

High Hesket, Reading Ecology Report

Prepared for Richard Stimpson

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Revision 03

TURNSTONE ECOLOGY LIMITED

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SURVEY AND REPORT VALIDITY

It is important that planning decisions are based on up-to-date ecological reports and survey data. However, it is difficult to set a specific timeframe over which reports or survey data should be considered valid, as this will vary in different circumstances. In some cases there will be specific guidance on this (such as for the age of data which may be used to support a protected species licence application) but in circumstances where such advice does not already exist, the Chartered Institute of Ecology and Environmental Management (CIEEM) has provided the general advice set out below.

<i>Age of Data / Survey / Report</i>	<i>Validity</i>
Less than 12 months	Likely to be valid in most cases.
12-18 months	Likely to be valid in most cases with the following exceptions: • Where a site may offer existing or new features which could be utilised by a mobile species within a short timeframe; • Where a mobile species is present on site or in the wider area, and can create new features of relevance to the assessment; • Where country-specific or species-specific guidance dictates otherwise.
18 months to 3 years	A professional ecologist will need to undertake a site visit and then review the validity of the report. Some or all of the other ecological surveys updated.
Protected Species Licensing	Licence applications usually only possible using data less than 2 years old

The likelihood of surveys needing to be updated increases with time and is greater for mobile species or in circumstances where the habitat or its management has changed significantly since the surveys were undertaken. Factors to be considered include (but are not limited to):

- Whether the site supports, or may support, a mobile species which could have moved on to site, or changed its distribution within a site;
- Whether there have been significant changes to the habitats present (and/or the ecological conditions/functions/ecosystem functioning upon which they are dependent) since the surveys were undertaken, including through changes to site management;
- Whether the local distribution of a species in the wider area around a site has changed (or knowledge of it increased), increasing the likelihood of its presence.

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1 INTRODUCTION

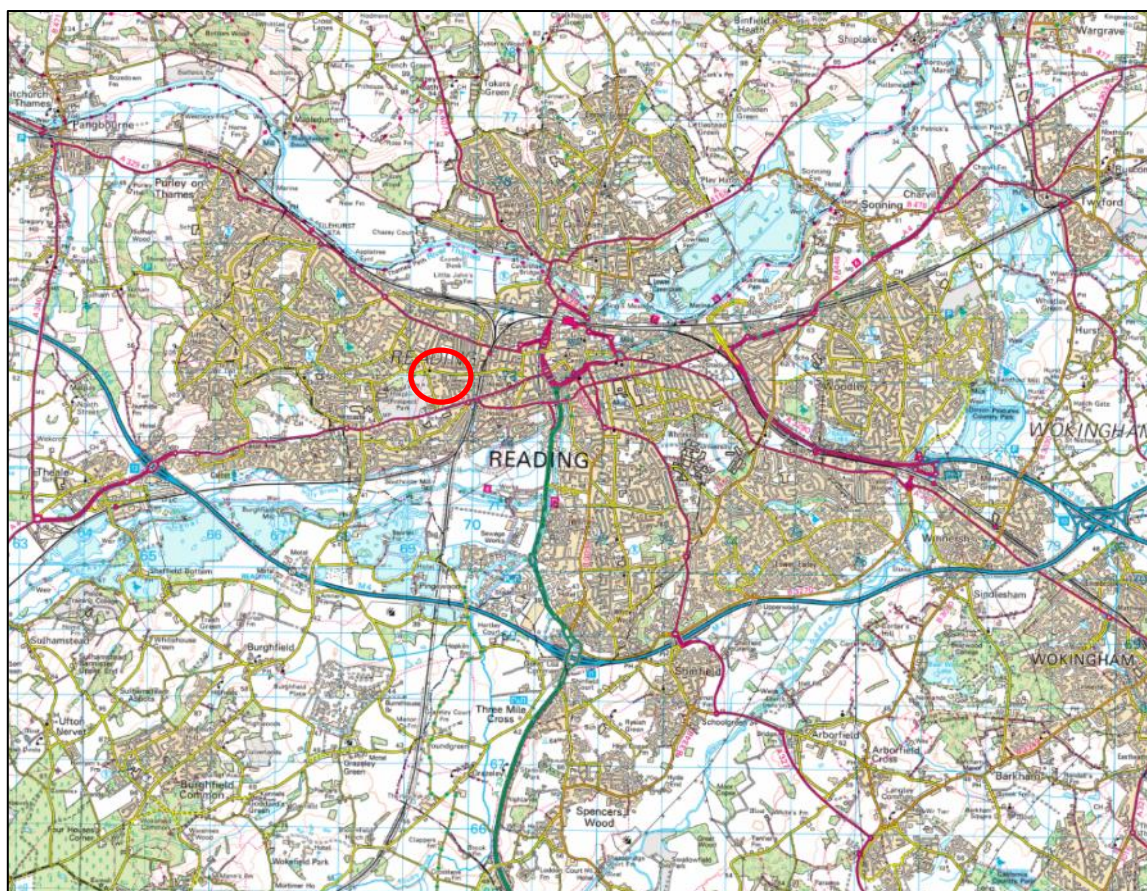
1.1 Purpose of Report

This report has been completed in connection with the proposed development at High Hesket, 19 Parkside Road, Reading, RG30 2BT (Grid Reference: SU 69 50 72 93). The proposals include the demolition of a garage and six outbuildings and subsequent construction of four residential properties and two garages with associated landscaping. There are no plans to change any part of the Main House, which was not surveyed or included as part of this report. The location of the proposed development site is shown in *Figures 1 and 2*.

A site survey was carried out on 25th October 2023 by Principal Ecologist Simon Parker and Ecologist Anna Watkins of Turnstone Ecology. Simon holds a Natural England Class Licences for the disturbance of bats in all counties of England (reference number 2015-14470-CLS-CLS). The initial survey consisted of a Phase 1 Habitat Survey and protected species habitat suitability assessment and a Preliminary Roost Assessment. A Habitat Suitability Index (HSI) assessment of an on-site pond was also completed. As per the recommendations of the initial report, Great Crested Newt eDNA testing and a presence/absence survey were conducted on the 18th April 2024, followed by three bat dusk emergence surveys on 29th May, 27th June, and 29th July 2024. An updated Biodiversity Net Gain calculation, using the prior survey data, was completed in September 2025 to reflect the finalised development plans. All surveys were carried out by experienced surveyors from Turnstone Ecology Ltd.

This report details survey and assessment methodology and the results of a desk-based study and on-site surveys. It also provides an assessment of potential ecological impacts and appropriate mitigation to offset any ecological impacts associated with the proposal and to satisfy national and local planning policies.

Figure 1. Location of proposed development (red circle; © Microsoft Bing Maps 2023)



1.2 Ecological Context

High Hesket, or 19 Parkside Road, is a residential house and associated garden in the central-eastern portion of Reading, Berkshire. For the purposes of this survey, the site consists of the garage, the garden, and the outbuildings therein. Most of the site consists of grassland with scattered trees and tree lines.

The site is bordered to the north-west by a tree line, to the north-east by a hedgerow, to the east by grassland and the Main House, to the south-east by a hedgerow, to the south-west by tree lines, to the south by a tree line, and to the west by a fence. Habitats immediately surrounding the site include the residential dwellings of Reading and the parkland of Prospect Park, which is approximately 120 m west of the site (*Figures 2-3*).

The wider area includes areas of farmland interspersed with hedges, tree lines, woodland, rivers, wetlands, and canals (*Figure 3*).

