

**PROPOSED DEMOLITION  
WELFORD COURT GUESTHOUSE,  
PORT ROAD, BARRY**

**BAT SURVEY REPORT**

**JUNE 2013**

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## Mr J White

Welford Court Guesthouse, Port Road, Barry: proposed demolition  
Bat Survey Report

### Document control

Issue	Stage	Author	Checked	Approved	Date
1	Issue	HBD	HBD	HBD	21.06.2013

### Contents Amendment Record

This report has been issued and amended as follows:

Issue	Revision	Description	Approved by	Date

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## NON-TECHNICAL SUMMARY

Following a building inspection which identified the use by bats, a bat survey comprising dusk emergence and dawn return to roost survey visits was carried out at buildings at Welford Court Guesthouse near Barry in the Vale of Glamorgan to determine which species are using the buildings, what type of use the bats are putting it to, and in what numbers.

The building inspection revealed evidence of bats in the form of a limited number of droppings. Following consultation with the Vale of Glamorgan's ecologist over the extent and scope of any survey work required, a bat activity survey was undertaken in May and June 2013.

The dusk emergence and dawn return surveys recorded common and soprano pipistrelle bats (*Pipistrellus pipistrellus* and *P. pygmaeus* respectively), foraging and commuting in the immediate vicinity of the buildings. No bats were seen to enter or emerge from any of the buildings during either of the survey visits.

It is considered that neither of the buildings is regularly used by bats and that use is on an infrequent, opportunistic and adventitious basis. It is considered unlikely that the building is used by bats for hibernation purposes.

In view of this information, it is considered that the conversion of the barn to domestic living space will not require either any further surveys or a Natural Resources Wales development licence in respect of bats. However, as opportunistic use by bats has been identified, temporary (for the duration of the project) and permanent mitigation will be required; this provision will be included within a Method Statement so that all those involved in the project understand the issues, procedures and requirements created by the potential presence of bats. Certain elements of the project will require supervision by a suitably experienced and licensed ecologist.

Should bats be discovered in the building during the project, it may be necessary to seek an NRW development licence.

It is recommended that a suitably experienced and licensed ecologist is "on-call" for the duration of the project.

## **1 INTRODUCTION**

### **1.1 BACKGROUND**

Celtic Ecology was commissioned by Mr J White to undertake a bat survey of buildings at the Welford Court Guesthouse in Barry to determine whether or not bats were using the building.

This survey report details the findings of the bat activity surveys undertaken in May and June 2013. This survey report provides an assessment of bat activity at the Guesthouse site to support a planning application (2012/00950/FUL) to the Vale of Glamorgan Council.

The surveys were carried out in accordance with current guidance on standards of survey for bats (Bat Conservation Trust, 2012) and accepted by the Vale of Glamorgan Council (VoGC).

### **1.2 SITE DESCRIPTION**

The buildings subject of this survey are located at Welford Court Guesthouse, Port Road, Barry, in the Vale of Glamorgan (National Grid reference ST 084680). The site is approximately 3kms to the west of Barry town centre and 1.5kms to the east of Cardiff International Airport (Figure 1). The land surrounding the property is comprised of large arable fields delineated by heavily managed (flailed) hedgerows. There are very few hedgerow trees. There are small woodlands to the north east, north west and south within 500m.

The subjects of the survey comprise two buildings: the main guesthouse and an outbuilding, a former workshop. For a full description please refer to the initial building assessment (Acer Ecology, November 2012<sup>1</sup>).

The Guesthouse is situated within 20m of the A4226; the ground to the front (south) of the property (between the building and the road) comprises an overgrown garden and a gravelled parking area (Figure 2). The ground to the east, north and west is gravelled. Between the Guesthouse and the workshop is an area of what was presumably garden but is now comprised of ruderal vegetation.

The workshop building is on the northern boundary of the Guesthouse's curtilage. The northern wall is covered with very dense ivy and is completely obscured by hedge vegetation.

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<sup>1</sup> Acer Ecology (November 2012) *Welford Court Guesthouse, Barry: Survey For Bats*.  
November 2012

Figure 1 – general aerial view of Welford Court Guesthouse (property arrowed red)



Figure 2 – detailed view of Welford Court Guesthouse. (Guesthouse arrowed yellow; outbuilding arrowed blue).



### 1.3 PROPOSED DEVELOPMENT

It is proposed to demolish the building and replace it with a new domestic dwelling.

