



BAT ACTIVITY SURVEY

2 The Greenway, Llandarcy, Neath, SA10 6JB

Client – Ms Lisa Williams

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Survey report and data valid for two years.

Contents

Section		Page number
	Executive Summary	4
1.	Introduction	5
1.1	Site Description	5
1.2	Proposed Work	5
1.3	Aims of Survey	5
2.	Methods	6
2.1	Summary of Survey Methods	6
2.2	Pre-Survey Data Search	6
2.3	Surveyor Information	6
3.	Results	7
3.1	Landscape Setting	7
3.2	Pre-Survey Data Search	7
3.3	Field Surveys	7
3.3.1	Daytime Inspection	7
3.3.2	Dusk Activity Survey	10
4.	Assessment	10
4.1	Constraints on Survey Information	10
4.2	Constraints on Equipment Needed	10
4.3	Potential Impacts of Development	10
4.4	Legislation and Policy Guidance	10
5.	Recommendations	12
6.	Summary	12
7.	References	13

EXECUTIVE SUMMARY

A Preliminary Bat Roost Assessment by Wyndrush Wild in January 2021 found no evidence of roosting bats within the dwelling proposed for development at 2 The Greenway, Llandarcy. However, there were a small number of potential squeeze gaps and access points into the roof space. The structure was assessed to have 'low' potential for bats and as such a single emergence survey was required.

The subsequent dusk emergence survey was undertaken on 15th May 2021 to investigate the use of the target building by roosting bats.

Foraging and commuting activity by common pipistrelle (*Pipistrellus pipistrellus*) bats were incidentally recorded during the emergence survey. However, neither the daytime or emergence survey identified any evidence to suggest that the dwelling at 2 The Greenway is used as a bat roost.

Future proposals for the site involve constructing a two-storey extension to the southern (rear) elevation.

Bats do not appear to form a constraint to development of the site. In the unlikely event that bats are discovered, works should cease and further ecological advice should be sought.

1 INTRODUCTION

1.1 Site Description

Wyndrush Wild were commissioned by Ms Williams to undertake bat surveys targeting the dwelling on the property known as 2 The Greenway (Figure 1). The National Grid Reference is centred on SS71519522. An earlier Preliminary Bat Roost Assessment by Wyndrush Wild found no evidence of roosting bats within the dwelling proposed for development.

The site is located on the edge of a village in a rural setting to the south-west of Llandarcy. Farmland and a network of hedgerows and blocks of woodland lie in the immediate surrounding area. Urban areas lie further to the west, north and east. To the south and east is the Tennant Canal, Crymlyn Bog to the west and the River Neath further to the east.



Figure 1. Site Location

1.2 Proposed Works

The client intends to extend the dwelling on the southern (rear) elevation with a roof constructed below the height of the existing ridgeline with a cross-gable roof.

1.3 Aims of Survey

The aims of the survey were to:

- establish whether the building is being used by bats;
- assess the potential impacts on bats of the proposed works.

2. METHODS

2.1 Summary of survey methods

The study methodology follows the guidelines set out in the Bat Conservation Trust document, 'Bat Surveys for Professional Ecologists, Good Practice Guidelines, 3rd Edition', 2016.

The dwelling at 2 The Greenway was subject to a daytime inspection on 22nd January 2021. During the inspection, a search of the dwelling for evidence of current or past bat roosts, in the form of bats, droppings, staining, feeding signs and/or remains of bats was undertaken. The internal spaces of all parts of the building were examined using a bright LED torch where necessary. The external façade was examined carefully from multiple angles with binoculars (Leica Ultravid 10x32).

One dusk emergence survey was undertaken on 15th May 2021. The survey followed good practice guidelines, starting approximately half an hour before sunset. Two surveyors took part during the survey positioned at opposite sides of the site (Figure 2). A range of detectors were used including Anabat Express (frequency division) detectors, Anabat Scout (full spectrum) and Pettersson D240x (time expansion). All bat calls recorded were analysed using Anabat Insight or Analook software.



Figure 2. Surveyor locations

2.2 Pre-survey data search

A specific data search using South East Wales Biodiversity Records Centre (SEWBRec) was not commissioned. However, an internet-based search was undertaken to investigate the status of bats in the wider area.

2.3 Surveyor information

Vicky Swann, a partner in Wyndrush Wild (formerly Matt Sutton Ecology), is an experienced licenced bat surveyor. She has completed numerous scoping reports, activity surveys and accompanying reports for a variety of schemes.

