

**82 Chichester Road
Tilehurst
Reading
Berkshire
RG30 4XD**

Daylight Bat Survey

Ref: R1830/a

January 2018



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1 INTRODUCTION

1.1 Background

- 1.1.1** John Wenman Ecological Consultancy LLP was commissioned by Mr Deacon to undertake a survey for the presence of bats within the detached chalet bungalow and garage at 82 Chichester Road, in Tilehurst, Berkshire.
- 1.1.2** The survey was commissioned in connection with planning proposals to be lodged with the Reading Borough Council to raise the roof and add a second storey to the existing dwelling.

1.2 Legislative Background

- 1.1.1** All British bat species are fully protected by the Wildlife & Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations'). In summary, the legislation combined makes it an offence to:
- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a bat;
 - Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair the ability of bats to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating bats, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species;
 - Deliberately kill, injure or take any bat.
- 1.1.2** The government's statutory conservation advisory organisation, Natural England, is responsible for issuing European Protected Species licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. A licence can be issued if the following three tests have been met:
- **Regulation 55(9)(a)** - there is "no satisfactory alternative" to the derogation, and;
 - **Regulation 55(9)(b)** - the derogation "will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range" and;

- **Regulation 55(2)(e)** - the derogation is for the purposes of “preserving 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”.

1.1.3 Local authorities have a statutory duty under Regulation 7(3e) of the Habitat Regulations to have regard to requirements of the Habitats Directive in the exercise of their functions. They must therefore consider and determine whether these three tests are likely to be satisfied by planning proposals affecting European Protected Species before granting planning permission.

1.1.4 If a European Protected Species licence is necessary, a licence can be sought once all the necessary planning consents have been granted. Natural England aims to issue a decision on licence applications within 30 working days of submission.

1.1.5 Licensable projects affecting small numbers of seven commonly occurring species occupying roosts of low conservation importance may fall under the remit of the Low Impact Class Licence, which would enable consultants registered by Natural England to carry licensable work under the Class Licence once sites have been registered in advance with Natural England. Registration forms must be submitted at least three weeks before work is due to start, and if acceptable, Natural England aims to register sites within two weeks.

1.1.6 Survey data supporting EPS licence applications or the registration of the site under the Low Impact Class Licence (WML-CL21) must be up to date i.e. have been conducted within the current or most recent optimal survey season i.e. May to August. Therefore, if surveys show bats are present and licensable work is delayed until during or after the next survey season, updated surveys will be required to support an application or site registration.

1.3 Site Location and Context

1.3.1 The property is situated on the northern side of Chichester Road in Tilehurst, Berkshire (OS grid reference: SU 67429 73728).

1.3.2 The property is situated along a private residential road with further properties on all sides. In the wider area, Blundalls Copse, which comprises

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of semi-natural woodland with a stream running through the middle and is designated as a Local Nature Reserve (LNR) and a Local Wildlife Site (LWS), is situated 140 metres to the south. Lousehill Copse, a semi-natural ancient woodland site designated as a LNR, is situated 300 metres to the east, and Round Copse, a LNR, is situated 400 metres to the north east. School recreational grounds are situated 180 metres to the north east and 250 to the south east. The River Thames is 1.24 kilometres to the north east of the property. These habitats in the local area offer good quality foraging and commuting opportunities for bats.

2 SURVEY METHOD

2.1 Building Inspection

2.1.1 A survey of the interior and exterior of the chalet bungalow was undertaken by two ecologists registered under Natural England bat survey class licence CL18 on the 9th January 2018.

2.1.2 The survey was undertaken with the aid of binoculars and a high power (1 million candle power) torch and looked for features that could offer potential roosting sites following standard survey guidelines (Collins 2016; Mitchell-Jones 2004; Mitchell-Jones & McLeish 2004).

2.1.3 The following may indicate the presence of a bat roost within a building:

- Bat droppings (these can be found externally, especially in sheltered areas such as window sills, underneath roost entrances or internally within a roof space);
- Piles of insect remains e.g. moth wings (these may be indicative of regular feeding sites used by species such as brown long eared bat);
- Staining at roost entrances or within the roost (urine and oil from fur can leave stains on timbers when bats are gathered for long periods);
- Bats (live or dead).