## 2 INTRODUCTION TO BATS

Bats are small flying mammals that are nocturnal (active during the night) during their active season which is roughly April to October. There are 18 species of bats resident in Britain, although one species is considered to be extinct. British bats feed exclusively on insects; however during the winter months when insects are in short supply, bats hibernate in their winter (hibernation) roosts to survive this lean period. Bats emerge from hibernation around late March/early April and move into transition/intermediary roosts. Around early May, female bats gather in colonies to form summer/maternity roosts and it is here where they will give birth to a single baby between late May and early July.

The baby is reared solely by the female, the males playing no part in infant care. The baby is weaned and independent by the end of the summer. Mother and baby bats will stay in the maternity roosts until August and from there will move to transition/intermediary roosts. Adult female bats visit a male bat at a mating roost in the autumn and begin a period of voracious feeding, to gain the extra weight required to survive their winter slumber.

Bat roosts are varied, and they will utilise man-made structures including houses, bridges, ice-houses, pill-boxes, disused railway tunnels etc and natural structures such as caves or trees. Bats home ranges vary from species to species, from 3-4km for the smaller species such as the pipistrelle (*Pipistrellus* spp.) to the large noctule (*Nyctalus noctula*) which may fly 20 km or more. Bats have very few natural predators as they can out-manoeuvre most aerial predators, but some fall prey to owls and day-flying birds of prey which take advantage of the bat species that emerge early in the evening whilst there is enough daylight to hunt. However, the domestic cat is a far more efficient predator, taking bats as they emerge from their roosts.



### **3 LEGISLATION**

All British bats and any place used for shelter or protection, or a breeding site or resting place (their roosts) are fully protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 (as amended), which replaced the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). Their roosts are protected whether or not the animals are present.

Where a European protected species such as bats are present and an offence would otherwise be committed by undertaking any work, a development may usually only proceed, under a licence issued by Natural Resources Wales (NRW) who is the appropriate authority responsible for issuing licences under the above Regulations.

The licence will require submission of an application form, together with a Method Statement which should include (but not be limited to) the mitigation proposed (such as the replacement/compensation roost), timescales, phasing of the works, lighting proposals, roofing and timber material details, protection of the roost and bat during and after the works and a post development monitoring programme.

## **4 BAT SURVEY**

The bat survey consisted of three parts, these were:

- Daytime internal and external building inspection;
- Survey 1 – Dusk (emergence) survey; and
- Survey 2 – Dawn return to roost (emergence) survey.

The survey was undertaken by Hugh Dixon, CCW licence number 31851:OTH:CSAB:2011. Assisting with the activity surveys were Maggie Iles and Mick Griffiths who have been assisting with surveys over the last 8 and 3 years respectively; both are working towards obtaining licences of their own.

### **4.1 METHODOLOGY**

#### **4.1.1 Data search**

Following consultation with the Vale of Glamorgan Council's ecologist, it was determined that a data search was not required.

#### **4.1.2 Daytime inspection**

A daytime inspection of the buildings was conducted in October 2012 by Acer Ecology, *Welford Court Guesthouse, Barry: Survey For Bats*.

#### **4.1.3 Activity surveys**

Following consultation with the Vale of Glamorgan Council's ecologist, it was agreed that the scope of the activity element of the survey would be as follows:

##### *4.1.3.1 Survey 1 – dusk survey*

A dusk survey was carried out on 21<sup>st</sup> May 2013. The survey utilised 3(no.) surveyors (locations shown at Figure 3) with 2 situated on opposite corners of the guesthouse making it possible to view all elevations and roof lines at the same time and the third walking a transect around the outbuilding. The surveyors were equipped with a Wildlife Acoustics Echo Meter EM3 and two Batbox Duet heterodyne and frequency division detectors with one being attached to an Edinol recorder.

##### *4.1.3.2 Survey 2 – dawn survey*

This dawn survey was carried out on 31<sup>st</sup> May 2013. The same surveyors were employed in the same locations using the same equipment.

**Figure 3** – surveyor locations



## 4.2 SURVEY CONSTRAINTS

### 4.2.1 Daytime inspection

There were no constraints to the survey.

### 4.2.2 Survey 1 – dusk survey

There were no constraints to the survey.

### 4.2.3 Survey 2 – dawn survey

There were no constraints to the survey.

### 4.3 RESULTS

The survey findings are provided in the subsections below.

#### 4.3.1 Daytime inspection - summary

There were numerous potential access points to internal roof voids and spaces on all elevations for bats primarily holes under fascias, soffits and bargeboards.

