



WE KNOW SERVICES

Bat Survey Report

Site

Alderley – Water Lane, Tarbock Green,
Knowsley

Client

Mr Darrin Addams

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Bat Survey Report – Alderley, Water Lane



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Executive Summary

Contents	Summary
Site Location	The site is located Water Lane, Tarbock Green, Knowsley and consists of a large detached garage at a property named Alderley.
Proposals	The survey was commissioned to support a planning application for the proposed demolition of an existing garage and replacement with a new garage within the existing developed footprint.
Existing information	An existing Preliminary Ecological Appraisal (PEA) report (WeKnow Services, April 2023) included an inspection of the garage's potential to support bat roosts. No evidence to suggest the presence of a bat roost in association with the building was recorded. However, due to the presence of a small number of features with potential to support crevice dwelling bats such as Pipistrelle species (<i>Pipistrellus</i> sp.), the building was assessed as being of "Low potential" to support bat roosts and one emergence survey was recommended to be undertaken (May- September inclusive) in line with current professional bat survey guidelines (Collins et al, 2016).
Results and Evaluation	• The desk study did not identify any roosts or site of importance for bats in close proximity to the site. • The survey identified foraging and commuting bat activity in association with the garden around the garage, but no <u>no bat roosts were identified</u> within the site during the survey. • The garden habitat onsite provides moderate foraging resource for bats and is well connected to good quality habitats in the wider area. However, these habitats are common in the area and so the site itself is not considered to be of significant value for bats and is unlikely to contribute significantly to habitat for bats or other wildlife in wider area. The hedgerow along the eastern boundary provides a valuable corridor for commuting bats, and likely other wildlife. • In view of the absence of roosting bats and considering the presence of moderate levels of bat foraging and commuting associated with the site, the scale of impact upon the conservation status of the species as a result of the proposed development is considered likely to be negligible (Mitchell-Jones, 2004), given the small-scale of the proposals which include the retention of trees and hedgerows.
Recommendations	• In view of the results of assessment no further bat survey is considered necessary where demolition is commenced prior to July 2025. Where works take place beyond this date, the results of this assessment should be reviewed accordingly. • Bats are highly mobile and may establish new roosts or occupy existing roosts at varying times of the year. As moderate levels of bat activity were recorded in close proximity to the garage, and the garage supports

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	potential roosting features, it is recommended that a schedule of Reasonable Avoidance Measures (RAMs) is adhered to throughout demolition. • Where any demolition works are scheduled to coincide with the nesting bird season (March-August inclusive), it is recommended that a survey for nesting birds is undertaken to ensure no active nests have established prior to any works being undertaken.
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1. Introduction

A Bat Survey was commissioned in July 2023 by Darrin Addams, of a detached garage building at a property named Alderley, located on Water Lane, Tarbock Green, Knowsley. The survey was commissioned to support a planning application for the proposed demolition of an existing garage and replacement with a new garage within the existing developed footprint.

An existing Preliminary Ecological Appraisal (PEA) report (WeKnow Services, April 2023) included an inspection of the garage's potential to support bat roosts. No evidence to suggest the presence of a bat roost in association with the building was recorded. However, due to the presence of a small number of features with potential to support crevice dwelling bats such as Pipistrelle species (*Pipistrellus* sp.), the building was assessed as being of "Low potential" to support bat roosts and one emergence survey was recommended to be undertaken (May- September inclusive) in line with current professional bat survey guidelines (Collins et al, 2016).

1.1. Site Description

The site is located in a rural setting on Water Lane, Tarbock Green (Grid Reference: SJ 46457 87551) in Knowsley. The wider property consists of a single residential property (newly renovated and extended), a detached garage (subject of this planning application), and existing disused outdoor swimming pool, and associated gardens with a shed and outhouse to the southern extent of the property curtilage.

The property is bound to all aspect by hedgerows and/or fences. To the west of the site is Water Lane; the south Netherley Road; the north a neighbouring residential property; and the east an agricultural field (arable). See Appendix 1 and Figure 1 for site location in the wider context.



