

PRELIMINARY ECOLOGICAL APPRAISAL

100 FINCHAMPSTEAD ROAD
WOKINGHAM
RG40 2NT

Client: Paul Matthey

Our reference: Eco2911

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1.0 Introduction

Survey and reporting

- 1.1 This report details the results of a Preliminary Ecological Appraisal (comprising an Extended Phase 1 Habitat, Protected Species Scoping Survey and Preliminary Bat Roost Assessment) of 100 Finchampstead Road, Wokingham, RG40 2NT.
- 1.2 The survey, carried out on 7 February 2024, was undertaken to inform a planning application for site.

Application site

- 1.3 100 Finchampstead Road is located towards the northern end of Finchampstead Road, a predominantly residential road to the south of Wokingham (Grid Reference SU 8082 6772, Figure 1).
- 1.4 The application site comprises a detached one- and two-storey house, a link attached garage and its curtilage (driveway and rear garden).
- 1.5 It is approximately 0.04ha in area.

Details of proposed works

- 1.6 It is proposed to demolish the house and other outbuildings within the application site, and erect three new dwellings (see Figure 2).

Figure 1 – Site location plan

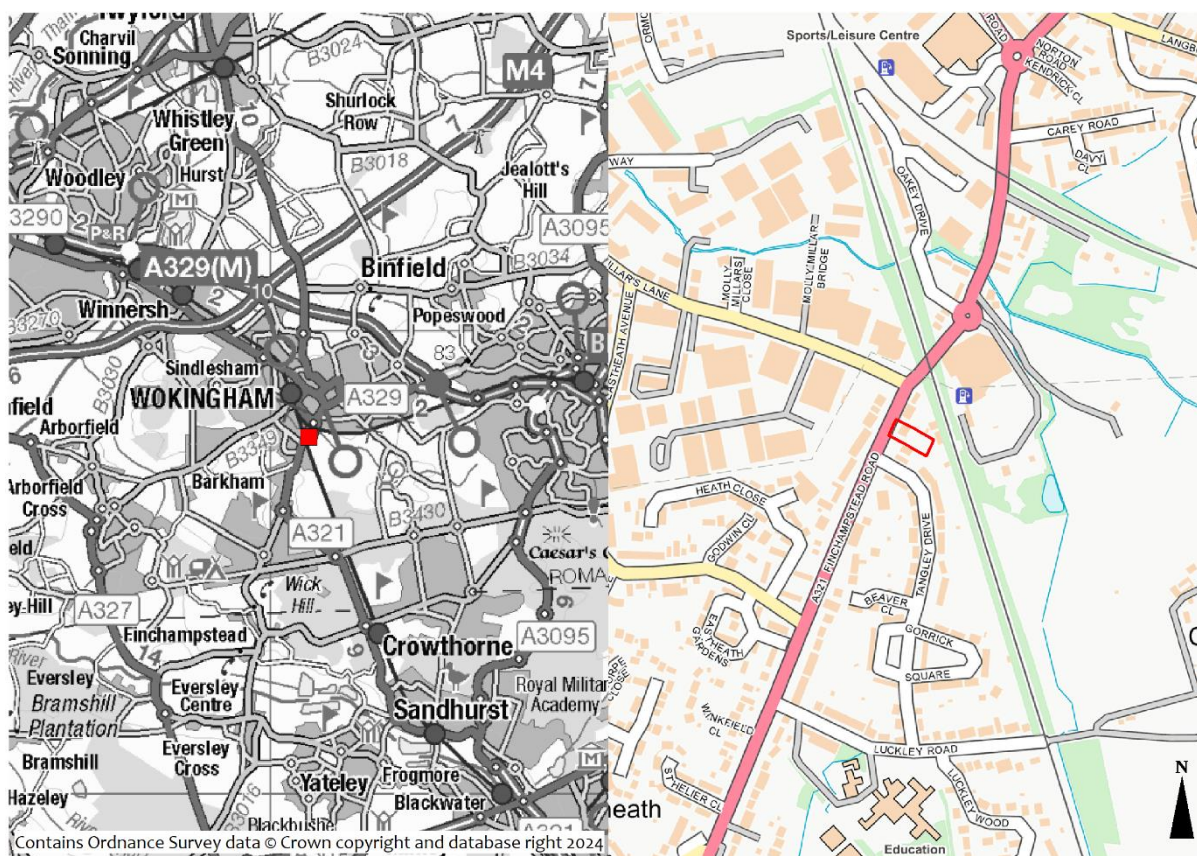


Figure 2 – Proposed site plan



2.0 Methodology

Desk study

- 2.1 A desk study data search was undertaken. This involved reviewing publicly available datasets and citations of statutory designated sites of importance for nature conservation, Natural England's Priority Habitat Inventory GIS dataset for England, and Natural England's Ancient Woodland Inventory for sites within the zone of influence of the survey area (considered to be a maximum of 1km in this case).
- 2.2 In addition, species records (on Natural England's MAGIC website¹) were accessed, and aerial photographs and Ordnance Survey maps were studied for features of interest.

Extended Phase 1 Habitat and Protected Species Scoping Survey

- 2.3 An Extended Phase 1 Habitat and Protected Species Scoping Survey was undertaken. This comprised a walkover survey of the application site and the classification of habitats following the descriptions provided within the Joint Nature Conservancy Council 'Handbook for Phase 1 Habitat Survey' (NCC 1990, JNCC 1993). An assessment of the site in terms of its suitability for notable or protected species was carried out and any features of note were described.

Bat survey

- 2.3.1 A bat survey was undertaken. This comprised:

Daytime Bat Walkover (DBW)

- 2.3.2 A survey to assess the suitability of habitats for bats to roost, commute and forage within and adjacent to the site (where accessible). Habitat suitability was assessed as per Table 1 below.

Preliminary Roost Assessment (PRA)

- 2.3.3 This survey consisted of a detailed search of the interior and exterior of the buildings looking for bats and/or evidence of bats including droppings (on walls and windowsills and in roof and loft spaces), rub or scratch marks, staining at potential roosts and exit holes, live or dead bats and features, such as raised or missing tiles, potentially suitable for use by roosting bats. Binoculars, an endoscope, a ladder and a high-powered torch were used as required.
- 2.3.4 The buildings were classified in terms of their suitability for use by roosting bats (see Table 2) and in accordance with the Bat Conservation Trust's Bat Survey Guidelines².
- 2.3.5 Classification was dependent on a number of factors including:
 - Bats and/or signs of bats
 - External and internal features potentially suitable for use by roosting bats (e.g. raised or missing tiles, gaps behind fascia boards)
 - Setting
 - Night time light levels
 - Disturbance levels
 - Proximity of suitable foraging habitat and flight-paths
 - (e.g. ponds, streams, woodland, large gardens, hedgerows)

¹ <https://magic.defra.gov.uk/>

² Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn) Bat Conservation Trust

Ground Level Tree Assessment (GLTA)

- 2.3..6 This survey was carried out from ground level, using binoculars, a high-powered torch and an endoscope (where features were accessible), looking for potential roost features (PRFs).
- 2.3..7 Trees were categorised as per the Bat Conservation Trust's Bat Survey Guidelines (See Table 3 below).
- 2.3..8 Where features were observed and could be inspected they were categorised as described in Table 4.

