

Ecology, Protected Species and Bat Survey **Outbuildings and Barn at Manor Farm, Dembleby**

August 2022

Prepared by Assistant Ecologist Abbie Smith BSc (Hons) on behalf of:



Origin Design Studio Ltd
Brunel House
Deepdale Enterprise Park
Nettleham
LN2 2LL

Archer Ecology Ltd | Company number: 13449810

Britannia House
 Marshalls Yard
 Gainsborough
 Lincolnshire
 DN21 2NA

Report Overview	
Scheme location	Manor Farm, Green Lane, Dembleby, Lincolnshire
Scope of Works	Conversion of outbuildings and a detached barn for residential use.
Revision	Version 1 (Final)
Issued	01.08.2022
Prepared by	<div style="background-color: black; width: 100%; height: 40px; margin-bottom: 5px;"></div> Abbie Smith BSc (Hons) – Assistant Ecologist
Reviewed by	<div style="background-color: black; width: 100%; height: 60px; margin-bottom: 5px;"></div> Helen Archer BSc (Hons) MCIEEM – Principal Ecologist

EXECUTIVE SUMMARY

Archer Ecology Ltd was commissioned by Origin Designs Studios Ltd, on behalf of Giles Dunn, to complete an ecology, protected species and bat surveys in support of plans to convert a former stables/cart shed block and detached barn for residential use. The application site is located along the north-western outskirts of the rural village of Dembleby, at approximately 7km south-west of Sleaford, Lincolnshire.

As part of the commission, an ecological walkover was completed of the existing buildings by Principal Ecologist and Natural England bat licence holder (2015-14111-CLS-CLS) Helen Archer BSc (Hons) MCIEEM and Assistant Ecologist Abbie Smith BSc (Hons) of Archer Ecology Ltd on 29th June 2022.

The findings of the ecology walkover were supplemented by historical records of protected species, priority habitats and non-statutory designated nature conservation sites falling within 2km of the site; these were obtained through consultation with Lincolnshire Environmental Records Centre (LERC).

The walkover determined the buildings as having ‘low’ potential to support roosting bats and subsequent nocturnal bat activity surveys were completed. The initial dusk emergence survey was carried out of the former stable/cart shed on the evening of 21st July 2022 and a second dusk emergence survey of the former agricultural barn was completed on the evening of 22nd July 2022. The surveys followed industry standard guidelines issued by the Bat Conservation Trust (BCT)¹, together with recently issued interim guidance published by BCT², and were completed by Helen Archer and Abbie Smith. An overview of the recommendations, pertaining to ecological receptors, are given in the below Table 1. This advice would require revising should the location, nature and/or extent of the works be altered from those stipulated in this report.

Table 1 – Overview of findings and recommendations

Herpetofauna
As a precautionary measure to mitigate the potential to harm single and/or small populations of amphibians and reptiles during site preparatory works, it is advised that a bespoke reptile and amphibian method statement is followed (see Appendix IV).
Nesting Birds
As a precautionary measure, renovation works to the buildings should be completed outside of the main nesting bird season (nesting season runs March-August, inclusive) to avoid interface with nesting birds.

¹ Collins (2016) Good Practice Survey Guidelines, 3rd Edition. BCT

² BCT (2022). *Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys*. BCT

Alternatively, it is advised that the buildings are inspected by a suitably experienced ecologist in advance. If active nests are found, these must be safeguarded and left undisturbed until all chicks have successfully fledged.

In order to enhance the value of the site for nesting birds post-works, it is recommended that a minimum of two artificial swallow nest cups are installed onto the converted buildings upon completion of the works and following manufacturer's instructions. An example of a suitable product is the *Eco Swallow Nest* which is presently available from NHBS.

Roosting Bats

In view of the current findings, there are presently no further constraints with respect to roosting bats. However, it is advised that the buildings are subjected to repeat bat activity surveys if works have not commenced before May 2023. This is to determine whether the physical condition, availability of potential roosting features and the roosting status associated with these buildings remain consistent.

It is further advised that the following precautionary measures are taken when completing the building works:

All contractors working on the buildings must be briefed on the legal protection afforded to bats and their identification.

Works to the buildings should be undertaken in a slow and controlled manner. Each roof tile should be carefully lifted and meticulously checked underneath for any evidence of bats (including live/dead bats, droppings and urine staining) before being carefully removed/discarded.

Should any evidence of bats be encountered during the works, all site activities must stop immediately, and an appointed ecologist contacted. The ecology contact for this project is Helen Archer (Archer Ecology Ltd): 07583 802069.

If a bat is found under a tile or any other aperture, works will stop immediately. If the bat does not voluntarily fly out, then the aperture will be carefully covered over to protect the bat(s) from the elements.

Any injured bats should be gently placed in a secure ventilated box in a cool, quiet and dark place (e.g., cardboard box with a sealed lid) by the contractor for the bat's protection, whilst awaiting the arrival of the ecologist.

As a positive conservation measure to enhance the site for roosting bats, it is recommended that 2x bat roost units are installed onto the converted buildings and/or adjacent buildings. These should be placed on the southern elevations of the buildings, in a location that avoid illumination from external

lighting, and installed following manufacturers' guidelines. A suitable unit is <i>1FF Schwegler Bat Box With Built-in Wooden Rear Panel</i> .
Foraging Bats
<p>In order to avoid impacts upon nocturnal bat activity, dark unlit corridors should be maintained around and across the site, allowing bats to pass through unhindered by artificial light. All introduced lighting must be sensitive to nocturnal bat activity and be curtailed to avoid impacting light-sensitive bat species.</p> <p>Introduced lighting should be positioned at a minimum of 5m from tree lines and hedgerows. Mercury or metal halide lamps must also be avoided. The hours of illumination could be restricted to provide a minimum of 8 hours of darkness per night. Introduced lighting should further comprise a maximum of 1 lux which is comparable to moonlight conditions.</p>
Badgers
All excavations should be covered at night to avoid the accidental trapping of badgers and other terrestrial mammals, such as hedgehog.

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1.0 INTRODUCTION

1.1 Background

1.1.1 Archer Ecology Ltd was commissioned by Origin Designs Studios Ltd, on behalf of Giles Dunn, to complete an ecology, protected species and bat survey in support of plans to convert a former stables/cart shed block and detached barn for residential use (hereafter referred to as ‘the application site’). The application site is located along the north-western outskirts of the rural village of Dembleby, at approximately 7km south-west of Sleaford, in the North Kesteven district of Lincolnshire.

1.1.2 The central extent of the proposed works area is at Ordnance Survey Grid Reference (OSGR) TF 03898 37829, as shown in Figure 1, below.