2.1.4 Hipped and pitched roofed, residential buildings may offer potential roosting sites in a number of locations, favoured locations include:

- Under roof, ridge and hip tiles, especially when loose or lifted tiles are present, or sections of mortar are missing;
- Under sections of raised lead flashing;
- Beneath lifted barge boards;
- At the gable ends – access is typically gained at the roof apex via gaps in the soffits or under roof tiles;
- At the eaves – gaining access via gaps between the soffits and wall;
- Within an enclosed roof space – long-eared bats (*Plecotus* sp.) for example, will often cluster at the ridge beam.

2.2 Survey Constraints

2.2.1 Full access was available to the exterior of the chalet bungalow and garage, and the eaves space of the chalet bungalow; however, the interior of the roof

space was blocked partly by a water tank and the garage was not accessible.

3 SURVEY FINDINGS

3.1 Introduction

3.1.1 Photographs of the site are presented in **Appendix 1** and a plan of the external and internal survey findings with associated target notes is shown in **Appendix 2**. The survey findings from the exterior and interior of the house are described as follows:

3.2 External Survey

- 3.2.1** The chalet bungalow had a hipped roof covered with flat clay roof tiles; with a detached single storey pitched roofed garage present to the rear (northern) side of the bungalow (**Photographs 1, 2 & 3**).
- 3.2.2** The roof tiles were mostly in place, but with the occasional gaps under the roof tiles just below the hip tiles on all elevations of the bungalow, under lifted tiles beneath the ridge on the front (south facing) elevation, under a broken tile on the front (south facing) elevation and under a group of sunken tiles behind the chimney on the rear (north facing) elevation, creating gaps suitable for roosting bats (**Photographs 4, 5, 6 & 7; Target notes 1, 2, 3 & 4**). The hip and ridge tiles were all in place and mortared fully (**Photograph 8; Target note 5**).
- 3.2.3** The soffits were mostly sealed tightly to the brick walls to the front of the bungalow; however, gaps were visible behind the soffits on the rear and side elevations (**Photographs 9 & 10; Target notes 6 & 7**). Lead flashing was uneven around the base of the chimney on the side (east facing) elevation and gaps were visible beneath the roof tiles directly behind the chimney on the rear (north facing) elevation (**Photograph 11; Target notes 8 & 9**).
- 3.2.4** The hanging tiles on the dormer window were generally tightly fitted; however, gaps were visible at the junction of the tiles with the main roof, offering potential roosting opportunities for bats (**Photograph 12; Target note 10**).
- 3.2.5** The garage was of brick construction with a pitched roof covered in flat roof tiles. The roof and ridge tiles were all in place and tightly fitted (**Photograph 13; Target note 11**). The front (southern facing) gable end was clad with hanging tiles, which were relatively flat; however, a couple of tiles were

missing, creating access opportunities for bats (**Photograph 14; Target note 12**). The verge tiles at the front of the garage were mostly mortared apart from a large gap which was present where the tiles joined the soffit box (**Photograph 15; Target note 13**). Gaps were visible between the under-cloaking and bricks along the verge at the rear of the garage (**Photograph 16; Target note 14**). There were also a couple of cracks in the mortar and a large gap where the under-cloaking was damaged at the rear gable end (**Photograph 17; Target notes 15 & 16**).

3.2.6 No evidence of bats was visible on the exterior of the bungalow or garage.

3.3 Internal Survey

3.3.1 The bungalow's roof space was accessed via a loft hatch and had an estimated roof to ridge height of one metre. The roof was of 'cut and pitch' construction with hipped ends, and was lined with bitumen roofing felt. A large water tank below the ridge blocked access into the roof space (**Photograph 18**). The bitumen felt, where visible from the loft hatch, was fitted tightly (**Photograph 19; Target note 17**). The ridge was cobwebbed, which can indicate that there has been little or no recent bat activity at the ridge (**Photograph 20; Target note 18**). The floor was insulated with fibreglass (**Target note 19**).