Table 1 – Habitat suitability scale for potential flight-paths and foraging bats

<i>Potential Suitability of potential flight-paths and foraging habitats</i>	<i>Potential Suitability</i>	<i>Description</i>
	High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.
	Moderate	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
	Low	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
	Negligible ³	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
	None [Not suitable]	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).

³Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant.' This category may be used where are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute)

Table 2 – Description of the categories used to assess a building’s bat roost potential and the survey effort required to determine the likely presence or absence of bats

	Roost status	Description	Survey effort required to determine the likely presence or absence of bats
Bat Roost Potential Status	Confirmed	Bats or evidence of bats found.	Surveys would be required to establish the status of the roost. Generally, three dusk emergence surveys between May and September. Optimum period May – August (two surveys should be undertaken during the optimal period). Surveys should be carried out at least three weeks apart.
	High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions (For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance) and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Three dusk emergence surveys between May and September. Optimum period May – August. Two surveys should be undertaken during the optimal period. Surveys should be carried out at least three weeks apart.
	Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Two dusk emergence surveys, between May and September (one of the surveys needs to be carried out between May and the end of August). Surveys should be carried out at least three weeks apart.
	Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats).	One dusk emergence survey between May and the end of August (but only if features will be affected by the proposals).
	Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No further surveys required.
	None [Not suitable]	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No further surveys required.

Table 3 – Categorisation of the bat roost potential of trees

<i>Suitability</i>	<i>Description</i>
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRFA	Tree with at least one PRF present

Table 4 - Categorisation of the potential roost features on trees

<i>Suitability</i>	<i>Description</i>
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

Surveyor details

- 2.4 The survey was undertaken by Ryan Davies ACIEEM (senior ecologist) and Cherry Leung (assistant ecologist) of GS Ecology Ltd. Ryan is an associate member of the Chartered Institute of Ecology and Environmental Management and holds a Natural England great crested newt survey licence (WML-CLo8) and a Natural England WML A34 Level 2 bat survey licence.

3.0 Results

Constraints

- 3.1 There were no constraints to the survey.

Weather conditions

- 3.2 Weather conditions during the survey were 5°C, 8/8ths cloud cover, wind at Beaufort scale 1 and no rain.

Desk study

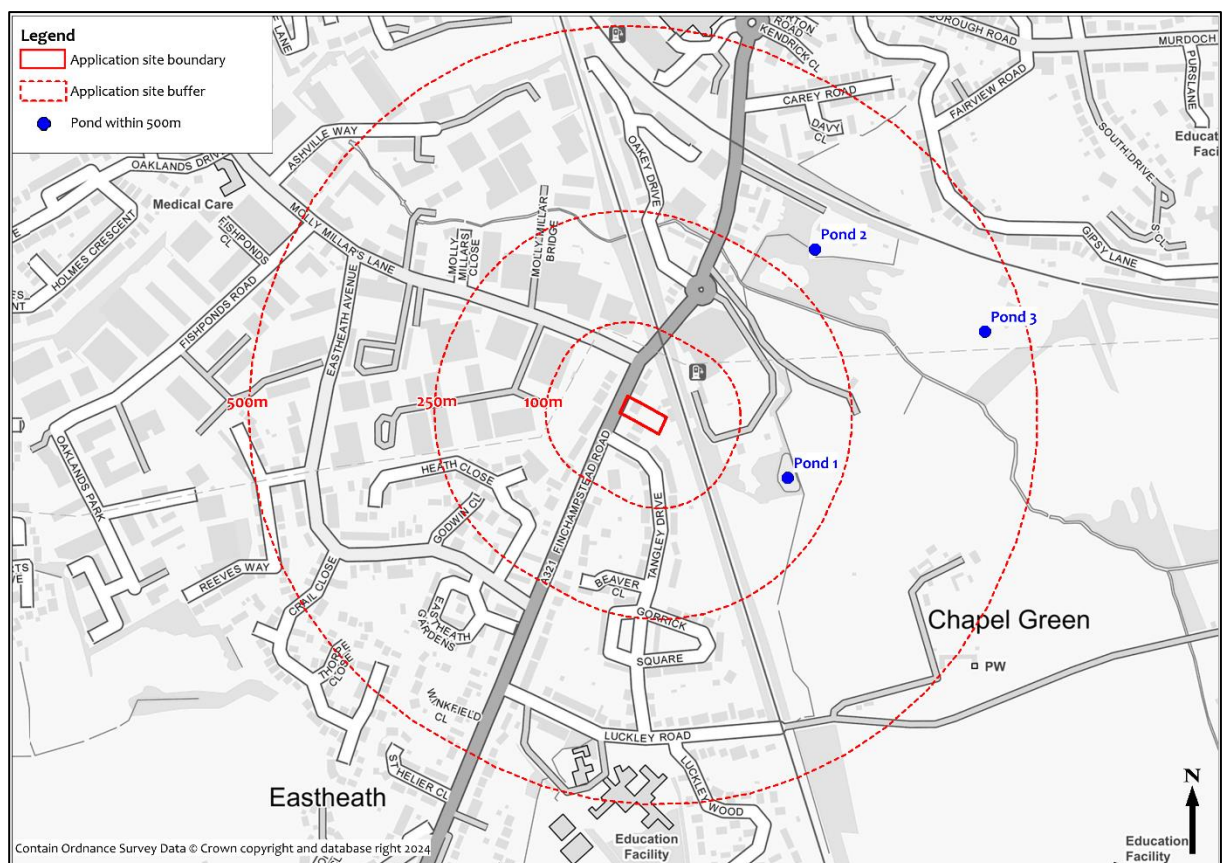
Statutory sites of importance for nature conservation and ancient woodland

- 3.3 There are no statutory sites of importance for nature conservation or areas of woodland listed on Natural England's Ancient Woodland Inventory within 1km of the application site.
- 3.4 The application site also is more than 5km from the Thames Basin Heaths Special Protected Area (TBHSPA).

Nearby ponds

- 3.5 There are three ponds shown on ordnance survey maps (1:25,000 scale) within 500m of the application site (see Figure 3).

Figure 3 - Ponds within 500m of the application site



Protected and notable species records

- 3.6 Within 2km of the site there are six records of licenses issued by Natural England for works affecting protected species on The MAGIC website. These records are summarised in Table 5 below.

Table 5 – Summary of Natural England licence records within 2km of the application site

Distance and direction from the application site	Species affected	Breeding site	Year licence was issued
0.7km (North)	Common pipistrelle	No	2015
1km (East)	Brown long-eared, common pipistrelle	No	2018
1.4km (West)	Brown long-eared, common pipistrelle	No	2014
1.5km (Northwest)	Brown long-eared	No	2014
1.6km (North)	Brown long-eared	No	2016
1.6km (North)	Noctule	Yes	2010

Surrounding land use

- 3.7 100 Finchampstead Road is located towards the northern end of Finchampstead Road, a predominantly residential road to the south of Wokingham.
- 3.8 Directly adjacent to the application site in all directions are similar-sized residential properties and their associated gardens with trees. A north-south railway corridor, bound by numerous trees, runs approximately 20m east of the site.
- 3.9 Further to the northwest and west are large industrial and commercial buildings with scattered lines of trees and hedges at their peripheries in places. Further to the south are large agricultural grassland fields surrounded by blocks of woodland, the nearest of which is approximately 500m south of the site.
- 3.10 Beyond the railway corridor in the east are the Tesco Superstore and several large grassland fields bound by lines of trees and scattered strips of woodland, where a watercourse Emm Brook runs through.