Figure 2. Overview of the proposed development site (© Google Earth Pro 2024).



Figure 3. Overview of the proposed development site and surrounding area (© Google Earth Pro 2024).



2 METHODS

2.1 Desk-based Study

Information relating to designated sites, sites where Protected Species Licences have been granted between 2013 and 2023 and historic records of protected species within 2 km of the proposed development site were updated for this report and obtained from Magic (www.magic.gov.uk) and other freely available information on the internet, such as planning portals.

A data request through the local environmental records centre was not undertaken as the site is small, the habitats that will be impacted are limited and it is very unlikely that the records obtained would impact the site assessment and mitigation proposed.

Any species-specific historic records are detailed within the relevant species accounts in the *Results* section.

2.2 Baseline Habitat Assessment

The survey methods were based on the Phase 1 Habitat Survey approach (Joint Nature Conservation Committee 2003) and UK Habitats Classification System (<https://ukhab.org>, updated January 2021), which is a standardised method to survey main habitat types. Plant nomenclature in this report follows Rose (Revised Edition 2006) for native, naturalised and garden varieties of vascular plant. Introduced species and garden varieties are not always identified. UK Habitat Classification is the industry standard survey method used when determining baseline conditions for Biodiversity Net Gain Assessments using the Statutory Biodiversity Metric (<https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>).

The Statutory Biodiversity Metric calculation tool has been used to determine the baseline biodiversity units for this site and how the proposed development will impact biodiversity by calculating the lost, retained, enhanced and created habitats using a quantitative approach.

2.3 Protected Fauna Survey and Assessment

The habitats on site were assessed for suitability for protected fauna that occur in the region and obvious signs and incidental sightings of protected species were noted where present. Taking into consideration the geographical region and habitat types on and adjacent to site, the protected species and species groups that could be encountered are listed below.

- Badger
- Bats
- Nesting birds
- Great Crested Newts
- Reptiles

- Stag Beetle

Details of initial survey methods for each relevant species are given below.

2.3.1 Badger

Where access allowed a comprehensive assessment was carried out to identify areas that are used by Badgers (*Meles meles*) for foraging and sett digging. Signs of Badgers including setts, foraging signs, paths and latrines, were recorded where present.

2.3.2 Bats

Preliminary Roost Assessment

A PRA survey of the buildings was carried out on the 25th October 2023 by Principal Consultant Simon Parker and Assistant Ecologist Anna Watkins of Turnstone Ecology. Simon holds a Natural England Class Licence (2015-14470-CLS-CLS) for the disturbance of bats in all counties of England.

The buildings and trees were assessed for their suitability for use by roosting bats, with particular emphasis placed on the areas in and around those being directly impacted by the proposals. The assessment involves a consideration of various factors including;

- Light levels;
- Temperature regime and protection from weather;
- Access to the interior or to other suitable roost sites;
- Potential roost sites;
- Building construction; and
- Habitat context.

Based on these factors, an assessment was made of whether the buildings or trees might support bats and the type and number of roosts that might be present.

A detailed inspection was made of the exterior and interior of the buildings for any evidence of bat use, such as live or dead bats, droppings, scratch marks, staining and prey remains, and in some cases the absence of cobwebs. Large quantities of cobwebs in roof voids or at access points tend to be suggestive of no bat use, although this evidence is not conclusive.

Features identified as possible bat access points or potential roosting locations were thoroughly searched where possible, using powerful torches and binoculars to facilitate the process.

The surveys were undertaken in good light conditions and no recent sweeping or other cleaning had been undertaken.

Buildings are categorised according to their suitability for roosting bats as follows (Bat Conservation Trust (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn.) (2023¹):

Negligible – Habitat features on site with very low suitability to be used by roosting bats.

Low – A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (*i.e.* unlikely to be suitable for maternity or hibernation). Or a tree of sufficient size and age to contain potential roost features but with none seen from the ground, or features seen with only very limited roosting potential.

Moderate – A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only).

High – A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. They could be suitable for maternity roosts or hibernation sites.

Further to the above categorisations, a roost can also be *Confirmed* – where roosting bats are confirmed as being present, either by the discovery of live or dead bats, droppings, prey remains, scratching or fur-staining.

Habitats within and immediately adjacent to site were assessed for their suitability for use by foraging or commuting bats. Areas of particular interest vary between species, but generally include sheltered areas and those habitats with good numbers of insects, such as woodland, scrub, hedges, watercourses, ponds, lakes and more species-rich or rough grassland.

Bat Activity Surveys

Evening emergence surveys are the primary methods for locating roosts in buildings or built structures, as bats are not always found by internal and external inspection surveys (*e.g.* if the bats roost in areas that cannot be searched and/or leave little or no visible trace). These surveys can also give a reasonable estimate of the number of bats present.

Based on the results of the Preliminary Roost Assessment, three Dusk Emergence Surveys were completed on 29th May, 27th June, and 29th July 2024, with survey timings and conditions shown in *Table 1* below. Evening emergence and dawn re-entry surveys are the primary methods for locating roosts in trees, buildings or built structures, as bats are not always found by internal and external

¹ Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn) The Bat Conservation Trust, London

inspection surveys (e.g. if the bats roost in areas that cannot be searched and/or leave little or no visible trace). These surveys can also give a reasonable estimate of the number of bats present.

