



## 16 Tower Close, Emmer Green, RG4 8UU

### Preliminary Bat Roost Assessment



June 2022

|                |                                     |
|----------------|-------------------------------------|
| Document title | PRA Survey, 16 Tower Close          |
| Date           | 2 June 2022                         |
| Author         | Amanda Lloyd                        |
| Client Name    | Mr Tim Jones                        |
| Site           | 16 Tower Close, Emmer Green RG4 8UU |

|           |                |                    |                                                                                     |
|-----------|----------------|--------------------|-------------------------------------------------------------------------------------|
| Author    | Amanda Lloyd   | Spires Ecology Ltd |  |
| Reviewer  | Merryl Gelling | Spires Ecology Ltd |  |
| Issued by | Merryl Gelling | Spires Ecology Ltd |  |

Spires Ecology Ltd has issued this report to the client for their sole use and it therefore may not be relied upon by any third party without prior written consent by Spires Ecology Ltd. Due care and attention have been given in the preparation of this report, however information provided by third parties has not been independently verified. Spires Ecology assumes no liability for any loss resulting from errors, omissions or misinterpretation of this information made by others.

All stated findings and recommendations within this report are based on evidence and facts at the time of survey by Spires Ecology Ltd, and the date at which third party information was obtained. The content of this report adheres to the provisions of the Chartered Institute of Ecology and Environmental Management (CIEEM) Code of Conduct.

None of the statements or advice set out in this report constitutes legal advice.

---

## CONTENTS

|           |                                                                                    |           |
|-----------|------------------------------------------------------------------------------------|-----------|
| <b>1.</b> | <b>EXECUTIVE SUMMARY .....</b>                                                     | <b>2</b>  |
| <b>2.</b> | <b>BACKGROUND INFORMATION .....</b>                                                | <b>3</b>  |
|           | Background .....                                                                   | 3         |
|           | Legislative context .....                                                          | 3         |
|           | Landscape and ecological context .....                                             | 3         |
|           | Objectives of the survey and report .....                                          | 3         |
| <b>3.</b> | <b>SURVEY METHODOLOGY.....</b>                                                     | <b>5</b>  |
|           | Field survey personnel.....                                                        | 5         |
|           | Preliminary Roost Assessment Survey for bats .....                                 | 5         |
|           | Desk study.....                                                                    | 6         |
| <b>4.</b> | <b>RESULTS.....</b>                                                                | <b>7</b>  |
|           | Desk study.....                                                                    | 7         |
|           | Inspection survey.....                                                             | 7         |
| <b>5.</b> | <b>CONCLUSIONS .....</b>                                                           | <b>11</b> |
|           | Summary of Findings .....                                                          | 11        |
|           | Constraints.....                                                                   | 11        |
|           | Further survey.....                                                                | 11        |
|           | Future considerations.....                                                         | 11        |
|           | Potential mitigation and enhancements .....                                        | 11        |
|           | Additional ecological considerations .....                                         | 12        |
|           | Limitations .....                                                                  | 12        |
| <b>6.</b> | <b>APPENDIX 1.....</b>                                                             | <b>13</b> |
|           | Guidelines for assessing potential suitability of sites to support bat roosts..... | 13        |

---

---

## 1. EXECUTIVE SUMMARY

### *Site details:*

The property, 16 Tower Close (grid reference SU723774), is situated in the eastern corner of Tower Close, Emmer Green. The site consists of one house with an attached converted garage and small sheds within the rear garden with a line of mature trees on the eastern boundary.

### *Proposed works:*

The works proposed include a two-storey front extension, with a single storey front, side and rear wraparound extension with further internal works. A planning application is currently with Reading Borough Council (number 220612).

### *Survey methodology:*

A Preliminary Roost Assessment (PRA) for bats was conducted on the house on 25<sup>th</sup> May 2022 at the behest of Mr Tim Jones.

