

Cheynes Farm, Cottered, Herts

Ecology Report

Produced for Ian and Wendy Hodges-Jackson

By Applied Ecology Ltd

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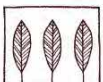
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APPLIED ECOLOGY LTD
St John's Innovation Centre
Cowley Road
Cambridge
CB4 0WS

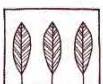
Tel: 01223 422 116
Email: info@appliedecology.co.uk

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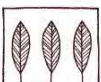


Executive Summary

This report details a preliminary bat roost assessment of buildings at Cheynes Farm, Cottered, Hertfordshire and a great crested newt survey of an on-site pond in response to proposals to refurbish the buildings.

All of the buildings had some features that could theoretically be used by roosting bats. Evidence of roosting bats was recorded in two of the buildings. Great crested newt presence was co

Recommendations for follow-up after dark bat activity survey to verify bat roosting presence and inform the need and scope of a Natural England bat mitigation licence to lawfully enable the refurbishment to take place are reported.



1 Introduction

Background

- 1.1 Applied Ecology Ltd (AEL) was commissioned in March 2023 by Architect Adam Grant, on behalf of homeowners Ian and Wendy Hodges-Jackson, to complete a preliminary bat roost assessment of a farmhouse and associated buildings at Cheynes Farm, Warren Lane, Cottered, Hertfordshire, SG9 9QD.
- 1.2 The centre of the Site has a grid reference of TL 31743 29103 and a location shown by Figure 1.1.
- 1.3 The buildings form part of a residential plot comprising four habitable buildings - farmhouse, farmhouse kitchen building, cottage, and hall – and a cart-lodge and adjoining barn used for storage. All of the buildings are to be refurbished. Works will include, amongst other things, the removal and replacement of existing weatherboard wall coverings and roof tiles which could theoretically result in adverse impacts on building roosting bats.

Legislation

Wildlife & Countryside Act

- 1.4 The Wildlife and Countryside Act 1981 (as amended) provides the main legal framework for nature conservation and species protection in the UK. All UK native species of bat are listed in Schedule 5 of the WCA. The legislation protects bats and their roosts under Section 9 of the Act, such that it is an offence to:

Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection;

Intentionally or recklessly obstruct access to any structure or place which a bat uses for shelter or protection;

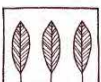
Sell or advertise for sale any live or dead bat or any part of, or anything derived from a bat.

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

- 1.5 The Regulations provide legal protection for European Protected Species (those listed under Annex IV of the EU Habitats Directive (Council Directive 92/43/EEC)). With regards to all British bats, this makes it an offence to:

Deliberately (or recklessly in Scotland) capture, injure or kill a bat;

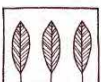
Deliberately (or recklessly in Scotland) disturb a bat in a way that would (significantly in Scotland) affect its ability to survive, breed or rear young (or hibernate or migrate in England, Wales and Northern Ireland) or (significantly in England, Wales and Scotland) affect the local distribution or abundance of the species.



Damage or destroy a roost [this is an 'absolute' offence and need not be deliberate or intentional].

Possess, control, transport, sell, exchange or offer for sale/exchange and live or dead bat or any part of a bat.

- 1.6 Licences to permit illegal activities relating to bats and their roost sites can be issued for specific purposes and by specific licensing authorities in each EU country under the auspices of the of Conservation of Habitats and Species Regulations. These are sometimes called 'derogation licences' or protected species (bat) mitigation licences and, in England, are issued by Natural England.