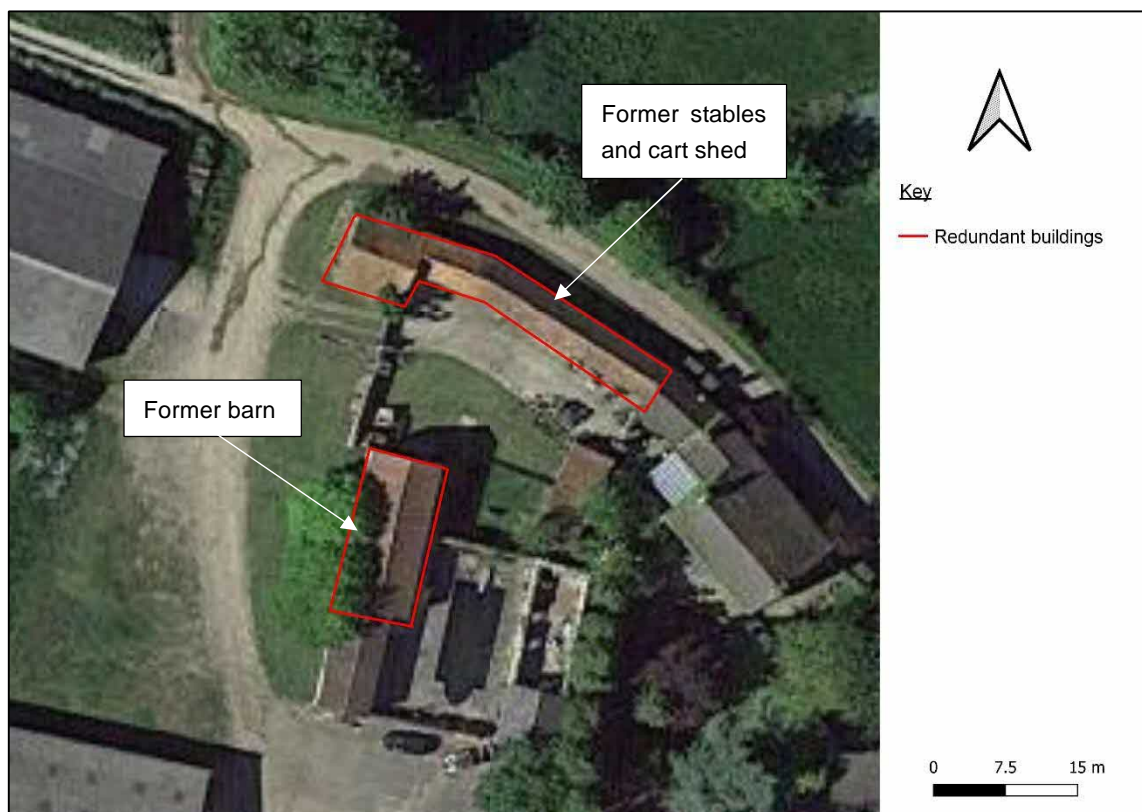


Figure 1 – Application site in context with local landscape

1.2 Objectives

1.2.1 The purpose of this report is to identify any potential ecological receptors occurring within or adjacent to the proposed works area. These include protected species, habitats and designated nature conservation sites.

- 1.2.2 This report also details any potential ecological constraints to the works (e.g., invasive plants), the requirement for any further ecological survey and/or monitoring works and provides details of proportionate mitigation measures, where appropriate.
- 1.2.3 The purpose of the subsequent dusk emergence bat surveys is to confirm the presence/absence of roosting bats associated with the former stable/cart shed and agricultural barn and to predict any potential impacts arising from the works upon bats and their roost sites.

2.0 PLANNING POLICY AND LEGISLATION

2.1 Natural Environment and Rural Communities Act

2.1.1 There is a requirement under Section 40(1) and (2) for each Secretary of State to take steps ‘*to be reasonably practicable to further the conservation of the living organisms and types of habitat*’ included in the list and there is a legal obligation on public bodies in England to have regard to these organisms and habitats whilst carrying out their functions.

2.1.2 Currently, there are 56 habitats and 943 species of principal importance included on the S41 list.

2.2 Biodiversity Compliance

2.2.1 The United Nations *Conference* on Environment and Development (*UNCED*), also known as the *Earth Summit*, was held in Rio de Janeiro in 1992 and produced the ‘Biodiversity: The UK Biodiversity Action Plan (BAP) (UK Biodiversity Partnership, 2007³) which lists priority species and habitats in the UK requiring conservation action.

2.2.2 The goal of the UK BAP is to ‘*Conserve and enhance biological diversity within the UK and contribute to the conservation of global biodiversity through all appropriate mechanisms.*’ The UK BAP now includes 1,150 species and 65 habitats; these are allocated individual action plans for conservation known as Species Action Plans (SAPs) and Habitat Action Plans (HAPs).

2.2.3 As a signatory to the Convention on Biological Diversity (CBD) which was opened at the Earth Summit and entered into force in 1993, Local Biodiversity Action Plans (LBAPs) were developed by local authorities and counties to conserve fauna, flora and habitats at a local level.

2.3 National Planning Policy Framework

2.3.1 National Planning Policy Framework (NPPF) is the top tier of planning policy and sets out the government’s planning policies for England and how these should be applied. NPPF also sets guidance to local authorities on planning policy within the planning system.

2.3.2 Section 15 relates to ‘Conserving and enhancing the natural environment’. Relevant policies in relation to planning applications include:

³ UK BAP. UK Biodiversity Action Plan – Priority Species and Habitats [online]. Available at: <https://webarchive.nationalarchives.gov.uk/20110303145245/http://www.ukbap.org.uk/newprioritylist.aspx> [Accessed 9th July 2022].

Paragraph 174. Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;*
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and*
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate*

Paragraph 179. “To protect and enhance biodiversity and geodiversity, plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity⁶¹; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation⁶²; and*
- b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.*

Paragraph 180. “When determining planning applications, local planning authorities should apply the following principles:

if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

- a) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- b) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁶³ and a suitable compensation strategy exists; and*
- c) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.*

Paragraph 181. The following should be given the same protection as habitats sites:

- a) potential Special Protection Areas and possible Special Areas of Conservation;*
- b) listed or proposed Ramsar sites⁶⁴; and*
- c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.*

Paragraph 182. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

3.0 METHODOLOGY

NB: Detailed methodologies pertaining to individual protected species are included under Appendix I of this report.

3.1 Overview

3.1.1 An ecological walkover was undertaken of the site following guidance produced by Chartered Institute of Ecology and Environment Management (CIEEM)⁴. The assessment included:

A desk-based search for historic records of protected, notable and invasive non-native species on the site and local vicinity. Data for locally and nationally designated nature conservation sites were obtained;

An ecological walkover survey of the proposed works area (shown in Figure 1). The study area was extended beyond the works area, where appropriate, e.g., to undertake species-specific surveys; Identification of invasive non-native species; and

Assessment of the potential impacts of the proposed works on habitat and floral/faunal receptors, as well as designated sites.

3.2 Desk study

3.2.1 To supplement the ecological walkover survey, a desktop study was undertaken in July 2022. This included a search of data, including protected species and statutory and non/statutory designated nature conservation sites, using the following resources:

Lincolnshire Environmental Records Centre (LERC); and

Multi Agency Geographic Information for the Countryside (MAGIC) website⁵.

3.2.2 The following geographical extent of the search area for potential zones of influence for nature conservation sites were considered to be appropriate:

10km from the site for sites of International Importance (e.g., Special Area of Conservation (SAC));

⁴ CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

⁵ www.magic.gov.uk accessed March 2021

2km from the site for sites of National or Regional Importance (e.g., Sites of Special Scientific Interest (SSSI)); protected/notable species and non-statutory designated sites (e.g., Local Wildlife Sites (LWS)).