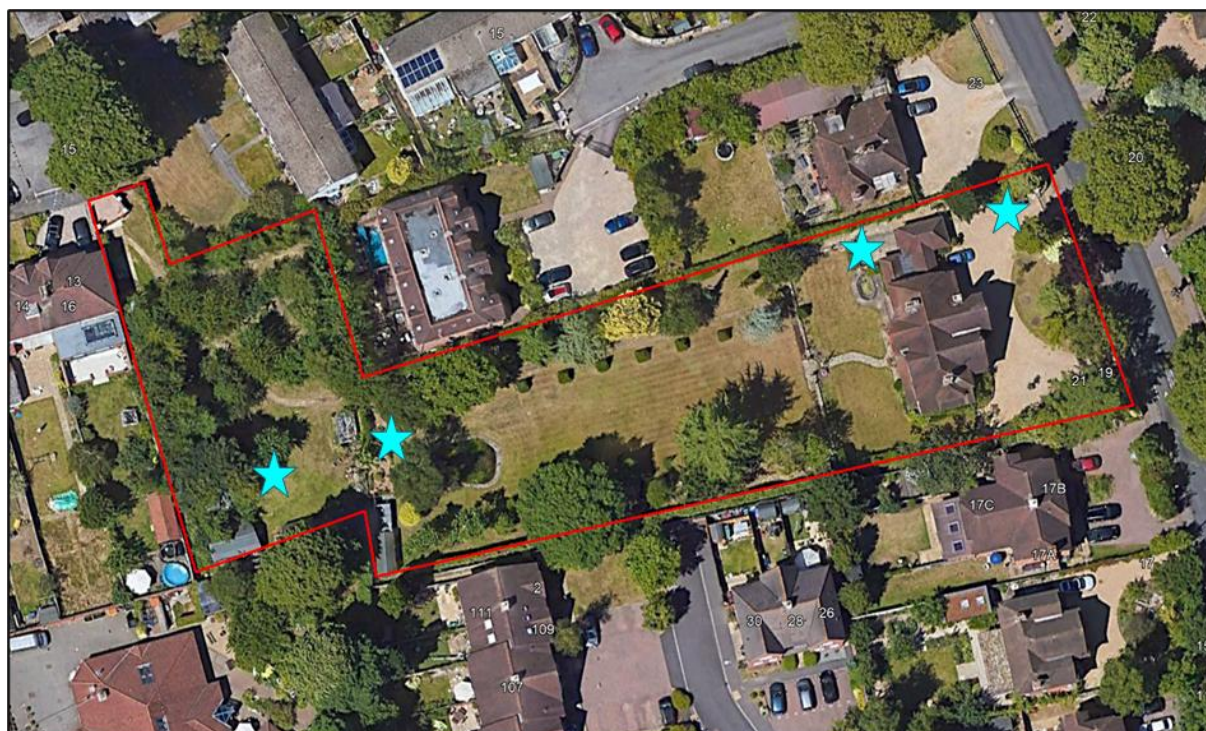
Table 1. Survey timings and conditions

	Dusk Survey 1 B3, B4 & Garage 29/05/2024		Dusk Survey 2 B3, B4 and Garage 27/06/2024		Dusk Survey 3 Garage 29/07/2024	
Time	Start	End	Start	End	Start	End
	20:54	22:32	21:10	22:50	20:41	22:26
Temp (°C)	15	13	16	14	22	19
Wind (Bft)	0	0	4	3	0	0
Cloud (%)	100	100	0	0	0	0
Precipitation	None		None		None	
Sunset/rise	21:09		21:25		20:56	

The surveyors used Echo Meter Touch Pro 2 bat detectors with digital recorders (Android or Apple tablets) and information on time, species and behaviour of any bats recorded were noted on to survey forms. Bat calls were continually recorded for the duration of the surveys to ensure all bat activity was saved. Audio tracks were downloaded and assessed using the appropriate software to confirm the identity of bats noted during the survey. Continual video recording using Canon XA11 infrared cameras and infrared lamps was undertaken for the duration of each survey to ensure all bat activity was recorded.

Surveyors were positioned so any activity could be clearly observed and general activity around the site could also be recorded from the surveyor's location.

Figure 4. Surveyor locations



2.3.3 Nesting birds

Habitat that might be used by nesting birds was identified and actively nesting birds or evidence of nesting birds noted where present.

Different bird species use buildings, trees and shrubs, undergrowth or even open fields for nesting and suitability of the site for use by a range of nesting bird species was considered.

2.3.4 Great Crested Newt

The suitability of any aquatic and terrestrial habitat on the site, and in the immediate vicinity, was assessed for suitability for use by Great Crested Newts (*Triturus cristatus*). Great Crested Newts are known to travel up to 500m between breeding ponds and suitable terrestrial habitat, however, are only likely to travel up to 250m away from a breeding pond if there is suitable terrestrial habitat within that distance. Therefore, a desk-based search was undertaken for any ponds up to 250m from the site using OS maps and aerial imagery. The terrestrial habitat between the site and these ponds, and therefore connectivity to the site, was also considered.

Habitat Suitability Index Assessment

If required and access allowed, ponds were assessed using the Habitat Suitability Index (HSI) developed by Oldham *et al.* (2000), which is derived from systems developed by the US Fish and Wildlife Service. It is a numerical index, between 0 and 1, where 0 indicates unsuitable habitat and 1 represents optimal habitat. The HSI for the Great Crested Newt uses ten factors (suitability indices (SI) 1 to 10), which are thought to affect Great Crested Newts:

- geographic location (SI 1);
- surface area (SI 2);
- hydrology (drying) (SI 3);
- water quality (SI 4);
- shade (SI 5);
- presence of water fowl (SI 6);
- presence of fish (SI 7);
- number of adjacent water features (SI 8);
- terrestrial habitat (SI 9); and
- macrophyte cover (SI 10).

Each factor is scored using field and desk-based survey. These ten scores are then converted to SI scores using a scale from 0.01 to 1 from graphs given in Oldham *et al.* (2000) and a HSI result is calculated using the following formula:

$$HSI = (SI1 \times SI2 \times SI3 \times SI4 \times SI5 \times SI6 \times SI7 \times SI8 \times SI9 \times SI10)^{1/10}$$

Further research by Brady (unpublished) has developed a system for using HSI scores to define pond suitability for Great Crested Newts as presented in *Table 2*.

Table 2. Habitat suitability scores for Great Crested Newt.

HSI Score	Pond Suitability
<0.5	Poor
0.5 – 0.59	Below average
0.6 – 0.69	Average
0.7 – 0.79	Good
> 0.8	Excellent

HSI cannot guarantee the presence or absence of Great Crested Newts however, there is a positive correlation between HSI scores and presence and abundance. Generally, ponds with high HSI scores are likely to support larger populations. The relationship is however not sufficiently precise to conclude that any pond with a high HSI will support newts in high populations, or that any pond with a low score will support low numbers of newts or no newts at all.

Environmental DNA (eDNA)

The pond present on site was subject to eDNA surveys completed in April 2024. The surveys were undertaken by Anna Watkins, working as an Accredited Agent of Simon Parker of Turnstone Ecology. Simon Parker holds a licence to survey for Great Crested Newts in all counties in England (Licence number 2015-18701-CLS-CLS).

The survey samples were analysed by Surescreen Scientifics for the presence of GCN eDNA following the protocol stated in DEFRA WC1067 ‘Analytical and methodological development for improved surveillance of the Great Crested Newt, Appendix 5’ (Biggs et al. 2014).

During this visit a single presence / absence torching survey was also undertaken. Torching is a technique carried out at night when newts are most active; negative results are only meaningful when the survey is carried out under suitable weather conditions. Ideal weather conditions are: a night-time air temperature of more than 5°C; little or no wind; and no rain. The margin of the pond is walked slowly checking for Great Crested Newts with a torch (Clu-lite, 1,000,000 candle power) where access and safety permit. Great Crested Newts can be easily identified and counted in clear water. The technique is less successful in thick weed or turbid water, but can still be used. Bright light may cause newts to seek cover where they will be undetected, but the technique is appropriate to establish presence and for estimating populations. The highest number of male and female newts recorded during a single walk around the pond is taken as that night’s peak count for each pond.

Egg searching could not be carried out as there was no suitable vegetation present within or near the pond.

Table 3. Details of Great Crested Newt survey visit and weather conditions

Visit	Date	Survey Type	Survey Times	Weather Conditions
1	18 th April 2024	eDNA sampling Torching	20:40 Sunset: 20:06	Cloud cover: 100%; Wind: 4mph; Air Temperature: 10°C, Water Temperature: 12.6°C. Light rain, ground dry.

2.3.5 Reptiles

The site was assessed for suitability for use by widespread species of reptiles, with particular attention paid to those features that could be used as basking areas (*e.g.* south-facing slopes), hibernation sites (*e.g.* banks, walls, piles of hardcore) and opportunities for foraging (*e.g.* rough grassland and scrub). The site was assessed for its suitability for the commoner reptile species which have broadly similar habitat requirements, but more specific requirements include those shown below (Beebee & Griffiths 2000).

- Common Lizards (*Zootoca vivipara*) use a variety of habitats from woodland glades to walls and pastures, although one habitat they use is brownfield sites;
- Slow-worms (*Anguis fragilis*) use similar habitats to Common Lizards, and are often found in rank grassland, gardens and derelict land;
- Grass Snakes (*Natrix natrix*) have broadly similar requirements to Common Lizards but with a greater reliance on ponds and wetlands, where they prey on amphibians;
- Adder (*Vipera berus*) use a range of fairly open habitats with some cover but are most often found in dry heath.