Habitats within the application site

- 3.11 The application site comprises the main house, its driveway, 7 outbuildings, and the rear garden. Much of the garden vegetation had been cleared at the time of the survey.
- 3.12 A Phase 1 habitat map and associated Target Notes are provided in Appendix 1, and photographs in Appendix 2.
- 3.13 A brief description of each habitat is given below.
- 3.14 **Buildings** – See preliminary bat roost assessment section below.
- 3.15 **Hardstanding** – At the northwest of the site is the gravel driveway that leads in from Finchampstead Road. There are also areas of concrete hardstanding around the house.
- 3.16 To the rear of the main house is a flagstone patio, which is connected to the garage, green house and garden shed by a flagstone footpath. The patio is overgrown by weeds in places.
- 3.17 **Amenity grassland** – There is an area of short-cut amenity grassland which runs from the northwest of the site by the driveway to the southeast of the main house, forming part of the rear garden.
- 3.18 **Scattered broadleaved and coniferous trees** – There are a number of broadleaved and coniferous trees within the application site, most are located to the southeast of the site among the area of garden planting and several to the northeast of the site on the front grass lawn.
- 3.19 Species include ash, willow, sycamore, Leyland cypress, cherry, beech, hazel, hawthorn, willow and yew.

- 3.20 **Garden planting** – There are several areas of introduced shrubs and garden planting within the application site, including a large patch at the rear of the garden. Much of this had been cut to ground level at the time of the survey.
- 3.21 **Scattered scrub** – There are scattered scrubs throughout the application site. Species include hazel, bramble, bay laurel, dog rose and garden privet.
- 3.22 **Dense continuous scrub** – Abutting the garden planting at the southwestern boundary in the south, there is a patch of dense bramble scrub.
- 3.23 **Species-poor intact hedge** – There are three ornamental hedges around the application site (along the northwestern boundary, along part of the southwestern boundary and the southeastern boundary).

Bat survey – Daytime Bat Walkover

- 3.24 The hedges and lines of trees along the linked back gardens of neighbouring properties and railway corridor to the east of the site are of ‘moderate’ suitability for commuting and foraging bats, whilst to the west of 100 Finchampstead Road, the trees within the gardens of similar-sized residential properties and scattered lines of trees bounding the ground of large business buildings are of ‘low’ suitability (see Table 1).

Bat survey - Preliminary Roost Assessment (PRA)

- 3.25 There are 7 structures within the application site, comprising the main house, link attached garage, greenhouse, two garden sheds, a disused workshop and a dilapidated log store (see Figure 4).

Figure 4 – Layout of structures within the application site



B1 – Main house

- 3.26 The house is a detached one- and two-storey cavity brick walled house. It has a clay tile roof with two pitches: one running east west and a lower secondary pitch running north south. It has two chimney breasts.
- 3.27 It has wooden fascias and soffit on the northeastern, southwestern and part of the southeastern elevations. There are no barge boards on the gable ends.
- 3.28 There is a dormer window on the northeastern elevation. The dormer has a flat felt covered roof, with hanging tiles on the side and tongue and groove cladding on the front.
- 3.29 The house has a number of features potentially suitable for use by crevice-dwelling bats including:
- Gaps between the brick wall and soffit on the southwestern elevation
 - Gaps under tiles above the walls where the roof has sagged in relation to the walls
 - Gaps under lead flashing around the southern chimney breast
 - Gaps under the valley tiles on the southeast roof
 - Gap at the apex of the northwestern gable end
 - Slightly raised verge tiles on the southern gable end
 - Gap at the intersection of the roof verges
 - Gap where the dormer window roof joins the main roof
 - Gaps between the wall and soffit box on the northwestern elevation
- 3.30 Internally, the house has two loft spaces.
- 3.31 The main loft has wooden beams and ridgeboard and is approximately 2m high. The roof is lined with bitumen felt. The floor is partially boarded and insulated with fiberglass and vermiculite. There were dense cobwebs throughout. No bats or signs of bats were found inside the loft.
- 3.32 The second loft is above the south-western part of the house. It has the same structure as the main loft and contains a water tank. There were also dense cobwebs throughout. No bats or signs of bats were found inside the loft.
- 3.33 The house has a number of features potentially suitable for use by a low number of crevice dwelling bats and is therefore assessed as having ‘low’ potential to host a bat roost (see Table 2).

B2 - Garage

- 3.34 There is a detached brick (non-cavity) walled single storey garage. It has a pitched roof clad with clay tiles. It has no bargeboards on the gable ends. There are wooden fascias and soffit on the northeastern and southwestern elevations. It is linked to the main house via a uPVC canopy.
- 3.35 It has a number of features potentially suitable for use by roosting bats including:
- A large gap between the door frame and the brick wall
 - Gaps under tiles above the walls where the roof has sagged in relation to the walls
 - Gaps between the wall and the soffit box on the south western elevation
- 3.36 Internally, the roof has wooden timbers and is lined with bitumen roofing felt. The walls are unlined. No bats or signs of bats were found inside the garage.

- 3.37 The garage has a number of features potentially suitable for use by a low number of crevice dwelling bats and is therefore assessed as having 'low' potential to host a bat roost (see Table 2).

B3 - Greenhouse

- 3.38 There is a greenhouse to the east of the main house. It has no features potentially suitable for use by roosting bats, no bats or signs of bats were found inside or outside the greenhouse. It will not host a bat roost.

B4 – Garden shed 1

- 3.39 This is a flat roofed wooden shed with tightly fitted tongue and groove cladding,
3.40 No bats or signs of bats were found inside or outside of the building, it has no features potentially suitable for used by roosting bats and is assessed as having "negligible" potential to host a bat roost.

B5 – Garden shed 2

- 3.41 This is a dilapidated wooden shed with a pitched felt covered roof.
3.42 No bats or signs of bats were found inside or outside of the building, it has no features potentially suitable for used by roosting bats and is assessed as having "negligible" potential to host a bat roost.

B6 – Workshop

- 3.43 There is a dilapidated wooden workshop type building and shed. It has a shallow pitched roof clad with felt with a uPVC canopy at one end.
3.44 It has a wooden frame and is unlined.
3.45 No bats or signs of bats were found inside or outside of the building, it has no features potentially suitable for used by roosting bats and is assessed as having "negligible" potential to host a bat roost.

B7 – Dilapidated log store

- 3.46 There is a collapsing log store with walls made from fence panels and corrugated metal sheet. It has a shallow single pitch roof clad with felt.
3.47 3.44 No bats or signs of bats were found inside or outside of the building, it has no features potentially suitable for used by roosting bats and is assessed as having "negligible" potential to host a bat roost.

Ground Level Tree Assessment (GLTA)

- 3.48 All trees within the application site are young trees with no features suitability for use by roosting bats (i.e. their bat roost potential is assessed as 'NONE' – see Table 4).