The daytime inspection recorded evidence of bats (droppings) in the loft void of the Guesthouse and within the outbuilding. The number of droppings was not specified for either location; however, in the Guesthouse loft, the number of droppings was "low" with a suggestion that the numbers of bats using the building was also low, possibly only one individual animal. Within the outbuilding, the number of droppings indicated "casual or adventive access" [*sic*] by low numbers of bats, possibly one individual.

The droppings in the Guesthouse were considered to be old, possibly "deposited several years ago" while those in the outbuilding appeared to be "more recent".

A number of swallows' nests (*Hirundo rustica*) were observed in the outbuilding.

### 4.4 ACTIVITY SURVEYS

The conditions at the time of the activity surveys were undertaken as outlined in table 4.1 below.

**Table 4.1** – survey information summary

Survey Type	Date	Timing	Sunset/ sunrise	Weather
Survey 1	21 May 2013	20:30 – 23:05	21:07	Fine & dry. 5% high cloud clearing to end. Wind F1 (2) from SW. 15 - 9°C.
Survey 2	31 May 2013	03:30 – 05:30	05:02	Fine & dry. 30% clearing to end. No wind. 12 – 10.5°C.

#### 4.4.1 Survey 1 – dusk survey

No bats were seen to emerge from either of the buildings.

A number of common and soprano pipistrelle bats were heard and seen by surveyor #1 at 21:51 foraging along the front elevation of the Guesthouse and over the front garden. All these bats were seen by surveyor #2 arriving at the site to the site from the east (first bat at 21:35), indicating that the roost is elsewhere. Almost continuous foraging and social activity was then recorded on this elevation for the duration of the survey. Although a number of the bats were seen to take an interest in the south east eaves corner by surveyors #1 and #2; none was seen entering or re-emerging from the building. Bats were seen flying off to the west along the field side of the roadside hedge on two occasions, at 22:00 and 22:04; none was recorded coming back.

Surveyor #3 heard and saw common pipistrelles beginning at 22:13n and thereafter at intervals until 22:53 foraging over the ground between the Guesthouse and outbuilding and

along the hedge to the rear of the outbuilding. None was seen to take any interest in the outbuilding at all.

(Surveyor #2 observed bats flying into and out of the barn to the east of the property; this property is part way through being converted into domestic accommodation. No roosting activity could be ascertained).

#### **4.4.2 Survey 2 – dawn survey**

No bats were seen to emerge from or take any interest in either the Guesthouse or the outbuilding.

Overall, activity levels were very low with very few bats being seen and / or heard during the survey. Surveyor #1 heard pipistrelle social calling at 04:09 and again at 04:09. Surveyor #2 heard soprano pipistrelles at 03:30 and 03:48 and heard and saw common pipistrelles over the next door property at 03:59 and 04:01. Surveyor #3 heard (but did not see) common pipistrelles on 6 occasions between 03:44 and 04:08.

#### **4.5 CONCLUSION**

The results of this activity survey indicate that neither the Guesthouse nor the outbuilding is used as a maternity roost by any species of bat and that use evidenced by droppings is infrequent and adventitious by low numbers of bats, possibly only one individual. As it appears that there is a larger roost elsewhere in the vicinity (probably to the east), it is possible the buildings are used as a mating roost in the autumn prior to hibernation with a male bat (or bats) using it as a perching point from which to attract females from a nearby maternity roost. Otherwise the use would appear to be as an occasional night feeding perch.

## **5 EVALUATION OF ECOLOGICAL FEATURES**

### **5.1 COMMON PIPISTRELLE**

It is considered that the Guesthouse and outbuilding are both used only on an infrequent and opportunistic basis by pipistrelle bats; it is not clear which species, common or soprano pipistrelle is using the buildings as both species were recorded in the vicinity.

Temporary mitigation and habitat enhancement will be required.

**CONFIDENCE LEVEL: HIGH**

### **5.2 OTHER BAT SPECIES**

It is considered that other species of bat do not use the building for roosting purposes.

**CONFIDENCE LEVEL: HIGH**

### **5.3 WINTER USE**

It is possible that the walls of the Guesthouse have cavities could be used by bats for hibernation purposes.

**CONFIDENCE LEVEL: MEDIUM**

### **5.4 BREEDING BIRDS**

Nests were observed indicating that birds (swallows) use the barn for breeding.

Mitigation will be required.

**CONFIDENCE LEVEL: HIGH**

## **6 IMPACTS OF DEVELOPMENT**

The potential impacts are based on the current outline understanding of the scheme. This impact assessment may need to be reviewed and amended as necessary in light of any changes that may be made to the development proposals.