2.3.6 Stag Beetle

Stag Beetles (*Lucanus cervus*) are known to inhabit the greater Reading area. Stag Beetle spend the majority of their life underground as larvae feeding upon deadwood, and only emerge as adult Stag Beetles to reproduce. As such the site was assessed for the presence of suitable habitat for Stag Beetle larvae, namely standing and partially buried dead wood.

2.4 Constraints

During the bat activity surveys surveyors did not have sight of the southern aspects of the outbuildings where the site adjoins to neighbouring properties. Surveyors however had a good view of the roofs of these buildings and accordingly it is considered that there isn't a risk of bats emerging from the southern side and not being picked up during the surveys.

2.5 Criteria for Assessment

The scientific value of habitats for nature conservation is assessed according to widely accepted criteria of which the most important are naturalness, extent, rarity, and diversity.

The assessment of impacts is based on the principles within Chartered Institute of Ecology and Environmental Management (CIEEM) Environmental Impact Assessment (EIA) Guidance (2018) which assesses the impacts of the proposal on ecological receptors taking into consideration extent, duration, reversibility, timing, frequency and certainty.

Mitigation and enhancement are designed to reduce the level of impact upon receptors and provide ecological enhancement in order to meet current legislation and planning policy. The information below has therefore been considered during assessment.

- Criteria that have been developed to assist in the identification of statutory Sites of Special Scientific Interest (SSSIs) (JNCC 2013)
- Habitats and species of Principal Importance included under Section 41 (England) and Section 42 (Wales) of the Natural Environment and Rural Communities (NERC) Act 2006
- The legal status of habitats and species according to the EU ‘Habitats’ Directive 1992
- CIEEM Guidelines (2018) for assessing the value of ecological receptors within a defined geographical context using the following categories: international (*i.e.* Europe); UK and national (England); regional; county; Unitary Authority; local or parish; and zone of influence. Receptors are identified as ‘important’ at these levels, or as ‘not important’
- Species protected by European directives
- Species protected by the *Wildlife and Countryside Act 1981* (as amended)
- Other species listed as scarce or notable in literature issued by conservation organisations or learned societies *e.g.* vascular plant species listed in Stewart *et al.* (1994) and Red and Amber List Birds of Conservation Concern (Stanbury *et al.* 2021)
- Local Wildlife Site selection criteria
- National Policy Planning Framework (NPPF 2023)
- BS42020:2013 – Biodiversity Code of practice for planning and development
- Protected species handbooks and best practice guidelines
- The Berkshire Biodiversity Action Plan (BAP).

3 RESULTS

3.1 Desk Study

3.1.1 Designated Sites

There are two statutory designated sites within a 2 km radius of the site boundary. Both are Local Nature Reserves (LNRs):

- Lousehill Copse LNR approximately 915m north-west; and
- Round Copse LNR approximately 1.9 km north-west.

Lousehill Copse LNR is designated as Semi-ancient mature Oak and Hazel woodland with some areas of coppice. Plant interest include many bluebells and other spring flowers, streams, relics of old ponds and boggy areas. In the northern section there is an open meadow with gorse and broom with sandy soil which children use as a digging area.

Round Copse LNR is designated as dense woodland with a variety of birdlife, including three species of Woodpecker.

In addition, the site falls into the impact risk zones of two Sites of Special Scientific Interest (SSSIs):

- Pincent's Kiln SSSI approximately 4.5 km south-west
- Sulham and Tidmarsh Woods and Meadows SSSI approximately 5.2 km north-west.

3.1.2 Priority Habitats

Four areas of priority habitat occur within a 2 km radius of the site boundary at the following closest distances:

- Woodpasture and Parkland approximately 139m west as part of Prospect Park;
- Coastal and Floodplain Grazing Marsh approximately 958m south;
- Traditional Orchards approximately 1.6 km north; and
- Lowland Dry Acid Grassland approximately 1.9 km north-west as part of Round Copse LNR.

3.1.3 Protected Species Licence Sites

Two Protected Species Licences were granted within a 2 km radius of the site boundary:

- 2017-32379-EPS-MIT was granted for a site approximately 1.3 km east between 04/12/2017 and 29/11/2022. It allowed for damage and destruction of a roost used by Common Pipistrelle (*P. pipistrellus*) bats; and
- 2020-49490-EPS-MIT was granted for a site approximately 1.5 km south-west between 01/11/2020 and 30/11/2025. It allowed for destruction of a roost used by Soprano Pipistrelle.

3.1.4 Great Crested Newt Returns

No great crested newt returns were recorded within 2 km of the site boundary.

3.1.5 Waterbodies and Rivers

The Holy Brook, a tributary of the River Kennet, flows at the closest approximate distance of 1.1 km south, and the River Thames flows at the closest approximate distance of 2 km north of the site.

There is a pond on site, but no further ponds were identified within 250m of the site boundary. There is a pond approximately 443 m to the west in Prospect Park.

3.2 Ecological Surveys

Habitats present on-site include:

- Neutral Grassland
- Bare ground
- Tree lines
- Scattered trees
- Hedgerows
- Ornamental planting
- Buildings
- Pond

The site or immediately adjacent areas contain habitat suitable for the protected species and species groups listed below:

- Badger
- Bats
- Nesting birds
- Great Crested Newt
- Reptile species

3.3 Phase 1 Habitat Survey

3.3.1 General

High Heskett is part of a residential property consisting of a garden and outbuildings. Most of the site consists of grassland that is well managed, mown regularly and kept to a short sward.

The site is bordered to the north-west by a tree line, to the north-east by a hedgerow, to the east by grassland and the Main House, to the south-east by a hedgerow, to the south-west by a tree line, and to the west by a fence.

Figure 5. Baseline habitats map)



3.3.2 Neutral Grassland

Most of the site consists of regularly managed neutral grassland maintained at a short sward height, with a difference between the floral assemblage in the eastern portion of the site close to the Main House and the western portion further from the house.

The eastern section of the grassland is damp, with abundant Bent (*Agrostis* sp.), Perennial Ryegrass (*Lolium perenne*), and Springy Turfmoss (*Rhytidiadelphus squarrosus*). Species appearing frequently include Mouse-ear Hawkweed (*Pilosella officinarum*), Oxeye Daisy (*Leucanthemum vulgare*), Smooth Cat's-ear (*Hypochaeris glabra*), White Clover (*Trifolium repens*), and Yarrow (*Achillea millefolium*). Creeping Buttercup (*Ranunculus repens*) appears occasionally, and species occurring rarely include Bulbous Buttercup (*Ranunculus tuberosus*), a Fescue (*Festuca* sp.), Fiddle Dock (*Rumex pulcher*), Selfheal (*Prunella vulgaris*), Thyme-leaved Speedwell (*Veronica serpyllifolia*), Wood Avens (*Geum urbanum*), Wood Sorrel (*Oxalis acetosella*), and Yorkshire Fog (*Holcus lanatus*). Yellow Stagshorn fungus (*Calocera viscosa*) occurs rarely.

The western section contains an abundant Bent sp. and abundant Perennial Ryegrass but is less damp and lacks moss. Ground Ivy (*Glechoma hederacea*) and Wood Avens appear frequently, whilst Daisy (*Bellis perennis*), Dandelion (*Taraxacum officinale*), and Selfheal are occasional. Cow Parsley (*Anthriscus sylvestris*) is locally abundant around the edges of the grassland. Species appearing more rarely include Cleavers (*Galium aparine*), a Dock (*Rumex* sp.), Forget-me-not (*Myosotis* sp.), Green

Alkanet (*Pentaglottis sempervirens*), Nettle (*Urtica dioica*), Sorrel (*Rumex acetosa*), and Sweet Violet (*Viola odorata*).

