



Bat & Bird Survey Report

Tyn-y-Coed, Coedpoeth

Ref: 808

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1.0 INTRODUCTION

- 1.1 J W Ecological Limited were commissioned in September 2010 to undertake a bat and bird survey of a barn at Tyn-y-Coed, Tanllan Lane, Coedpoeth, Wrexham (SJ 29302 51139). See site location plan D/JWE/808/001 (Appendix 1).
- 1.2 The aims of the survey were to:
- Identify any evidence of bat usage.
 - Assess bat roost potential.
 - Identify any evidence of Barn Owl usage.
 - Assess the likely impact of the loss of the structure on local bat and Barn Owl populations.

2.0 BACKGROUND TO THE PROPOSALS

- 2.1 The proposals will involve the conversion of the barn to residential use.

3.0 SITE LOCATION AND DESCRIPTION

- 3.1 Tyn-y-Coed is located at the north-western end of Tanllan Lane, to the east of Coedpoeth, Wrexham.
- 3.2 The site comprises a detached house, a converted stone barn and a small attached stone barn (the subject of the survey). The site layout is shown on drawing D/JWE/808/002 (Appendix 1).
- 3.3 The barn under survey is two-storey however the first floor has been removed at some point in the past. The building is of stone construction and has a pitched corrugated asbestos sheet roof (see photographs 1 and 2, Appendix 2).



4.0 DESKTOP STUDY

- 4.1 Ecological data and records of protected species were requested/gathered from the following sources (Table 1):

Table 1: Desktop Study Sources

Consultee/Source of Information	Information Supplied
NBN Gateway	Protected species records within 500 metres of the proposed development site.
Natural England	Magic Map (www.magic.gov.uk) was consulted to check for protected sites within 500 metres of the proposed development.
UK Biodiversity Action Plan	Identification of national priority species and habitats known to occur in the region.
Local Biodiversity Action Plan	Identification of local priority species and habitats known to occur in the area.

Protected Sites

- 4.2 No statutorily designated nature conservation sites are located on or adjacent to the survey area or within 1 kilometre of the site.

Bat and Barn Owl Records

- 4.3 Desktop studies revealed no records of Bats or Barn Owls within 1 kilometre of the site.



5.0 LEGISLATIVE AND PLANNING CONTEXT

5.1 This is a brief summary of the ecological planning and legislative context in Wales. This is general advice only and does not relate specifically to the site being assessed.

5.2 Bats

All species of bat and their breeding sites or resting places (roosts) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2010 and Section 9 of the Wildlife and Countryside Act 1981 (as amended). Under the legislation it is an offence to:

- intentionally kill, injure or handle a bat;
- to possess a bat (whether live or dead);
- disturb a roosting bat;
- sell or offer a bat for sale without a licence;
- damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

The potential fine for each offence is £5,000. If more than one bat is involved, the fine is £5,000 per bat. An offender can also be imprisoned for up to six months.

Where bats are found to occur on a development site, and there is considered to be a reasonable possibility that a roost may be damaged or destroyed or that bats using a roost will be disturbed, a licence must be obtained from the Welsh Assembly.

5.3 Barn Owls

All birds, their nests and eggs are protected by law under Part 1 of the Wildlife and Countryside Act 1981 (as amended). Barns Owls are afforded special protection through inclusion in Schedule 1 of the Act.

Under the legislation it is an offence to:

- Intentionally kill, injure, or take (handle) any wild barn owl.
- Intentionally take, damage or destroy any wild barn owl nest whilst it is in use or being 'built' (barn owls do not 'build' a nest but may make a nest scrape).
- Intentionally take or destroy any wild barn owl egg.
- Possess or control a wild barn owl (dead or alive), or egg, (unless it can be shown that it was obtained legally).
- Intentionally or recklessly disturb any wild barn owl whilst 'building' a nest or whilst in, on or near a nest containing eggs or young.
- Intentionally or recklessly disturb any dependent young of wild barn owls.

