Ecological Survey and Assessment for Wayside Hempstead

On behalf of:

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November 2023

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1) Summary

As part of a planning application involving a residential property at Wayside, Church Hill, Hempstead, Saffron Walden, Essex CB10 2PA, a site visit was conducted on 27th November 2023 to determine whether the site had the potential to be occupied by protected species, which would be affected if any proposed development were to go ahead.

Photo 1: Western elevation. The proposal is for a single-storey extension in this area

The survey building is a semi-detached cottage with a thatched and felted roof and pale, rendered walls. The survey found that the shallow-pitched roof void (floor to ridge height of c. 1.2m) was accessed via a hatch in the centre of the property. There was no evidence of bats on the boarded floor of the loft or along the internal eaves of the building. In addition, the dimensions of the roof are usually unsuitable for roof-dwelling species of bats that prefer a large open volume in which to fly prior to emergence. Externally, the thatch was covered with mesh to prevent access to birds and rodents, and, by default, bats. There was also no evidence such as droppings or staining on the pale walls where the presence of bats would have been readily apparent.

There is no vegetation affected by the project that had crevices, woodpecker holes or loose bark that might offer potential roosting places for bats. **No** evidence of their presence was found at this site.

The lack of potential roosting places and absence of any evidence of the presence of bats means that **no** further surveys are required for this building. The building was considered to have **negligible potential** as a roosting place for bats.

Since there was no evidence of bats at the site, a European Protected Species Licence will **not** be required for this project.

The site had no suitable trees or buildings that might be occupied by barn owls. No evidence of this species was found.

The site is bordered to the east and west by residential properties with maintained gardens, and to the north and south by arable fields in active production. The main area of the site comprises short grass and there are no features that might be attractive to basking by reptiles, and, with the site bordered by maintained gardens, Church Hill and arable fields there is no suitable habitat nearby from which the site could be colonised by reptiles. There is no standing water at the site or in those visible areas of neighbouring gardens. A roadside pond around 300m to the west is separated from the site by arable fields and maintained gardens. There is also no suitable terrestrial dispersal habitat for great crested newts and the Essex Field Club has no records of great crested newts in this 10km square during the last fifteen years.

There were no latrines or digging by badgers found at the site, or within 30m of its boundaries.

Although no evidence of bats was found, it is probable that bats from nearby roosts will forage over the site and in the gardens of adjacent properties (five species have been found roosting in St Mary's church, 400m to the west). This foraging behaviour would be expected to continue after the completion of the building work and therefore it is considered that the proposal for this site will not have a detrimental effect on the local bat population, or on protected species.

According to the latest guidance (December 2017) from CIEEM, the following is advised:

Very occasionally it might be possible to carry out a robust Preliminary Ecological Appraisal without obtaining LERC/NBDC/CEDaR data; this will usually only apply to low impact or small-scale projects (e.g. by virtue of size, extent, duration of works, magnitude and locality), and should be determined on a case-by-case basis. In all cases, the decision not to obtain these data should be justified in the report. The following is not intended to be an exhaustive list, but gives examples of the type of sites where such data might not be needed:

- **a field in active arable cultivation where there is no impact on any hedges, trees or waterbodies;**
- **small areas of cultivated garden/amenity grassland, as above; or**
- **small urban sites comprising mostly asphalt or compacted hardstanding.**

CIEEM (December 2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

The survey area just relates to the survey site. It is a maintained garden with short vegetation. Beyond the site boundaries are further maintained gardens and arable fields. No trees, hedges or standing water is affected by this low impact project that will have no impact on any designated sites.

2) Introduction

Essex Mammal Surveys was requested to carry out a survey of a residential property at Wayside, Hempstead to investigate for signs indicating the presence of protected species. The identification of protected and priority species is vital in the proposed development of a site to comply with existing legislation and also allows any work that may otherwise be detrimental to these species to be appropriately scheduled.

The objectives of the survey were to:

- assess the habitats on the site (noting any Priority habitats) including the potential of the site to support protected species (bats, reptiles, water voles, great crested newts and badgers) or any other species that may act as a constraint on development eg Priority species (s41 NERC Act 2006)
- determine any impact of development on any wildlife of conservation concern within the area
- produce a strategy for avoiding, mitigating and compensating for any potential impacts identified with reasonable enhancements for biodiversity.

John Dobson, a bat worker and trainer licensed by Natural England (Licence No. 2015-15258-CLS-CLS), and author of *Mammals of Essex* (Essex Field Club, 2014) carried out the survey on 27th November 2023. John Dobson has been elected a Fellow of the British Naturalists' Association and received the David Bellamy Award for natural history in 2015. The site is located at Grid Reference: TL639378.