4.0 Assessment and recommendations (bats)

- 4.1 All species of bats receive special protection under UK law and it is a criminal offence under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (The Habitat Regulations), deliberately or recklessly to destroy or damage their roosts, or to disturb, kill or injure them without first having obtained the relevant licence for derogation from the regulations from the Statutory Nature Conservation Organisation (the SNCO - Natural England in England).
- 4.2 In addition, many bat species are “priority species” as defined in the NPPF (see Paragraph 185 of the NPPF above). As such where priority species are found they should be protected from the adverse impacts of development

Survey constraints

- 4.3 The survey was carried out at a time of year suitable for undertaking preliminary bat roost assessments and there were no constraints to the survey.

Site status

- 4.4 The main house and garage both have ‘low’ potential to host a bat roost (See Table 2) and to determine if they host a bat roost the surveys detailed below would need to be undertaken.
- 4.5 No bats or signs of bats were found inside or outside other structures and they all have “negligible” potential to host a bat roost. They can therefore be demolished with minimal risk of harming bats.
- 4.6 All trees within the application site have no features potentially suitable for use by roosting bats and are assessed as having “NONE” potential to host a bat roost. They can therefore be felled with minimal risk of harm to bats.

Further surveys

- 4.7 The Bat Conservation Trust’s Bat Survey Guidelines (The BCT Guidelines referred to by Natural England in their advice to planning officers) state that, where a building has “low” potential to host roosting bats (as is the case for the main house and garage), one dusk emergence survey between May and the end of August needs to be undertaken. Should the building host a bat roost, to determine its status, an additional two surveys would need to be carried out.
- 4.8 Dusk surveys commence fifteen minutes before dusk and continue for up to an hour and a half after sunset.
- 4.9 Sufficient surveyors need to be present to cover all features potentially suitable for use by roosting bats. In this case two surveyors would be needed to survey the garage and three for the main house.

Legislation

- 4.10 All species of bats receive special protection under UK law and it is a criminal offence under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (The Habitat Regulations), deliberately or recklessly to destroy or damage their roosts, or to disturb, kill or injure them without first having obtained the relevant licence for derogation from the regulations from the Statutory Nature Conservation Organisation (the SNCO - Natural England in England).

4.11 In order to obtain such a licence, the SNCO must apply the requirements of the Regulations and, in particular, the three tests set out in sub-paragraphs 55(2)(e), (9)(a) and (9)(b). These are as follows:

- (1) Regulation 55(2)(e) states that a licence can be granted for the purposes of “preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment”.
- (2) Regulation 55(9)(a) states that the appropriate authority (the SNCO) shall not grant a licence unless they are satisfied “that there is no satisfactory alternative”.
- (3) Regulation 55(9)(b) states that the appropriate authority (the SNCO) shall not grant a licence unless they are satisfied “that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.”

The licensing process

- 4.12 If a building hosts a bat roost and the roost will be affected by the works, a licence and for development works affecting bats (i.e. for derogation from the provisions of the Habitat Regulations) will need to be obtained before works commence. This involves submitting a licence application to Natural England with a detailed mitigation plan informed by surveys undertaken in accordance with national guidelines. Natural England takes 30 working days to process a licence application.
- 4.13 The licensing process is separate and distinct from planning permission, but the Local Planning Authority has statutory obligations under the Habitat Regulations. This means that the Local Planning Authority needs to be satisfied that the proposals are likely to meet the three tests of the Habitat Regulations (see above) and that a licence is likely to be obtained from Natural England before they can issue planning permission or listed building consent⁴.

Mitigation

- 4.14 To comply with planning policy and wildlife legislation it will be necessary to ensure that following development the “favourable conservation status” of bats will be maintained. This means that if a building does host a bat roost, and if this will be affected, lost or made unsuitable for use by bats, then appropriate mitigation (including a replacement roost) will need to be provided. There is also sometimes a restriction on the timings of works.
- 4.15 The type of mitigation required will depend on the species of bat(s) using the roost and the status of the roost but normally comprises the provision of bat boxes, bricks or tiles.

⁴ The courts have considered the application of a planning authority's duty under the Habitat Regulations (and therefore the Habitat Directive) in the cases of Woolley vs Cheshire Borough Council (2009) and Morge vs Hampshire County Council (2010). In the Morge vs Hampshire County Council case the supreme court has ruled that it cannot see why planning permission should not be granted unless the proposed development:

- Would be likely to offend the prohibitions in Article 12(1) and
- Would be unlikely to be licensed as a derogation from those provisions

5.0 Assessment and recommendations (not bats)

Statutory sites of importance for nature conservation

- 5.1 There are no statutory sites of importance for nature conservation or areas of woodland listed on Natural England's Ancient Woodland Inventory within 1km of the application site.
- 5.2 The application site is also more than 5km from the TBHSPA.
- 5.3 Statutory sites of importance for nature conservation will not be a constraint to the proposals.

Priority Habitats

- 5.4 The Secretary of State periodically publishes a list of habitats that are of principal importance for the conservation of biodiversity in England under Section 41 (S41) of the 2006 Natural Environment and Rural Communities (NERC) Act. The list currently comprises 56 habitats, referred to as "priority habitats" in the National Planning Policy Framework (NPPF).
- 5.5 Paragraph 185 of the NPPF reads:

"To protect and enhance biodiversity and geodiversity, plans should [...] 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"
- 5.6 As such where priority habitats are found they should be protected from the adverse impacts of development.
- 5.7 The habitats within the application site – amenity grassland, species-poor intact hedges, scattered scrub, introduced shrubs and dense continuous scrub -are not Priority Habitats.

Great crested newts

Legislation and ecology

- 5.8 Great crested newts (GCN) receive special protection under UK law and it is an offence under the Wildlife and Countryside Act 1981 (as amended) and the European Habitats and Species Directive (92/43/EC), enacted in the UK through The Conservation of Habitats and Species Regulations 2017 (The Habitat Regulations) to deliberately or recklessly destroy or damage their habitat, or to disturb, kill or harm them without first having obtained the relevant licence for derogation from the regulations from the Statutory Nature Conservation Organisation (the SNCO - Natural England in England).
- 5.9 GCN spend most of their lives on land, within up to 500m of a breeding pond. The most important terrestrial habitat is within 100m, where most of the population are likely to be located foraging, resting, sheltering and hibernating relatively close to their breeding site. However, a proportion of the population is also likely to forage for food and shelter in suitable habitats up to 250m from a breeding pond and juvenile animals have been known to disperse up to 500m from it in a single season.
- 5.10 GCN are likely to be disturbed by any work that involves altering their breeding pond (e.g. by introducing fish or deepening or altering its size) or works that involve clearing land up to 500m around ponds, where such land has been managed and maintained in such a way that it is likely to support GCN. In such cases a licence for derogation from the provisions of the habitat regulations may need to be obtained.

- 5.11 In addition, GCN are a species of principal importance for the conservation of biodiversity in England under Section 41 (S41) of the 2006 Natural Environment and Rural Communities (NERC) Act (these are the “priority species” as per the NPPF).

Site status

- 5.12 There are three ponds within 500m of the application site, all of which are located to the east of the application site and beyond a railway corridor. The closest of which is approximately 200m from the application site.
- 5.13 The ponds were not visited during the survey and no assessment of their suitability for use by GCN was made. However because of the distance of the ponds from the application site and the amount of land to be affected by the proposals it is highly unlikely that GCN would be present within the application site and affected by the proposals even if they were to inhabit the nearby ponds.
- 5.14 This accords with Natural England’s risk assessment, as detailed in their GCN licence method statement template⁵. Application of the risk assessment shows that an offence under the 2017 Habitat Regulations as a result of the development is “highly unlikely”, if the species were to be present in the ponds.