Plate 1. Neutral grassland at the eastern end of the garden as seen from the east.



3.3.3 Bare ground

An area of bare earth is present in the central portion of the site where a pond has been filled in prior to the commencement of the ecological surveys.

Plate 2. Bare earth is present where a pond has been filled in.



3.3.4 Tree Lines

Three tree lines are present along the boundaries to the western end of the site.

Tree line 1 marks most of the north-western boundary, and consists of a mixture of Coppiced Hazel (*Corylus avellana*), Yew (*Taxus baccata*), Beech (*Fagus sylvaticus*), Hawthorn (*Crataegus monogyna*), Holly (*Ilex aquifolium*), and Sycamore (*Acer pseudoplanatus*).

Tree line 2 occupies a section of the southern boundary, with species present including Douglas Fir (*Pseudotsuga menziesii*), Silver Birch (*Betula pendula*), and Yew.

Tree line 3 is present on the south-eastern boundary, and species therein include Cherry (*Prunus avium*), Cypress (*Cupressus* sp.), Ivy (*Hedera helix*), Rowan (*Sorbus aucuparia*), and Sycamore.

Plate 3a. Treeline 1 is located along the north-western boundary.



Plate 3b. Treelines 2 and 3 are located along the southern and south-eastern boundaries respectively.



3.3.5 Scattered Trees

A number of trees of varying size and maturity occupy the eastern end of the site. Species include a Cedar (*Cedrus* sp.), Cherry, Daodar Cedar (*Cedrus deodara*), Douglas Fir, Himalayan Birch (*Betula utilis*), Leyland Cypress (*Cupressus leylandii*), London Planetree (*Platanus x hispanica*), Oak (*Quercus* sp.), a Spruce (*Picea* sp.), and Yew.

The largest tree on-site, an Atlas Cedar (*Cedrus atlantica*) near the southern boundary was destroyed by a lightning strike on 8th September 2024.

Plate 4. Scattered trees are present throughout the site.



3.3.6 Hedgerows

There are short sections of hedgerow boundary on either side of the north-western rear entrance gate consisting of monocultural Beech hedgerow measuring approximately 1.9m high.

Plate 5. Beech hedgerows either side of an access gate at the north-western end of the site.



A tall Yew hedgerow marks parts of the northern and southern boundaries.

Plate 6. A Yew hedgerow along the south-eastern boundary.



3.3.7 Ornamental Planting

Ornamental planting is present in several areas of the garden. Species present include Bamboo (*Bambusa* sp.), Banana Palm (*Musa* sp.), Ornamental Rose (*Rosa* sp.), and Purpletop Vervain (*Verbena bonariensis*).

Plate 7. Ornamental planting on-site.



3.3.8 Buildings

Seven outbuildings (Buildings 1-6) are present in the south of the site (*Figure 4*). A Brick Garage linked to the Main House was also assessed as access of works to the site has not yet been confirmed. For building descriptions, please see *Section 3.4.2 Bats: Preliminary Roost Assessment*.

Figure 4. High Heskett building locations; the pond shown to the east of the buildings has been filled in



3.3.9 Pond

An artificially lined pond is located west of the Brick Garage and is set into the patio. The pond measures approximately 2 m x 3 m (8 m²) and is approximately 1.5m deep. There is little in the way of vegetation in the pond, but Blanketweed (*Spirogyra* sp.) and Duckweed (*Lemnoideae* sp.) were present at low densities. At the time of the survey, no animal life was observed in or near the pond.

Plate 8. A pond is located close to the Brick Garage and Main House.



3.4 Biodiversity Net Gain Metric: Baseline Data

The red line development area boundary totals an area of 0.43 ha with 0.4 km of hedgerows. Individual area sizes per habitat were measured during the 2024 survey when habitat borders were defined and mapped. Where condition scores differed across the site for the same habitats these have been separated out to ensure proposed management prescriptions can be targeted per habitat and are based upon the current baseline habitat conditions.

A summary of the habitats present on site, current habitat condition scores and their total area size (per habitat) in hectares can be seen in *Table 3* with the same for hedgerows shown in *Table 4*. Habitat/hedgerow unit values, as calculated using the Statutory Biodiversity Metric Tool have also been included.

A large Atlas Cedar (T096 in the tree report, Duckworth 2024) was destroyed after being struck by lightning during a storm on the 8th September 2024. This tree would have been retained as part of the proposals, but this is not now possible. As the tree was struck down in an “act of God” fashion outside of the control of the landowner, we have not included it in the site’s baseline data.

Table 4. Area sizes and condition scores for all baseline habitats present on site

Habitat Type	Condition	Area Size (Ha)	Habitat Units
g3 Other neutral grassland	Moderate	0.3021	2.42
g3 Other neutral grassland	Poor	0.0156	0.06
Sc41 Ponds (non-priority habitat)	Poor	0.0007	0.00
Sc510 Bare ground	Poor	0.0183	0.04

u1b Developed - land sealed surface	N/A	0.0879	0.00
Sc 847 Introduced shrub	N/A	0.0033	0.01
Urban tree	Poor	0.0407	0.16
Urban tree	Moderate	0.3135	2.51
Urban tree	Good	0.0529	0.63
Total habitat area		0.83	5.83
Site area (excluding individual trees)		0.43	2.52

Table 5. Length and condition scores for all baseline hedgerows present on site

Hedgerow Type	Condition	Length (km)	Hedgerow Units
Sc33 Line of trees	Moderate	0.07	0.28
Sc33 Line of trees	Poor	0.014	0.03
h2b Non-native and ornamental hedgerow	Poor	0.249	0.25
Total		0.40	0.56

3.5 Protected Fauna

3.5.1 Badger

The site and surrounding area are suitable for use by foraging and commuting Badger. The habitats are suitable for Badger setts, but no evidence of Badgers was recorded at the time of the survey.

3.5.2 Bats

Three Protected Species Licences relating to Common Pipistrelle and Soprano Pipistrelle were granted within 2 km of the site, but it is assumed that other bat species are present in this area. The site offers suitable foraging and commuting habitat for bats in the form of its hedgerows, trees, tree lines and grassland. PRA details are presented below.

Preliminary Roost Assessment

Buildings 1a-1b

Buildings 1a and 1b comprise of two small timber framed woodsheds with shiplap cladding and a bitumen felt roof. The sheds are unlined with simple frames.

They are considered to have *Negligible* potential for use by roosting bats.

Plate 9. The eastern elevations of buildings 1a and 1b.



Building 2

Building 2 is a large timber shed/garage with shiplap board cladding and a pitched roof covered with bitumen felt. The walls are lined with horizontal timbers and the roof, which contains a loft space measuring a maximum of 60cm at the apex and is lined with OSB chipboard and ply sheeting. Building 2 is used as garage and frequently disturbed. No evidence of bats was found internally, and the externally boards are well sealed with minimal gaps.

Building 2 is considered to have *Negligible* potential for use by roosting bats.

Plate 10. The eastern elevation of building 2.



Plate 11. The western and southern elevation of building 2.



Building 3

Building 3 is a large timber shed/garage with shiplap board cladding, a pitched roof covered with bitumen felt, and an insulated roof cavity. There is a brick wall to the southern side of the building, but the other sides are timber framed and clad.

Building 3 is considered to have *Low to Moderate* potential for use by roosting bats.

Plate 12. The north-western elevation of building 3.



Plate 13. The interior of building 3.



