



Land at Twynyrodyn, Merthyr Tydfil

Grid Reference SO05969 05665

Bat Activity Survey Report

For Persimmon Homes

November 2019

TerrAqua Ecological Services Ltd

SE Wales Office
36 Somerset Road East
Barry
Vale of Glamorgan
CF63 1BE
01446 748052
carmen@terraqua-ecological-services.co.uk
Mobile 07742149344

W Wales Office
Swyn yr Awel,
Bwlch y Groes,
Llandysul
Ceredigion
SA44 5JX
dyfrig@terraqua-ecological-services.co.uk
Mobile 07951023358

Survey Undertaken By:

Carmen Jones MSc MCIEEM and Dyfrig Jones BSc

Report Written By:

Carmen Jones

Report Verified By:

Dyfrig Jones

*Copyright **TerrAqua Ecological Services Ltd**. All rights reserved. Ownership of the report remains with **TerrAqua Ecological Services Ltd** until payment has been received in full*

*No part of the report may be altered or extracted without the prior written consent of **TerrAqua Ecological Services Ltd** as to the form and context in which it may appear*

***TerrAqua Ecological Services** have produced the report for the sole use of the client and no other party may use or copy (Either in part or whole) any part of the report without the written confirmation of **TerrAqua Ecological Services Ltd**. Any part of the report cannot be altered or extracted without the prior written consent of **TerrAqua Ecological Services Ltd** as to the form and context in which it may appear.*

***TerrAqua Ecological Services Ltd** accepts no responsibility for any use of or reliance on the contents of this report by any third party.*

TerrAqua Ecological Services Ltd Company Registration Number 8053420

Contents Page

1	Introduction	Page 4
	1.1 Survey Brief	Page 4
	1.2 Client Details	Page 4
2	Background	Page 5
	2.1 Rational	Page 5
	2.2 Site Description	Page 5
	2.3 National Designations	Page 5
	2.4 Local Designations	Page 5
	2.5 Legal Status	Page 6
3	Survey Methodologies	Page 6
	3.1 General	Page 6
	3.1.1 Survey Personnel and Experience	Page 6
	3.1.2 Survey Dates	Page 6
	3.2 Bat Activity Survey	Page 7
	3.3 Bat Detectors	Page 7
	3.4 Data Search	Page 7
4	Results	Page 8
	4.1 Activity Survey	Page 8
	4.2 Data Search	Page 8
5	Conclusions	Page 8
6	Recommendations	Page 9
	References	Page 10

Appendix I Aerial views showing transect walked and Bat Activity Recorded

Appendix II Phase I Habitat Map

1 Introduction

1.1 Survey Brief

TerrAqua Ecological Services Ltd was commissioned by Persimmon Homes to undertake a Bat Activity Survey on a parcel of land referred to as Twynyrodyn, Merthyr Tydfil, Grid Reference SO05969 05665. The survey boundary was taken as that supplied by Mr Morgan Williams Planning Manager for Persimmon Homes.

The survey was undertaken between May and July 2019 (inclusive) as part of pre planning application works in order to understand any issues relating to Bats that may arise within the site and allow for any such constraints to be considered during the planning stage.

1.2 Client Details

The survey was undertaken on behalf of Persimmon Homes, Persimmon House, Llantrisant Business Park, Rhondda Cynon Taf following instructions to proceed by Mr Morgan Williams, acting for Persimmon Homes.

2 Background

2.1 Rational

An extended Phase I Habitat Survey of a parcel of potential development land referred to as Twynyrodyn, Merthyr Tydfil was undertaken by TerraAqua Ecological Services Ltd in January 2019 on behalf of Persimmon Homes. This Phase I survey identified habitats within the site boundary potentially suitable for use by foraging and commuting bats. No suitable roost sites were recorded within the site boundary.

As part of the overall ecological assessment of the site, and as recommended within the Phase I Habitat Survey Report, Persimmon Homes commissioned a survey of the site in order to ascertain its importance or otherwise to bat species. This will ensure that Bat species can be given appropriate consideration during any future development of the site, allowing for the retention and enhancement of any important foraging or commuting corridors. This report should be read in conjunction with the Extended Phase I survey report of the site.

2.2 Site Description

The site is located within a residential area of the village of Twynyrodyn, Merthyr Tydfil. The site includes areas of tussocky grassland, woodland and scrub. The woodland and scrub habitats extend beyond the boundaries of the site with extensive countryside to the south. The site has a slightly sloping southern aspect.

2.3 National Designations

No part of the site is covered by a National or International designation for its conservation importance.