Table 6 – Risk assessment for great crested newts as per Natural England’s Great Crested Newt method statement in the event that Ponds 1 to 3 were to be a great crested newt breeding pond.

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.01
Land >250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.001
Individual great crested newts	No effect	0
	Maximum:	0.01
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

Other herpetofauna

- 5.15 Under the 1981 Wildlife and Countryside Act (as amended) it is illegal intentionally to kill or injure any species of reptile or amphibian. In practice, this means that reasonable avoidance measures need to be taken to avoid harm to these animals.
- 5.16 Under Section 41 (S41) of the 2006 NERC Act, the Secretary of State periodically publishes a list of species that are considered by the government to be of principal importance for the conservation of biodiversity in England. The list currently comprises 943 species, referred to as "priority species" in the NPPF. All native species of reptile are "priority species" as are common toads, and paragraph 185 of the NPPF states that: "Planning policies should [...] promote [...] the protection and recovery of priority species populations".

⁵ See http://www.naturalengland.org.uk/Images/GCN%20WML-14-2_tcm6-4103.xls [sheet - Licence risk assmt(2)]

- 5.17 As with any garden it is possible that low numbers of common species of reptile (such as slow worm) and amphibians (such as common frog) may inhabit the margins of the site and the piles of debris. It is therefore recommended that the debris be cleared by hand (rather than with an excavator) under the supervision of a suitably qualified ecologist with any animals found moved to the margins of the site. It is also recommended that the garden and garden planting be maintained as short cut grassland (no more than 10cm in height) until the start of works to discourage reptiles and amphibians from inhabiting the site.

Nesting birds

- 5.18 All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended). Section 1 of this Act makes it an offence to kill, injure or take any wild bird, or intentionally to take, damage or destroy the nest of any wild bird while that nest is in use or being built.
- 5.19 The buildings (there were two bird boxes attached to the house, these should be removed before the start of the nesting season), trees, scrub may be used by nesting birds. As such, demolition and vegetation removal should be undertaken outside of the bird nesting season (March – August inclusive depending on weather conditions). If this is not practicable then the buildings and vegetation will first need to be checked for nesting birds and, if an active nest is found, works that could disturb the nest would need to be postponed until all young have fledged the nest and it is no longer in use.

Other protected species

- 5.20 It is considered highly unlikely that the proposals will have any adverse effects on other protected species, such as badgers or dormouse:
- Most habitats to be affected by the proposals re sub-optimal for dormouse.
 - No signs of badgers were observed on or adjacent to the site during the survey.

Biodiversity net gain

- 5.21 The Environment Act 2021 became law on 9 November 2021. It will require (through amendments to the Town and Country Planning Act 1990) all planning permissions in England, with some exemptions, to be granted subject to a new general pre-commencement condition that requires approval of a biodiversity gain plan.
- 5.22 These plans will need to demonstrate that a development will result in a net gain in biodiversity of at least 10% above baseline levels using habitats as a proxy for biodiversity.
- 5.23 This system is commonly referred to as Biodiversity Net Gain and it is a cornerstone of the government's 25 Year Environment Plan. The system become mandatory on 12 February 2024 for major applications and will be mandatory from 2 April 2024 for minor applications.
- 5.24 This is a minor planning application and as such there is not a statutory requirement for a Biodiversity Net Gain calculation. However, in accordance with local planning policy, the council may request that the planning application be accompanied by a BNG assessment and calculation.

Landscaping and ecological enhancements

- 5.25 Paragraph 186 of the NPPF reads:
- “[...] opportunities to improve biodiversity in and around developments should be integrated as part of their design [...]”

- 5.26 It is therefore recommended that any new planting comprises predominantly native and wildlife-friendly species. It is also recommended that ecological enhancements such as bird and bat boxes, bricks or tiles are built into the new houses.

6.0 Summary

Habitats

- 6.1 The application site comprises the main house, its driveway, 6 outbuildings and the rear garden. None of these are Priority Habitats and their loss would not be a constraint to the proposals.

Bats

- 6.2 The house and garage both have 'low' potential to host a bat roost and to determine if they host a bat roost a single dusk emergence survey from May would need to be undertaken.
- 6.3 All other structures can be demolished, and any trees that need to be removed can be felled, with minimal risk of harming bats.

Other protected species

- 6.4 If the recommendations given in this report to protect common species of reptile and amphibian and nesting birds are adhered to there should be no other ecological constraints to the proposals.

Biodiversity net gain

- 6.5 This is a minor planning application and as such there is not a statutory requirement for a Biodiversity Net Gain calculation. However, in accordance with local planning policy, the council may request that the planning application be accompanied by a BNG assessment and calculation.

Ecological enhancements

- 6.6 In accordance with paragraph 186 of the NPPF it is recommended that any new planting comprises predominantly native and wildlife-friendly species, and, that ecological enhancements such as bird and bat boxes, bricks or tiles are built into the new house.

Appendix 1 - Extended Phase 1 Habitat Map and Target Notes

Target Notes

- (1) Cleared area of garden planting.
- (2) Short-cut amenity grass lawn. Forb species include common ragwort (*Jacobaea vulgaris*), cyclamen (*Cyclamen persicum*), lords-and-ladies (*Arum maculatum*), creep buttercup (*Ranunculus repens*) and Italian lords-and-ladies (*Arum italicum*).
- (3) Cleared garden planting with some young trees and shrubs on it. Species observed include bramble (*Rubus fruticosus*), Pittosporum (*Pittosporum tenuifolium*), garden privet (*Ligustrum ovalifolium*), ivy (*Hedera helix*), ash (*Fraxinus excelsior*), sycamore (*Acer pseudoplatanus*), Lawson's cypress (*Chamaecyparis lawsoniana*), beech (*Fagus sylvatica*), willow (*Salix* sp.) and hazel (*Corylus avellana*). There were several piles of building materials along the eastern boundary.
- (4) A former compost heap.
- (5) Non-native ornamental hedge along the eastern boundary
- (6) The southwestern boundary comprising an overgrown hedge line and scattered trees . Species include ash (*Fraxinus excelsior*), garden privet (*Ligustrum ovalifolium*), Leyland cypress (*Cupressus x leylandii*), ivy (*Hedera helix*), bramble (*Rubus fruticosus*) and hazel (*Corylus avellana*). Here are also some snowdrops (*Galanthus nivalis*) along the boundary.
- (7) Small patch of scrub in the south western corner of the site. Species include hawthorn (*Crataegus monogyna*), holly (*Ilex aquifolium*), garden privet and cotoneaster (*Cotoneaster* sp.).
- (8) A small bed of garden planting. Species include corkscrew willow (*Salix spp.*), cabbage tree (*Cordyline australis*), Pittosporum species (*Pittosporum* sp.) and Mahonia (*Mahonia* sp.)
- (9) Gravel driveway at the front of the house.