3.3.2 The eaves space was accessed via a doorway along the northern side of the bungalow and had an estimated roof height of 1.5 metres. The roof was lined with bitumen roofing felt, which was intact and fitted tightly (**Photograph 21; Target note 20**). Paper backed fibreglass was present on the internal walls (**Photograph 22**). The rafters were cobwebbed, which can indicate that there has been little or no recent bat activity within the eaves space (**Photograph 23; Target note 21**).

3.3.3 The floor was boarded partially and insulated with fibreglass, which did not extend as far as all of the eaves, which were open in places (**Photograph 24; Target note 22**). Two old wasps' nests were present in the eaves space, along the eastern and rear roof elevations (**Photograph 25; Target notes 23 & 24**).

- 3.3.4** There was no access to the interior of the garage but the roof was visible through the window was of cut and pitched construction and was lined tightly with bitumen roofing felt.
- 3.3.5** No bats or evidence of bats was visible within the roof or eaves spaces of the chalet bungalow during the survey.

4 DISCUSSION AND RECOMMENDATIONS

- 4.1.1** The absence of any evidence of roosting bats in the roof and eaves spaces of the chalet bungalow at 82 Chichester Road suggests it is unlikely that the property supports bat species that typically occupy roof voids.
- 4.1.2** Externally, there were features of the chalet bungalow and garage with potential to provide roosting opportunities for crevice-dwelling bat species such as pipistrelles (*Pipistrellus* spp.) and smaller *Myotis* species, such as lifted roof tiles, uneven lead flashing, and gaps behind the soffit boxes around the bungalow, and gaps in hanging tiles and under the verge tiles at the gable ends of the garage. Two species of pipistrelle bat: the common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*) are widespread and abundant throughout the UK (Richardson 2000). Small *Myotis* species: Whiskered bat (*Myotis mystacinus*) and Brandt's bat (*Myotis brandtii*) are widespread and common but less abundant than the pipistrelle species. Roosts supporting pipistrelle and/or small *Myotis* bat species are considered to be of low to moderate conservation importance (subject to the type of roost present i.e. non-breeding roosts supporting individual or small numbers of bats through to maternity roosts supporting large numbers of female bats). Evidence of crevice-dwelling bats utilising external features such as the space between the roof tiles and roof lining is typically hidden from view and therefore the presence of a bat roost cannot be ruled out at this stage.
- 4.1.3** Taking all factors into account i.e. availability of roosting opportunities and proximity to good quality foraging habitat, overall the bungalow and garage were considered to be of moderate potential for use by bats and further survey as detailed in Section 4.2 below, would be necessary to determine if bats are present or likely to be absent, and if present, to determine the status of any roost(s).

4.2 Further Survey

- 4.2.1** Further survey is required to establish if the property is used by roosting bats. Surveys should comprise of at least one evening emergence and one dawn re-entry survey. The surveys should be carried out in the period between May and September, with at least one visit in the period between

May and August; at least two weeks should separate the visits (Collins 2016).

4.3 Impact of Proposals and Recommendations

- 4.3.1** If further survey shows roosting bats are present, the proposed extension to the chalet bungalow and renovation of the garage may lead to the loss of roosting sites. Furthermore, if bats are found to be using the roof, the proposed work may harm and/or disturb any bats present at the time of the works, and therefore, should further survey show bats are present in sections of the roof to be affected, an EPS licence or registration of the site under the Low Impact Class Licence (if appropriate) would be required before the commencement of the work.
- 4.3.2** If required, a licence must be obtained before the commencement of the licensable work and can be issued by Natural England if the three licensing tests (detailed in 1.2.2) have been met. To meet one of the licensing tests, it would be necessary to demonstrate that the 'favourable conservation status' of bats using the dwelling would be maintained throughout and after the completion of the work by employing mitigation measures during the work, by providing compensatory roosts in the short-term and ensuring that roosting sites are retained on site in the long-term. Indicative provisional mitigation proposals are set out in summary in section 4.4 below. **N.B. the preparation of a detailed mitigation strategy necessary for the submission of a licence application should be based on the findings of further survey detailed in section 4.2 above.**