2.4 Local Designations

A number of locally designated Sites of Interest to Nature Conservation (SINC), are located within a 2km radius of the site. These include:

Glynmil 500m west
Merthyr Common South 500m west
Merthyr Common Central 1km north east
Afon Taf 1km west
Rhydycar West 2km south west
Abercanaid Fields 2km south
Pentrebach Fields 1.75km south east
Pentrebach Tip 1.75km south

None of the above are specifically designated as a result of any known interest to bats

2.5 Legal Status

All Bat species are afforded full protection under the Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2010 (as amended). All bat species are listed as European protected species of animals.

Schedules 5 and 6 of the Wildlife and Countryside Act 1981 subsequently amended by the Countryside and Rights of Way Act 2000 makes it an offence for any person to:

- Intentionally kill, injure or take a bat
- Possess or control a live or dead bat
- Intentionally or recklessly damage, destroy or obstruct access to any place used for shelter or protection by a bat.
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection

3 Survey Methodologies

3.1 General

3.1.1 Survey Personnel and Experience

The survey was undertaken by experienced consultants, Carmen Jones MSc MCIEEM and Dyfrig Jones BSc, licensed by Natural Resources Wales (NRW) to undertake bat work. Licence number S085782/1.

Carmen Jones is an experienced bat worker with over 14 years' experience in bat work including survey and mitigation production. Dyfrig Jones is an experienced bat worker with over 14 years' experience of bat work including a period exceeding eight years as associate on the above licence. Dyfrigs experience includes both survey and mitigation production.

3.1.2 Survey Dates

The survey was undertaken using a transect methodology. A single transect was walked on each survey visit.

The surveys were undertaken on the following dates:

Table 1 Bat Activity Survey Dates

Date	Survey Type	Weather Conditions
17/05/2019	1 st Activity Transect	Dry 15°C light breeze 4/8 octs
23/06/2019	2 nd Activity Transect	Dry 21°C light breeze 2/8 octs
21/07/2019	3 rd Activity Transect	Dry and warm 21°C 1/8 Octs

3.2 Activity Survey

Bat activity surveys were undertaken across the entire site. The survey included a single walked transects around the site with the transect walked on three separate occasions. The survey transect was walked in a reverse direction on the second survey visit in order to ensure as far as possible that early emerging bats were detected on at least one of the survey visits. Any bats observed were identified and their flight direction noted.

Each transect commenced at sunset and continued for two hours.

3.3 Bat Detectors

Bat detectors were used to assist in the identification of any species commuting or foraging in the immediate vicinity. Bat detectors included heterodyne model Petterson D-200 and frequency division detectors Petterson D-230, Wildlife Acoustics EM3 and Eco Meter Touch 2 Pro. The Frequency division detectors were linked to a digital recording device permitting the data to be saved to an SD Card to allow for further analysis if necessary. In addition, the calls observed by the EM3 and Echo Meter Touch 2 Pro detectors were visibly assessed on the device screen in real time.

3.4 Data Search

As part of the Phase I Habitat Survey a desk top data search was undertaken for any records of species and/or habitats within the survey boundary. The data search was also extended to include a search for records within a 1.5 km radius of the survey centre of species or habitats, including protected and designated sites, which could be affected by the proposals for the site. These records were used to inform the Bat Activity Survey.

The data search included a search of records as held by the National Biodiversity Network online Gateway and a full data search undertaken by the South East Wales Biodiversity Record Centre (SEWBRc) Ref No 0189-398.

4 Results

4.1 Activity Survey

Bat activity around the site was low on all three survey visits. A total of four bat species were recorded over the course of the three surveys, namely common pipistrelle, soprano pipistrelle, natterer's, and noctule.

Common pipistrelle, soprano pipistrelle, natterer's and noctule were recorded on all three survey visits. The numbers of bats recorded was low with a maximum of eleven (11) common pipistrelle, one (1) soprano pipistrelle, three (3) natterers and two (2) noctule recorded on any given visit.

Bat activity was generally concentrated around the periphery of the site with only a small number of Noctule bats, recorded high over the site, passing across the main body of the site. Natterers were generally confined to the eastern and southern perimeter of the site while soprano pipistrelle were observed along the western and southern boundaries. Common pipistrelle were recorded around the full perimeter of the site.

Full results of the activity survey are shown in Appendix I:

4.2 Data Search

No records were found relating to any area within the survey boundary. A number of records were found relating to known common pipistrelle (*Pipistrellus pipistrellus*) roosts within 2km of the site including several within a 500m radius.