### *Findings:*

No bat droppings were found within the loft void inspected. This space was cramped with a modern truss structure and high levels of internal storage. However, hanging tiles are present on both the rear and front of the house. Some of these tiles have naturally lifted, revealing cobweb-free gaps. The Bat Roost Trigger Index for the house was 0.55, therefore 16 Tower Close is considered to have a low potential to support roosting bats.

### *Impact Assessment:*

In the absence of mitigation, there is a risk of destruction of any bat roosts present within the building, and/or a risk of death or injury to bats themselves.

### *Recommendations:*

At least one bat activity survey should be undertaken on 16 Tower Close, Emmer Green during the peak activity period (May-September) to determine if, and therefore how, bats are utilising the building. Should bats be found present, then a further two activity surveys will be needed to inform a European Protected Species Mitigation licence application (should one be required) prior to any works being undertaken.

---

## 2. BACKGROUND INFORMATION

### Background

A planning application has been submitted to Reading Borough Council (220612) for a two-storey front extension with a single storey front, rear and side wraparound extension. Consequently, there is a risk of destruction of any bat roosts present within the building, and/or a risk of death or injury to bats themselves, therefore a preliminary roost assessment for bats was requested to assess this risk and determine if any further survey work is required.

### Legislative context

Bats and their roost sites are protected by law such that it is an offence to deliberately, intentionally, or recklessly disturb, kill, take, or injure bats or damage or destroy their roost sites. Actions that will constitute an offence in law may be mitigated against if sufficient precautions are followed and/or a mitigation license is sought from the Statutory Nature Conservation Organisation (SNCO; Natural England). Therefore, a precautionary approach has been adopted to ascertain the use, if any, bats are making of these buildings in relation to a planning application submitted to the Local Planning Authority (LPA) to better inform any subsequent decisions.

### Landscape and ecological context

The site at 16 Tower Close contains a 1960's-1970's house (grid reference SU723774) situated on the eastern corner of Tower Close, Emmer Green. The house has an attached converted garage with smaller sheds in the rear garden. The garden is mostly laid to lawn with little formal planting, however there are mature trees along the eastern boundary leading to a small woodland that is connected by other wooded habitat to Clayfield Copse (173m south east of the site). The site is set on the edge of Emmer Green with agricultural land to the north, west and east. Within 5km of the site there is one Area of Outstanding Natural Beauty (Chilterns), two sites of special scientific interest (SSSI's), and two Local Nature Reserves, one of which mentions the presence of pipistrelle bats on site (Ali's Pond LNR). One LNR lies within 2km of the site (Clayfield Copse). Eight European Protected Species mitigation license for bats was granted within 2km of the site<sup>1</sup>.

### Objectives of the survey and report

The preliminary bat roost assessment survey included an internal and external inspection of the property to identify its' potential to contain bat roosting sites. This involved a systematic search with close-focusing binoculars, an endoscope (where appropriate) and a high-powered torch, looking for bats themselves, as well as any evidence of bat use. Bat surveys have been conducted in accordance with current guidance<sup>2</sup>.

Potential appropriate mitigation, compensation and enhancement measures are assessed for this site following the legal protection given to bats under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, and any requirement for a European Protected Species

---

<sup>1</sup> MAGIC, 2022: <http://www.natureonthemap.naturalengland.org.uk/>

<sup>2</sup> Collins, J (ed) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> edn). The Bat Conservation Trust, London.

---

Mitigation (EPSM) Licence or Bat Mitigation Class Licence (BMCL – formerly the Bat Low Impact Class Licence) is considered.

DRAFT

---

### 3. SURVEY METHODOLOGY

#### Field survey personnel

The survey was conducted by Dr Merryl Gelling CEcol MCIEEM. Dr Gelling is a Chartered Consultant Ecologist specialising in protected species and has over twenty years practical experience of wild mammal surveying in the UK. Dr Gelling has published several scientific papers on wild animal health and welfare, and is an experienced bat surveyor, holding Natural England Bat Survey Licences WML CL 19 and 20 (Levels 3 & 4; numbers 2015-13150-CLS-CLS & 201-13151-CLS-CLS), permitting disturbance of bats for the purposes of surveying for science and education or conservation, and WML CL 21 (Registered Consultant RC083), permitting the registration of individual sites under the Bat Mitigation Class Licence. Dr Gelling hold Accreditation Level 3 under the Natural England Earned Recognition pilot scheme, as well as other Natural England Protected Species and Home Office licences. A significant portion of Dr Gelling's work has focused on advising on suitable bat mitigation for development projects.