4.4 Indicative Mitigation Proposals

- 4.4.1** If further survey shows a European Protected Species licence is required, under the terms of a full licence or Low Impact Class Licence (if applicable), the start of the work affecting the bat roost(s) should be timed to avoid the periods when bats are most susceptible to disturbance i.e. winter hibernation season for all roosts (mid-November to February) to avoid disturbing torpid bats, and outside of the peak summer breeding season (May to mid-September) where evidence of a maternity roost is recorded.
- 4.4.2** Replacement roosting opportunities should be provided so that they are available to bats in the short term i.e. prior to and during the work by erecting woodcrete bat boxes suitable for the species present on nearby

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mature trees or buildings before the work starts. A 'soft strip' approach to the work should be adopted i.e. the careful removal of features e.g. roof tiles used by roosting bats by gloved hands, under the supervision of a licensed ecologist. In the event that bat(s) are discovered during the course of the work, the licensed ecologist should capture the bat(s) and transfer it/them directly to one of the bat boxes erected in advance of the works.

- 4.4.3** The newly extended property could incorporate replacement roosting opportunities. For example, opportunities suitable for crevice-roosting species could be readily provided by creating crevices measuring 15-20mm wide under roof tiles or by installing purpose built bat roosting boxes such as Schwegler 1FR bat tubes or Habibat 001 boxes within the walls of the house. **N.B. if bats are allowed to access to the space beneath roof tiles, breathable roofing membranes, which are harmful to bats must not be used; bitumen and hessian (Type 1F) felt or timber sarking should be used instead.**

5 REFERENCES

Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists – Good Practice Guidelines 3rd Edition*. Bat Conservation Trust, London.

Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

Mitchell-Jones, A. J. & McLeish, A. P. (2004). *Bat Workers' Manual (3RD Edition)*. JNCC, Peterborough.

APPENDIX 1 - SITE PHOTOGRAPHS



1. Front of the chalet bungalow viewed from the south



2. Rear of the chalet bungalow viewed from the north



3. The pitched roof garage situated to the rear of the chalet bungalow



4. Occasional gaps under the roof tiles just below the hip tiles to the rear of the property



5. Lifted roof tiles just below the ridge to the front of the property and just below the hips



6. Broken roof tile to the front of the property



7. Sunken roof tiles behind the chimney on the rear of the property



8. Hip tiles in place and fully mortared



9. Gaps behind the soffits along the eastern side of the property



10. Gaps behind the soffits along the rear of the property



11. Gaps in tiles behind the chimney to the rear of the property



12. Potential gaps where the dormer window joined the main roof



13. Roof tiles in place and tight on the garage



14. Hanging tiles missing on the gable end to the front of the garage



15. Large gap present where the verge tiles joined the soffit box at the front of the garage



16. Gaps between the under-cloaking and bricks along the rear gable end of the garage



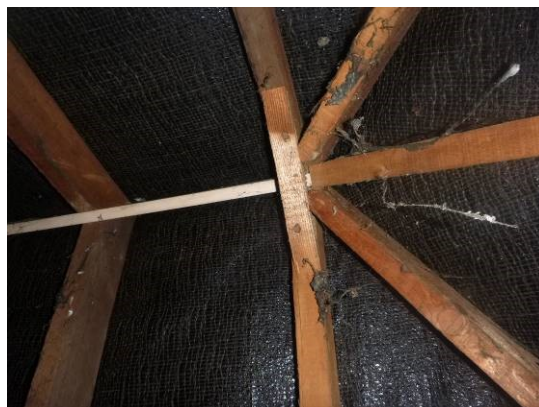
17. Crack in the mortar and a large gap where the under-cloaking was damaged on the rear gable end of the garage