3.3 Field survey

3.3.1 An ecological walkover was completed on 29th June 2022 by Principal Ecologist Helen Archer BSc (Hons) of Archer Ecology Ltd who is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and has over twelve years' experience as a full-time consultant ecologist. Helen was accompanied by Assistant Ecologist Abbie Smith BSc (Hons) of Archer Ecology Ltd who has experience completed numerous ecology walkovers.

3.3.2 The survey involved identifying notable/protected habitats, the presence of invasive non-native species and evidence of protected species on or adjacent to the site, as well as determining the potential of the site to sustain protected species inhabitancy (particularly roosting bats and nesting birds). This was based upon determining the quality of habitats and ecological features for faunal inhabitancy and observing field signs.

3.3.3 Photographs taken during the survey are shown under Appendix II.

3.4 Preliminary roost assessment

3.4.1 In accordance with Collins (2016), a preliminary roost assessment was carried out on the buildings to determine whether any features were present that bats could use for entry/exit points and roosting, and to search for signs of bat presence.

3.4.2 Ladders, high-powered torches and binoculars were used to search for internal and external features including but not limited to:

- Gaps around windowsills, door frames and lintels
- Lifted rendering, paintwork, shiplap boarding
- Soffit boxes, weatherboarding and fascias
- Lead flashing, hanging tiles and lifted or missing tiles/slate
- Gaps >15mm in brickwork and stonework
- Bat specimens (live or dead)
- Bat droppings and urine staining
- Feeding remains (e.g., moth wings)
- Cobweb-free sections of ridge beam

3.4.3 The buildings were then assigned a measure of potential suitability to determine the extent of future survey work needed. The categories of potential suitability and further survey effort required are as follows:

Negligible – Negligible features on site likely to be used by roosting bats – no further survey work

Low – A structure with one or more potential roost sites that could be used by individual bats opportunistically – one survey visit (dusk or dawn)

Moderate – A structure with one or more potential roost sites that could be used by bats on a regular basis – two separate survey visits (one dusk and one dawn)

High – A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a regular basis and for longer periods of time – three separate survey visits (one dusk, one dawn and one dusk or dawn)

3.5 Nocturnal bat activity surveys

3.5.1 The walkover determined the buildings as having ‘low’ potential to support roosting bats and subsequent nocturnal bat activity surveys were completed. The initial dusk emergence survey (hereafter referred to as ‘Dusk 1’) was carried out of the former stable/cart shed on the evening of 21st July 2022 and a second dusk emergence survey (hereafter referred to as ‘Dusk 2’) was completed of the detached barn on the evening of 22nd July 2022. The surveys followed industry standard guidelines issued by the Bat Conservation Trust (BCT)⁶, together with recently issued interim guidance published by BCT⁷.

3.5.2 The surveys were completed by Helen Archer and Abbie Smith equipped with Batbox Duet/Anabat Walkabout and Echometer Touch 2 Pro recorders and Clutlite torches (1 million candle power).

3.5.3 Dusk 1 was supplemented by the use of a Canon XA20 camcorder with infrared (IR) lights. These were positioned alongside potential roosting locations and access/egress points associated with the western elevation of the former stable/cart shed and was positioned under a wooden lean-to structure.

3.5.4 Dusk 2 was supplemented by the use of a Bushnell Equinox digital night scope with IR, Canon XA20 camcorder and Sony camcorder with IR Lights. These were positioned alongside potential roosting features and access/egress points associated with the former agricultural barn.

⁶ Collins (2016) Good Practice Survey Guidelines, 3rd Edition. BCT

⁷ BCT (2022). *Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys*. BCT

3.5.5 The positioning of the surveyors and IR equipment, relative to the buildings, are shown in Figure 2, below.

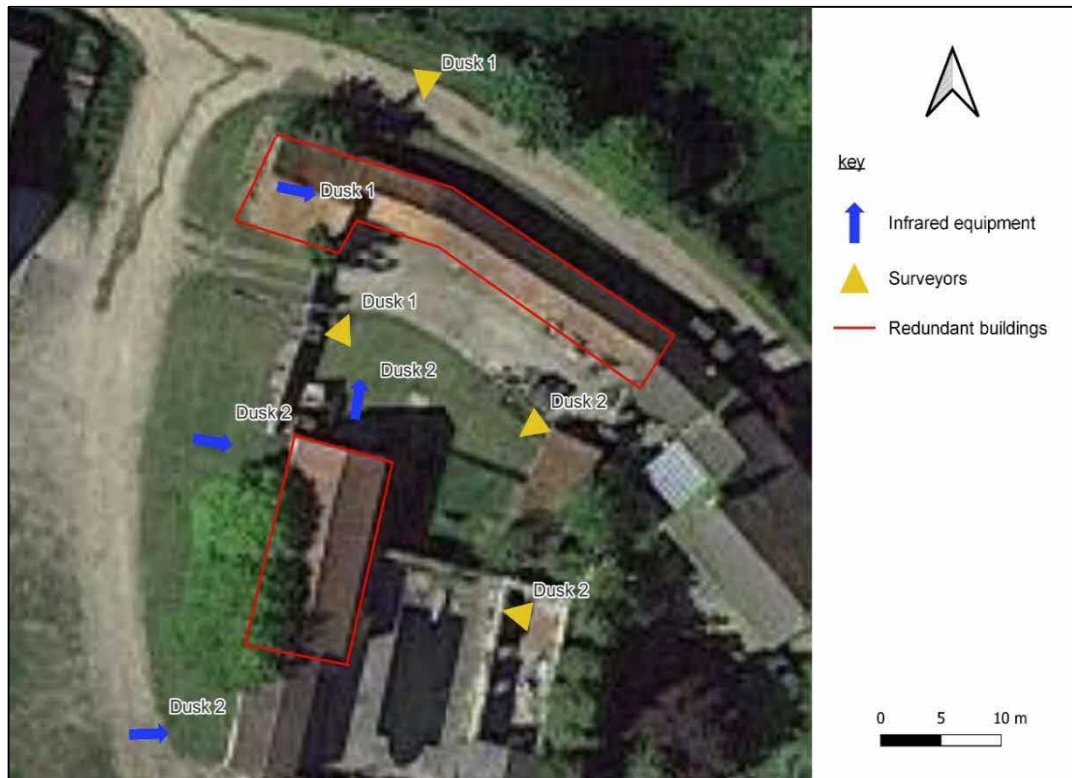


Figure 2 – Positioning of surveyors and IR equipment during dusk emergence surveys

3.5.6 The dusk emergence surveys commenced approximately 15 minutes prior to sunset and ceased 90 minutes after sunset. Details on the survey timings and weather conditions are given in Table 2. With reference to BCT guidelines, the weather conditions were considered optimal for capturing bat activity.