- Key**
- Application site boundary
 - Target Note
 - A Amenity grassland
 - Buildings
 - Hardstanding
 - Garden planting
 - Dense continuous scrub
 - Fence
 - Wall
 - Species-poor intact hedge
 - x Scattered scrub
 - Broadleaved tree
 - Coniferous tree



Produced using BosqMap Software
www.bosqmap.co.uk

ECO2911

100 Finchampstead Road

Results of Extended
Phase 1 Habitat Survey

REV 01

Contains Ordnance Survey data © Crown copyright and database right 2024

Appendix 2 – Photographs

Photos 1 and 2 – The house viewed from the front (west) and side (south)



Photo 3 – Gaps between the soffit and brick wall, and, Photo 4 – Gaps between and under roof tiles where the roof has sunk in relation to the walls

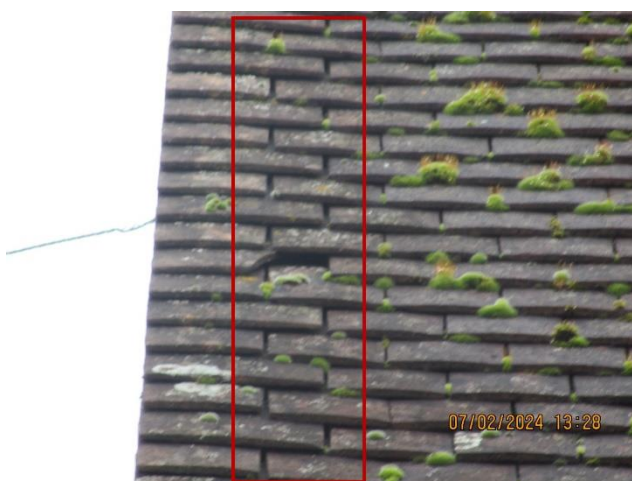
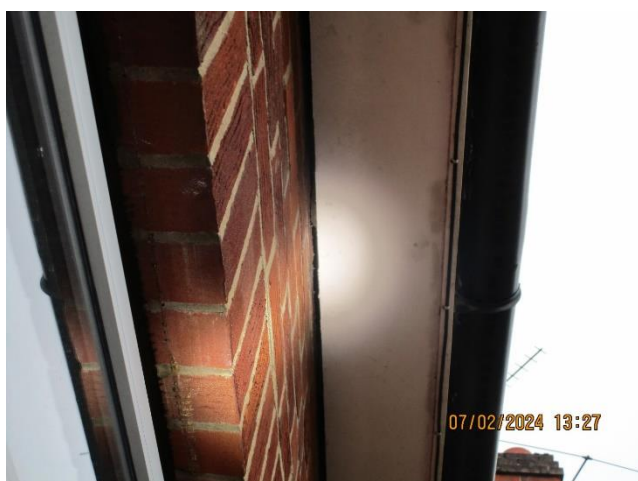


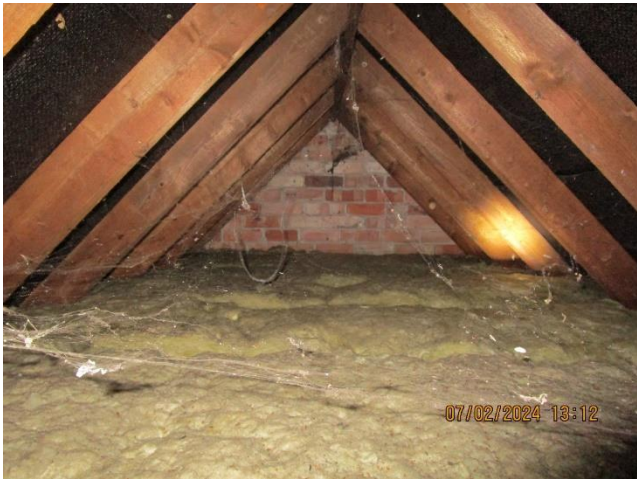
Photo 5 – Gap under lead flashing around the southern chimney breast, and, Photo 6 – Gaps under roof valley tiles



Photo 7 – Gap at the intersection of the roofs, and, Photo 8 – Gap where the dormer window meets the main roof



Photos 9 and 10 – Inside the two loft spaces



Photos 11 and 12 – Eaves level cupboards



Photos 13 and 14 – The garage viewed from the front and the rear



Photo 15 – Gap between the door frame and wall (garage), and Photo 16 – Gap between the wooden soffit and brick wall (garage)



Photos 17 and 18 – Gaps under tiles above the walls where the roof has sagged in relation to the walls (garage)



Photo 19 – Inside the garage, and Photo 20 – The rear garden viewed from the northwest



Photo 21 – The greenhouse, and Photo 22 – Garden shed 1



Photo 23 – Garden shed 2, on the left, and Photo 24 – The workshop



Photo 25 – Inside the workshop, and Photo 26 – Area of cleared garden planting to the rear of the garden



Photos 27 and 28 – Discarded building materials and debris



Photo 29 – The rear garden viewed from the southeast, and Photo 30 – The hedge along the eastern boundary



Photos 31 and 32– The log store



Photo 33 – The rear garden viewed from the southeastern corner, and Photo 34 – Vegetation along the southwestern boundary



Photos 36 and 37 – The front lawn and hedge along the frontage of Finchampstead Road



Appendix 3 – Legislation and planning policy

Planning Authorities have a legal duty to consider biodiversity when assessing planning applications. Where there is a reasonable likelihood that a planning application might affect important protected sites, species or habitats, information on the species, habitat or site likely to be affected, together with an assessment of the impacts of the proposals, will almost certainly be required.

The legal duty for Planning Authorities to have regard to the conservation of biodiversity was introduced in the 2006 Natural Environment and Rural Communities Act (The NERC Act). This act clarified existing commitments with regard to biodiversity, raised the profile of biodiversity and aimed to make the consideration of biodiversity a natural and integral part of policy and decision making.

In addition to the NERC Act there is also national and international biodiversity legislation. This includes legislation in relation to protected species and sites which operates outside of the planning system. Local Authorities and developers have a duty to comply with this legislation.

National planning policy

Paragraph 99 of the Government Circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System (this document has not been revoked by the recently published National Planning Policy Framework) states that:

‘It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision.’

As such, in line with national planning policy, most planning authorities will ask for this information to be provided before a planning decision is made and in many cases before it is registered.

Local planning policy

In addition to national planning policy, most councils have planning policies to protect biodiversity, and to enhance it where practicable within and adjacent to development sites.

European protected species

The United Kingdom hosts a number of European Protected Species (EPS) of animals (table 1) and plants (table 2). These species receive special protection under UK law and it is an offence under the Wildlife and Countryside Act 1981 (as amended) and the European Habitats and Species Directive (92/43/EC), enacted in the UK through The Conservation of Habitats and Species Regulations 2010, to deliberately or recklessly destroy or damage their habitat, or to disturb, kill or injure the species without first having obtained the relevant licence from Natural England.

Planning Authorities have a statutory duty under these regulations to have regard to the requirements of the Habitats Directive and need to be satisfied that the development is likely to receive a licence from Natural England, and therefore comply with the Habitats Directive, before granting planning permission.