### **6.1 PROPOSED DEVELOPMENT**

It is proposed to demolish the Guesthouse and replace it with a private domestic dwelling. The outbuilding will also be demolished. (A second un-surveyed outbuilding will also be demolished).

### **6.2 PREDICTED IMPACTS**

#### **6.2.1 Bats**

Due to the paucity of evidence and the lack of emergence and return to roost activity seen at the development site, it is considered unlikely that there will be any adverse impact on bats as a result of the proposed development.

#### **6.2.2 Breeding birds**

Swallows' nests were observed in the outbuilding. The loss of this breeding site will require mitigation.

### **6.3 MITIGATING THE IMPACTS**

#### **6.3.1 Bats**

To guard against the possibility that bats might be present, temporary mitigation will be provided for the duration of the development in the form of a pole mounted "American" style bat box. The proposed location for this is shown on drawing CE-1306-101.

It is recommended that a permanent roost habitat enhancement is provided for bats in the form of a bat roost within the cavity wall or included within the fabric of the wall to replicate as far as is possible the location and orientation of the south east corner of the Guesthouse. An outline detail for this is shown on drawing CE-1306-101.

#### **6.3.2 Birds**

The loss of swallow nesting sites will be mitigated for by including provision for the installation of 5 Schwegler No. 10 swallow nest cups within a suitable open fronted structure (detail at Appendix A).

## 7 RECOMMENDATIONS

### 7.1 BATS

Mitigation in respect of bats is required. Therefore:

- A temporary pole mounted "American" style bat box will be erected at the north east corner of the residential curtilage (drawing CE-1306-101). Once the bat box is in place, the demolition can proceed;
- Demolition should take place between October and March (inclusive) in order to avoid the bat flight season, thereby reducing the impacts on bats as well as breeding birds. Should it be impossible to undertake the work during this period, a survey will be carried out a maximum of 24 hours in advance of the works to determine whether there are any bats and / or breeding birds present.
  - 1) If bats are present, the supervising ecologist will make the roost safe and ensure continued ecological functionality and prepare and obtain an NRW development licence prior to works recommencing.
  - 2) If breeding birds are present, all elements of the project which might adversely impact on them will have to be delayed to allow them to finish breeding of their own accord;
- All relevant site staff and sub-contractors will be given a tool box talk on the potential presence of bats, how to work in order to prevent harm to bats, what to do in the event that bats are found and the legal issues involved;
- The ridge tiles, top three courses of tiles and tiles within 1m of the gable ends of the Guesthouse will be removed by hand under the supervision of a suitably experienced and licensed bat ecologist. Following this a decision will be made as to whether or not any further hand working and / or supervision will be required;
- A visual inspection of the outbuilding will be made prior to its demolition;
- A suitably experienced and licensed ecologist is "on call" for the duration of the demolition works in case should bats be found outwith those times when works are supervised;
- A permanent bat box will be installed on the 1<sup>st</sup> floor of the west facing elevation (master bedroom). It will either be a proprietary bolt on box similar to a Schwegler 1FQ or be built into the wall (Schwegler 1FQ) or as per the detail in Appendix A.

In the event that bats are discovered using the buildings during the demolition, all work must cease, the licensed bat worker should be called and Natural Resources Wales (NRW) consulted. If this occurs during the winter months, the developer, through the licensed bat worker, should make provision to take any bats found into care for the duration of the hibernation period and release them in the following spring.

In this eventuality, an NRW development licence in respect of bats may be required, with an accompanying method statement and mitigation design. No further works would be permitted without the prior approval of NRW.

Consideration should be given to using landscaping and garden design to provide habitat suitable for bats by encouraging night flying invertebrates and creating dark corridors for foraging and commuting between roosts and adjacent foraging areas.

### 7.2 TIMESCALES

It is preferable to undertake the demolition work between October and March (inclusive) to avoid the main period of bat activity as well as the breeding bird season.



### **7.3 LIGHTING**

External lighting should be kept to a minimum to avoid impacting on foraging bats and reduce light pollution. All lighting will be directed away from the bat boxes and features. However, there are no specific restrictions on lighting in respect of bats.

### **7.4 ROOFING AND TIMBER MATERIAL DETAILS**

There are no restrictions; however, should features to benefit bats be included within the development it should be noted that breathable membranes should not be used in situations where bats may come into contact with them to prevent bats becoming entangled and trapped. Felt where it is used, should be bituminous in nature.