Matt Sutton, partner in Wyndrush Wild, was an employee of the Countryside Council for Wales (now NRW) for 15 years, during which time he held a bat licence and was responsible for numerous roost inspection visits, development of mitigation measures for bat roosts, flight-lines and foraging habitats, and assessments of survey programmes by consultant ecologists. As a freelance consultant ecologist, he has completed numerous scoping reports and activity surveys for building developments and wind-turbine proposals.

3. RESULTS

3.1 Landscape setting

2 The Greenway is located within an area of optimal foraging opportunities for bats with the site's close proximity to hedgerows, tree lines, agricultural pasture and watercourses. These hedgerows and tree lines connect to areas of woodland and watercourses in the wider landscape (Figure 1).

3.2 Pre-survey data search

Common and widely distributed bat species including common pipistrelle, soprano pipistrelle (*Pipistrellus pygmaeus*) and brown long-eared (*Plecotus auritus*) would be expected to occur in habitat associated with the site, in addition to strong fliers such as noctule (*Nyctalus noctula*).

Crymlyn Bog and Pant y Sais NNR and Crymlyn Bog Ramsar Site, SSSI and SAC lie 1.4km west of the site. Crymlyn Burrows SSSI lies approximately 1.9km south of the site and Earlswood Road Cutting and Ferryboat Inn Quarries lies 1.4km south-east of the site. However, these sites were not notified for bats.

3.3 Field surveys

3.3.1 Daytime Inspection

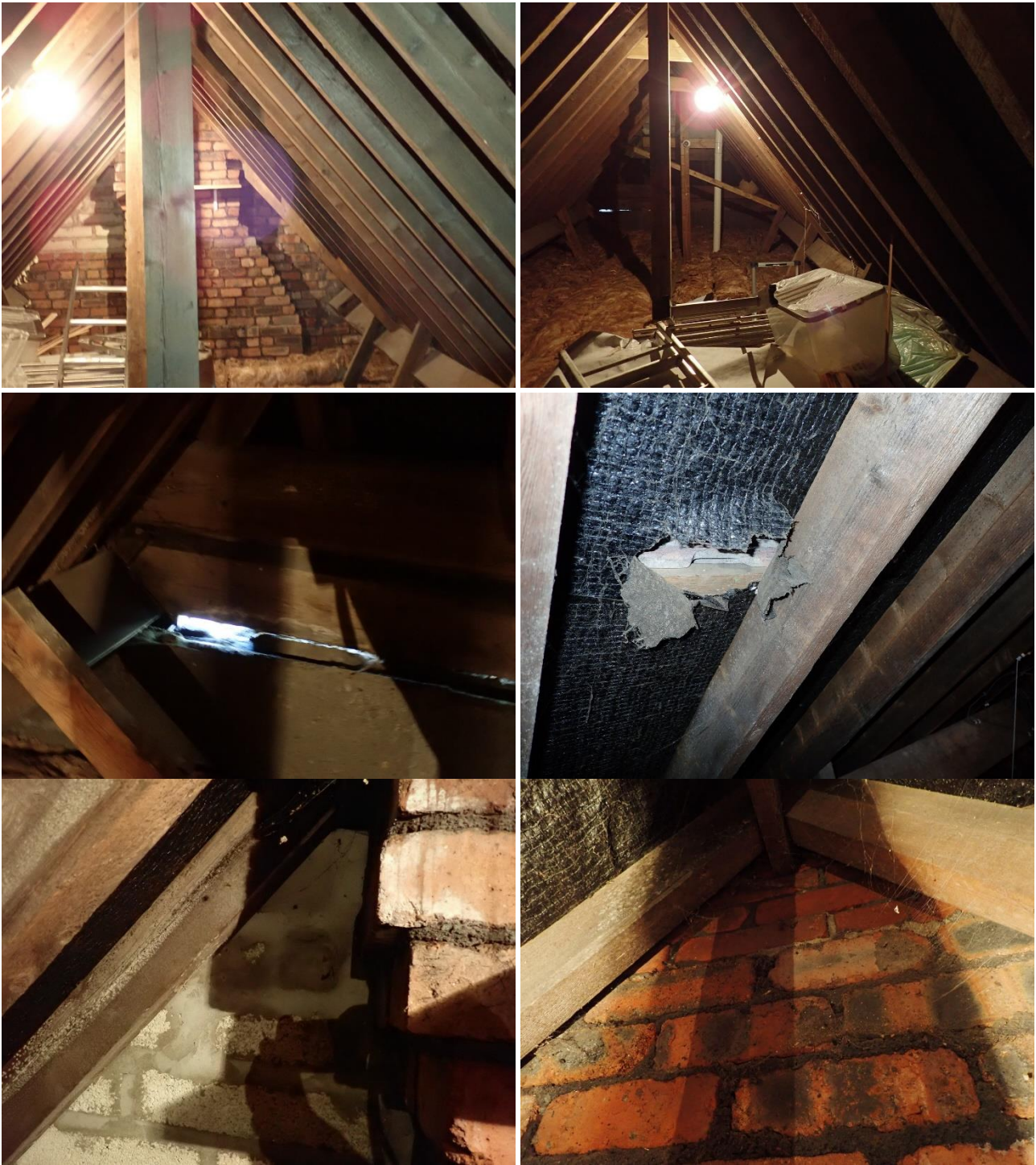
The semi-detached double storey dwelling is comprised of roughcast rendered blockwork to all walls. The eastern elevation and the upper section of the south elevation is of exposed timber and beam structure. The pitched concrete interlocking tile roof is of sound construction with no tiles missing or cracked. One tile is slightly lifted on the south-western corner; ridge tiles are intact and well-mortared. The exposed timber and beam structure eastern elevation has a hipped roof towards the top third of the gable end. All tiles are intact. Small gaps are present at the base of the hipped roof above the timber and beam structure.