This report has been compiled in accordance with the Bat Conservation Trust's *Bat Survey Guidelines for Professional Ecologists: Good Practice Guidelines.*

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

However, the first page of all four editions includes the following: *The guidelines should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive.*

John Dobson has extensive experience of barn owl nest sites and pellets, having collected pellets from a site at Canewdon for 24 consecutive months during 1995-1997. The data from this study formed part of the total of 6,950 pellets analysed for prey items, the results of which were published in *The Mammals of Essex* (Lopinga Books, Wimbish, 1999). Most recently, in September 2011, in the company of a licensed bird ringer, five barn owl nest sites were visited on Foulness and 277 pellets recovered for analysis. The results of this research

were published in the *Essex Naturalist* 2015. Pellets collected ranged from recent, black, shiny examples, through shades of grey to crumbling, dusty examples of greater age.

3) Legislation and planning policy relating to bats, badgers, barn owls, reptiles and NERC 2006 and s41 Priority species and habitats

All bat species in Britain are protected under the Wildlife and Countryside Act 1981 through inclusion on Schedule 5. They are also protected under the Conservation (Natural Habitats &c.) Regulations 1994 (which were issued under the European Communities Act 1972), through inclusion on Schedule 2. From January 31st 2020 these Regulations were consolidated into the Conservation of Habitats and Species (Amendment) (EU exit) Regulations 2019.

European protected animal species and their breeding sites or resting places are protected under Regulation 39. It is an offence for anyone to deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs. It is an offence to damage or destroy a breeding or resting place of such an animal. It is also an offence to have in one's possession or control, any live or dead European protected species.

The threshold above which a person will commit the offence of deliberately disturbing a wild animal of a European protected species has been raised. Now, a person will commit an offence only if he deliberately disturbs such animals in a way as to be likely significantly to affect (a) the ability of any significant groups of animals of that species to survive, breed, or rear or nurture their young, or (b) the local distribution of abundance of that species. However, please note that the existing offences under the Wildlife and Countryside Act (1981) as amended which cover obstruction of places used for shelter or protection (for example, a bat roost), disturbance and sale still apply to European protected species.

This legislation provides defences so that necessary operations may be carried out in places used by bats, provided the appropriate Statutory Nature Conservation Organisation (in England this is Natural England) is notified and allowed a reasonable time to advise on whether the proposed operation should be carried out and, if so, the approach to be used. The UK is a signatory to the Agreement on the Conservation of Bats in Europe, set up under the Bonn Convention. The Fundamental Obligations of Article III of this Agreement require the protection of all bats and their habitats, including the identification and protection from damage or disturbance of important feeding areas for bats.

Paragraph 98 of Circular 06/2005 states that '*the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat*'.

Section 15 of the National Planning Policy Framework 2018 (NPPF) states that '*the planning system should contribute to and enhance the natural and local environment by ….minimising impacts on and providing net gains for biodiversity….*'

Since August 2007, building development that affects bats or their roosts needs a Protected Species Licence under The Conservation (Natural Habitats &c.) (Amendment) Regulations 2007 administered in England by Natural England.

Schedule 12, paragraph 13 of the CROW Act (2000) makes an offence under Section 9 of the Wildlife & Countryside Act (1981) an arrestable offence. As a result, the police gain additional power to aid the investigation and enforcement of the legislation protecting bats.

In relation to the badger, the Wildlife and Countryside Act (1981) and its subsequent amendment (1985) made it an offence to take, kill, injure or ill-treat a badger. The badger gained further protection under the auspices of The Protection of Badgers Act (1992) which consolidates all former protective legislation in relation to badgers, except their inclusion on Schedule 6 of the Wildlife and Countryside Act 1981.

Under the 1992 Act, the badger sett is protected against obstruction, destruction, and damage; furthermore the animal's access to and from the sett must not be impeded. It should be noted that the concept/definition of the sett extends beyond the main sett to include annexe, subsidiary and outlying setts. However, it must be noted that although the badger and its sett are protected (including access to the sett), the wider habitat and foraging ground is not.

With legal responsibilities and planning implications, it is essential that any ecological assessment of a potential development site, including the area of this report, must determine the possible presence or absence of any protected species as part of any planning development consideration.

Without this assessment the potential developer would be unable to demonstrate due diligence in his responsibilities. Furthermore the local planning authority would not have been provided with sufficient information for a planning decision to be made. This could result in the application being designated incomplete and not determined, or simply refused.