Table 2: Timings and weather conditions during bat activity surveys

Date	Sunset (h)	Start (h)	End (h)	Start temp.	Weather
21.07.2022	21:13	21:00	22:46	17°C	Slight overcast, still, dry, mild
22.07.2022	21:11	20:55	22:41	16°C	Slight overcast, dry, slight breeze

3.6 Survey limitations

- 3.6.1 An absence of desk study records cannot be relied upon to infer absence of a species/habitat as a lack of records may be a result of under-recording within a given search area.
- 3.6.2 The aim of the walkover is to characterise the habitat on site and is not intended to give a complete list of plant species present.
- 3.6.3 The information contained in this report was accurate at the time of the survey; however, it should be noted that the status of mobile species such as badger *Meles meles*, birds and bats can alter in a short period of time and any survey only represents a 'snapshot' of the site at one point in time.
- 3.6.4 There are no definitive guidelines relating to the longevity of an ecology report, however we recommend that the results are updated after 12-18 months if the works have not commenced.

4.0 RESULTS

4.1 Statutory Designated Nature Conservation Sites

European / internationally designated sites for nature conservation

- 4.1.1 No European or internationally statutory designated nature conservation sites presently exist within 10km of the application site. Such sites fall outside of the potential zone of influence and are, therefore, not considered to be a potential receptor with respect to the proposed works.

Nationally designated sites for nature conservation

- 4.1.2 No nationally statutory designated nature conservation sites were identified within 2km of the application site. Such sites fall outside of the potential zone of influence and are, therefore, not considered to be a potential receptor with respect to the proposed works.

Non-statutory designated sites for nature conservation

- 4.1.3 LERC identified four non-statutory designated sites for nature conservation within a 2km radius of the application site, these being Local Wildlife Sites (LWSs). These protected sites are considered to be of importance to nature conservation up to a local level.
- 4.1.4 Details on the nature of interest features forming these LWS and proximity relative to the application site are summarised in Table 3, below.

Table 3 – LWS occurring within 2km of the application site

LWS	Interest features	Proximity to application site
Haceby Great Wood	An ancient woodland site dominated by ash <i>Fraxinus excelsior</i> and pedunculate oak <i>Quercus robur</i> , small-leaved lime <i>Tilia cordata</i> dominates a small area of the wood. Field maple <i>Acer campestre</i> , hazel <i>Corylus avellana</i> coppice, midland hawthorn <i>Crataegus laevigata</i> , hawthorn <i>Crataegus monogyna</i> , spindle <i>Euonymus europaeus</i> and apple <i>Malus domestica</i> all occur in the shrub layer.	1.4km south
Newton Wood	An ancient woodland dominated by ash <i>Fraxinus excelsior</i> , with pedunculate oak and areas of small-	1.4km south-east

LWS	Interest features	Proximity to application site
	leaved lime. The understory is composed of coppiced hazel <i>Corylus avellana</i> with frequent other species including field maple, apple and wild plum <i>Prunus domestica</i> .	
Welby to Haceby Road Verges	This verge was surveyed as part of the Lincolnshire Wildlife Trust's Life on the Verge Project; <i>no further citation details given</i> .	1.5km south-west
Haceby Little Wood	An ancient woodland site dominated by veteran pedunculate oaks and ash coppices. The shrub layer is comprised of field maple, hazel coppice and hawthorn. Spindle, midland hawthorn and crab apple <i>Malus sylvestris</i> are rare.	1.7km south-west

4.1.5 In view of the localised nature of the proposed works, and lack of habitat connectivity between the proposed works areas and non-statutory designated sites described within Table 3, the works are not expected to adversely impact upon the integrity of interest features that form these designations. Subsequently, these LWSs are not considered to be a potential receptor with respect to the proposed works.

Priority Habitats

4.1.6 A search using MAGIC identified that no Priority Habitats, as listed under Section 41 of the NERC Act (2006), occur within significant proximity to the application site. Subsequently, Priority Habitats are not considered to be a potential receptor with respect to the proposed works.

4.2 Habitat overview

Buildings

Attached former stables/cart shed

4.2.1 The northern extent of the application site comprises a row of former stables/cart sheds which extend westwards from the main residency. These are presently used for storage. The buildings comprise combined brick, breeze block and stone walls with wooden stable doors located on the south-facing elevation. The block supports a single-pitched, timber roof supporting pantiles affixed

over wooden laths (see Photograph 1, Appendix II). The structure features an open-sided, wooden lean-to along the western elevation which supports an unlined, pantile roof.

Former agricultural barn

- 4.2.2 A large, former agricultural barn occurs within the south-western extent of the application site. Part of the original barn is double-storey (featuring a mezzanine floor) and is entirely brick constructed. The building supports a single pitched and lined pantile roof with former window apertures and horizontal sliding doors along the western and southern elevations.

Surrounding land

- 4.2.3 The application site is situated north-west of Dembleby and lies immediately south of Green Lane. The site lies within a principally agricultural landscape and is mostly bound by arable fields.
- 4.2.4 The application site supports small parcels of routinely cut amenity grassland. These occur along the western and northern peripheries of the former stables/cart shed as well as north and west of the detached barn. This habitat is predominated by perennial rye-grass *Lolium perenne*. Immediately south of the former stables/cart shed, and to the east and south of the detached barn are areas of hardstanding.
- 4.2.5 Scattered trees are established along the western periphery of the application site which comprise a small number of sub-mature common lime *Tilia x europaea*.

4.3 Species

Amphibians

- 4.3.1 No recent records for amphibian were returned by LERC within a 2km radius of the application site.
- 4.3.2 The site does not support any vegetated habitats of suitable density to sustain reptiles. However, a number of semi-natural habitats, established within the local vicinity of the application site, offer suitable cover, density and structure for amphibians to potentially inhabit, forage and disperse. These include the understory of tree lines and hedgerows which occur to the north, east and south-east of the wider curtilage.
- 4.3.3 There is a disused swimming pool immediately east of the former barn, however, this is not considered suitable for great crested newt *Triturus cristatus* inhabitancy due to a lack of submerged vegetated and steep sloping sides, which limit access/egress opportunities for newts.

4.3.4 The closest waterbody to the application site lies >20m north of the former cart shed/stable block. A detailed Habitat Suitability Index (HSI) of this waterbody was not completed. However, given an absence of recent records for newts locally, and a lack of terrestrial habitats on the site, great crested newts are not expected to be significantly impacted by the proposed works. Nonetheless, the probability of encountering single and/or small populations of commonly occurring amphibians during site preparatory activities should not be discounted.

Reptiles

- 4.3.5 No recent records for reptiles were returned by LERC within a 2km radius of the application site.
- 4.3.6 Areas of hardstanding on site could provide suitable conditions for basking. However, in view of the small size of the site, and an inherent lack of vegetated habitats, it is considered unlikely that significant populations of reptiles could be encountered during the works.
- 4.3.7 Precautionary measures are advised to avoid harming individual and/or small numbers of reptiles during site preparatory works.

Birds

- 4.3.8 Data provided by LERC included records for a wide range of bird species within a 2km radius of the application site, with the majority of records representing commonly occurring species. Records for barn owl *Tyto alba*, avocet *Recurvirostra avosetta* and red kite *Milvus milvus* were returned, which are species listed under Schedule 1 of the Wildlife and Countryside Act (1981, as amended).
- 4.3.9 General passerine bird activity was recorded on the site during the walkover, including feral pigeon *Columba livia domestica*, pied wagtail *Motacilla alba* and swallow *Hirundo rustica*.
- 4.3.10 Horizontal ledges, timber trusses and wall cavities associated with agricultural buildings on the site have the capacity to accommodate nesting passerines and a number of redundant swift nests were observed.
- 4.3.11 Evidence of barn owl occupancy was recorded in the former agricultural barn and the lean-to wooden structure, including faecal splashing, pellets and feathers. However, no evidence of associated nesting activity was observed.
- 4.3.12 In absence of mitigation, nesting birds could be inadvertently impacted by disturbances to buildings on the site required to facilitate the proposed works.