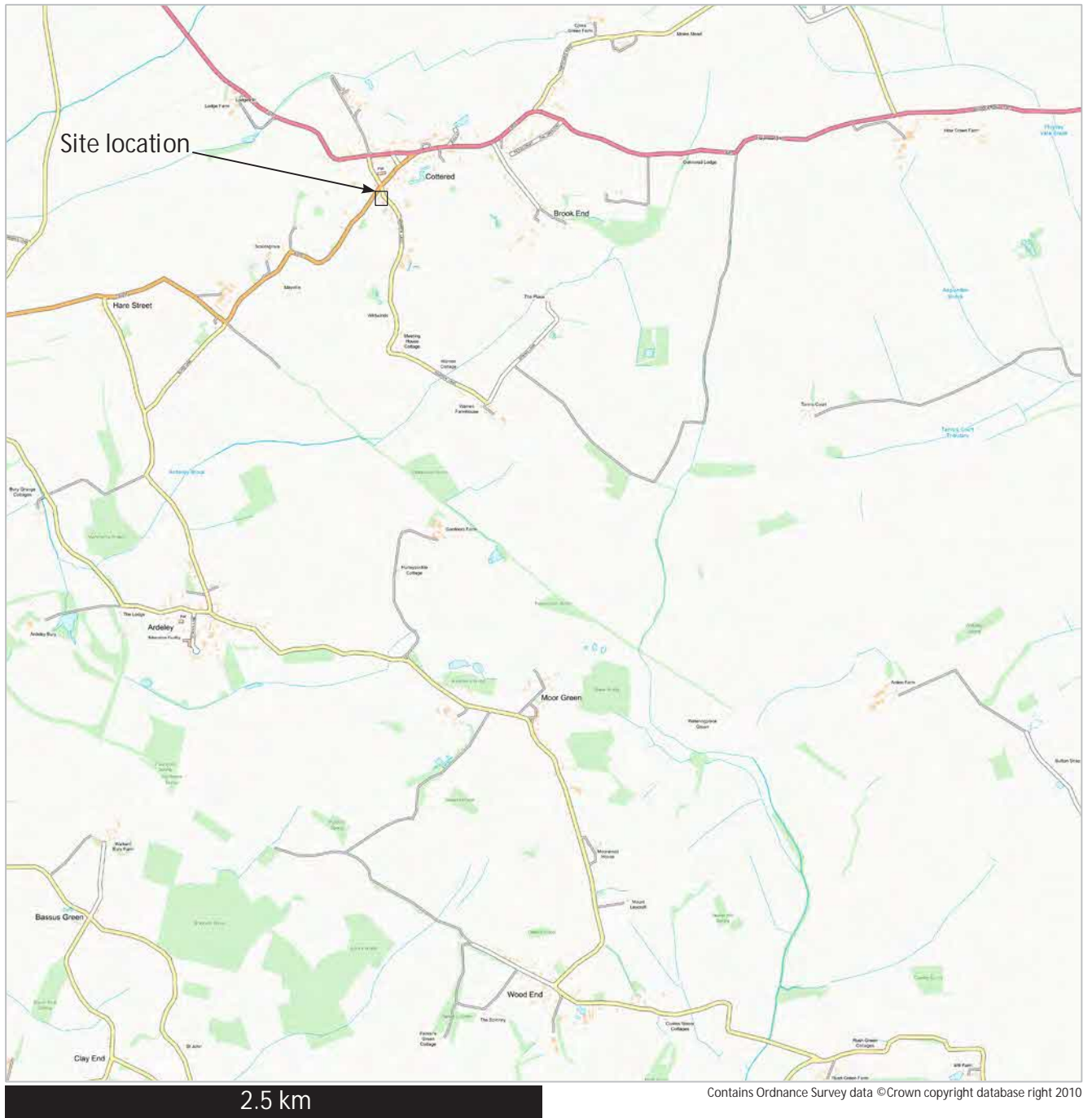


Figure 1.1
Site location



2 Survey Approach

Bat survey

- 2.1 A preliminary bat roost assessment (PBRA) of the Site was completed on 14 March 2023 with a follow-up survey of the farmhouse (loft inspection) on 11 May 2023, by AEL ecologist Dr Duncan Painter CEnv MCIEEM (DP). DP is a professional ecologist and bat surveyor with extensive bat field survey and mitigation planning experience in relation to bats and development across the UK¹.
- 2.2 The survey was completed in accordance with Collins 2016² to assess use or potential for use of the house by roosting bats.
- 2.1 Where possible, a systematic external and internal inspection was completed, assisted as necessary, by binoculars, ladders, and a high powered cree torch. Evidence of bats searched for included live bats, bat droppings on walls and other exposed surfaces, staining (caused by bat fur oils and/or urine spots) and the characteristic odour of accumulated bat droppings in confined (typically poorly ventilated) spaces.
- 2.2 The inspection of buildings to assess their roosting use/suitability for bats can be conducted at any time of year, according to the best practice survey guidance (Collins, 2016). However, finding evidence of bats (e.g. their droppings) on external surfaces that are unprotected from rainfall may be restricted if undertaken outside the main bat active season (May to September) and/or after periods of wet weather. Bat droppings inside buildings may also quickly disintegrate in damp conditions.
- 2.3 The survey was completed during the winter period of bat inactivity, and evidence of bats (droppings) would not have been expected to be visible on unsheltered external surfaces.
- 2.4 The suitability of individual buildings for roosting bats was classified according to the categories and descriptions defined by Collins 2016 for roosting habitats, as summarised in **Table 2.1**.

