roosting sites. The proposals will have no impact on bats.

Breeding birds

The proposals will have no impact on breeding birds as they will not necessitate the change of any buildings.

Great crested newt

The proposals will have no impact on GCN.

6 MITIGATION

6.1 HABITAT MITIGATION

No mitigation will be necessary as there will be no loss in habitat.

6.2 PROTECTED SPECIES MITIGATION

Badger

No mitigation will be necessary as the proposals will have no impact.

Bats

Any additional lighting should be sympathetic to bats and other nocturnal wildlife. The following is recommended:

- All security lighting should be on a short timer (<1minute),
- All permanent lighting should be hooded and directed toward the ground to reduce the amount of upward light spill,
- No hedgerows/trees or sensitive ecological features should be illuminated by additional lighting.

Breeding birds

No mitigation is necessary as the proposals will have no impact on breeding birds.

Great crested newt

No mitigation is required as the proposals will have no impact on GCN.

7 SUMMARY AND CONCLUSION

Planning consent will be applied for to change the use of current agricultural sheds into storage. Roger Parry and Partners commissioned Arbor Vitae to conduct a preliminary ecological appraisal of the site to identify all habitats and use by protected species.

Given the initial assessment of the site, the following species were considered: badgers, bats, breeding birds, Great Crested Newts. The site is a former dairy farm and is therefore made up of a mixture of modern and traditional agricultural buildings, with hardstanding throughout. The farm is surrounded by improved grassland and arable fields.

The survey found no signs of any of the protected species listed above. Further survey work is not required given the proposals for the site. Mitigation to minimise the impact of additional external lighting on nocturnal wildlife is given in section 6.

REFERENCES

ARG UK (2010). ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index. Amphibian and Reptile Groups of the United Kingdom.

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

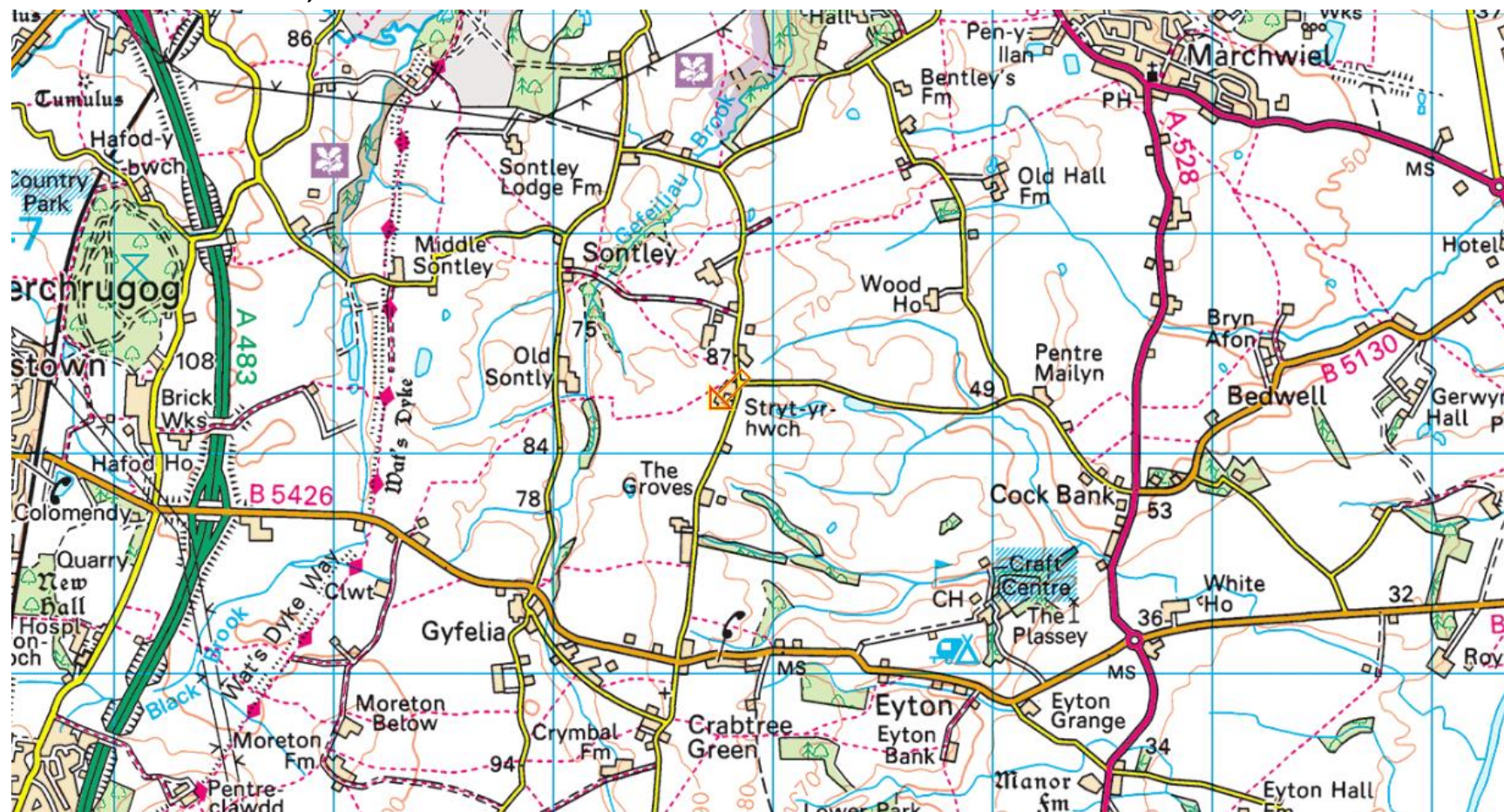
CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