Bats

- 4.3.13 Multiple records of bats were returned by LERC, including *Pipistrellus* spp. and brown long-eared bats *Plecotus auritus* within a 2km radius of the application site; the closest roost of brown long-eared and pipistrelle bats being >1.8km south of the site, dated 2017.

Roosting - Trees

- 4.3.14 The lime trees occurring west of the detached barn were observed to be in good physical condition and did not present any observable features with a potential to support roosting bats. This was largely attributed to by the predominantly sub-mature age of the trees.

Roosting – Attached former stable/cart shed

- 4.3.15 The interior of the former stable/cart shed block is subjected to moderate levels of ambient light which provide sub-optimal conditions for roosting bats. The roof comprises a single pitch with timber laths across most of the stables (see Photograph 1, Appendix II). Potential access/egress points were provided along open doorways and windows, however, the ridge beams exhibited extensive cobwebbing to indicate that bats have not recently used this feature and no evidence of roosting bats was observed inside the building. Given the availability of potential roosting features, the interior of the building was appraised as having 'low' potential to support roosting bats in line with current guidelines issued by BCT⁸.
- 4.3.16 The majority of the brick/stonework forming the exterior of the former stable/cart shed appeared to be in good condition and intact throughout, although occasional absent mortar and apertures were present along the western aspect of the building, within the wooden lean-to structure. The exterior of the roof also exhibited numerous slipped and lifted pantiles as well as occasionally lifted ridge tiles (see Photograph 2, Appendix II).
- 4.3.17 In view of its current condition, the exterior of the building was appraised as having 'low' potential to support roosting bats in line with current guidelines issued by BCT, particularly transitional and summer roosts for single or small numbers of crevice-dwelling bats.

⁸ Collins (2016). *Bat Surveys for Professional Ecologists, Good Practice Guidelines, 3rd Edition*. Bat Conservation Trust.

Roosting – Former agricultural barn

- 4.3.18 The interior of the former agricultural barn comprised large-sized room voids. No evidence of roosting bats was recorded, however, given the presence of tears in the roof lining (see Photograph 3, Appendix II), and the availability of potential access/egress points for bats at the locations of window apertures and doorways, the interior of the agricultural barn was appraised as having 'low' potential to support roosting bats in line with BCT guidelines. No evidence of roosting activity was observed.
- 4.3.19 The exterior of the former agricultural barn exhibited a number of potential roosting features and possible access/egress points in the form of occasional absent mortar in the brickwork in addition to lifted pantiles (see Photograph 4, Appendix II).
- 4.3.20 In view of the quality and availability of potential roosting features, the exterior of the building was appraised as having 'low' potential to support roosting bats in line with BCT guidelines.

Foraging/commuting

- 4.3.21 Tree lines on the site have potential value for locally foraging bats (see Photograph 5, Appendix II). Land immediately beyond the application site supports a number of linearly distributed habitats of value to locally foraging bats, including field margins and hedgerows. These habitats also provide connectivity for bats to commute between the site and the wider landscape.
- 4.3.22 The site and habitat immediately beyond the site boundary are, therefore, expected to be utilised by locally foraging bats on a regular basis and was, thus, appraised as having potentially 'moderate' value for nocturnal bat activity in line with BCT categories.

Badger

- 4.3.23 A number of records for badger were returned by LERC for within a 2km radius of the application site, the most recent dated 2020.
- 4.3.24 Topographically, the site is predominantly flat and was considered to be of unsuitable profile for badgers to excavate setts. However, pockets of grassland and hedgerows, established within the immediate vicinity of the application site, could provide opportunities for foraging badgers.
- 4.3.25 As a precaution, vigilance for the presence of badgers should be maintained during any works proposed within the wider grounds.

Invasive non-native species

- 4.3.26 No evidence of invasive non-native species was identified during the walkover and no interactions with such species are expected during the proposed renovation works.

4.4 Nocturnal Bat Activity Surveys

- 4.4.1 *Detailed notes of bat activity captured during the dusk emergence surveys are given under Appendix III. A summary of the survey findings is given under the following sub-headings.*

21st July 2022

- 4.4.2 The initial dusk emergence survey captured a moderate volume of foraging and commuting activity with common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus* bats being predominantly recorded, along with a single recording of a noctule *Nyctalus noctule* bat. The majority of bat activity was focused alongside a hedgerow established beyond and parallel to the northern boundary of the application site which was observed by the northernmost surveyor.

- 4.4.3 **No evidence of roosting activity** was recorded during the survey.

22nd July 2022

- 4.4.4 The second dusk emergence survey also captured a moderate volume of foraging and commuting activity with common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus* bats being predominantly recorded, together with a single recording of a brown long-eared bat *Plecotus auritus*. The majority of bat activity was focused alongside the eastern aspect of the former agricultural barn, which was observed by both the northern-most surveyor, including extensive foraging over the disused swimming pool.

- 4.4.5 **No evidence of roosting activity** was recorded during the survey.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Species

Amphibians

- 5.1.1 Amphibians are protected under the Wildlife and Countryside Act (WCA) 1981 (as amended) against being killed and injured and included as Priority Species under the NERC Act (2006). Great crested newts are further protected by British and European law which also makes it an offence to capture or disturb them and to damage or destroy their habitat.
- 5.1.2 An assessment of the quality and availability of suitable terrestrial habitat for newt inhabitancy on the application site has determined it unlikely that great crested newts would be significantly affected by the works. However, it is possible that single or small numbers of commonly occurring amphibians could be encountered during site preparatory activities.
- 5.1.3 **As a precautionary measure to mitigate the potential to harm single and/or small populations of amphibians during site preparatory works, it is advised that a bespoke reptile and amphibian method statement is followed (see Appendix IV).**

Reptiles

- 5.1.4 All four of the common species of native reptiles, that is common lizard, grass snake *Natrix helvetica*, slow worm *Anguis fragilis* and adder *Vipera berus*, are given partial protection under the WCA 1981 (as amended) which prohibits the intentional killing, injuring or taking of these species.
- 5.1.5 The application site does not support habitats of suitably diverse vegetation structure to promote reptile inhabitancy, however habitats within the immediate locality could support reptiles. Therefore, the possibility of encountering single or small numbers of reptiles during site preparatory works should not be discounted.
- 5.1.6 **As a precautionary measure to mitigate the potential to harm single and/or small populations of reptiles during site preparatory works, it is advised that a bespoke reptile and amphibian method statement is followed (see Appendix IV).**

Birds

- 5.1.7 All nesting birds and active nests are protected under the Wildlife and Countryside Act (1981, as amended) which makes it an offence to take, damage or destroy the nest of any wild bird while it is in use or being built, and to take or destroy the egg of any wild bird. Certain birds, listed under

Schedule 1 of the Act, are also protected against disturbance whilst building a nest, or when on or near a nest containing eggs/unfledged young.