The barn owl is protected under Schedule 1 and Schedule 9 of the Wildlife and Countryside Act 1981. It is therefore an offence to injure, kill or capture the bird, to disturb nesting birds, to take eggs, and to release captive owls into the wild without a licence. The barn owl is also recognised by the UK Biodiversity Group as a "Species of Conservation Concern".

Reptiles such as common lizard, slowworm, grass snake or adder (the species recorded in Essex), are protected under Section 9 of the Wildlife & Countryside Act (1981) as amended. The legislation makes it illegal to deliberately or recklessly kill or injure any native reptile. This protection therefore requires that reasonable effort be made to avoid harm to reptiles during developments on land occupied by reptiles.

Priority species likely to be present and affected by this development and therefore require consideration are Common Toad and Hedgehog. The Essex Field Club database has no records of Common Toad, Great Crested Newt or Stag Beetle in this tetrad. There are no records of a Hedgehog within 1km since 1995.

The site has no suitable habitat to support Harvest Mouse, Otter, Water Vole, Hazel Dormouse or White-clawed Crayfish.

4) Methods

4.1 Bats

The exterior surfaces of the building were examined for any signs of use as bat roosts, such as the presence of droppings on walls, windows or staining around roost entrances. The use of a crevice by a colony of bats produces droppings on brickwork and adjacent surfaces close to the crevice, together with an accumulation of droppings beneath the roost entrance. However, upon examination, many surfaces will have one or two droppings, randomly placed, caused by bats seeking out new roost sites.

The internal survey was conducted using a powerful torch. The roof of the building was searched for evidence of roosting, the floor areas for droppings and the beams for crevices and staining indicative of the presence of roosting bats. An Xtend & Climb Pro Ladder and a ProVision 300 endoscope were available to inspect crevices in brickwork and around beams.

The trees were examined for loose bark, holes and crevices that could potentially be used by roosting bats. The presence or past usage of a crevice by bats can be detected by the presence of droppings on bark adjacent to the hole and sometimes by a dark urine stain on the trunk of the tree below the roost entrance. Trees with such evidence can then be observed at sunset during the summer and emerging bats recorded. In warm weather and prior to evening emergence, roosting bats may also be detected by squeaking or "chattering" noises which can be heard from several metres distance.

4.2 Badgers

The survey area (extending 30m beyond the site boundary) was investigated for evidence of badgers such as setts, well-worn paths, footprints, guard hairs caught on wire or vegetation and latrines.

4.3 Reptiles

The site was inspected for any feature that might support reptiles such as sheltered refuge features (e.g. logs, compost heaps) open sunny areas for basking and varied habitats such as rockeries and grassy areas for feeding.

4.4 Barn owls

The building was inspected for cavities that might form potential nesting sites. The floor area was searched for feathers, nest debris and pellets – the remains of small mammals and other prey items that are regurgitated from a perch. Where owls are present, there is usually splashing of excreta on beams and floors as this is expelled whilst perching.

4.5 Priority species

Hedgehog and Common Toad are likely to be present as the adjacent garden habitat is compatible. Field-based surveys would be unreasonable, and a desk top data search revealed no records of Hedgehog within 1 km of the site since 1995.

5) Results

5.1 Bats

The survey building is a semi-detached cottage with a thatched and felted roof and pale, rendered walls. The survey found that the shallow-pitched roof void (floor to ridge height of c. 1.2m) was accessed via a hatch in the centre of the property. There was no evidence of bats on the boarded floor of the loft or along the internal eaves of the building. In addition, the dimensions of the roof are usually unsuitable for roof-dwelling species of bats that prefer a large open volume in which to fly prior to emergence. Externally, the thatch was covered with mesh to prevent access to birds and rodents, and, by default, bats. There was also no evidence such as droppings or staining on the pale walls where the presence of bats would have been readily apparent.

Photo 2: Western elevation

Photo 3: Showing tight seal to eaves

Photo 4: Showing mesh on thatch

Photo 5: Showing lack of evidence of bats on floor of loft

Photo 6: Showing lack of evidence of bats on floor of loft

5.2 Badgers

There were no latrines or digging by badgers found at the site, or within 30m of its boundaries.

5.3 Reptiles

The site is bordered to the east and west by residential properties with maintained gardens, and to the north and south by arable fields in active production. The main area of the site comprises short grass and there are no features that might be attractive to basking by reptiles, and, with the site bordered by maintained gardens, Church Hill and arable fields there is no suitable habitat nearby from which the site could be colonised by reptiles. There is no standing water at the site or in those visible areas of neighbouring gardens. A roadside pond around 300m to the west is separated from the site by arable fields and maintained gardens. There is also no suitable terrestrial dispersal habitat for great crested newts and the Essex Field Club has no records of great crested newts in this 10km square during the last fifteen years.