The potential fine for each offence is £5,000. If more than one bat is involved, the fine is £5,000 per bat. An offender can also be imprisoned for six months. Disturbance may be deemed reckless if it is committed by someone who could be expected to know that the bird(s) might be present but failed to check.



5.4 Birds

All wild birds are protected by law under the Wildlife and Countryside Act 1981 (as amended) making it illegal to:

- Kill, injure or take any wild bird;
- Take, damage or destroy the nest of any wild bird while it is being built or in use;
- Take or destroy the eggs of any wild birds;
- Possess or control (eg for exhibition or sale) any wild bird or egg unless legally obtained.

Operations that will impact on areas or structures that may be used by nesting birds must be conducted, where possible, between September and February (ie outside of the nesting season). This includes:

- Clearance of scrub and trees;
- Mowing or strimming of areas likely to be used by ground-nesting species;
- Building demolition or maintenance.

Where it is not possible to undertake works outside of the nesting season checks for nesting birds should be made immediately prior to the start on site by a suitably experienced person. Where nests are found an exclusion area should be established around the nest in order to ensure that birds are not disturbed.



6.0 BAT SURVEY METHODS

- 6.1 A daytime bat survey of the barn was undertaken by Joseph Whittick BSc (Hons.) MIEEM on the 20th September 2010.
- 6.2 Joseph Whittick is an experienced bat surveyor and holds a Countryside Council for Wales Scientific bat license (Licence Number 18982:OTH:CSAB:2010).
- 6.3 During the survey the building was inspected on the interior and exterior for evidence of past or present use by bats and its suitability as a bat roost including:
- droppings;
 - feeding remains (e.g. moth and butterfly wings);
 - potential roosting sites;
 - potential entrance points;
 - discolouration around entrance points;
 - absence of cobwebs in potential roosting points.

Particular attention was paid to the ridge line and gable ends which are favoured roosting sites.

- 6.4 A dusk bat emergence survey of the building was undertaken by Joseph Whittick and an experienced assistant on the evening of the 20th September 2010. The aim of this survey was to identify any bats emerging from the building at dusk. The survey commenced 30 minutes before sunset and continued until 90 minutes afterwards at which point it became too dark to continue surveying effectively. Sunset was at 19.14 and the conditions were fair with no appreciable wind or rain. The temperature at dusk was 15°C. Surveyors were equipped with Duet bat detectors and recorded all bats seen or heard during the survey.

7.0 BARN OWL SURVEY METHODS

- 7.1 A Barn Owl survey was undertaken by Joseph Whittick BSc (Hons.) MIEEM on the 20th September 2010.
- 7.2 The barn was inspected on the interior and exterior for evidence of past or present use by Barns Owls (*Tyto alba*) and its suitability as a nesting site for this species including:
- Droppings (white vertical streaks on roof beams and large white splashes on floors);
 - Pellets. Barn owls generally swallow their prey whole and regurgitate the indigestible parts (bones, fur etc.) as pellets. The colour and condition of pellets can give an indication as to when a site was last used by barn owls;
 - Feathers. Barn owl nestlings begin their initial moult at 11 months. Adult barn owls tend to shed their largest and most noticeable feathers (wing feathers) in the summer;
 - Nest debris. Barn owls do not build nests but nesting areas may contain nestling fluff and pellet debris;
 - Potential entrance points. The minimum entrance hole size required for barn owls to gain access to a building is 7cm by 7cm;
 - Suitable nesting platforms. Barn Owls need a level area to lay their eggs usually over 3 metres in length and over 3 metres off the ground. Typical nesting places include tops of walls, between bales and attic floors.

A high powered torch (1,000,000 candles) and binoculars were used to aid in the survey.



8.0 BAT SURVEY RESULTS

8.1 Building construction and suitability for bats

The barn offers suitable roosting opportunities for bats species, particularly crevice dwelling species such as the Pipistrelles. A number of holes are present in the interior stonework of the barn giving access to gaps between the stones which are suitable as roosting sites for bats. These include the holes where the joists for the first floor were previously located and a hole behind the lintel of the window on the northern gable of the building. A gap which could be used as an entrance point by bats is also present along the edge of the roof at the eaves.

