



WATERS EDGE DERRYFIELDS ASHTON KEYNES

PRELIMINARY ROOST ASSESSMENT (PRA)

ZOE GREEN

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QUALITY ASSURANCE

This report has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Report Writing (2nd Edition, December 2017).

The facts stated in this report are true to the best of our knowledge and belief, and any opinions expressed are held genuinely and in accordance with the accepted standards of the profession. ACD Environmental Ltd is a CIEEM Registered Practice.

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Site/job:	Waters Edge, Derryfields, Ashton Keynes
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1 INTRODUCTION

- 1.1. ACD Environmental Ltd were instructed to undertake a Preliminary Roost Assessment (PRA) at Water's Edge, Derryfields, Ashton Keynes, SN6 6PA, (OS Grid Reference: SU 04174 93802), hereafter referred to as the 'Application Site'.
- 1.2. The Application Site is a residential property located on Derryfields Lane on the western edge of the village of Ashton Keynes. The site is situated in a rural area and is surrounded by residential areas and agricultural fields to the south, residential development associated with Ashton Keynes to the north and east, and the Cotswold Lakes to the west. **Figure 1** below indicates the approximate location of the Application Site.
- 1.3. It is understood the proposed works to the building will involve demolishing the existing garage, and extending the existing roof line of the main building.

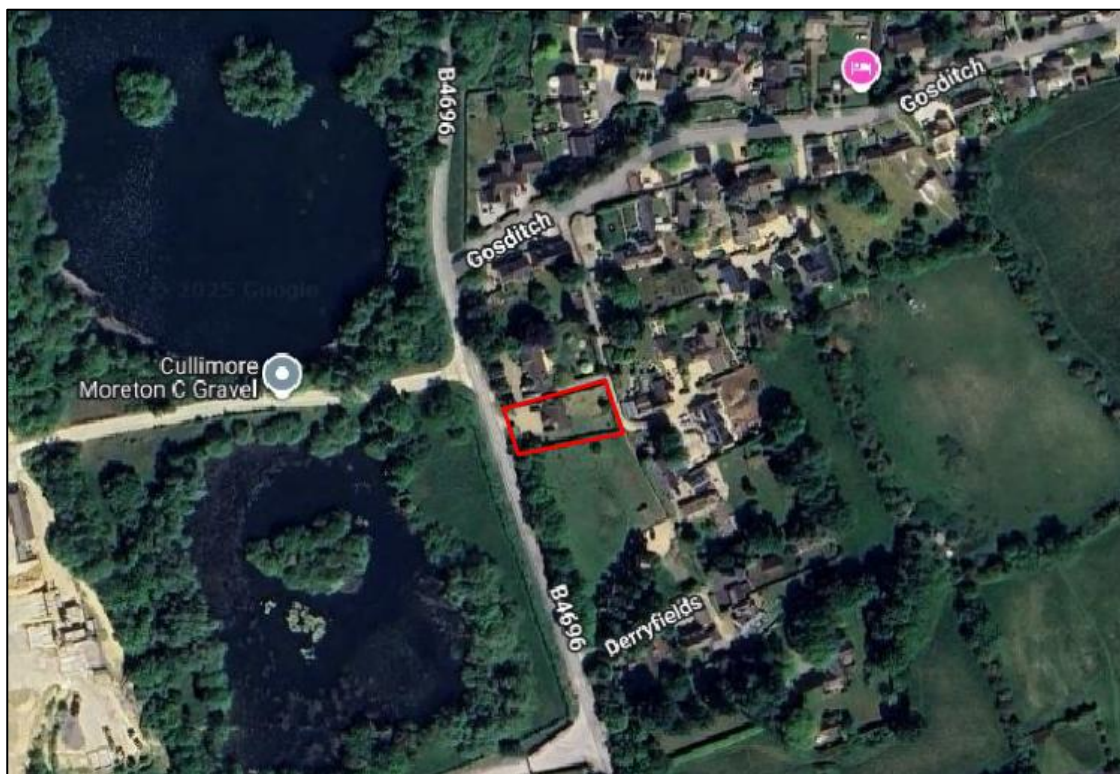


Figure 1: Approximate location of Application site (Google Maps, 2025)