Building 4

Building 4 is a timber framed shed with shiplap cladding and a pitched roof covered with cement fibreboard tiles and lined with a bitumen liner. It is used to store wood. There are gaps at the northern gable wall providing access to the interior, but no evidence of bats was found inside. The rear of the building was inaccessible.

Building 4 is considered to have *Low* potential for use by roosting bats.

Plate 14. The northern elevation of building 4.



Plate 15. The interior of building 4.



Building 5

Building 5 is a timber framed shed with a sloping roof covered with corrugated metal sheeting. The walls are clad with shiplap boards and are unlined, as is the roof. The building is divided into two sections; both are used for storage.

Building 5 is considered to have *Negligible* potential for use by roosting bats.

Plate 16. The eastern elevation of building 5.



Building 6

Building 6 is a timber framed shed/workshop with shiplap boarded walls and a pitched roof covered with bitumen roofing felt. It has glass windows with wooden frames. The boarding is tight around all accessible parts of the building, and no evidence of bats was located inside or out.

Building 6 is considered to have *Negligible* potential for use by roosting bats.

Plate 17. The eastern elevation of buildings 5 (right) and 6 (left).



Brick Garage

The Brick Garage is a single storey brick garage attached to the Main House via a brick link section. It has a pitched roof with hipped ends and a central ridge section and is covered in clay tiles. The bonnet

tiles are in good condition, but there are some lifted tiles on the western elevation and lifted valley tiles where the roof meets the link roof. Internally roof is lined with wooden sarking boards.

The Brick Garage is considered to have *Moderate* potential for use by roosting bats.

Plate 18. The southern elevation of the Brick Garage.



Plate 19. The interior of the Brick Garage.



Plate 20. Gaps in the roof tiles on the western aspect of the Brick Garage.



Bat Activity Surveys

Following the results of the Preliminary Roost Assessment, Bat Activity Surveys were completed in May, June and July 2024 by four ecologists from Turnstone Ecology. The surveys consisted of three dusk emergence surveys.

No bats were recorded emerging during any of the three surveys.

Throughout all three surveys Common Pipistrelle and Soprano Pipistrelle were recorded frequently foraging throughout the garden, with occasional Noctule (*Nyctalus noctula*) commuting over the site.

3.5.3 Birds

The outbuildings, trees, and hedgerows on-site are suitable for nesting birds, but the grassland areas are not suitable for ground nesting species such as Skylark (*Alauda arvensis*) in their current state. A Red Kite (*Milvus milvus*) nest was recorded in the large Daodar Cypress towards the southern boundary of the site close to the Main House that was destroyed by lightning on 8th September 2024.

3.5.4 Great Crested Newt

No records of Great Crested Newt were found within 2 km of the site.

The application site supports habitats (i.e. hedgerows, grassland) that are suitable for terrestrial phase Great Crested Newt moving across the site. The hedgerows provide terrestrial habitat suitable for foraging, commuting and resting animals. The area being impacted by the proposals is of limited suitability due to the height of the grassland.

There is one pond on-site close to the Brick Garage that was assessed for suitability for Great Crested Newt, the nearby rivers are not suitable for Great Crested Newt.

Habitat Suitability Index Assessment

The pond on site has limited suitability for use by and is not an optimal waterbody for breeding Great Crested Newts on account of its lack of vegetative cover, steep sides, and lack of connectivity with other areas of suitable habitat. A Habitat Suitability Index (HSI) assessment of the pond was calculated and indicated that the pond offered *poor* (0.42) habitat for this species. At the time of the survey no amphibians, their eggs, or larvae were observed in or near the pond. The nearby rivers are not suitable for Great Crested Newt.

Environmental DNA (eDNA)

The results of the eDNA survey of the pond were Negative. In addition, no GCN were present during the torching survey. Toad tadpoles were present in the pond during the survey.

3.5.5 Reptiles

The habitats of the proposal site and adjacent areas are suitable for use by reptiles, and it is assumed that reptiles are present in the local area. No evidence of reptiles was recorded during the survey.

3.5.6 Stag Beetle

Dead wood on-site in the form of log piles in the western end of the garden along the north-western boundary (*Plate 21*) could provide habitat suitable for Stag Beetle larvae, no larvae or adult Stag Beetles were observed during the initial survey.

During the first nocturnal bat survey on the 29th May 2024, four Stag Beetles were recorded flying in the garden and adjacent gardens between 20:54 – 21:53.

Plate 21. Logs piled along the north-western boundary of the western end of the garden.



4 EVALUATION

4.1 Summary of Proposals

The proposals involve the demolition of the Garage and Buildings 1-6 and subsequent construction of four residential units and two garages with associated landscaping.

Figure 6. Proposed site layout (© Spires Architecture 2025)



4.2 Designated Sites

4.2.1 Statutory Sites

There are two LNRs within 2 km of the proposed development site. Lousehill Copse LNR to the north-west and Round Copse to the north-west. The development site does not comprise the same habitats as the LNRs, and as such the project is not considered likely to impact these sites.

The site falls into the impact risk zones of Pincent's Kiln SSSI and Sulham and Tidmarsh Woods and Meadows SSSI. As the proposals for High Hesket do not include aviation proposals, livestock or poultry units, slurry lagoons, manure stores, general combustion processes or water discharge, the proposed development does not meet the criteria likely to cause impact on the SSSIs. As such, Natural England do not need to be consulted.

4.2.2 Priority Habitats

No areas of priority habitat were identified on or immediately adjacent to the site during the desk study. Due to the distances and residential use of the intervening land between the site and the nearest areas of priority habitats, it is considered unlikely that the proposed development will have any impact on priority habitats within 2 km.

4.3 Habitats

4.3.1 General

The proposed development will directly affect the Brick Garage, Buildings 1-6, scattered trees and treelines and an area of neutral grassland. It may impact the on site pond located behind the Brick Garage.

4.3.2 Impacts

The proposals will result in loss of habitat in the form of neutral grassland, buildings, and trees. It is assumed that it will be necessary to remove some trees and hedgerows for the new houses, gardens, and parking spaces to be installed. Recommendations for this will be provided in the arboricultural report.

4.3.3 Mitigation and Enhancement

To ensure that there are no indirect impacts on to any retained trees, an appropriate root protection area in line with BS5837:2012 will be maintained.² All trees earmarked for removal will be checked for their potential for bats and nesting birds prior to removal.

4.4 Biodiversity Net Gain

4.4.1 General

The proposed development works as shown in the layout plan will directly affect existing buildings, grassland, introduced shrub, trees, and hedgerows.

² British Standards Institution. (2012). *Trees in Relation to Design, Demolition and Construction: Recommendations*. BSI.

Figure 7. Post-development habitat map (based on the layout plan dated 03/07/2025, Spires Architects)



4.4.2 Habitat Retention

The development will retain 0.040 ha of other neutral grassland, 0.001 ha introduced shrub, and the equivalent of 0.114 ha existing urban trees, amounting to 7 small poor condition trees, 9 small moderate condition trees, and 3 medium moderate condition trees.

Two non-native and ornamental hedgerows will be removed whilst the remaining hedgerows and lines of trees will be retained.

4.4.3 Habitat Creation

The proposed development as it stands will result in the creation of 0.1273 ha of developed land (houses and sealed surface hardstanding) and 0.2179 ha vegetated gardens. This will result in the estimated loss of 4.35 habitat units. Please see *Table 11* for details.