Figure 1. Property Boundary (Blue), Proposed Development Area (Red) and surrounding landscape character.

1.2. Proposed Development

It is understood that the proposal is for demolition of an existing garage and replacement with a new garage to the northwest corner of the site and within the existing developed footprint. Works would also include bringing an existing outdoor pool back into use and associated hard landscaping. The wider site associated with the main residential dwelling would not be affected by the proposals.

1.3. Personnel & Quality Assurance

Rob Nicholson BSc (Hons) MCIEEM is a Class 2 Bat licence holder (Natural England), has over 15 years' relevant experience as an ecologist and is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

Ami Weir MSc BSc (Hons) led the survey and is author of the report. Ami is an ecologist with over 9 years' relevant experience, including preliminary roost assessments, emergence and re-entry surveys, and activity surveys, as well as other EPSL and habitat surveys.

Matthew McLean MSc BSc (Hons) supported the lead surveyor. Matthew is an assistant bat surveyor with over 1 years' experience carrying out bat emergence and re-entry.

All field work and assessment was undertaken in accordance with current best practice guidelines (Collins, J. (Ed) 2016).

1.4. Legal Status

In England, all British bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2017 and the Wildlife & Countryside Act 1981 (as amended).

These pieces of legislation combine to give substantial protection to bats and their roost sites, making it an offence to:

- Deliberately or intentionally kill, injure or take a bat;
- Damage, destroy or intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not);
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection.

Section 40 of the NERC Act 2006 places a statutory duty on public bodies such as local authorities that “every public body must, in exercising its functions have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”. Section 41 of the NERC Act requires the Secretary of State to draw up a list of Habitats and Species of Principal Importance which should be used to guide decision-makers (which include local authorities) in implementing their duty under Section 40 (see below for relevant bat species).

2. Methodology

2.1. Historic Surveys

Previous reports relevant to the site have been reviewed for this report. These reports include:

WeKnow Services, Preliminary Ecological Appraisal & Preliminary Roost Assessment Report, 2023.

2.2. Desk Study

To inform the survey, a desk study was conducted using available ecological information relating to bats for the area surrounding the site.

The existing Preliminary Ecological Appraisal report (WeKnow Services, April 2023) of the site was used to inform the emergence survey.

Online resources, including Multi-Agency Geographic Information Centre (MAGIC), were consulted in relation to the presence of sites and habitats of importance for bats in the wider context.

A data request to the Local Records Centre (LRC) or the local Bat groups was not made due to the scale of the development.

2.3. Pre-development Bat Survey

Habitat Survey

A broad habitat survey was conducted of the site to inform the assessment of the suitability of the site for bats. Broad habitat descriptions were assigned and their values with respect to bats at site level and in the wider context assessed.

Emergence & Re-entry Survey

One dusk emergence survey was undertaken on 19th July 2023 (in line with current Bat Survey Guidelines for buildings assessed to be of 'Low potential' for supporting bat roosts).

The dusk survey commenced 15 minutes before sunset and continued for 1.5hrs after sunset.

During the surveys, the two surveyors were strategically positioned, focusing on features identified in the existing PEA report (WeKnow Services, April 2023) to ensure observations could be made of any bats leaving or entering potential roost locations.

All observed bat passes were recorded; noting the time, the location and, where possible, the direction of flight, species and behaviour of the bat (i.e. commuting, foraging, social calling).

After completion of each survey session, digital recordings of bat echolocation taken during the survey were analysed using Bat Sound sonogram analysis software for recordings taken using Anabat Scout full spectrum detectors.

During the surveys, the following details were noted as appropriate:

- Weather and temperature;
- Time bat detected/observed;
- Frequency at which the bat was detected;
- Location within the survey area;
- Whether bats emerged from/re-entered a potential roost location;
- Direction of flight;
- Number of bats observed; and
- Whether the bats appeared to be foraging or commuting.

Temperature, wind speed and cloud cover were recorded at the beginning and end of the survey, along with any significant weather changes during the survey.