The corrugated sheet roof of the barn offers limited roosting opportunities for bats. There are however small gaps beneath the ridge which give access to the space between the ridge and the ridge beam.

The large unobstructed roof space of the building has suitability for species such as the Brown long-eared bat which fly within the roost.

8.2 Evidence of Bats

No bat droppings or other evidence of bat activity were found on the interior or exterior of the barn during the survey.

During the dusk emergence survey no bats were recorded emerging from the barn or flying within it. A small number of Common Pipistrelle (*Pipistrellus pipistrellus*) bats were recorded foraging to the east of the barn and adjacent to the converted barn to the north of the site.

8.3 Habitats

Habitats adjacent to the site have good suitability for bats with mature hedgerows suitable as commuting routes and suitable foraging habitat nearby.

9.0 BARN OWL SURVEY RESULTS

- 9.1 The barn has limited suitability as a nesting site for Barn Owls. The barn does not contain suitable nesting platforms and access for Barn Owls is limited. No evidence of Barn owl activity (pellets, droppings etc.) was identified on site.

10.0 BIRD SURVEY RESULTS

- 10.1 A number of old passerine nests were found in the barn building. Four swallow nests are also present in the barn, one of which was still occupied at the time of survey. Swallows are gaining access to the barn through a hole at the bottom of the main doors of the barn.



11.0 CONCLUSIONS AND RECOMMENDATIONS

11.1 Bats

No bats were recorded roosting on site during the survey. A Welsh Assembly bat license is not thought to be required for works to the barn.

It should be noted that bat surveys are only a snapshot of bat activity at the time of survey and that this late summer survey does not rule out the presence of bats at other time of year. As single or small numbers of bats can occasionally roost in any structure it is recommended that works to the barn are undertaken in a controlled way with bats in mind. The roof of the barn should be stripped carefully by hand. If any bats, or other evidence of bat activity, are found all works should cease immediately and a licensed bat surveyor should be contacted for advice.

11.2 Barn Owls

No evidence of Barn Owl activity was identified on site at the time of survey. It should however be noted that Barns Owls can occasionally nest in inaccessible areas that are not visible from the ground and therefore go undetected during daytime surveys. If any evidence of Barn Owl activity is found at any point during the works on site all works should cease immediately and a licensed Barn Owl specialist should be contacted.

11.3 Birds

Bird nests were identified in the barn at the time of survey. If possible conversion works should commence outside of the bird nesting season (the nesting season runs from March to August inclusive) in order to avoid times when nesting birds will be present. If conversion works are to commence during the nesting season a recheck of the barn by a suitably experienced person is recommended immediately prior to the start on site. If birds are found to be nesting the nest should be left undisturbed until nesting is complete and young birds have fledged. The placing of artificial swallow nesting cups on the exterior of the building would be desirable as part of the proposals.