5 Conclusions

No part of the site is subject to a National, International or local designation for its importance to any bat species.

No buildings are present within the site boundary and no trees are present with features suitable for use by roosting bats.

The data search as undertaken for the Extended Phase I Survey (TerrAqua, 2019) show that common pipistrelle bats are known to historically roost within 500m of the survey boundary.

Bat activity across the main body of the site was low all during activity surveys which were undertaken using a transect methodology. Common pipistrelle were recorded on all survey visits foraging and commuting along scrub and woodland edges around the periphery of the site

Individual soprano pipistrelle were recorded foraging along the southern and western boundaries on all survey visits.

Individual natterer's bats were recorded on all survey visits foraging outside the eastern and southern boundaries. A maximum of three natterers were recorded on any single visit.

Noctule bats were detected and observed passing high over the site and adjacent areas to the south.

The bat activity results show that no area immediately within the survey boundary can be considered an important feeding or commuting area for bats and that the loss of the unimproved grasslands are unlikely to have a significant impact on the conservation status of any bats species at a site, local, or national level.

The peripheral areas of the site do support foraging and commuting areas for a total of four (4) bat species. In order to retain the value of these features for bats the peripheral tree lines should be retained as far as possible in order to ensure that all current feeding and commuting routes are retained for use by bats post development.

Appropriate lighting should be considered at an early stage of the development to ensure as far as possible that the southern hedgerow and adjacent lane are protected from light spillage and that this dark corridor is retained.

6 Recommendations

All hedgerows and tree lines around the perimeter of the site should be retained.

The boundaries of the site lie in areas away from any significant degree of light spillage and form an almost totally dark corridor during the main period of bat activity. All lighting for the site should be designed to ensure that no light spillage occurs along these boundaries and that the dark corridor is maintained

Roosting opportunities for bats are very limited within the main body of the site. It is recommended that in order to enhance the provision for bats within the site integral bat boxes suitable for bat species recorded during the activity survey are installed within a percentage of the proposed properties. Properties backing onto the eastern and southern boundaries are considered the most suitable for such enhancements.

References

Buczacki, S. (2002). *Fauna Britannica*. London. Hamlyn. pp 397-402

Google Earth Site Location Map accesses 05/11/2019. 15:00

Lawrence, M.J. and Brown, R.W. (1967). *Mammals of Britain*. Their Tracks, Trails and Signs. London. Blandford Press. pp 24-34

South East Wales Biodiversity Records Centre (SEWBReC) Data search January 2019
Twynyrodyn for TerraAqua Ecological Services Ltd (Ref No 0189-398)

Welsh Assembly Government (2016) List of are Species of Principle Importance for
maintaining and enhancing Biodiversity in relation to Wales

TerraAqua Ecological Services Ltd (2019 Extended Phase I Habitat Survey of Land at
Twynyrodyn, Merthyr Tydfil. Persimmon Homes

Vincent Wildlife Trust. (1993). Where Bats Live in Britain. Buildings. Herefordshire. Vincent
Wildlife Trust Press.

Joint Nature Conservation Committee. (2004). Bat Workers Manual. 3rd edition.

Appendix I

Aerial Views 1-3 Showing Transect Walked and Bat Activity Recorded



Aerial View 1 Showing location of Transect and 1st Survey May 2019 Bat Activity Recorded (Image Google Earth)

KEY CP Common Pipistrelle, SP Soprano Pipistrelle, NO Noctule, NA Natterers



Aerial View 3 Showing location of Transect and 3rd Survey July 2019 Bat Activity Recorded (Image Google Earth)

KEY CP Common Pipistrelle, SP Soprano Pipistrelle, NO Noctule, NA Natterers

Appendix II

Map Showing Habitats Present and Target Ecological Features

TerrAqua Ecological Services Ltd

Land at Twynyrodyn, Merthyr Tydfil
for Persimmon Homes East Wales

Preliminary Ecological Assessment

SCALE : 1 : 2500 @ A4 DATE : 25/01/2019

MAP FILENAME : TQ/Pers.: Twyn:Ecol Ass. 2019 v1



Map data shown may contain Ordnance Survey © products supplied by
Pear Technology Services Ltd; Email: info@peartechtechnology.co.uk
© Crown Copyright and database rights from date shown above
Ordnance Survey © licence number 100023148

Legend

-  Track/path
-  Un-improved
-  Scrub
-  Woodland
-  Tall Herb
-  Play Area
-  Amenity Grassland
-  Watercourse/Ditch
-  Site Boundary
-  Target Note