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.

Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal* 10(4), 143-155.

FIGURE 1 LOCATION. 1:50,000



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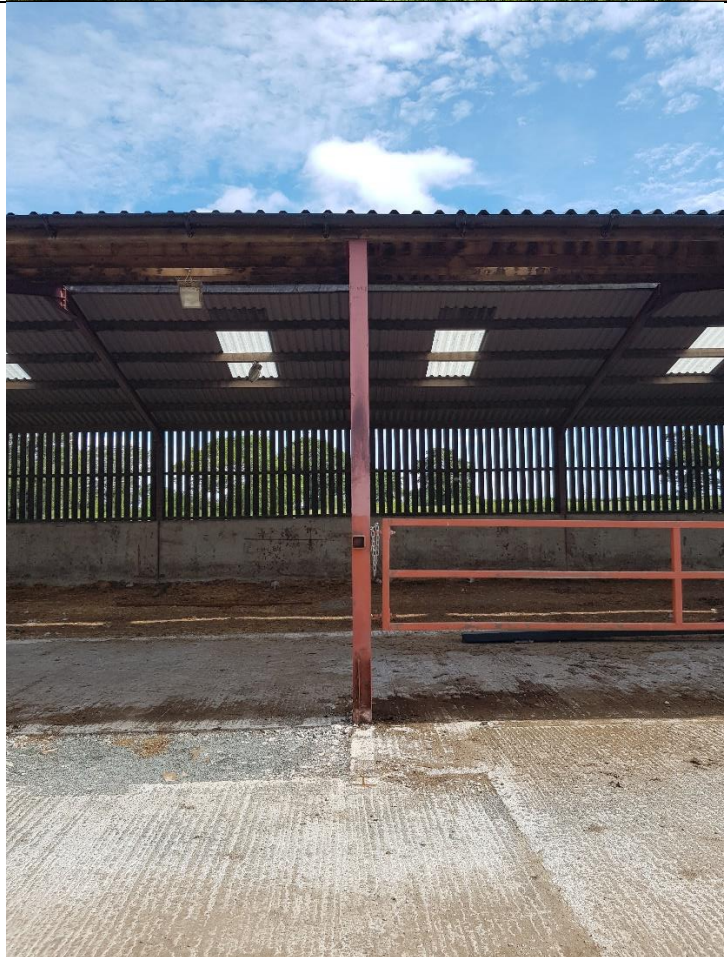
FIGURE 2 AERIAL PHOTOGRAPH



APPENDIX 1 PHOTOGRAPHS



Building subject to change of use permission. Immediately adjacent to improved grassland field.



As above.



	Other buildings on site are modern agricultural sheds.
	Hardstanding throughout the farm yard.