Assistance during the PRA survey was provided by Dr Amanda Lloyd MCIEEM, who also holds a level 2 Natural England Bat Survey Licence (WML CL 18 2016-23252-CLS-CLS).

#### Preliminary Roost Assessment Survey for bats

The property was assessed for its' suitability to support roosting bats using high powered torches, ladders, and binoculars where appropriate. Signs searched for, and indicative of bat use, included:

- Faeces – these typically contain fragments of insect exoskeleton and crumble (unlike those of small rodents, which typically harden over time). Bat droppings will stick to surfaces including walls, windows, and window ledges. They may also become caught in cobwebs below a roost site or feeding perch.
- Urine staining and droplets on horizontal surfaces – like faeces, urine is a sign of recent activity and may highlight flyways.
- Feeding remains – these include the discarded wings of flying invertebrates, which may accumulate under a feeding perch. Some species, such as the Brown long-eared bat, have a well-known penchant for moths of the Noctuid family. Therefore, the accumulated wings of these Noctuid moths are indicative of the presence of this bat.
- Oil staining – the fur of bats may leave an oily residue on surfaces close to occupied roost sites and access / re-entry points.
- Diurnal vocalisations – these are most pronounced at larger roost sites during periods of hot weather.
- Absence of cobwebs – a well-used bat roost, and its access points, are typically clear of cobwebs.
- Scratches – scratch marks, produced by the claws of many bats, may be apparent close to the access point for a well-used roost.
- Dead bats.
- Tracks in dust.
- Odour – most bats have a distinctive odour and certain species, such as the Noctule and Soprano pipistrelle are noted for their pungent-smelling roosts, resulting from urine scent marking activity and oily fur.

---

Consideration was also given to the following factors, regarding identifying the suitability of building's features to support roosting bats:

- Surrounding habitat: potential bat flight-lines and bat foraging areas locally.
- Construction features: architectural features including loft spaces, barge boards, soffit boxes, lead flashing, cavity walls and hanging tiles can provide bat roosting potential. Some construction features and materials are more favourable to bat occupation than others.
- Building condition: if the building has no roof or has a sound roof with no potential bat entry gaps, then there is a lower likelihood of bats being present.
- Internal conditions: temperature regime, protection from the elements and wind/light/rain penetration.
- Potential bat-access points: both flight and crawl access.
- Potential roosting locations: all bat-accessible voids, cracks, and crevices.

In addition, the Swift Ecology Bat Roost Trigger Index<sup>3</sup>, aimed at helping to evaluate the suitability of structures and buildings to support summer bat roosts was used. This tool has been designed to augment professional judgement and allow comparison of different structures and buildings to help maintain a consistent and systematic approach to their assessments across a range of structure or building types, characters, and ages. Results of the Trigger Index are only given for buildings and structures where evidence of bats has not been confirmed, to establish potential of the building to support roosting bats.

No other specific faunal surveys were undertaken. However, incidental records were made, and the habitats identified on site were evaluated for their potential to support species of conservation interest, including protected and priority species.

### Desk study

Google maps and 'Where's The Path' websites were accessed to view aerial images of the site. Assessment of the likelihood of bat species being present within the local environment has been informed by collating records of known roosts in the area. European Protected Species Mitigation licences that have previously been granted were searched for on the MAGIC website<sup>4</sup>, which also identifies local Areas of Outstanding Natural Beauty (AONB's), local and national Nature Reserves and Special Areas of Conservation (SAC's), which have been designated as such due to a significant population or species of bat.