- 5.1.8 Opportunities for nesting activity were found to be associated with structural cavities and horizontal ledges associated with buildings present on the application site. Evidence of former nesting, including redundant swallow nests, was also observed.
- 5.1.9 **As a precautionary measure, renovation works to the buildings should be completed outside of the main nesting bird season (nesting season runs March-August, inclusive) to avoid interface with nesting birds.**
- 5.1.10 **Alternatively, it is advised that the buildings are inspected by a suitably experienced ecologist in advance. If active nests are found, these must be safeguarded and left undisturbed until all chicks have successfully fledged.**
- 5.1.11 **In order to enhance the value of the site for nesting birds post-works, it is recommended that a minimum of two artificial swallow nest cups are installed onto the converted buildings upon completion of the works and following manufacturer's instructions. An example of a suitable product is the Eco Swallow Nest which is presently available from NHBS.**

Bats

- 5.1.12 Bats receive protection under the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended). It is an offence to take, kill or injure a bat, damage or destroy a resting place of a bat, or disturb a bat whilst it is occupying a place of shelter.
- 5.1.13 In view of the availability and quantity of potential roosting features associated with the former stables/cart shed, and adjacent agricultural barn, these were appraised as having 'low' potential to support bat roosts.

Roosting bats

- 5.1.14 In view of the current finding, there are presently no further constraints with respect to roosting bats. **However, it is advised that the buildings are subjected to repeat bat surveys if works have not commenced before May 2023.** This is to determine whether the physical condition, availability of potential roosting features and the roosting status associated with these buildings remain consistent.
- 5.1.15 It is further advised that the following precautionary measures are taken when completing the building works:

All contractors working on the buildings must be briefed on the legal protection afforded to bats and their identification.

Works to the buildings should be undertaken in a slow and controlled manner. Each roof tile should be carefully lifted and meticulously checked underneath for any evidence of bats (including live/dead bats, droppings and urine staining) before being carefully removed/discarded.

Should any evidence of bats be encountered during the works, all site activities must stop immediately, and an appointed ecologist contacted. The ecology contact for this project is Helen Archer (Archer Ecology Ltd): 07583 802069.

If a bat is found under a tile or any other aperture, works will stop immediately. If the bat does not voluntarily fly out, then the aperture will be carefully covered over to protect the bat(s) from the elements.

Any injured bats should be gently placed in a secure ventilated box in a cool, quiet and dark place (e.g., cardboard box with a sealed lid) by the contractor for the bat's protection, whilst awaiting the arrival of the ecologist.

As a positive conservation measure to enhance the site for roosting bats, it is recommended that 2x bat roost units are installed onto the converted buildings and/or adjacent buildings. These should be placed on the southern elevations of the buildings, in a location that avoid illumination from external lighting, and installed following manufacturers' guidelines. A suitable unit is *1FF Schwegler Bat Box With Built-in Wooden Rear Panel*.

Foraging bats

- 4.1.1 In order to avoid impacts upon nocturnal bat activity, dark unlit corridors should be maintained around and across the site, allowing bats to pass through unhindered by artificial lighting.
- 4.1.2 All introduced lighting must be sensitive to nocturnal bat activity and be curtailed to avoid impacting light-sensitive bat species.
- 4.1.3 Introduced lighting should be positioned at a minimum of 5m from any existing tree lines and hedgerows. Mercury or metal halide lamps must also be avoided. The hours of illumination could be restricted to provide a minimum of 8 hours of darkness per night. Introduced lighting should further comprise a maximum of 1 lux which is comparable to moonlight conditions.

Badgers

- 5.1.16 Badgers are protected and so are the setts (burrows) they live in under the Protection of Badgers Act 1992 making it is an offence to; wilfully kill, injure or take a badger (or attempt to do so), cruelly ill-treat a badger, dig for a badger, intentionally or recklessly damage or destroy a badger sett, or obstruct access to it, cause a dog to enter a badger sett or disturb a badger when it is occupying a sett. Badgers are a highly mobile species and could commute onto and through the site during night-time.
- 5.1.17 **All excavations should be covered at night to avoid the accidental trapping of badgers and other terrestrial mammals, including hedgehogs.**

APPENDIX I – SPECIES METHODOLOGIES

The fauna included within this assessment is based on the habitats present, data from the desk-based searches, and the following legislation⁹:

Wildlife and Countryside Act 1981 (as amended);

The Protection of Badgers Act 1992;

The Conservation of Habitats and Species Regulations 2017, and

The NERC Act 2006 – S41 Species of Principal Importance (SPI) for the conservation of biodiversity.

Amphibians

Where accessible, waterbodies within 500m of the site boundary were identified using online Ordnance Survey maps and aerial imagery¹⁰ and were assessed for their suitability to support great-crested newts using a Habitat Suitability Index (HSI). The HSI is a numerical index, between 0 and 1. Values close to 0 indicate unsuitable habitat, 1 represents optimal habitat (Oldham et al., 2000)¹¹.

Reptiles

An assessment of the suitability of the habitats present to support common reptile species was undertaken¹². In accordance with current guidance this assessment involved a review of habitats and habitat structure for suitable shelter for reptiles such as areas of scrub and woodpiles, grassland with well-developed and varied structure, areas suitable for basking and large tussocks etc.

Birds

Based upon vegetation maturity, structure and density, an assessment of habitats was undertaken to determine the likely value to breeding and foraging birds. Buildings and built structures were also examined for the presence of horizontal surfaces and crevices with the potential to support nest sites.

⁹ See www.legislation.gov.uk

¹⁰ www.bing.com/maps accessed April 2021

¹¹ Oldham et al., (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). Herpetological Journal 10, 143-155

¹² Froglife (1999). Froglife Advice Sheet 10: reptile survey. Froglife, London.

Bats

A detailed external inspection of the proposed works area was completed by Principal Ecologist and bat licence holder Helen Archer BSc (Hons) (Level 2 Class Licence issued by Natural England; 2015-14111-CLS-CLS). Helen is a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) and has over twelve years' experience of completing ecology and bat surveys. The buildings were subjected to detailed external and internal bat roost potential survey from different levels using binoculars and torches.

The inspection was carried out in line with methodologies contained within the survey guidelines issued by Bat Conservation Trust (Collins, 2016)¹³ and involved identifying potential roosting features associated with the buildings with evidence of roosting bats, including urine staining, guano, feeding remains and live/dead bats.

Tree assessments were undertaken from ground level with the aid of a torch and binoculars, where required. During the survey Potential Roosting Features (PRF) for bats following current best practice^{14, 15, 16} were recorded.

The potential for the site and immediate surrounds to support foraging and commuting bats was also assessed, with particular regard given to the presence of continuous tree lines, watercourses and hedgerows providing good connectivity in the landscape, and the presence of varied habitat such as scrub, woodland, grassland and open water in the vicinity.

Badger

Areas of suitable habitat were surveyed for evidence of badger activity, such as mammal paths, setts, snuffle holes or latrines¹⁷.

¹³ Collins (2016). *Bat Surveys for Professional Ecologists, Good Practice Guidelines, 3rd Edition*. Bat Conservation Trust.