All timber used where bats may come into contact with it, will be tanalised with excess residues brushed off; or, if treatment is required, it will be treated using chemicals suitable for use where bats are present.

### **7.5 LICENSING**

It is considered that a Natural Resources Wales development license in respect of bats is not required.

## **8 SITE PHOTOGRAPHS**

Please refer to *Welford Court Guesthouse, Barry: Survey For Bats*. Acer Ecology, November 2012.

## 9 REFERENCES

Acer Ecology (November 2012) *Welford Court Guesthouse, Barry: Survey For Bats*.

Battersby, J. (Edited and compiled), (2005), *UK Mammals: Species Status and Population Trends*, JNCC/Tracking Mammals Partnership.

Battersby, J. (Ed) & Tracking Mammals Partnership. (2005). *UK Mammals: Species Status and Population Trends. First Report by the Tracking Mammals Partnership*. JNCC/Tracking Mammals Partnership,

Hundt, L. (2012) *Bat Surveys - Good Practice Guidelines*. Bat Conservation Trust, London.

Mitchell-Jones, A.J. & McLeish, A.P. (2004) *The bat workers' manual (3<sup>rd</sup> Edition)*. Joint Nature Conservation Committee.

*Multi-Agency Geographic Information for the Countryside ('Magic') website: [www.magic.gov.uk](http://www.magic.gov.uk)*

The Conservation of Habitats and Species Regulations 2010 (as amended) (HMSO).

The Natural Environment and Rural Communities Act (2006) (as amended) (HMSO).

The Wildlife and Countryside Act 1981 (as amended) (HMSO).

## APPENDIX A

Details of wall mounted and bespoke cavity bat boxes and swallow cups.

### Schwegler 1FQ (external fitting)



- \* Material: Woodcrete
- \* Height: 60cm
- \* Width: 35cm
- \* Depth: 9cm
- \* Weight: 15.8g

### Schwegler 1FR (flush mounted)



- \* Material: Woodcrete with integrated wooden panel
- \* Height: 47.5cm
- \* Width: 20cm
- \* Depth: 12.5cm
- \* Entrance dimensions: 15 x 9 x 2cm
- \* Weight: 9.8kg

### Bespoke cavity roosts

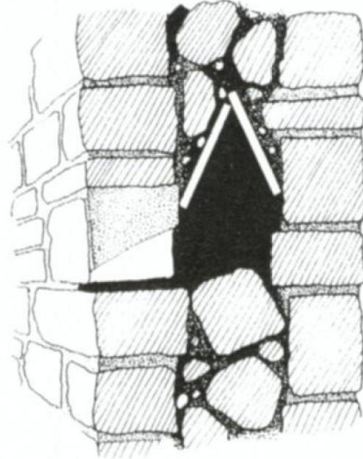
A bat cavity can be created in the west facing wall (at first floor level) in line with the detail below (taken from the *Bat Workers Manual* 3<sup>rd</sup> Ed. JNCC 2004). The dimensions of the cavity will be a minimum of:

Height            550mm (although a cavity extending to ground level would also allow winter hibernation use)

Width	minimum 300mm
Depth	minimum 50mm; maximum 75mm
Access slot	50 x 17mm

The access will be a horizontal slot in the mortar between two stones. There will be a roof formed by two tiles (or similar) at the top of the cavity. (Please note that the tiles are not included in the overall height).

The box will be positioned so that the entrance to the box will be a minimum of 3m above ground level and no closer than 500mm from the flat roof of the building to minimise potential predation by cats and birds.



The box will be surrounded by insulation material if such material is being used.

This feature is designed to enhance the habitat for roosting bats, particularly Pipistrelle species (*Pipistrellus* sp.) and Myotis species bats.

#### **Schwegler Number 10 swallow nest cup**



- \* Height: 11cm
- \* Width: 25cm
- \* Depth: 14cm
- \* Weight: 0.9kg

A board can be fitted underneath to prevent droppings dirtying the ground.



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STATUS	ECOLOGICAL ASSESSMENT
CLIENT	MR. J. WHITE C/O JEFF WHITE MOTORS, NINIAN PARK ROAD, CARDIFF, CF11 6NY
PROJECT	WELFORD COURT GUESTHOUSE, PORT ROAD, BARRY
TITLE	BAT MITIGATION PLAN

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DATE	CHECKED
JUNE 2013	H. B. DIXON
DRAWING NUMBER	REVISION
CE/1306/101	-