

# **Ecological Survey and Assessment for The Stackyard Stebbing Green**

**On behalf of:**

**David Walsh  
The Stackyard  
Stebbing Green  
Stebbing  
Essex  
CM6 3TE**

**Prepared by:**

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**October 2022**

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### **Appendix 1: Great Crested Newt Habitat Suitability Index**

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## 1) Summary

As part of a planning application involving land at The Stackyard, Stebbing Green, Dunmow, Essex CM6 3TE, a site visit was conducted on 28<sup>th</sup> October 2022 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:** Looking north-eastwards at the site. The proposal is to erect a secure storage shed on gravel hardstanding

The existing buildings at the site are functional storage areas for a builders' yard. None are affected by the proposal to erect a shed with dimensions of 12m x 12m x 6m floor to ridge. No buildings or boundary hedges are affected by this project.

At the south-western end of the site (and adjacent to the road) is mown grass and gravel hardstanding for the parking of vehicles associated with the use of the site as a funeral director. The builders' yard is accessed via double gates and is contained in the north-eastern part of the site. There is regular disturbance with the delivery and removal of materials. The front of the site is separated from the builders' yard by the River Ter, which was dry at the time of the survey. The site is bordered by buildings to the north-west, with hedges and trees to the south-east and north-east. If the hedges are to be trimmed, it is recommended that this takes place during November to the end of February to avoid the bird nesting season.

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 site.

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 north-east by an arable field in active production; to the north-west by a residential property with maintained gardens; to the south-east by a development site for two new dwellings and to the south-west by a minor road, with a public green space and arable fields beyond. There are no features that might be attractive to basking by reptiles, and, with the site bordered by managed grass, maintained gardens and an arable field, there is no suitable habitat nearby from which the site could be colonised by reptiles. Two ponds were looked at during the survey. One (by Porters Hall Lane) is heavily silted and had two Mallards present at the time of the survey. This pond scored 0.38 on the Great Crested Newt Habitat Suitability Index indicating poor suitability for this species. It is bordered by an arable field, a maintained paddock and a road. A pond on Stebbing Green, almost opposite the proposal site, is bordered by a maintained village green and held no water and appeared to be choked with invasive pondweed. This pond scored 0.36 on the GCN HSI. The proposal site is a maintained garden and yard and does not offer suitable terrestrial habitat for great crested newts.

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 along the boundaries of the site. Three species have been recorded roosting in buildings, 400m to the north-west. This foraging behaviour would be expected to continue after the completion of the new garden area and 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 an area of gravel hardstanding. Beyond the site boundaries are an arable field, a public open space, a development site and a residential property with maintained gardens. This is a low impact project that will have no impact on any trees, standing water or designated sites.

## 2) Introduction

Essex Mammal Surveys was requested to carry out a survey of The Stackyard, Stebbing Green 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 28<sup>th</sup> October 2022. 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: TL682234.

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

However, the first page of all three 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 31<sup>st</sup> 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 has no records of Common Toad, Great Crested Newt or Stag Beetle for this tetrad. There are six records of a Hedgehog within a 1km radius since the database commenced in 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**

There are no buildings at the site affected by the proposal.

### **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 ground area along the boundaries 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 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 six records of Hedgehog within 1 km of the site since 1995.

## **5) Results**

### **5.1 Bats**

The existing buildings at the site are functional storage areas for a builders' yard. None are affected by the proposal to erect a shed with dimensions of 12m x 12m x 6m floor to ridge. No buildings or boundary hedges are affected by this project.

### **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 north-east by an arable field in active production; to the north-west by a residential property with maintained gardens; to the south-east by a development site for two new dwellings and to the south-west by a minor road, with a public green space and arable fields beyond. There are no features that might be attractive to basking by reptiles, and, with the site bordered by managed grass, maintained gardens and an arable field, there is no suitable habitat nearby from which the site could be colonised by reptiles. Two ponds were looked at during the survey. One (by Porters Hall Lane) is heavily silted and had two Mallards present at the time of the survey. This pond scored 0.38 on the Great Crested Newt Habitat Suitability Index indicating poor suitability for this species. It is bordered by an arable field, a maintained paddock and a road. A pond on Stebbing Green, almost opposite the proposal site, is bordered by a maintained village green and held no water and appeared to



be choked with invasive pondweed. This pond scored 0.36 on the GCN HSI. The proposal site is a maintained garden and yard and does not offer suitable terrestrial habitat for great crested newts.