Table 1 – European Protected Species of Animal found in the UK

Common name	Scientific name
Bats, Horseshoe (all species)	<i>Rhinolophidae</i>
Bats, Typical (all species)	<i>Vespertilionidae</i>
Butterfly, Large Blue	<i>Maculinea arion</i>
Cat, Wild	<i>Felis silvestris</i>
Dolphins, porpoises and whales (all species)	<i>Cetacea</i>
Dormouse	<i>Muscardinus avellanarius</i>
Frog, Pool	<i>Rana lessonae</i>
Lizard, Sand	<i>Lacerta agilis</i>
Moth, Fisher's Estuarine	<i>Gortyna borelii lunata</i>
Newt, Great Crested (or Warty)	<i>Triturus cristatus</i>
Otter, Common	<i>Lutra lutra</i>
Snail, Lesser Whirlpool Ram's-horn	<i>Anisus vorticulus</i>
Snake, Smooth	<i>Coronella austriaca</i>
Sturgeon	<i>Acipenser sturio</i>
Toad, Natterjack	<i>Bufo calamita</i>
Turtles, Marine	<i>Caretta caretta</i> <i>Chelonia mydas</i> <i>Lepidochelys kempi</i> <i>Eretmochelys imbricata</i> <i>Dermochelys coriacea</i>

Table 2 – European Protected Species of Plant found in the UK

Common name	Scientific name
Dock, Shore	<i>Rumex rupestris</i>
Fern, Killarney	<i>Trichomanes speciosum</i>
Gentian, Early	<i>Gentianella anglica</i>
Lady's-slipper	<i>Cypripedium calceolus</i>
Marshwort, Creeping	<i>Apium repens</i>
Naiad, Slender	<i>Najas flexilis</i>
Orchid, Fen	<i>Liparis loeselii</i>
Plantain, Floating-leaved water	<i>Luronium natans</i>
Saxifrage, Yellow Marsh	<i>Saxifraga hirculus</i>

Nationally protected species

Many species of animal are protected under the 1981 Wildlife and Countryside Act (as amended). 'Full protection' applies to EPS and some non EPS species such as the water vole. This prohibits the intentional killing, injuring or taking (capture. etc); possession; intentional disturbance whilst occupying a 'place used for shelter or protection' and destruction of these places; sale, barter, exchange, transporting for sale and advertising to sell or to buy. Many species, such as common species of reptile and amphibian, are protected from intentional killing and injuring and trading.

Badgers

Badgers and their setts are protected under the 1992 Protection of Badgers Act and the Wildlife and Countryside Act 1981 (as amended). It is illegal to intentionally or recklessly kill, injure or take badgers or to interfere with a badger sett. Interference with a sett includes blocking tunnels, or damaging the sett in any way, and could include blocking a badger pathway if it were to stop badgers entering or leaving a sett.

Penalties for offences can be severe, with fines of up to £5,000 plus up to six months' imprisonment, for each illegal sett interference, badger death or injury.

Work that disturbs badgers occupying a sett is illegal without the appropriate licence from the relevant statutory authority being held. Natural England issue licences for reasons including science, education or conservation, for development such as the building of houses and for investigation of offences against badgers. They also issue licences for the prevention of serious damage to land, crops or other form of property, as well as for agriculture, forestry, drainage operations and prevention of the spread of disease.

Birds

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), whilst they are actively nesting or roosting. Section 1 of this Act makes it an offence to kill, injure or take any wild bird, and to intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built. It is also an offence to take or destroy any wild bird eggs.

In addition, bird species listed under Schedule 1 of the Act receive extra protection. The Act states that 'it is an offence to intentionally or recklessly disturb any wild bird listed in Schedule 1 while it is nest building, or at (or near) a nest containing eggs or young, or disturb the dependent young of such a bird'.

In practice this means that in areas where birds are likely to be nesting works should not be undertaken during the nesting season, which is generally considered to be March to September, although this very much depends on weather conditions, habitats and the species involved. If works cannot be avoided then areas should first be checked for nesting birds. Habitats likely to host nesting birds include trees, hedgerows and dense scrub, buildings, reedbeds and riverine habitats and open areas with tussocky vegetation.

Bats

Bats are the only true flying mammals and belong to their own taxonomic group, the *Chiroptera*. Worldwide there are almost 1,000 species, with 16 in the UK. All species in the UK are insectivorous. They have a highly sophisticated echolocation system that allows them to avoid obstacles and catch invertebrates, either in flight or by picking them off water, the ground or foliage.

Bat species in the UK

There are 16 species of bat that are known to exist in the UK mainland, with a further two - the greater mouse eared bat *Myotis myotis*, and the parti-coloured bat *Vespertilio murinus* - that are thought to occur as rare migrants or to have small populations in the UK. Bats in the UK belong to one of two taxonomic families, the Rhinolophidae (horseshoe bats) and the Vespertilionidae (all other UK bats).

Bat Conservation Status

Bat populations have undergone a significant decline in the past sixty years. For example, estimates from the National Bat Colony Survey suggest that the UK pipistrelle population (one of our commonest bat species), declined by approximately 70% between 1978 and 1993. Factors contributing to this decline include:

- Loss of, and damage to, roosting sites, including buildings, trees, and underground structures (mines, tunnels, ice-houses, cellars, etc).
- Loss and fragmentation of suitable insect-rich feeding habitats such as wetlands and deciduous woodland.

- Reduction in the abundance and diversity of insect prey due to intensive agriculture, particularly over-grazing and the use of pesticides.
- Loss of linear features such as tree-lines and hedgerows, depriving bats of commuting routes between roosts and feeding areas.
- Loss of winter roosting sites in buildings and old trees.
- Disturbance and destruction of roosts, including the loss of maternity roosts due to the use of toxic timber treatment chemicals.

Roosts

Bats use a variety of roosts of different types including trees, buildings, caves, mines and other structures. Most species are colonial and roost in groups. This can make populations particularly vulnerable to loss of roosts as the loss of a single roost may affect the whole population. Some species hang in obvious locations, such as the timbers near to the apex of a roof, others roost in cracks and crevices, such as the gaps under tiles, and as such can be very difficult to locate.

During the winter (November to February), when there is a reduction in insect numbers, bats hibernate to conserve energy. They prefer sites with a constant low temperature and a high relative humidity. On mild winter's nights, bats may wake up and feed. However, bats are particularly vulnerable to disturbance at this time of year, as flying in winter uses up large quantities of energy that cannot easily be replaced.

In the spring, after emerging from hibernation, bats often move from site to site and may congregate in small groups. Female bats gather together in the summer (approximately May to August dependant on species) in maternity roosts. Once the young have stopped suckling, and the baby is independent, bats tend to disperse and use other roosts. Maternity roosts are particularly vulnerable to disturbance, as bats may have come from a wide geographical area, and have a strong tradition of returning to the same roost year after year.

During the late summer and early autumn males occupy mating roosts which are visited by several females. After mating some species gather together at swarming sites to fatten up prior to hibernation.

Habitat associations

In addition to roosts, bats also need foraging habitats to find suitable food resources, and commuting routes to get to these areas. As would be expected, the highest numbers of bats are found in areas with abundant invertebrates. Some species specialise in catching small invertebrates in flight, whilst others specialise in catching larger invertebrates such as moths and beetles. The distances that bats travel to foraging areas varies between species; records have shown some greater horseshoe bats travel up to 22km to forage, although many species will typically feed within 1km of a roost.

Bats, especially the smaller species, tend to follow linear features (such as hedgerows and tree lines) to their foraging habitats and will often not cross open spaces. A gap of 10m in a linear feature will often not be crossed by bats, and it is important that developments do not create such gaps if linear features are used by bats.