The chimney between this property and the neighbouring property is well-mortared and the lead flashing is well-sealed. The flue on the eastern end of the southern roof pitch is well-sealed with lead flashing. Timber bargeboards are present on the gable end below either side of the hipped roof; these are rotten at the eaves. Soffit boxes are constructed of uPVC and are tight fitting in all but a couple of locations. One gap is present at the end of the soffit box adjacent to the left window of the dormer, the other is adjacent to the right window of the dormer. Doors and windows are uPVC and are well fitted. The lead flashing adjacent to the dormer windows on the southern elevation is slightly lifted. There are no crevices in the walls.



External photographs (Clockwise from top left): South elevation with dormer windows; eastern elevation with timber and beam structure and hipped roof; minor squeeze gaps behind soffit box; potential access into soffit box adjacent to dormer window; base of hipped roof on eastern elevation; well-sealed flue adjacent to well-mortared hip tiles.

Internally, the rear rooms with the dormer windows have vaulted ceilings and therefore there was no roof space to inspect. The roof space with the hipped roof is composed of supporting timbers of simple construction, with no joint housings providing squeeze gaps or other recesses for bats. Modern roofing membrane is installed under the tiles and laid on top of the rafters. The membrane is ripped in places exposing the tiles. Roofing insulation is laid on top of the joists. The chimney is well-sealed and mortared. The internal (west) gable end with the neighbouring property is brick built with concrete blockwork infill and is well-sealed. The eastern gable end is brick and concrete block work. There is a gap at the northern end above the timber beam; this was covered by cobwebs. The remainder of the gable end is well-sealed. Cobwebbing is present along the ridgeline.



External photographs (Clockwise from top left): Western gable end with chimney breast; simple roof timbers; torn roofing membrane with concrete tile above; well-mortared gable end; well-sealed concrete blockwork; potential access location on eastern gable end covered with cobwebs.

No bat droppings, either fresh or old, were found. No staining on walls was apparent. No feeding signs were found and no bats were visible.

The inspection found the building to have potential access points where bats could gain access: either side of the rear dormer windows into the soffit box and on the eastern gable end on top of the timber beam below the hipped roof. No cavities are apparent in internal or external walls.

Following the building inspection, the site was assessed to have ‘low’ potential suitability for bats with the structure having ‘one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats’ and therefore required a single presence / absence survey.

3.3.2 Dusk activity survey – 15th May 2021

Sunset was expected at 21.01hrs. The weather conditions during the dusk roost emergence survey were considered suitable for bat activity: cloudy, light wind, drizzle at times and with a temperature of 11.4°C.

No bats were observed emerging from the target building.

Incidental recordings were made of common pipistrelle bat foraging or commuting in the vicinity of the target building. A single common pipistrelle was observed at 21.40hrs emerging from the neighbouring property.