¹⁴ Collins (2016). *Bat Surveys for Professional Ecologists, Good Practice Guidelines, 3rd Edition*

¹⁵ Mitchell-Jones, A.J., & McLeish, A.P. Ed. (2004). *Bat Workers' Manual 3rd Edition*

¹⁶ BCT (2015) *Surveying for Bats in Trees and Woodland – Guide*

¹⁷ Natural England (2015) *Badgers: surveys and mitigation for development projects*.

APPENDIX II - PHOTOGRAPHS



Photograph 1 – Interior of former stable/cart shed



Photograph 2 – Lifted pantiles along exterior of former stable/cart shed



Photograph 3 – Tears in the roof lining of the former agricultural building



Photograph 4 – Absent mortar within brickwork of former agricultural building



Photograph 5 – Tree line to the west of the former agricultural building

APPENDIX III – BAT SURVEY FINDINGS

Surveyor at Northernmost Location

21/07/2022 – Dusk emergence survey		
Time	Species	Notes/activity
21:48	Soprano pipistrelle	Foraging, distant call, heard briefly, not seen
21:52	Soprano pipistrelle	Foraging, distant call, heard briefly, not seen
21:52	Common pipistrelle	Foraging, heard not seen
21:53	Common pipistrelle	Foraging along roadside hedge
21:54	Common pipistrelle	Foraging along roadside hedge
21:55	Common pipistrelle	Foraging along roadside hedge
21:57	Common pipistrelle	Commuting alongside stables
21:59	Common pipistrelle	Foraging along roadside hedge
22:04	Common pipistrelle	Foraging along roadside hedge
22:06	Common pipistrelle	Foraging along roadside hedge
22:07	Common pipistrelle	x2 Foraging alongside building
22:09	Common pipistrelle	Foraging along hedgerow
22:11	Noctule	Commuting, heard not seen
22:12	Common pipistrelle	Foraging along hedgerow
22:17	Common pipistrelle	Foraging along hedgerow
22:18	Common pipistrelle	Foraging over stables
22:21	Common pipistrelle	Commuting, heard not seen
22:29	Common pipistrelle	Foraging, heard not seen (likely foraging along hedgerow)
22:31	Common pipistrelle	Foraging, heard not seen (likely foraging along hedgerow)
22:32	Common pipistrelle	Foraging, heard not seen (likely foraging along hedgerow)
22:32	Common pipistrelle	Foraging, heard not seen (likely foraging along hedgerow)
22:33	Common pipistrelle	Foraging, heard not seen (likely foraging along hedgerow)
22:34	Common pipistrelle	Foraging, heard not seen (likely foraging along hedgerow)

22/07/2022 – Dusk emergence survey		
Time	Species	Notes/activity
21:46	Common pipistrelle	Foraging, heard not seen
21:51	Common pipistrelle	Foraging from western elevation of barn to the east of the site then circling anticlockwise on eastern elevation of barn
21:53	Common pipistrelle	Foraging, circling clockwise along barns eastern elevation and then entered barn and emerged (repeatedly)
22:01	Common pipistrelle	Commuting from southeast to north west of site
22:04	Common pipistrelle	Foraging from east (circling) then flying back to the east
22:12	Soprano pipistrelle	Foraging, heard not seen (distant)
22:20	Common pipistrelle	Foraging, heard not seen
22:20	Brown long-eared bat	Foraging, heard not seen (noise in stables?)
22:24	Common pipistrelle	Foraging, heard not seen
22:28	Common pipistrelle	Foraging, heard not seen

Surveyor at Southernmost Location

21/07/2022 - Initial dusk emergence survey		
Time	Species	Notes/activity
21:40	Common pipistrelle	Foraging, heard not seen
21:48	Common pipistrelle	Foraging, heard not seen
21:50	Common pipistrelle	Foraging, heard not seen (distant calls)
21:51	Common pipistrelle	Foraging, flying west of southern elevation
21:53	Unknown	Commuting, seen not heard on northern elevation to east of stables
21:55	Common pipistrelle	Commuting over stable located furthest west
21:58	Common pipistrelle	Foraging, heard not seen
22:01	Common pipistrelle	Foraging, flying west of southern elevation
22:06	Common pipistrelle	Foraging from south to west of site
22:12	Common pipistrelle	Foraging south to east

22:14	Common pipistrelle	Commuting west to east
22:16	Common pipistrelle	Foraging, heard not seen
22:17	Common pipistrelle	Foraging south to north
22:22	Common pipistrelle	Foraging, heard not seen
22:25	Common pipistrelle	Foraging, heard not seen
22:32	Common pipistrelle	Foraging, heard not seen
22/07/2022 – Dusk emergence survey		
Time	Species	Notes/activity
21:45	Common pipistrelle	Commuting westwards over building
21:45	Common pipistrelle	Foraging, heard not seen
21:47	Common pipistrelle	Foraging, heard not seen (likely foraging in treelines to the east)
21:49	Common pipistrelle	x2 Foraging, heard not seen (likely foraging in treelines to the east)
21:55	Common pipistrelle	x2 Foraging, heard not seen (likely foraging in treelines to the east)
21:55	Common pipistrelle	x2 Foraging over swimming pool and barn
21:56	Common pipistrelle	x2 Foraging over swimming pool and barn until 22:07
22:07	Common pipistrelle	Foraging over pool until 22:16

APPENDIX IV – REPTILE AND AMPHIBIAN METHOD STATEMENT

Amphibians

Legal Protection

Common amphibian species are protected under the Wildlife and Countryside Act 1981 (as amended) against being killed and injured and included as Priority Species under the NERC Act (2006).

In England great crested newts *Triturus cristatus* are fully protected under the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way (CROW) Act 2000. They are also protected by European legislation; the EC Habitats Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2017. This has recently been amended by the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019, which continue the same provision for European protected species, licensing requirements, and protected areas after Brexit. Taken together, this legislation makes it illegal to:

Intentionally or recklessly kill, injure or capture a great crested newt

Damage or destroy habitat which a great crested newt uses for shelter or protection

Deliberately disturb a great crested newt when it is occupying a place it uses for shelter and protection

Identification

There are five species of native amphibian within the UK:

great crested newt

common frog *Rana temporaria*

common toad *Bufo*

smooth newt *Lissotriton vulgaris*

palmate newt *Lissotriton helveticus*

Common frog
Adults 6-7 cm. Smooth skin, which appears moist.
Coloration variable, includes brown, yellow and orange. Some females have red markings on lower body.
Usually has a dark 'mask' marking behind the eye.