Great crested newts: ecology and legislation

Ecology and distribution

The great crested newt (*Triturus cristatus*) can grow up to 18cm in size. It is Britain's largest newt. The body can have a warty appearance and the skin is normally dark brown or black, the belly is predominantly

bright orange with black markings. During the breeding season the males develop a crest on their back and tail which they use to attract a mate.

The species is widely distributed in Britain but is absent from Cornwall, Devon, and parts of Wales. It is uncommon but locally abundant. The population has undergone a severe decline in the last 50 years due to the loss of breeding ponds and a decline in the quality of foraging habitat.

The species can be found in northern Europe part of West Siberia. The edge of the northern range extends from northern France, Great Britain, southern Scandinavia to the north of Russia, and the southern edge from central France to south-western Romania into central European Russia. Britain is one of the last strongholds for the species.

Great crested newts spend the majority of their lives on land, returning within up to 500m, but more usually 250m, of their breeding ponds. The mainstay of their diet is invertebrates.

They return to waterbodies, usually ponds, in the spring to breed. Adults enter the ponds from February onwards with the courtship and egg-laying period being from mid-March to mid-June. Eggs are laid in the folds of debris or the leaves of submerged aquatic plants. A female lays up to 200 eggs per season.

Eggs take 3 weeks to hatch and the larvae take 2 to 3 months to develop. Adults begin to leave breeding ponds gradually from late May. However they can over-winter in ponds and also sometimes return to feed. Young start to emerge from the pond in August and will not normally return until they have reached sexual maturity 2 – 4 years later.

Legislation and legal protection

Great crested newts receive special protection under UK law and it is an offence under the Wildlife and Countryside Act 1981 (as amended) and the European Habitats and Species Directive (92/43/EC), enacted in the UK through The Conservation of Habitats and Species Regulations 2017 (The Habitat Regulations) to deliberately or recklessly, to destroy or damage their habitat, or to disturb, kill or them without first having obtained the relevant licence for derogation from the regulations from the Statutory Nature Conservation Organisation (the SNCO - Natural England in England).

In order to obtain such a licence the SNCO must apply the requirements of Regulation 535 of the Regulations and, in particular, the three tests set out in sub-paragraphs (2)(e), (9)(a) and (9)(b)6. These are as follows:

- (1) Regulation 53(2)(e) states: a licence can be granted for the purposes of “preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment”.
- (2) Regulation 53(9)(a) states: the appropriate authority (the SNCO) shall not grant a licence unless they are satisfied “that there is no satisfactory alternative”.
- (3) Regulation 53(9)(b) states: the appropriate authority (the SNCO) shall not grant a licence unless they are satisfied “that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.”

Newts are likely to be disturbed by any work that involves altering their breeding ponds (e.g. by introducing fish, deepening or altering its size) or works that involve clearing land up to 500m around ponds, and in such cases a licence for derogation from the provisions of the habitat regulations may need to be obtained.

Reptile ecology and legal status

There are six native terrestrial species of reptile in Great Britain (Table 3). All receive legal protection, most are declining in numbers, and all can be a constraint to development or land use change.

Table 3 - Status and Distribution of the UK's Native Terrestrial Reptile Species

Common Name	Scientific name	Group	UK Distribution	Status
Common Lizard	<i>Zootoca vivipara</i>	Lizard	Widespread in England, Scotland and Wales	Declining but locally common
Sand Lizard	<i>Lacerta agilis</i>	Lizard	A few isolated populations mainly in southern England and Wales	Endangered and very rare
Slow-worm	<i>Anguis fragilis</i>	Lizard (legless)	Widespread in England, Scotland and Wales	Declining but locally common
Adder	<i>Vipera berus</i>	Snake	Widespread in England, Scotland and Wales	Declining but locally common
Grass Snake	<i>Natrix natrix</i>	Snake	England, Wales, rare in Scotland	Declining but locally common
Smooth Snake	<i>Coronella austriaca</i>	Snake	A few isolated populations mainly in southern England and Wales	Endangered and very rare

Legal Protection

The legislation relating to the protection of reptiles in Britain is contained mainly within the Wildlife and Countryside Act (1981) as amended and the EU Habitats and Species Directive enacted in the UK through The Conservation of Habitats and Species Regulations 2010. In summary, the legislative protection of reptiles in Britain is as follows:

- Common lizards, slow-worms, adders and grass snakes - it is illegal to intentionally or recklessly kill or injure these species. In practice this means that the reasonable avoidance measures must be taken to avoid harm to these animals during works.
- Sand lizards and smooth snakes – these are European Protected Species and it is illegal to kill, capture, handle or disturb them, or to damage, destroy or obstruct access to breeding or resting areas, or their places of shelter or protection. However derogation from this legislation can be granted if the relevant licence from the Statutory Nature Conservation Organisation (Natural England in England) is obtained.

Biology, ecology and habitat requirements

Reptiles are ectotherms and regulate their body temperature by taking in heat from their surroundings. As a result they tend to be found in habitats where they are able to bask without being at risk from predation, are less active during cold periods and hibernate during the winter months.

Mating occurs in spring with live young being produced by the adder, smooth snake, common lizard and slow worm and eggs by the grass snake and sand lizard. Young are born or hatch between August and October.

The three species of lizard feed upon invertebrates. The snakes feed on larger prey, including small mammals, amphibians or lizards. The adder is Britain's only poisonous snake, and although bites to humans are rare and deaths extremely rare, medical attention should always be sought if a bite should occur.

The following list summarises habitat features that are important for Britain's reptile species:

- Basking: Basking sites that contain features that heat up quickly in the sun and variation in cover to provide varied shade and protection against predators.
- Sheltering: Shelter, such as rocks, dense scrub tree roots, etc., provide places where reptiles may seek refuge from extremes of temperature, bad weather and predators.
- Foraging: Feeding areas that contain good populations of prey species
- Hibernating: Frost-free, dry conditions, inaccessible to predators. Examples may include rabbit burrows, or gaps under tree trunks or rocks.

Appendix 4 – About GS Ecology

Established in 2009, GS Ecology is an independent ecological consultancy in Berkshire. We carry-out surveys and ecological consultancy services for public and private sector clients including in Berkshire, Oxfordshire and Hampshire, London and the south of England. We can advise you on cost effective sustainable solutions for your project, whether it be a bat survey to inform a planning application, the ecology chapter of an Environmental Statement or a Woodland Management Plan.

Our work is undertaken by experienced and qualified ecologists, who are members of the Chartered Institute of Ecology and Environmental Managers. Our services include:

- Ecology surveying and reporting to inform planning applications, e.g.
 - Preliminary Ecological Appraisal
 - Extended Phase 1 Habitat Survey
 - Protected species surveys, e.g. badgers, dormouse, great crested newts
 - Bat surveys in Oxfordshire, Berkshire, Hampshire, London and Southern England
- BREEAM ecology assessments – to demonstrate the sustainability of a new building
- Protected species licensing such as bat and great crested newt licences for development sites after planning permission has been obtained
- Providing advice to land managers and writing ecological management plans, such as woodland management plans and farm environmental plans for England woodland Grant Scheme and Environmental Stewardship applications
- Providing ecology advice to Local Authorities and Local Planning Authorities