---

<sup>3</sup> <http://swiftecology.co.uk/trigger.php>

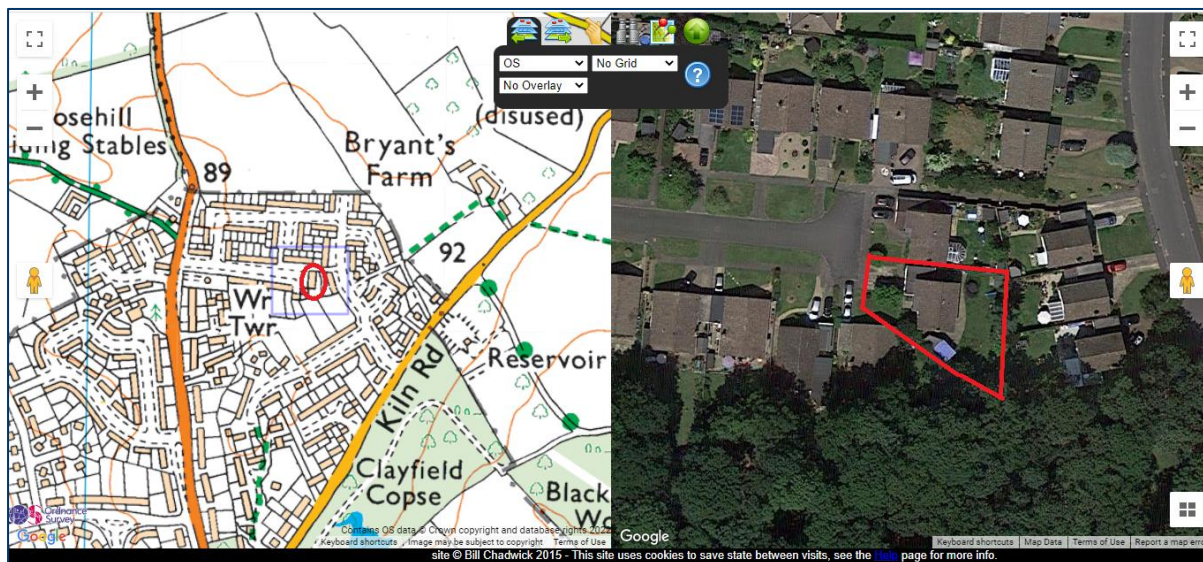
<sup>4</sup> MAGIC, 2022: <http://www.natureonthemap.naturalengland.org.uk/>

## 4. RESULTS

### Desk study

#### Site maps

Figure 1: Where's the Path street map of the location (circle) and aerial image of the site (square).



Within 5km of the site there is one Area of Outstanding Natural Beauty (Chilterns), two sites of special scientific interest (SSSI's), and two Local Nature Reserves. One of the Local Nature Reserves mentions the presence of pipistrelle bats on site (Ali's Pond LNR). One LNR lies within 2km of the site (Clayfield Copse). Eight European Protected Species mitigation license for bats were granted within 2km of the site. The closest site being 102m south for the resting place of soprano pipistrelle with a further site 427m south-west for brown long-eared, Daubenton's and Natterer's bat (2012).

### Inspection survey

The building under consideration is a 1960's-1970's house with an attached converted garage on the eastern corner of Tower Close, Emmer Green.

The weather during the survey had a temperature of 12° Celsius and some light rain.

#### External inspection

This is a red brick and brown concrete tiled house with red hanging tiles present on the entire rear elevation with a smaller area on the front of the property. The soffits were replaced five years ago and are tight in general, however gaps were noted where the soffits meet the chimney breast on the eastern gable end. The lead flashing on the chimney has raised at this gable end also. The roof and ridge tiles are tight. A handful of hanging tiles on the rear of the house have cobweb free gaps.

Please refer to Figure 2 for potential bat-roost features.

#### Internal inspection

Loft: This is lined with bitumen and partially boarded on the floor, the un-boarded areas have rockwool insulation. There are some tears in the bitumen lining and therefore some light ingress was noted. The space is entirely filled with storage (to apex) with modern truss making the space very

---

cramped. Some cobweb shrouding was noted throughout, but the space is used frequently by the homeowners.