2.4. Evaluation Methods

The 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' (3rd edition) (Collins, J. (Ed) 2016) are used as a basis to evaluate the value of features for their potential to support bats. In addition, the Bat Mitigation Guidelines (Mitchell-Jones, 2004) was referred to.

The potential impacts on bats, bat habitat or their roosts as a result of the proposals are assessed within this report using the above criteria, together with an ecological judgement by an experienced bat surveyor.

3. Limitations

This survey does not cover every month of the active and hibernation seasons.

The eastern elevation was partially obscured by ivy growth and a mature tree. However, the surveyors were able to view most of the eastern elevation and all other aspects clearly to determine the direction from which bats entered (or emerged from) the site. Therefore, this did not pose a significant constraint to the survey.

There were no other constraints to the survey.

4. Results

4.1. Desk Study

Online Resources

According to the Natural England online mapping resource MAGIC there are no statutory designated sites for which bats are a qualifying feature within 2 km of the site.

There are no granted European Protected Species Licences relating to bats within 2 km of the site.

Existing Survey Information

An existing Preliminary Ecological Appraisal (PEA) report (WeKnow Services, April 2023) stated:

“The existing building has been assessed as being of “low potential” for supporting bat roosts (Collins 2016) due to access points associated with the exterior of the roof and the roof being underlined with bituminous felt (providing a favoured roost feature for crevice dwelling bats such as Common Pipistrelle).

As such a single nocturnal emergence survey is recommended to rule out the presence of a bat roost in relation to the building.”

4.2. Field Survey

Broad Habitat Survey

The site comprises of two detached buildings - a single residential property (newly renovated and extended) and a detached garage (subject of this planning application)

- and associated hardstanding located within a large, mature garden with a disused swimming pool and small outbuildings. The site is bound by hedgerows and/or fencing.

The site is located in a rural setting with large, mature gardens associated with residential curtilages to the north and south. To the west the site is bound by Water Lane and the south is partially bound by Nertherley Road, both relatively small country roads. To the east is an arable field. Artificial lighting is present on Water Lane and the property supports motion activated lighting, but the site is predominantly unlit.

Emergence Survey Results

The emergence survey was conducted with the aim of recording any bat activity associated with features identified upon the building, in order to identify any bat roosts if present.

The survey was undertaken under suitable weather conditions with temperatures greater than 10°C.

A plan indicating the locations of the surveyors in relation to the building is provided in Appendix 1.

Emergence Survey – 19th July 2023

The emergence survey commenced at 21.12hrs, sunset was at 21.27hrs and the survey ended at 22:57hrs. The survey lasted 1 hours 45 minutes in total and was uninterrupted.

No bats were recorded emerging from the building throughout the survey.

Weather conditions were ideal (15°C, precipitation nil, wind negligible, cloud cover ~10%) and moderate bat activity was recorded throughout the survey.

The first bat recorded was a Common Pipistrelle which was commuting from the south to north along the western site boundary at 21:55. Individual Common Pipistrelle and Soprano Pipistrelle were observed commuting along this boundary intermittently throughout the survey.

Common Pipistrelle were regularly recorded foraging over the disused swimming pool and garden with the first recording being of two Common Pipistrelle entering from the northeast at 22:11 and foraging in this area. Foraging of small numbers of Common Pipistrelle was continuous from 22:53. Bats were observed flying in close proximity to the garage and foraging around the mature tree facing the east elevation.

A single Noctule was recorded commuting overhead at 22:56.

4.3. Evaluation and Interpretation

Roost and Habitat

The desk study did not identify any known roosts, granted EPS licences or sites of importance for bats in close proximity to the site.

No bat roosts were identified within the site during the survey but the disused swimming pool, garden and boundary hedgerow support moderate levels of bat foraging and commuting activity.

Bats were observed flying in close proximity to the garage and associated potential roosting features whilst foraging in the garden.

The garden habitat onsite provides moderate foraging resource for bats and is well connected to good quality habitats in the wider area. However, these habitats are common in the area and so the site itself is not considered to be of significant value for bats and is unlikely to contribute significantly to habitat for bats or other wildlife in wider area. The hedgerow along the eastern boundary provides a valuable corridor for commuting bats.