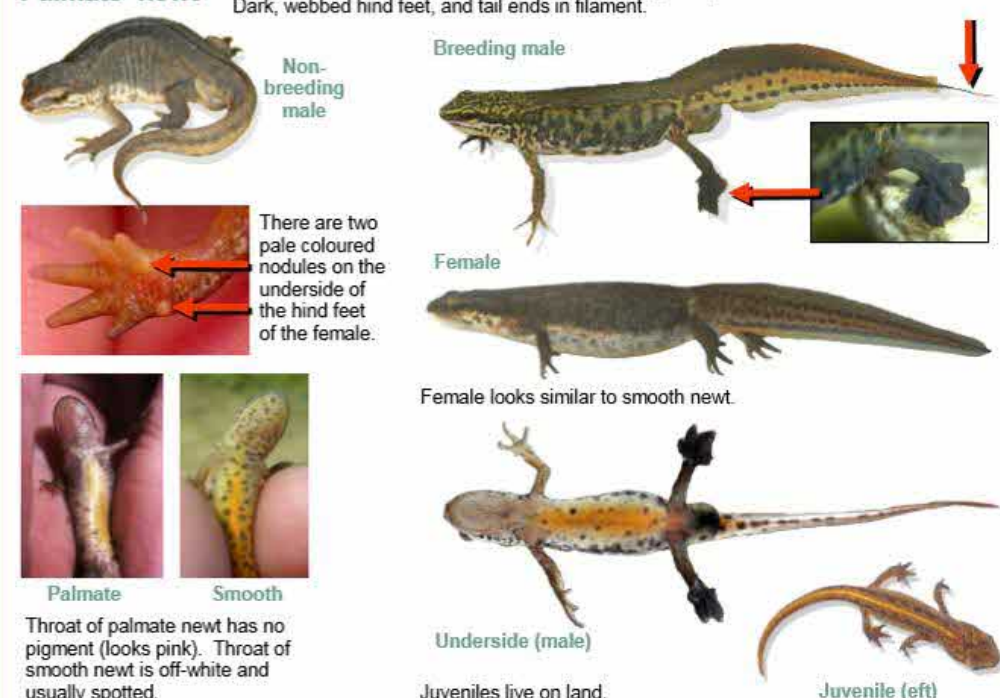
Breeding male
Grey/pale blue throat.
Thick front legs.
Dark (nuptial) pad on inner toes of the front feet.

Markings also variable, including varying amounts of black spots and stripes.

Spawn is laid in gelatinous clumps.

Young froglets look like smaller versions of the adults.

Palmate newt Grows to 9 cm. Breeding male has a ridge running along the back, rather than a crest. Dark, webbed hind feet, and tail ends in filament.



Non-breeding male

There are two pale coloured nodules on the underside of the hind feet of the female.

Breeding male

Female
Female looks similar to smooth newt.

Palbate **Smooth**

Throat of palmate newt has no pigment (looks pink). Throat of smooth newt is off-white and usually spotted.

Underside (male)

Juveniles live on land.

Juvenile (eft)

Great crested newt

Grows to 16 cm, but usually smaller. Crest in male has break at base of tail. Silvery-white stripe towards rear of tail conspicuous.

Both sexes have rough, granular skins and yellow/orange bellies with irregular black spots.

Female has no crest and an orange/yellow stripe running along the lower edge of the tail.

Outside the breeding season the male's crest shrinks to a ridge along the back.

Juveniles look like smaller versions of the female and may live on land or in the water.

Orange/yellow coloration on underside extends to flanks (not confined to central stripe). This continues along lower edge of tail in females.

Strictly protected species, requiring a licence to handle or disturb.

Juveniles are similar to females but without any cloacal swelling.

Male

Female

Non-breeding male

Juvenile

Male

Female

Juvenile

Smooth newt

A widespread species which breeds in a variety of water bodies. Often found in garden ponds.

Grows to about 10 cm. Breeding male has an undulating crest running from head to tail tip.

Non-breeding adults live mostly on land. Juveniles live entirely on land.

Both sexes have an orange or yellow belly stripe and rounded spots, which are larger in the male.

Male

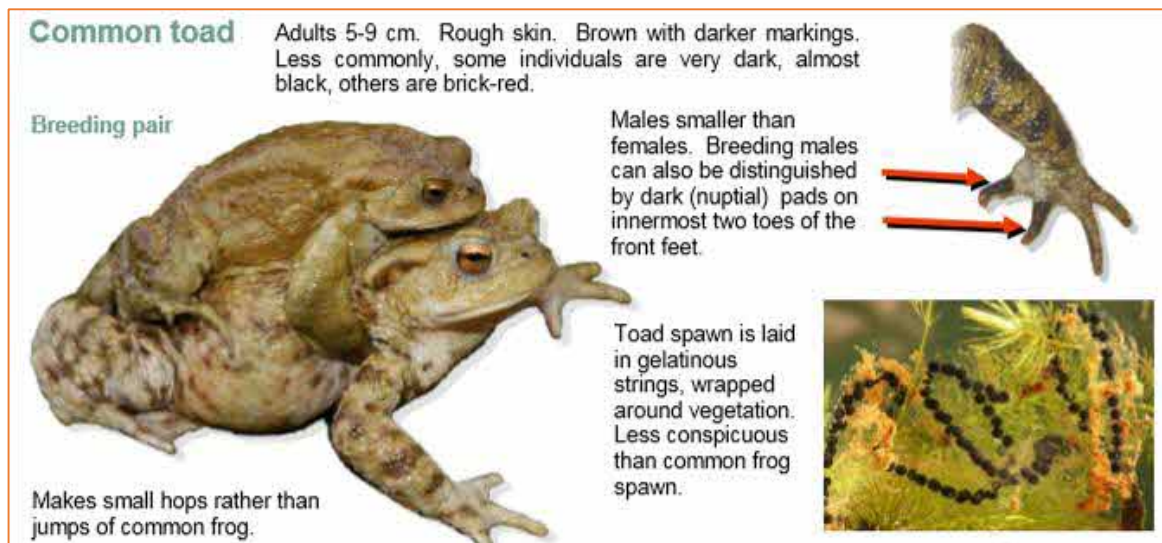
Female

Non-breeding male

Juvenile (left)

Male

Female



Reptiles

Legal Protection

All native reptiles are protected under Wildlife and Countryside Act (1981, as amended) from:

- Killing or injuring and
- Trading/selling

Identification

There are six species of native reptile within the UK. Of these six, there is potential for the following species to be encountered during the works:

- common European adder *Vipera berus*
- grass snake *Natrix natrix*
- common lizard *Lacerta vivipara* and
- slow worm *Anguis fragilis*

Common European Adder:



Grass Snake:



Common Lizard:



Slow Worm:



- Site preparatory works, including disturbances to grassland and any potential refugia, including brash/rubble piles, should avoid the period in which reptiles and amphibians are hibernating (between November and March, inclusive).
- For the initial stages of the development, the clearance of the above habitats/features should be undertaken in a phased manner and preferably under the supervision of an experienced ecologist. Ground vegetation clearance should follow a detailed search around all potential refugia, in a careful and controlled manner, with constant vigilance for any sheltering newts and reptiles.
- Any building materials should be stored on pallets to deter amphibians taking shelter underneath them.
- All site operatives will stay vigilant for the presence of reptiles and amphibians, particularly great crested newts, during the works.
- If great crested newts are found at any point, the works should stop immediately, and an ecologist be appointed to advise the way forward.
- Any great crested newt if found, will be carefully gathered up by hand by a suitable licensed ecologist and placed in a suitable holding receptacle for safe transportation away from the area of site clearance operations and released. This rescue method will also be extended to any other amphibian species or reptiles found. Once a great crested newt has been located it will be released in this manner and then work will cease whilst further advice is sought.
- The ecology contact for this activity is **Helen Archer (Principal Ecologist) 07583 802069**