18. Internal view of the roof space with access blocked by a water tank



19. The roof space lined with bitumen felt.



20. The ridge of the roof space which was cobwebbed.



21. Internal view of the eaves space which was lined with bitumen felt.



22. The internal walls of the eaves space insulated with fibreglass and paper.



23. The cobwebbed rafters of the eaves space.

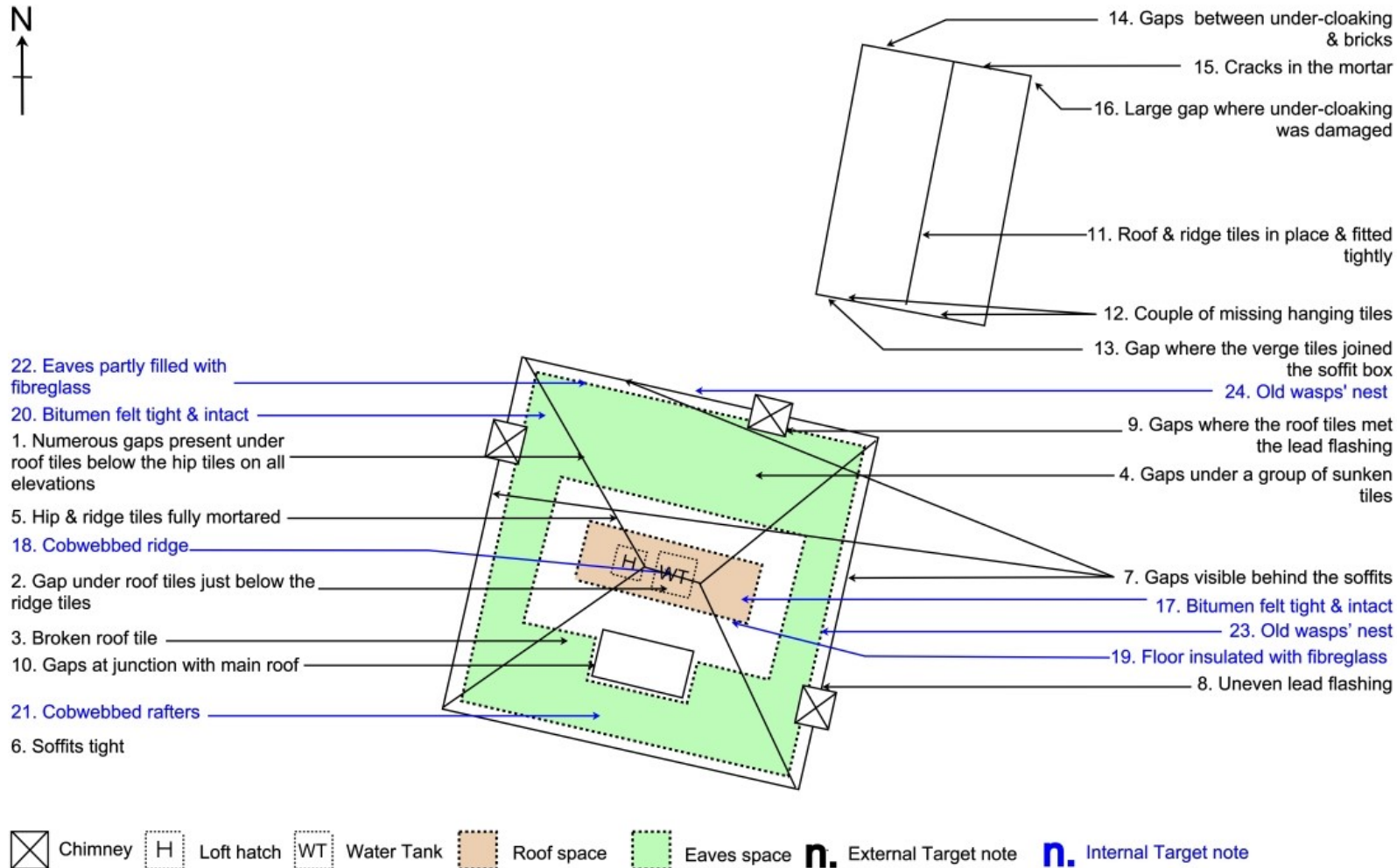


24. The eaves which were filled with fibreglass in places.



25. Wasps' nest present along the rear (north facing) side of the eaves space

APPENDIX 2 – DAYLIGHT BAT SURVEY FINDINGS



Drawn by:	Date	Scale:	82 Chichester Road Tilehurst	
VP	Jan 2018	Not to scale	Daylight Bat Survey Findings	