**Photo 2:** The existing sheds are unaffected by the project



**Photo 3:** The existing sheds are unaffected by the project



**Photo 4:** Looking south-westwards towards site entrance



**Photo 5:** The proposal site is covered with stored materials



**Photo 6:** The proposal site is covered with stored materials



**Photo 7:** A building on the NW boundary is unaffected



**Photo 8:** The entrance to the yard



**Photo 9:** The entrance to the yard from the south-west



**Photo 10:** Access from the road at the SW end of the site



**Photo 11:** Despite recent rain, the River Ter was dry



**Photo 12:** The roadside pond held water



**Photo 13:** A pond at Stebbing Green was dry

#### **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 along the boundaries of the site. Three species have been recorded roosting in buildings, 400m to the north-west. This foraging behaviour would be expected to continue after the completion of the new garden area and 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:

TL658229	19 May 2014	Brown Long-eared Bat recorded foraging
TL658229	09 Sep 2013	Natterer's Bat roost in building
TL658229	09 Sep 2013	Brown Long-eared Bat recorded foraging
TL658229	19 May 2014	Pipistrelle species roost in building
TL664240	05 Feb 2018	Brown Long-eared Bat roost in church
TL664240	05 Feb 2018	Pipistrelle roost in church
TL649225	18 Nov 2015	Natterer's Bat roost in building
TL677233	15 Oct 2007	Soprano Pipistrelle recorded foraging
TL677233	15 Oct 2007	Common Pipistrelle recorded foraging
TL664240	10 Jun 2006	Pipistrelle roost in church
TL678232	07 Jun 1992	Pipistrelle roost in building
TL664240	09 Dec 2014	Brown Long-eared Bat roost in church
TL664240	09 Dec 2014	Pipistrelle roost in church
TL677223	23 May 2011	Pipistrelle roost in building
TL677223	23 May 2011	Brown Long-eared Bat roost in building
TL687212	20 Sep 2012	Common Pipistrelle recorded foraging
TL675205	11 Feb 2006	Brown Long-eared Bat roost in building
TL676233	10 Oct 2007	Common Pipistrelle recorded foraging
TL676233	10 Oct 2007	Soprano Pipistrelle recorded foraging

## 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 33,000 records. There are four records of badgers occurring within a 1km radius of the site.

TL678225	11 Feb 2013	Badger found dead on A120
TL673233	30 Nov 2014	Badger found dead on minor road
TL675234	09 Feb 2015	Badger found dead on minor road
TL679227	09 May 2017	Badger found dead on A120

## 9) Assessment of impacts

The site is an area of gravel hardstanding and has no Priority habitats. Although Common Toad has not been recorded in the area, it is possible that both they and Hedgehog are present. It is therefore recommended that any trenches dug 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 gaps beneath any boundary fences are created to allow hedgehogs and common toads to forage across the site as, potentially, at present (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.

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



**Photo 14:** Hedgehog pathway at base of fence

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 buildings 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.

This example of a solitary beehive is manufactured from durable FSC timber and provides valuable habitat for bees in modern gardens. It is designed specifically to attract non-swarming bees like the Red Mason Bee, Leafcutter Bee and other solitary bees which are naturally attracted to holes in wood.



Attracting solitary bees to the garden is not only safe, but beneficial to pollination of flowers, fruit and vegetables.

**Siting:** Site in a visible warm place ideally oriented to face between southeast and south and to catch some sun. It is helpful to have soil nearby, and food sources such as flowers, orchards and fruit.



## ARGUK GCN HSI CALCULATOR

<b>Pond Name</b>		<b>1</b>	<b>2</b>
	Grid reference	TL6782023745	TL6833623299
<b>SI Number</b>	<b>SI Description</b>		
1	Geographic location	1	1
2	Pond area	0.3	0.6
3	Pond permanence	0.5	0.1
4	Water quality	0.33	0.01
5	Shade	0.6	1
6	Water fowl effect	0.67	0.67
7	Fish presence	1	1
8	Pond Density	0.95	0.95
9	Terrestrial habitat	0.01	0.33
10	Macrophyte cover	0.3	0.3
	<b>HSI SCORE</b>	<b>0.38</b>	<b>0.36</b>
	Pond suitability	Poor	Poor

### Categorisation of HSI Score by Lee Brady

HIS Score	Pond Suitability
< 0.50	Poor
0.50 - 0.59	Below average
0.60 - 0.69	Average
0.70 - 0.79	Good
> 0.80	Excellent

Based on ARGUK advice note 5 - Great Crested Newt Habitat Suitability Index

### Appendix 1: Great Crested Newt Habitat Suitability Index