THESE SURVEY RESULTS ARE VALID FOR UP TO 1 YEAR AFTER WHICH RE-SURVEYS ARE RECOMMENDED



12.0 REFERENCES

English Nature 2002. *Barn Owls On Site - A Guide for Developers and Planners.*

Barn Owl Trust. Leaflet No.22. *Barn Conversions*

Mitchell-Jones, A.J, & McLeish, A.P. Ed. 2004. *Bat Workers Manual*

English Nature 2004. *Bat Mitigation Guidelines.*



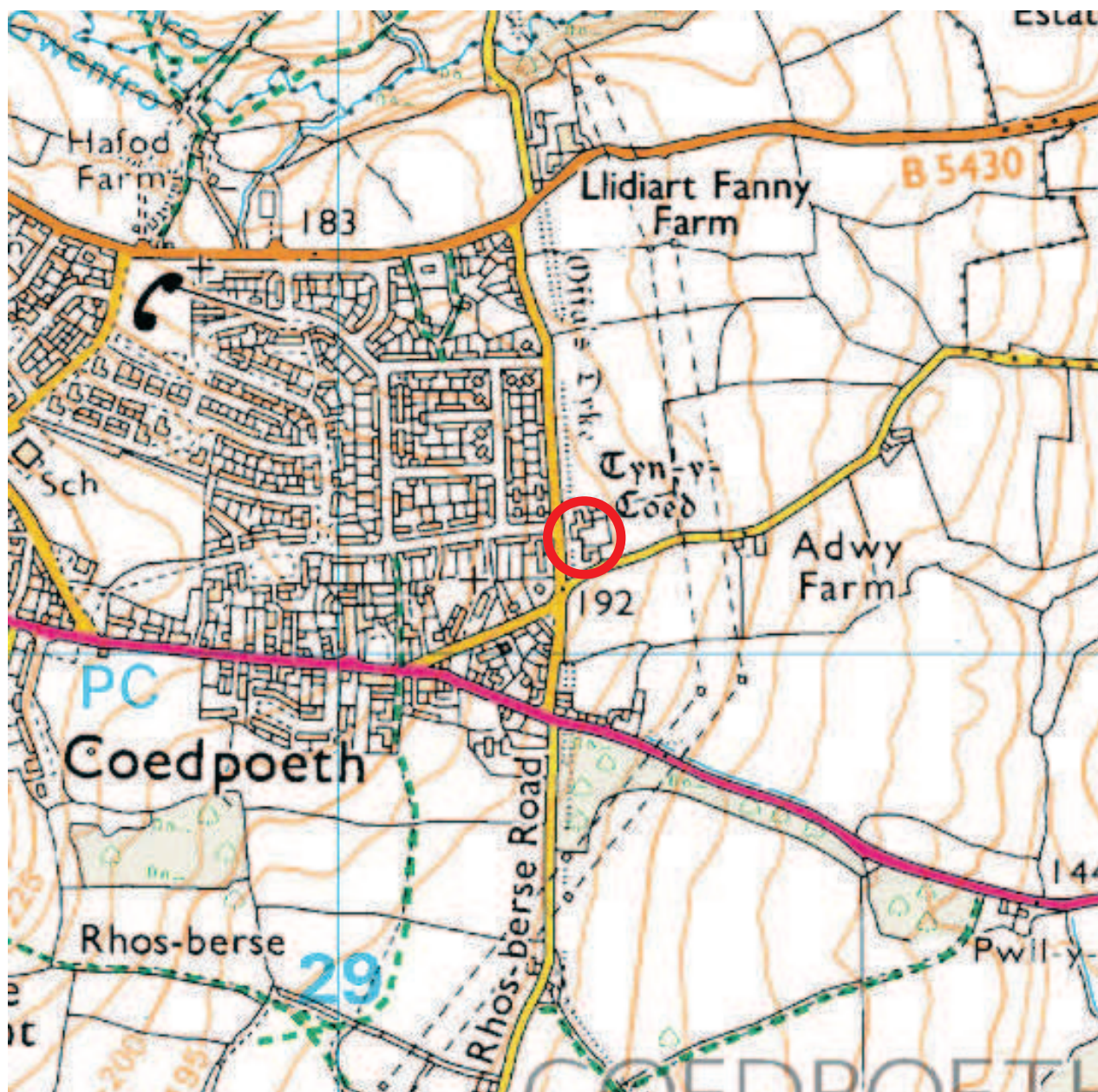
APPENDIX 1

Drawings:

D/JWE/808/001 - Site Location Plan

D/JWE/808/002 – Site Layout





 = Site Location



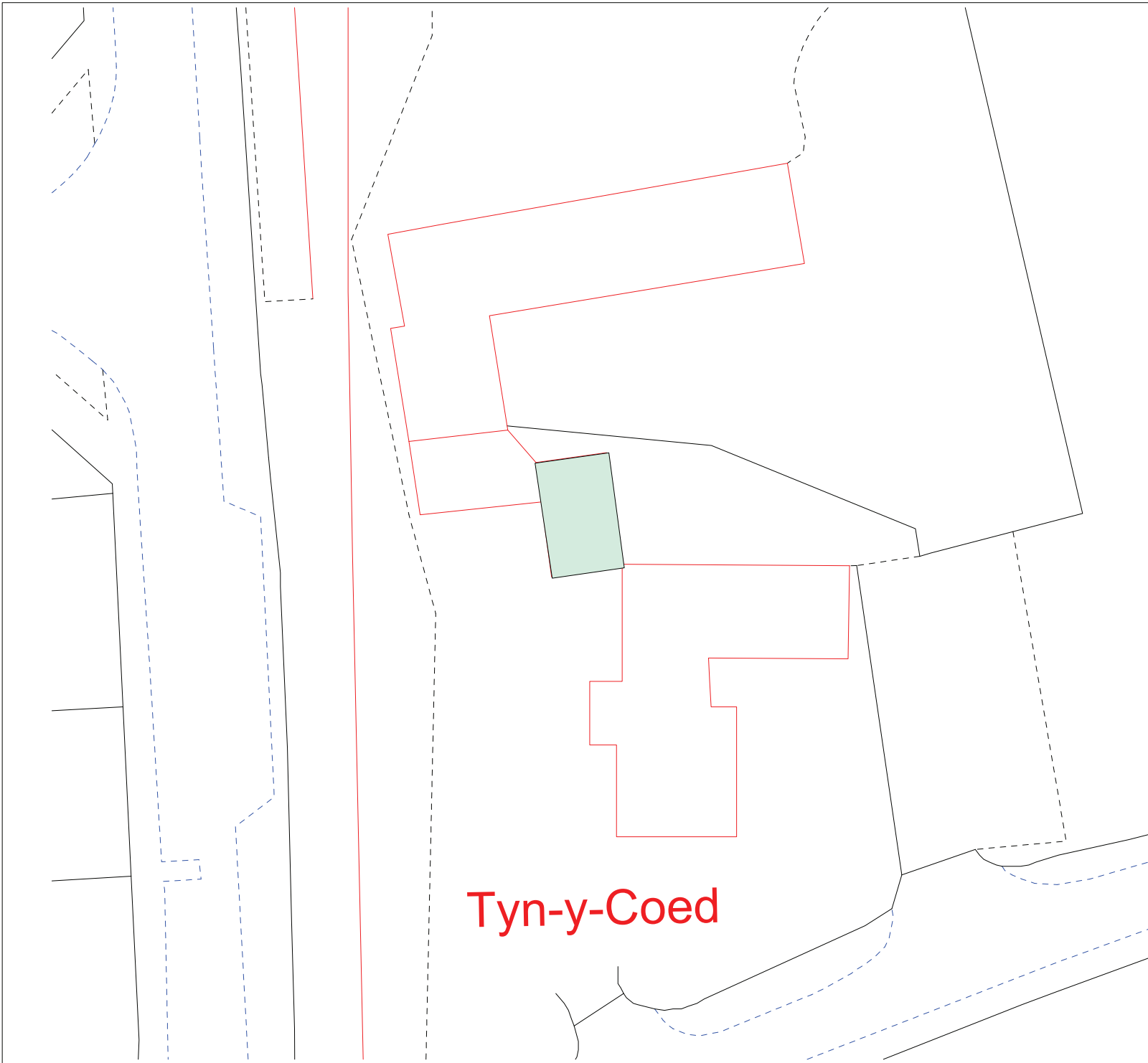
J W ECOLOGICAL LTD

TITLE: Site Location Plan

SITE: Tyn-y-Coed

NGR: SJ 29302 51139

DRAWING NUMBER: D/JWE/808/001





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Site:

Tyn-y-Coed, Coedpoeth

Title:

Site Layout

KEY:

 Barn under survey

GRID REFERENCE:

SJ 29302 51139

SCALE:

1:500

DRAWN BY:

JW

CHECKED BY:

JM

DATE:

21/09/10

DRAWING NUMBER:

D/JWE/808/002

ISSUE:

A

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APPENDIX 2

Photographs



Photograph 1 – Eastern side of barn



Photograph 2 – Interior of barn