Table 6. Proposed on-site habitat creation (red line development area only)

Habitat – BNG Calculation UKHab Classification (2023) Habitat Type	Condition Score	Area (Ha)	Habitat Units Delivered
Developed land; sealed surface u1b5 Buildings and u1b Developed land – sealed surface	N/A - Other	0.1273	0.00

Vegetated garden	Condition	0.2179	0.42
<i>Sc 231Vegetated garden</i>	Assessment N/A		
Total		0.35	0.42

4.4.4 Habitat Enhancement

No habitat enhancement is currently proposed.

4.5 Statutory Metric Summary

The proposed development will result in a net loss of 4.35 habitat units which equates to a 74.60% net loss on habitats. A net loss of 0.07 hedgerow units is predicted, which equates to a net loss of 12.03% on hedgerows.

Trading rules have not been met and satisfied for both habitat and hedgerow units at this stage.

In order to meet the requirements for Biodiversity Net Gain credits will need to be purchased through a suitable scheme in order to meet the statutory gain target of 10% for the site.

Figure 8. Statutory Metric Summary

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	-4.35
	<i>Hedgerow units</i>	-0.07
	<i>Watercourse units</i>	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	-74.60%
	<i>Hedgerow units</i>	-12.03%
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	No - Check Trading Summaries ▲	

Figure 9. Habitat units on site (target, baseline, requirements and changes proposed)

Net project biodiversity units (Including all on-site & off-site habitat retention / creation)	Habitat units	-4.35	
	Hedgerow units	-0.07	
	Watercourse units	0.00	
Total project biodiversity % change (Including all on-site & off-site habitat creation + retained habitats)	Habitat units	-74.60%	
	Hedgerow units	-12.03%	
	Watercourse units	0.00%	
Combined habitat retention and enhancement			
	Habitats	Hedgerows	Watercourses
Total on-site and off-site baseline area / length	0.83	0.33	0.00
Total on-site and off-site baseline units	5.83	0.56	0.00
Total on-site and off-site baseline area / length retained	0.20	0.27	0.00
Total on-site and off-site baseline units retained	1.06	0.49	0.00
Total on-site and off-site area / length proposed for enhancement	0.00	0.00	0.00
Total on-site and off-site baseline units proposed for enhancement	0.00	0.00	0.00
Total on-site and off-site baseline area / length lost	0.64	0.07	0.00
Total on-site and off-site baseline units lost	4.77	0.07	0.00

Figure 10. Trading summary for Habitat Units

Trading Summary		
Distinctiveness Group	Trading Rule	Trading Satisfied?
Very High	Same habitat required – bespoke compensation option ▲	Yes ✓
High	Same habitat required =	Yes ✓
Medium	Same broad habitat or a higher distinctiveness habitat required (≥)	No ▲
Low	Same distinctiveness or better habitat required ≥	Yes ✓

Figure 11. Trading summary for Hedgerow Units

Trading Summary		
Distinctiveness Group	Trading Rule	Trading Satisfied?
Very High	Same habitat required =	Yes ✓
High	Like for like or better	Yes ✓
Medium	Same distinctiveness or better habitat required	Yes ✓
Low	Same distinctiveness or better habitat required	Yes ✓
Very Low	Same distinctiveness or better habitat required	No ▲

4.6 Protected Fauna

In order to protect species of note and maintain and increase biodiversity of the site, the following mitigation measures and safe working methods will need to be incorporated into the proposals.

4.6.1 Badger

There was no evidence of Badger activity on the site itself or in the immediately adjacent habitat. The habitats on-site have suitability for sett excavation and foraging and commuting Badgers.

It is recommended a precautionary pre-works check for setts prior to the start of works is completed and if required appropriate mitigation carried out which may involve application for a licence from Natural England to be able to undertake any work on site. To ensure foraging Badgers do not become trapped within any excavation works these should either not be left uncovered overnight or ways of escape for Badgers provided (wooden planks or graded earth banks).

4.6.2 Bats

General

There are records of Common Pipistrelle and Soprano Pipistrelle within 2 km of the site, and it is assumed that other bat species are present in this area. The site offers suitable foraging and commuting habitat for bats in the form of its hedgerows, trees, tree lines and grassland. Suitable habitats adjacent to site will not be impacted by the proposed development.

Evaluation of Roosting Potential

Buildings 1, 5, and 6 were determined to have *Negligible* roosting potential based on unstable internal climates, lack of voids, and semi-frequent anthropogenic disturbance. Building 2 was determined to have *Negligible* potential based on an unstable internal climate and loft space measuring only 60cm at the apex with a hatch kept constantly open. No evidence of bats were located inside. Building 3 was determined to have *Low* to *Moderate* roosting potential based on the insulated loft cavity. Building 4 has *Low* roosting potential based on gaps at the northern gable wall. The Brick Garage has *Moderate* roosting potential based on its lined loft void, lifted valley tiles, and lifted tiles on the western elevation.

No evidence of roosting bats was found during the PRA survey.

Further Survey and Assessment

Demolition of the outbuildings will result in the loss of existing potential roost features including:

- Gaps providing interior access at the northern gable end of Building 4; and
- An insulated roof cavity in Building 3.

Demolition of the Brick Garage will result in the loss of existing potential roost features including:

- Lifted tiles on the western elevation;
- Lifted valley tiles; and
- A void lined with sarking board.

As such, further activity surveys were recommended. Two surveys of B3 and B4 and three surveys of the Garage were completed in 2024 and no bats were recorded roosting in the buildings.

Although no further survey work or protected species licence are required for the development to proceed, the building still offers suitable roosting habitats for bats and therefore the following precautionary mitigation measures are recommended:

- In the unlikely event that a bat is found during works, all works will stop, and an ecologist contacted to confirm how works are to proceed. If possible, the bat should be left in place and the roost feature replaced if safe to do so. If the bat is in immediate danger, it can be safely caught and put in a box until the ecologist arrives on site.
- Any new external lighting must follow the Bat Conservation Trust Bats and Lighting in the UK guidance (2023), such as using downlighting and movement sensors. No lighting directed on

potential bat roost access points and roosting features or suitable commuting habitat such as hedgerows and lines of trees.

- On completion of the final development enhancement features are to be incorporated into one of the new dwellings as below.

As part of the final development plans features suitable for roosting bats will be incorporated into the design of one of the new buildings. These features will include the installation of bat bricks or integrated roosting boxes (e.g. Eco Bat Box or Habitat Bat Boxes). The integrated features can be integrated into the brick work of the buildings with just the entrance slit visible. The design of these boxes allows any droppings to fall out and they will therefore not require any maintenance. Any bats using these features will be completely contained within the tube or bat box and will not be able to enter the building. As the bats will be contained in these roosting features and because roosting features are not being created on the roof or in any loft spaces there are no restrictions as to the type of roof liner and or ridge system that can be used on the new buildings. Bat roosting features should be incorporated in a similar location and orientation to existing entry features or on south, south-west and south-east facing walls

4.6.3 Birds

The site has habitats with the potential to support a limited range of common nesting birds, but the size of the site makes the presence of large or important breeding bird assemblages unlikely. The presence of ground nesting birds is very unlikely due to the habitats present and regular disturbance.

No active nests were identified in the buildings on-site, but a Red Kite nest was present in the Daodar Cypress on the southern side of the site near the Main House. Red Kite are a Schedule 1 breeding bird and as such are protected from disturbance during the nesting period. This tree is no longer present but the species could nest nearby and it is therefore recommended that a visit is carried out during March/April and at the start of works to search for any signs of nesting and if present any work using large machinery or anything that would cause vibrations or loud noises near any recorded nest should be completed outside of March-August inclusive to avoid disturbing the nest if active (*i.e.* eggs or dependent young present).