2 METHODOLOGY

Preliminary Roost Assessment

- 2.1. The PRA survey was carried out on 11th August 2025 by ACD Environmental Ltd. The PRA was carried out in accordance with best practice guidelines¹. This involved an external and internal inspection of the building, the purpose of which is to assess the likelihood of bats being present and the need for further survey and/or mitigation.
- 2.2. A systematic search was made of the building and the ground, especially below potential access points where present. Such features include windows sills, windowpanes, walls, tiles, weather boarding, lead flashing, eaves, behind peeling paintwork or surfacing materials and under tiles, and other cracks and crevices that provide protection from the elements. Such features are known to be used by roosting bats.
- 2.3. Once the external inspection had been completed, an internal inspection was also undertaken. Where present, particular attention was paid to the following:
- Droppings, urine staining and bat corpses.
 - Timber beams (for free hanging bats).
 - Timber joints (for crevice-dwelling bats).
 - Clean swept floors (which may indicate evidence has been removed).
 - Droppings beneath the ridge and hip beams of the roof and junctions between the two.
 - Droppings and urine staining on and at the base of dividing walls, gable end walls and around chimney breasts.
 - Droppings beneath timber work.
 - Droppings and corpses beneath roof insulation.
 - Corpses at the base of walls and near wall plates at the base of rafters.
 - Corpses in uncovered water (header) tanks or other containers in the roof.

¹ Collins J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)*. The Bat Conservation Trust, London.

- Bat-fly Nycteribiid spp. pupal cases.
- Scratch marks and characteristic staining from fur oil on timber and walls.
- Mortise joints and junctions between roof timbers and between timbers and walls.
- Clean gaps and sections of ridge beam and other timber and walls within the roof.
- Gaps between lintels above windows or doors.
- Light gaps in the roof indicating access points to the outside.
- Access to cavity or rubble-filled walls.
- Cool areas suitable for torpor or hibernation.

2.4. The following equipment was used for the bat inspection:

- Powerful torch to illuminate dark corners from the ground.
- Camera to record evidence and potential roosting sites.

2.5. Personal protective equipment (e.g., boots, gloves, mobile phone) were used during the survey. There were no limitations to the PRA.

Competence

2.6. This report has been written by Prue Hilditch. Prue is an Ecologist and has been involved in a wide range of protected species surveys and Extended UK Habitat Classification Surveys. Prue has experience undertaking Biodiversity Net Gain assessments, Ecological Impact Assessments (ECIAs), Preliminary Ecological Appraisals (PEAs), and is a Qualifying member of CIEEM.

2.7. A Technical Review of this report has been undertaken in line with ACD Environmental Ltd's Quality Assurance procedures. The Technical Review was undertaken by Benjamin Prego, Senior Ecologist at ACD Environmental Ltd. Benjamin has several years' experience in the ecology sector carrying out a wide range of surveys, including UK Habitat Classification Surveys and Phase 2 Surveys for protected surveys, and producing high-level reports and mitigation strategies. Benjamin is a Qualifying Member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and holds a Natural England Class Licence for great crested newts *Triturus cristatus*.

3 RESULTS AND EVALUATION

Preliminary Roost Assessment

- 3.1. The residential building was a single storey brick-built structure with a pitched clay-tiled roof. The building features a front and rear roof void, the internal roof and felting were in good condition in both voids, with no obvious access points noted from within the voids.
- 3.2. Droppings were found scattered in both the rear and front roof voids, with a small aggregation of droppings observed in the rear roof void. Samples of the droppings were collected and sent for DNA analysis with Ecotype Genetics Ltd on 12th August 2025.
- 3.3. Results from the DNA analysis was received on 20th August 2025, concluding that the droppings pertained to pygmy shrew *Sorex minutus*.



Image 1: Front void of residential building



Image 2: Front void of residential building



Image 3: Rear void of residential building



Image 4: Aggregation of droppings in rear void, later confirmed to be from pygmy shrew

- 3.4. Externally, two potential access points to the rear roof void were located on the eastern aspect of the building where roof tiles had slipped. An additional Potential Roosting Feature (PRF) was observed on the southern aspect of the building where there was slight damage to the eaves.