Table 2.1: Guidelines for assessing the potential suitability of roosting habitats such as buildings and trees for bats (taken from Collins, 2016).

Suitability	Description of roosting habitat
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	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 number of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain Potential Roost Features (PRFs) but with none seen from the ground or features seen with only very limited roosting potential.

¹ Holds three separate licences pertaining to bat survey: WML-CL18; WML-CL21; and WML-CL32 and has been a registered bat roost volunteer visitor for Natural England (WML-CL15). Holds a class licences in relation to [REDACTED] and great crested newt (WML-CL09 & WML-CL33), hazel dormouse (WML-CL10A), and native crayfish (WML-CL11).

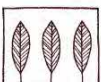
² Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.



Moderate	A structure or tree 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).
High	A structure or tree 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.

Great Crested Newt Survey

- 2.5 A moat like pond occurs circa 25 m to the west of the farm house and was investigated for the presence of the legally protected amphibian great crested newt *Triturus cristatus* (GCN) by Dr Duncan Painter on 11 May 2023.
- 2.6 A search of submerged vegetation within the pond for GCN eggs was completed.



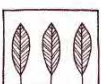
3 Survey Findings

Farmhouse

- 3.1 The farmhouse was an historic brick building with rendered painted external walls and a pitched clay peg-tiled roof with a north facing gable end with a central brick chimney. The southern end of the building had a hipped roof section. The building was oriented along an approximate north-south long-axis with the main roof with east and west facing roof pitches and the southern hipped roof section supporting north, south east and west facing pitches. A large enclosed and dark roof void ran the entire length of the building with a floor to ridge height in excess of 2.5 m.
- 3.2 No evidence of bats was obviously present on the exterior of the building, but a number of potential bat roost features were noted around the exterior of the building as follows:
- soffit gaps;
 - verge gaps;
 - gaps below ridge tiles;
 - gaps below lifted lead flashing; and
 - numerous gaps below bowed or lifted roof tiles
- 3.3 Several thousand bat droppings of a size and form consistent with those produced by brown long-eared bats were present on the floor of the loft below the ridge line. The droppings were widely along the entire length of the floor with three separate large accumulations.
- 3.4 The farmhouse is a building of high bat roost suitability i.e. it is a building with a number of potential bat roost sites that appears to support a significant bat roost.

Farmhouse Kitchen Building

- 3.5 The farmhouse kitchen was a single storey building that adjoined the northern end of the farmhouse. It was of brick construction with mainly painted rendered walls. It had a pitched gable ended roof covered in clay pantiles with a central west projecting gable ended wing.
- 3.6 The building did a vaulted ceiling with no roof void.
- 3.7 No evidence of bats was present on the exterior of the building, but it did possess a small number of potential bat roost feature as follows:
- Gaps between uneven and lifted pantiles;
 - Eave gaps.
- 3.8 The farmhouse kitchen is a building of low bat roost suitability i.e. it is a building with a small number of potential bat roost sites that is unlikely to support a significant bat roost.



Cottage

- 3.9 The cottage appeared to a former timber framed barn that had been converted into a single storey dwelling with three adjoining pitched clay pantile covered roofs and black painted timber weather boarded external walls.
- 3.10 The building had three gable ends facing north, south and west.
- 3.11 The weatherboards on the external walls were all well-fitted with no obvious bows or gaps between them.
- 3.12 There was no obvious evidence of bats on the outside of the building.
- 3.13 A small number of potential bat roost features were noted as follows:
- Eave gaps;
 - Gap below a lifted lead flashing around the chimney base; and
 - Gaps between individual clay pantiles.
- 3.14 A precautionary bat roost suitability assessment is that the farmhouse is a building of low bat roost suitability i.e. it is a building with a small number of potential bat roost sites that is unlikely to support a significant bat roost.

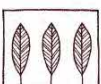
Hall

- 3.15 The Hall was an historic timber framed barn that had been converted to habitable space. It was two storey building with a pitched gable ended roof covered in clay pantiles oriented along an east-west long axis with north and south facing roof faces.
- 3.16 The external walls were clad in black painted timber well-fitted weatherboards. Internally the building had a vaulted ceiling.
- 3.17 There was no evidence of bats on the exterior of the building.
- 3.18 A small number of potential bat roost features were noted on the exterior of the building as follows:
- Soffit gaps;
 - Gaps between individual clay pantiles.
- 3.19 A precautionary bat roost suitability assessment is that the farmhouse is a building of low bat roost suitability i.e. it is a building with a small number of potential bat roost sites that is unlikely to support a significant bat roost.