Evidence: None found.

**Trigger list result: 0.55 confirming low potential for crevice dwelling bats.**

DRAFT

Figure 2: Indicative external plan with potential features marked (not to scale). Taken from Greenway Barrows Architects (planning app 220612).

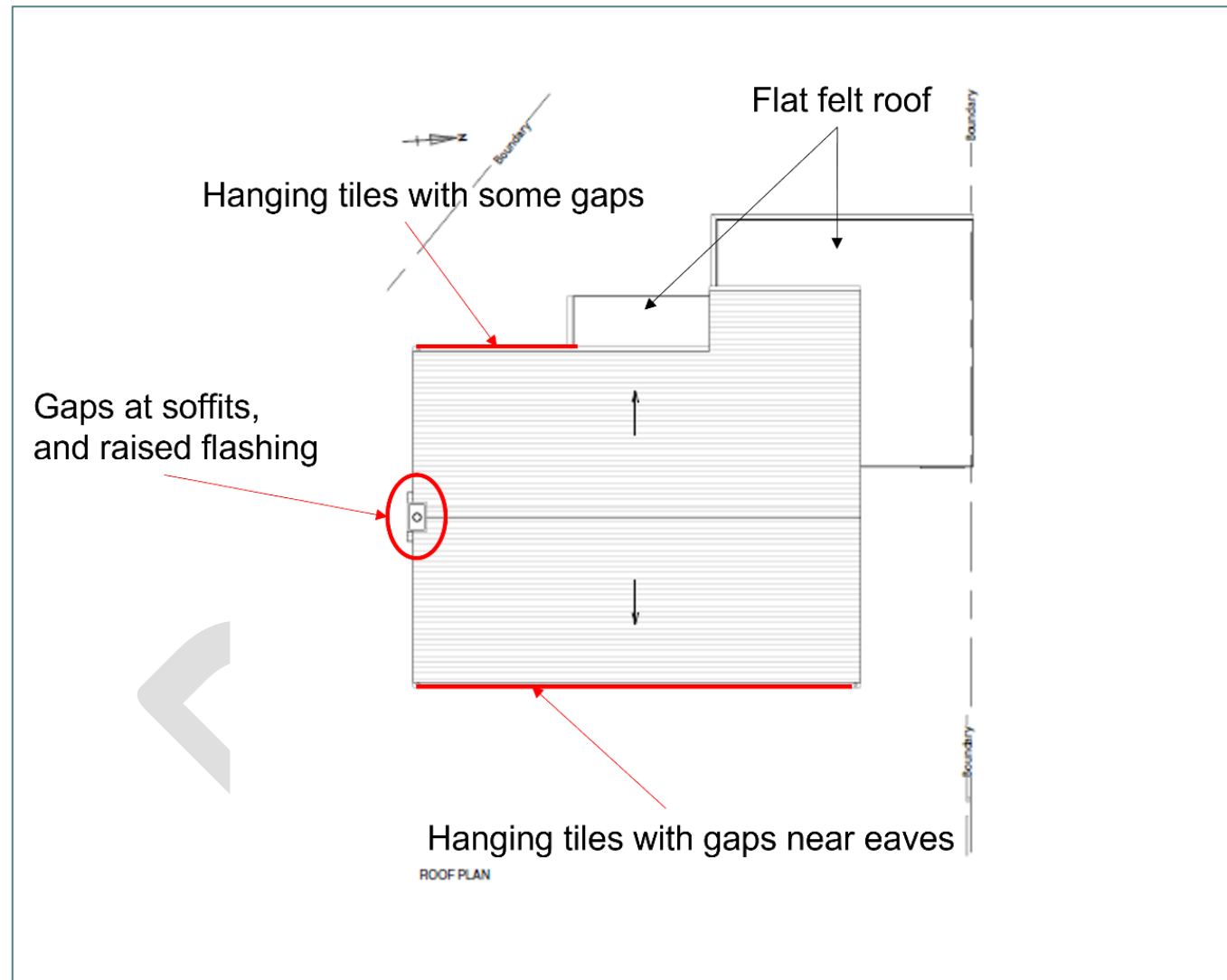


Figure 3: Photos of the site



1: Front view of the house. 2: Rear view of the house. 3: Example of a gap under the hanging tiles. 4: Gap where soffit meets the chimney  
5: More gaps at the hanging tiles 6: Loft view facing east 7: Loft view facing west