4 ASSESSMENT

4.1 Constraints on survey information

None

4.2 Constraints on equipment used

None

4.3 Potential impacts of development

The daytime inspection of the dwelling at 2 The Greenway identified a limited number of features where roosting bats could not be entirely discounted. Based on the good practice guidelines of BCT, the building was assessed as of low roost potential (i.e. a structure with one or more potential roost features potentially used opportunistically by individual bats and unlikely to be used for hibernation or maternity).

The single emergence survey recommended for structures with low roost potential was undertaken and no evidence of roosting bats was found.

Given the limited number of potential roost features and complete absence of evidence, bats do not appear to form a constraint to development of the site. In the unlikely event that bats are discovered, works should cease and further ecological advice should be sought.

4.4 Legislation and policy guidance

The Conservation of Habitats and Species Regulations 2010

All British bat species are protected under Annex IV of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora (‘The Habitats Directive’), as amended, which requires the United Kingdom government to provide bats with strict protection. This is transcribed into England and Wales law by The Conservation of Habitats and Species Regulations 2010.

The key part of this legislation in relation to bats and the proposed works is Regulation 41, copied below:

“41.—(1) A person who—

- (a) deliberately captures, injures or kills any wild animal of a European protected species,
- (b) deliberately disturbs wild animals of any such species,
- (c) deliberately takes or destroys the eggs of such an animal, or
- (d) damages or destroys a breeding site or resting place of such an animal, is guilty of an offence.

(2) For the purposes of paragraph (1)(b), disturbance of animals includes in particular any disturbance which is likely—

- (a) to impair their ability—
 - (i) to survive, to breed or reproduce, or to rear or nurture their young, or
 - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) to affect significantly the local distribution or abundance of the species to which they belong.”

It is possible to obtain a derogation licence from Natural Resources Wales (NRW) to permit activities which would otherwise contravene Regulation 41, above. Licences may only be issued if certain conditions are met, and in relation to the proposed works these will be as follows:

- The purpose of the work is to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment (Regulation 53(2)(e))
- There is no satisfactory alternative (Regulation 53(9)(a))
- The action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range (Regulation 53(9)(a))

Failure to satisfy the Regulations and obtain a licence where required could result in prosecution and lead to fines of up to £5,000 per bat and possible imprisonment.

Wildlife and Countryside Act 1981

An addition to the Regulations, above, the Wildlife and Countryside Act 1981, as amended, provides additional protection for British bats.

The key parts of this legislation in relation to bats and the works proposed are in Section 9, copied below:

“9 Protection of certain wild animals

...

(4) Subject to the provisions of this Part, a person is guilty of an offence if intentionally or recklessly—

...

- (b) he disturbs any such animal while it is occupying a structure or place which it uses for shelter or protection; or
- (c) he obstructs access to any structure or place which any such animal uses for shelter or protection.”

Although there is no provision within the Act for a derogation licence to be issued for the proposed works, provided a licence is obtained under the Regulations (above) the defence under Wildlife and Countryside Act 1981 Section 10 Part (3) © should apply. That is, the works are: “the incidental result of a lawful operation and could not reasonably have been avoided.”

Environment (Wales) Act 2016

Section 6 of the Environment (Wales) Act places the following duty on public bodies such as Neath Port Talbot Council:

“6 Biodiversity and resilience of ecosystems duty

- (1) A public authority must seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions.”

As part of this duty, statutory undertakers must have regard to the list of organisms that are “*of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales*” (the ‘Section 7 list’). This list of species includes eight bat species, of which both common pipistrelle and soprano pipistrelle are listed.

5. RECOMMENDATIONS

An opportunity exists to provide biodiversity gain by incorporating a purpose-designed bat box within the development. Boxes are now widely available and can be sourced from a variety of internet-based suppliers. If such an artificial roost is proposed, it should be incorporated into the proposed development at height, in a sheltered sunny position away from windows and lighting. Further information is also provided by publications including RIBAs “Designing for Biodiversity”.

6. SUMMARY

A survey was undertaken at 2 The Greenway, Llandarcy during a period of settled weather in May 2021.

A daytime inspection was undertaken on 22nd January 2021 to survey for signs of roosting bats. The inspection found no evidence of bats within the dwelling.

The activity survey undertaken in May has demonstrated the absence of a bat roost within the roof space or walls of the target building.

7. REFERENCES

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