The hedgerows and trees provide habitat suitable for nesting birds and will be impacted as part of the proposals. Works that will impact the hedgerows and trees will be completed outside of the breeding bird season March-August inclusive or after a survey by a suitably qualified ecologist. If nesting birds are identified a suitable buffer will be established around the nesting site to ensure it is not damaged or disturbed and work will not be carried out in the area until nesting is completed or has ceased naturally.

Nesting opportunities will be enhanced through the provision of a medium hole nest box suitable for use by Starling (*Sturnus vulgaris*) integrated into or fixed to the external walls of one of the new buildings, a box suitable for use by Swift (*Apus apus*) under the eaves of one of the new buildings, and a medium hole nest boxes suitable for use by House Sparrow (*Passer domesticus*) on the external walls of one of the new the buildings.

4.6.4 Great Crested Newt

The grassland, treelines, hedgerows, and pond provide limited suitability for use by terrestrial Great Crested Newt. However, there are no known records within 2 km of the site and the on-site pond tad was subject to eDNA testing returned negative results for the presence of Great Crested Newt.

Whilst Great Crested Newt are absent from the pond the site still offers limited suitability, therefore, all work on site will be undertaken following Reasonable Avoidance Measures (RAMs) to further minimise the risk of an offence occurring and reduce impacts on wider herpetofauna, which will include:

- All methods to be undertaken with regard to and within the requirements of any other species mitigation;
- Grassland will be maintained at a short sward and any other vegetation that will be removed will be cut down and maintained at 100 mm prior to the commencement of the development and up to the start of construction;
- Any areas of more suitable habitat being impacted (such as hedgerows) should be searched by a suitably qualified ecologist prior to their removal.
- All building materials to be stored a minimum of 5m away from site boundaries and raised on pallets; and
- In the highly unlikely event of a Great Crested Newt or reptiles being found during works, all work must stop immediately. An ecologist should be contacted, and an appropriate course of action agreed before works continue.

4.6.5 Reptiles

The habitats of the proposal site and adjacent areas are suitable for use by reptiles to forage, bask, and hibernate. The neutral grassland and hedgerows provide limited foraging and commuting habitat.

Reasonable Avoidance Measures will be required in line with the guidance provided in Section 4.4.4 *Great Crested Newt*.

4.6.6 Stag Beetle

Dead wood on-site in the form of log piles in the western end of the garden could provide habitat suitable for Stag Beetle larvae. Four Stag Beetles were recorded flying in the garden during the bat survey in May.

The population of Stag Beetle on site are of local importance and could be impacted by the removal of dead wood during site clearance by disturbance or killing.

To mitigate effects on this species, any deadwood and tree stumps within the construction zone will be carefully moved by hand to an unaffected area of the site under the supervision of an ecologist. If possible, the stumps or logs will be partially reburied. Partially buried (upright, at least half their length) log piles using wood from the clearance of trees on site will be added to unaffected areas of the site. If logs from outside the site are used, they will be untreated.

5 LEGAL PROTECTION

This section briefly describes the legal protection afforded to the protected species referred to in this report. It is for information only and is not intended to be comprehensive or to replace specialised legal advice. It is not intended to replace the text of the legislation but summarises the salient points.

5.1 Badger

Badger is protected in Britain under the *Protection of Badgers Act 1992* and *Schedule 6* of the *Wildlife and Countryside Act 1981* (as amended).

The legislation affords protection to Badgers and Badger setts, and makes it a criminal offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat a Badger, or to attempt to do so;
- interfere with a sett by damaging or destroying it;
- to obstruct access to, or any entrance of, a Badger sett; or
- to disturb a Badger when it is occupying a sett.

5.2 Bats

All species of British bat are protected by *The Wildlife and Countryside Act 1981* (as amended) extended by the *Countryside and Rights of Way Act 2000*. This legislation makes it an offence to:

- intentionally kill, injure or take a bat;
- possess or control a bat;
- intentionally or recklessly damage, destroy or obstruct access to a bat roost; and
- intentionally or recklessly disturb a bat whilst it occupies a bat roost.

Bats are also listed on *Schedule 2* of the *Conservation of Habitats and Species Regulations 2017* under *Regulation 41*. This legislation makes it an offence to:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats in such a way as to be likely to (a) impair their ability to: (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or b), to affect significantly the local distribution or abundance of the species to which they belong; and
- damage or destroy a breeding site or resting place of a bat; and
- possess, control, transport, sell, exchange a bat, or offer a bat for sale or exchange.

All bat roosting sites receive legal protection even when bats are not present.

Where it is necessary to carry out an action that could result in an offence under the *Conservation of Habitats and Species Regulations 2010* (SI 2010/490) it is possible to apply for a Protected Species Mitigation Licence from Natural England (NE). Three tests must be satisfied before this licence (to permit otherwise prohibited acts) can be issued:

- Regulation 53(2)(e) states that licences may be granted to “preserve 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.”
- Regulation 53(9)(a) states that a licence may not be granted unless “there is no satisfactory alternative”.
- Regulation 53(9) (b) states that a licence cannot be issued unless the action proposed “will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range”.

5.3 Nesting Birds

All species of bird are protected under *Section 1* of the *Wildlife and Countryside Act 1981* (as amended). The protection was extended by the CRow Act.

The legislation makes it an offence to intentionally:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
- take or destroy an egg of any wild bird.

Certain species of bird are listed on *Schedule 1* of the *Wildlife and Countryside Act 1981* (as amended) and receive protection under *Sections 1(4)* and *1(5)* of the Act. The protection was extended by the CRow Act. The legislation confers special penalties where the above-mentioned offences are committed for any such bird and also make it an offence to intentionally or recklessly:

- disturb any such bird, whilst building its nest or it is in or near a nest containing dependant young; or
- disturb the dependant young of such a bird.

5.4 Great Crested Newt

Great Crested Newt is listed on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), and receive full protection under *Section 9*. This species is listed on *Schedule 2* of the *Conservation of Habitats and Species Regulations 2017* which gives them full protection under *Regulation 41*. Protection was extended by the *Countryside and Rights of Way Act 2000* (the CRow Act).

Under the above legislation, it is an offence to:

- kill, injure or take an individual of such a species;
 - possess any part of such species either alive or dead;
 - intentionally or recklessly damage, destroy or obstruct access to any place or structure used by such species for shelter, rest, protection or breeding;
 - intentionally or recklessly disturb such a species whilst using any place of shelter or protection;
- or

- sell or attempt to sell any such species.

The Great Crested Newt is included as a Priority Species in the UK Biodiversity Action Plan (UKBAP) and also as a species of principal importance for the conservation of biological diversity in England under *Section 74* of the CRow Act.

5.5 Common Reptile Species

Common Lizard, Grass Snake, Slow-worm and Adder are listed under *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), in respect of *Section 9(5)* and part of *Section 9(1)*. This protection was extended by the CRow Act.

Under the above legislation, it is an offence to:

- intentionally or deliberately kill or injure any individual of such a species; or
- sell or attempt to sell any part of the species alive or dead.

5.6 Stag Beetle

The Stag Beetle (*Lucanus cervus*) is globally threatened and listed as a priority species in the UK Biodiversity Action Plan. It is protected through its listing in *Schedule 5* of the *Wildlife & Countryside Act 1981* (as amended). It is illegal to offer a Stag Beetle for sale or remove a Stag Beetle from its habitat with the intent of sale.