---

## 5. CONCLUSIONS

### Summary of Findings

No evidence of bats was found at 16 Tower Close, Emmer Green. However, there are hanging tiles present on both the rear and front of the house, many of which have lifted in places, revealing cobweb-free gaps. The lead flashing around the chimney has also lifted, and there are some gaps between the chimney and soffits providing potential crawl space for bats to utilise space between the tiles and wall beneath and within the soffits themselves.

### Constraints

There were no constraints noted during the survey.

### Further survey

Following standard guidance (see appendix 1), the building should be subjected to further scrutiny, therefore a single bat activity survey is recommended on 16 Tower Close between May – September (inclusive). This will enable surveyors to determine if bats are using the buildings and if so, the species, nature, and character of the roosts present. Should roosting bats be observed then two further activity surveys will be required to provide information on the size and nature of the roosts present to help inform a European Protected Species license or Bat Mitigation Class license application (if required) prior to any development works being undertaken. Three surveyors, augmented with thermal and/or infra-red cameras will be required to adequately observe all aspects of the building for each activity survey required.

### Future considerations

#### *Planning permission*

The National Planning Policy Framework (NPPF, 2019) is concerned with sustainable development under three mutually dependent elements: economic, social, and environmental. The environmental element aims to contribute to protecting and enhancing our natural, built, and historic environment and, as part of this, help to improve biodiversity. This provides guidance to local planning authorities when considering biodiversity and conservation, indicating that if significant harm to local biodiversity cannot be prevented, adequately mitigated against, or compensated for, then planning permission should be refused. It is vital that appropriate survey work is undertaken and mitigation recommendations, if required, are proposed before a developer submits a planning application. Where planning has been consented with conditions, it is necessary to demonstrate that all conditions have been met before works commence.

### Potential mitigation and enhancements

Suitable mitigation and enhancements will be discussed once the recommended activity surveys have been undertaken and all information can be assessed.

---

### **Additional ecological considerations**

The mature trees on the eastern boundary of the site will provide suitable nesting habitat for birds and potential roosting features for bats. These mature trees will also provide commuting routes for bats to the wider environment. If the trees require felling, then further surveys should be undertaken.

### **Limitations**

This report has been prepared for sole use by the Client and their agents and must not be relied upon by any other party without the prior express written permission of Dr Merryl Gelling (Spires Ecology Ltd.).

DRAFT

## 6. APPENDIX 1

### Guidelines for assessing potential suitability of sites to support bat roosts<sup>5</sup>.

| <i>Suitability</i> | <i>Description of roosting habitats</i>                                                                                                                                                                                                                                                                                                                                                        | <i>Minimum further survey requirements</i>                                                                                                                                                                           |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Negligible</b>  | Negligible habitat features on site likely to be used by roosting bats.                                                                                                                                                                                                                                                                                                                        | No further surveys required                                                                                                                                                                                          |
| <b>Low</b>         | A structure with 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 (i.e. unlikely to be suitable for maternity or hibernation).          | One dusk emergence or dawn re-entry survey.<br>May to August.                                                                                                                                                        |
| <b>Moderate</b>    | A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed). | Two separate survey visits. One dusk emergence and a separate dawn re-entry survey.<br>May to September with at least one survey between May to August.                                                              |
| <b>High</b>        | A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.                                                                                                                                | Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third survey could be either dusk or dawn.<br>May to September, with at least two surveys between May and August. |

<sup>5</sup> Taken and adapted from Tables 4.1, 7.1 and 7.3 in Collins, J (ed) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.