The Value of the Site for Bats

In view of the results of the bat survey the site is not considered to currently support bat roosts and the site is considered to be of moderate value for bats in the local context (Mitchell-Jones, 2004).

4.4. Impacts

The proposed development consists of the demolition of an existing garage and replacement with a new garage to the northwest corner of the site and within the existing developed footprint. Works would also include bringing an existing outdoor pool back into use and associated hard landscaping. The wider site associated with the main residential dwelling would not be affected by the proposals.

In view of the absence of roosting bats and considering the presence of moderate levels of bat foraging and commuting associated with the site, the scale of impact upon the conservation status of the species as a result of the proposed development is considered likely to be negligible (Mitchell-Jones, 2004), given the small-scale of the proposals which include the retention of trees and hedgerows.

5. Advice and Recommendations

It is advised that bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2017 and the Wildlife & Countryside Act 1981 (as amended).

It is advised that it is illegal to deliberately/intentionally or recklessly: kill, injure or take a bat; damage, destroy or obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not); and disturb a bat while it is occupying a structure or place that it uses for shelter or protection.

Bats are highly mobile and may establish new roosts or occupy existing roosts at varying times of the year. As moderate levels of bat activity were recorded in close proximity to the garage, and the garage supports potential roosting features, it is recommended that a schedule of Reasonable Avoidance Measures (RAMs) is adhered to throughout demolition. Measures should include:

- Where possible, demolition works being undertaken during the winter months (November-Mid-March, inclusive) whilst bats are hibernating and so unlikely to be present in the building.
- Where it is not possible to undertake demolition works in the winter months, a pre-demolition inspection of potential roosting features is undertaken by a suitably experienced ecologist, and features are carefully taken apart by hand under supervision of the ecologist.
- Should any bats be found during demolition, works will stop immediately and an ecologist be contacted for further advice. If the bat is injured or in danger, it should be carefully placed in a secure container with sufficient air holes and advice sought immediately from the ecologist. Bats should only be handled whilst the handler is wearing gloves.
- Trees and hedgerows should be retained.
- External lighting should be sensitive to bat behaviour and avoid illumination of vegetation. Low-level lighting or similar solutions can be used to prevent artificial light levels from deterring bats from the site (please see Guidance Note 8: Bats and artificial lighting (2023) for further information).

As per the National Planning Policy Framework 2021, it is recommended that enhancements for bats are provided. These can include the provision of bat boxes suitable for crevice dwelling species, such as the 1FF Schwegler Bat Box or similar.

5.1. Further Survey

In view of the results of assessment no further bat survey is considered necessary where demolition is commenced prior to July 2025. Where works take place beyond this date, the results of this assessment should be reviewed accordingly.

Where any demolition works are scheduled to coincide with the nesting bird season (March-August inclusive), it is recommended that a survey for nesting birds is undertaken by a suitably experienced ecologist to ensure no active nests have established prior to any works being undertaken.

6. Conclusions

In view of the above, where the above recommendations are followed, it is considered the appropriate level of assessment has been completed (as per Collins, J (Ed) 2016), and the favourable conservation status of bats will not be adversely affected by the proposed development.

7. References

- Bat Conservation Trust (2000). *Distribution atlas of bats in Britain and Ireland 1980-1999*. Bat Conservation Trust, London.
- Collins, J (Ed). (2016). *Bat Surveys for Professional Ecologists - Good Practice Guidelines*, 3rd edition. Bat Conservation Trust.
- Bat Conservation Trust website: <http://www.bats.org.uk/>
- ILP (2023) Guidance Note 8 Bats and Artificial Lighting.
- Mitchell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. English Nature
- Multi-Agency Geographic Information Centre: <http://magic.defra.gov.uk/>
- National Planning Policy Framework (2021)
- Weknow Services (2023) Preliminary Ecological Appraisal (PEA) Alderley – Water Lane, Tarbock Green, Knowsley

Figure I: Surveyor Location Plan

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