Cart Lodge and Storage Barns

Cart Lodge

- 3.20 The cart lodge was a three bay building oriented along a north-south long axis with its southern end attached to the adjoining storage barn, and its northern gable end and east facing external wall clad in black painted timber weatherboards. The pitched roof was clad in clay pantiles and was partly lined with ply board. The roof was in a poor state of repair and leaked rainwater.



- 3.21 No evidence of bats was present on the outside of the building or on internal building surfaces or the concrete floor.
- 3.22 Gaps were present under pantiles.
- 3.23 The building was considered to be of low bat roost suitability.

Storage Barns

- 3.24 The storage barns comprised three adjoining timber framed barns oriented along an east-west long-axis. It was built on brick plinths and possessed concrete floors, pitched pantile covered roofs and black painted weatherboard covered walls. The two western barns appeared to have been subject to relatively recent renovation and repair with modern wall and roof timbers evident inside the barn, and a pantile roof covering over a modern breather membrane and open eaves.
- 3.25 A total of 15 small tortoiseshell butterfly wings were present in scattered locations across the floors of the three barns along with five brown long-eared bat *Plecotus auritus* type droppings on the floor of the western most barn, indicating night roosting and possible day roosting inside the barns by an individual bat.
- 3.26 A small number of potential bat roost features were noted on the exterior of the building as follows:
 - Eave gaps about the eastern gable end;
 - Gaps between individual clay pantiles.
- 3.27 In overall terms the barns were assessed as a group of buildings with moderate bat roost suitability.

Pond

- 3.28 Great crested newt eggs were confirmed to be present within the moat pond on 11 May confirming GCN breeding presence within the pond.



Great crested newt egg on submerged vegetation from the moat pond

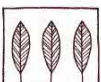




Photo 1 - Farmhouse



Photo 2 - Farmhouse



Photo 3 - Farmhouse Kitchen



Photo 4 - Farmhouse Kitchen



Photo 5 - Cottage



Photo 6 - Cottage



Photo 7 - Hall



Photo 8 - Hall



Photo 9 - Cart Lodge



Photo 10 - Cart Lodge



Photo 11 - Storage Barns



Photo 12 - Storage Barns

4 Development Implications

Summary

- 4.1 The development proposals could theoretically result in damage or disturbance to roosting bats, and follow-up after dark bat survey work is required to fully assess the implications of the renovation works on bats.
- 4.2 In line with good practice bat survey guidelines, the after dark surveys should correspond to the period when bats will be giving birth and rearing their young i.e. May-August.
- 4.3 The bat survey guidelines recommend that repeat bat activity survey visits are completed in line with an individual building's bat roost suitability assessment as follows:
- Low bat roost suitability requires a single after dark survey to prove bat absence;
 - Moderate suitability requires two surveys;
 - High suitability requires three surveys.
- 4.4 In this instance, the minimum number of recommended surveys to prove bat absence for each building are as follows:
- Farmhouse – three surveys;
 - Farmhouse kitchen – one survey;
 - Cottage – one survey;
 - Hall - one survey;
 - Cart Lodge – one survey
 - Storage Barns – two surveys.
- 4.5 If, after completing the above minimum surveys, bats are confirmed to be roosting, an additional verification survey of that building may be deemed necessary to confirm the nature, type and number of bats using each building. In the case of the storage barns, it is considered unlikely that more than two surveys will be required.

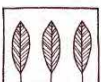
Bat Licence

- 4.6 Renovation work that is predicted to adversely impact bats will need to be implemented under the auspices of a Natural England bat mitigation licence as outlined in para 1.6 of this report – with a single licence covering all buildings with bat roosts that could be adversely impacted by the works.
- 4.7 The after dark bat activity surveys recommended above are an essential prerequisite to inform the planning application and any subsequent bat licence application. Natural England will not issue a licence if a robust understanding of bat roosting use of the site and an associated assessment of development impact on roosting bats has not been provided.



Great Crested Newt

- 4.8 The development proposals will not have any direct or indirect adverse impact on the pond, and are considered highly unlikely to adversely impact any terrestrial habitats around the pond that could be used by great crested newts (GCN) for shelter. However, the presence of a confirmed GCN breeding pond close to the development site, means that suitable temporary mitigation measures will need to be put in place to avoid great crested newts accessing the construction area at night and being accidentally killed or injured.





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