Image 5: Eastern aspect of residential building with PRFs circled



Image 6: Southern aspect of residential building with PRF circled

- 3.5. The garage was a brick-built structure with a flat bitumen felted roof with no roof void. No internal evidence of bats were found within the garage. Externally, a potential roosting feature was noted on the rear wall where a brick has been damaged, creating a small crevice.



Image 7: Rear garage with PRF circled

- 3.6. With reference to best practice guidelines, the following emergence surveys were required for buildings where there would be significant impacts (e.g. demolition): high potential (three surveys), moderate potential (two surveys), low potential (one survey) and negligible potential (no surveys). If at any stage the building was confirmed as a current roost, three surveys would be required in order to characterise the roost.
- 3.7. The season for bat emergence/re-entry surveys is May to September with September considered to be sub-optimal for maternity roosts.
- 3.8. The residential building lies directly adjacent to Cotswold Lakes, a large network of lakes bordered by woodland and scrub corridors, creating suitable foraging and commuting habitats for bats. Based on this, and the identified PRFs, the building was considered to hold **moderate roosting** suitability and was subject to two emergence surveys.
- 3.9. The garage lacked internal suitability for roosting bats, however the PRF on the external rear wall holds roosting potential for crevice dwelling bats, such as *Pipistrellus sp.* The garage was considered to hold **low suitability** and was subject to one emergence survey.

Emergence surveys

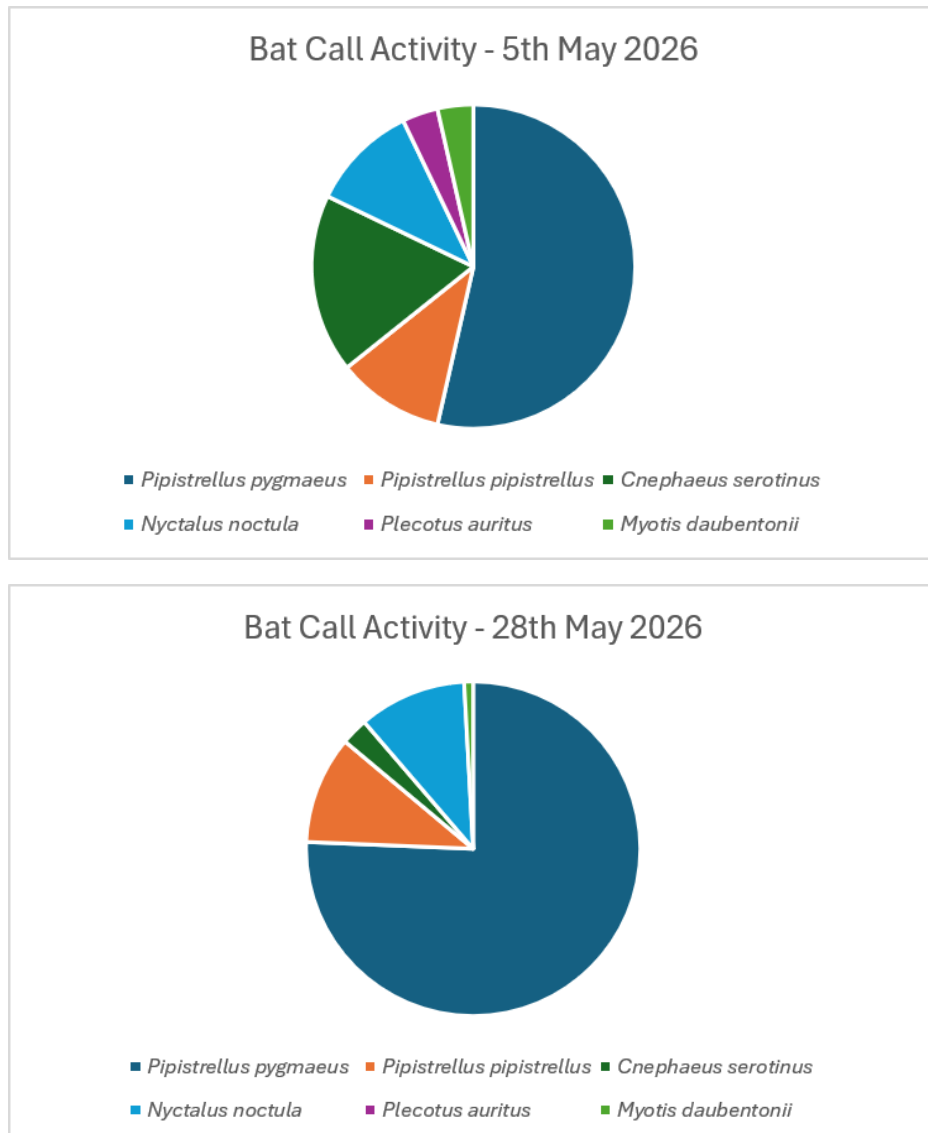
- 3.10. The following emergence surveys were conducted on the buildings:

Date	Buildings	Weather conditions
May 5 th 2026	Residential building and garage	Starting temperature: 13°C Ending temperature: 11°C Cloud cover (Oktas scale): 8 Wind (Beaufort scale): 2
May 28 th 2026	Residential building	Starting temperature: 23°C Ending temperature: 18°C Cloud cover (Oktas scale): 6 Wind (Beaufort scale): 1

- 3.11. The emergence surveys were carried out with three surveyors for the first survey of the residential building and garage, and two surveyors for the second survey on the residential building to cover the PRFs identified. Each surveyor was equipped with an Echometer Touch 2 Pro bat detector and infrared video cameras with attached infrared lamps to illuminate the building in the direction the cameras were filming. The surveys commenced 15 minutes before sunset and finished 1.5 hours after sunset. There were no limitations associated with the bat

emergence surveys. Video data was then analysed the following day to ensure no potential emergences had been missed.

- 3.12. No emergences were recorded during the surveys, and it was concluded that no bats are roosting within either the garage or the residential building. The first bat contact on the first emergence survey (05.05.26) was a pass by a soprano pipistrelle *Pipistrellus pygmaeus* at 20:54, 36 minutes after sunset. The first bat contact on the second emergence survey (28.05.26) was a pass by a soprano pipistrelle at 21:33, 22 minutes after sunset.
- 3.13. A number of species were recorded commuting and foraging within the garden, as identified in the below charts (**Figures 2 and 3**). Soprano pipistrelle was the most commonly recorded species, followed by common pipistrelle *Pipistrellus pipistrellus*, noctule *Nyctalus noctula*, serotine *Cnephaeus serotinus* and one instance of a brown long eared bat *Plecotus auritus* and Daubenton's bat *Myotis daubentonii*.



Figures 2 and 3: Pie charts highlighting the numbers of bat calls identified during the emergence surveys.

4 CONCLUSIONS

- 4.1. The proposed works to the building will involve demolishing the existing garage and extending the existing roof line of the main building.
- 4.2. No evidence of bats was recorded during the internal inspection of the building, and no bats were recorded emerging from the residential building of garage during the emergence surveys. Therefore, roosting bats are confirmed as absent from the Application Site. In line with best practice guidelines, works may proceed with care, and in the unlikely event that any bats are encountered, works must immediately stop and an ecologist contacted in the first instance.

APPENDIX 1: DNA RESULTS



Results

Sample ID: EG-2496-1

Sample information:

Sample type: Faecal

Species group: Bats

Suspected species: Eser, Paur

Site Location: Ashton Keynes

Comments: Ashton Keynes

Laboratory information:

DNA Extraction Code: EG-2025-1870

Identification method: qPCR

Analysis Procedure Notes:

All UK bat species tested for - none detected in this sample. Screened against small mammal qPCR panel.

Laboratory Comments:

None

Species Identified:

Species 1: *Sorex minutus* (Pygmy shrew)

qPCR Ct Value: 22

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APPENDIX 2: BAT SURVEY PLAN