Photo 7: Maintained rear garden

Photo 8: Maintained rear garden

Photo 9: Maintained front garden

Photo 10: Maintained front garden

Photo 11: Arable field to the south

5.4 Barn owls
The site had no suitable trees or buildings that might be occupied by barn owls. No evidence of this species was found.

5.5 Priority species
Both Hedgehog and Common Toad are likely to be present in the area.

6) Discussion

Bats are inquisitive, highly mobile animals, which constantly investigate their surroundings, evaluating good feeding areas and potential roosting opportunities. Where suitable habitat such as woodland, woodland edge or sheltered pasture occurs, bats will travel up to several kilometres to take advantage of this resource. To reach favoured sites, small bats will follow linear landscape features such as hedgerows, streams and lanes etc. The absence of such features can make an otherwise suitable site inaccessible to bats. In addition, new roosts will become established in such areas - examples being the rapid colonisation of artificial roost boxes placed in conifer forests or the occupation of new houses by nursery colonies of pipistrelle bats within a year or two of their completion.

Although no evidence of bats was found, it is probable that bats from nearby roosts will forage over the site and in the gardens of adjacent properties (five species have been found roosting in St Mary's church, 400m to the west). This foraging behaviour would be expected to continue after the completion of the building work and therefore it is considered that the proposal for this site will not have a detrimental effect on the local bat population, or on protected species.

7) Review of existing records of bats in the area

Since the early 1980s, the Essex Bat Group has monitored the status and distribution of bats in this area. Records occurring within a 2km radius of the site are as follows:

TL635379	31 Jan 2015	Pipistrelle roost in church
TL635379	31 Jan 2015	Natterer's Bat hibernating in church
TL635379	31 Jan 2015	Daubenton's Bat hibernating in church
TL635379	31 Jan 2015	Brown Long-eared Bat roost in church
TL635379	24 Jul 2016	Brown Long-eared Bat roost in church
TL635379	24 Jul 2016	Common Pipistrelle roost in church
TL635379	24 Jul 2016	Serotine roost in church
TL635379	06 Jul 2013	Common Pipistrelle recorded foraging
TL633380	12 Jul 2003	Pipistrelle roost in house
TL662394	10 Jun 2006	Common Pipistrelle recorded foraging
TL662394	25 Jun 2005	Common Pipistrelle recorded foraging
TL661391	15 Aug 2001	Daubenton's Bat recorded foraging
TL661391	15 Aug 2001	Pipistrelle roost in building
TL661391	30 Nov 1999	Brown Long-eared Bat roost in building
TL662381	15 Apr 2008	Pipistrelle droppings in outbuilding

8) Review of existing records of badgers in the area

Since the early 1980s, the author has monitored the status and distribution of mammals in Essex and has a database of over 34,000 records. There are no records of a badger found within 1km of the site.

9) Assessment of impacts

The site is entirely covered by short vegetation and has no Priority habitats. Although Hedgehog and Common Toad have not been recorded within 2km of the site, it is possible that they are present in the area. It is therefore recommended that any trenches dug during the construction phase are covered at night, or, if open, that sloping planks are left in the trench such that any mammals and amphibians are able to escape. All open trenches should be checked for mammals and amphibians each morning.

The site has no suitable habitat to support Harvest Mouse, Otter, Water Vole, Hazel Dormouse or White-clawed Crayfish.

10) Recommendations for reasonable biodiversity enhancements

1: It is recommended that the existing gaps along the site boundaries are retained to allow hedgehogs and common toads to forage across the site as, potentially, at present. However if boundary fences are to be introduced, see below:

Hedgehogs travel around **one mile** every night through our parks and gardens in their quest to find enough food and a mate. If you have an enclosed garden this can prevent hedgehogs from dispersing throughout their territory. It is now known that one of the main reasons why hedgehogs are declining in Britain is because our fences and walls are becoming more and more secure, reducing the amount of land available to them. Developers can make their life a little easier by removing the barriers within their control – for example, by making holes in or under our garden fences and walls for them to pass through.

Photo 12: Hedgehog pathway at base of fence

A gap 13cm by 13cm is sufficient for any hedgehog to pass through. This will be too small for nearly all pets.

Alternatively:

- Remove a brick from the bottom of the wall
- Cut a small hole in your fence if there are no gaps
- Dig a channel underneath your wall, fence or gate

2: Two bird nesting boxes to be sited on trees at the site.

3: A Hedgehog nesting box to be sited at base of a boundary hedge.

4: Two solitary bee hives to be erected at the site.