AKB Ecology

Ecological Assessment
and
Preliminary Bat Roost Assessment

10 Shinfield Road

Reading
Berkshire
RG2 7BW

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July 2025

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Project Details

Client	Kennet Property
Site location	10 Shinfield Road, Reading, RG2 7BW
Grid Reference	SU 72809 71927
Agent	Simran Luthra
Report Title	10 Shinfield Road Ecological Appraisal and Preliminary Bat Roost Assessment report
Report and version number	AKB-25.26-25-EAPRA-v3
Survey Date	26/06/2025 and 10/07/2025
Surveyed By	Annika Binet MCIEEM BSc (Hons)

Author	Annika Binet MCIEEM BSc (Hons)
Reviewed/approved by	Laura Kahane MRSB MRes BSc (Hons)
This report remains valid for 18 months from date of issue. Survey data are valid for 12-24 months from the date the survey was undertaken.	

This report has been prepared by AKB Ecology, in accordance with the 'Guidelines for Preliminary Ecological Appraisal' and 'Code of Professional Conduct' issued by the Chartered Institute of Ecology and Environmental Management (CIEEM). We confirm that the opinions expressed are our true and professional bona fide opinions.

The report has been prepared by AKB Ecology with all reasonable skill, care and diligence within the terms of the Contract with the client. AKB Ecology disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client, and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

This is a technical report which does not represent legal advice. This report is intended to be submitted with a planning application for a development it is the duty of care of the landowner / developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to works.

Executive Summary

- Kennet Properties commissioned AKB Ecology to undertake an Ecological Appraisal including Preliminary Bat Roost assessment at 10 Shinfield Road, Reading, RG2 7BW at grid reference SU 72809 71927 to help inform the creation of rear and first floor extension of the existing property to create two 6-bedroom multiple occupancy homes.

- This report details the results of the survey, which was carried out on the 26th June 2025 by Annika Binet, Natural England licensed bat ecologist, to assess the site for the potential presence of any protected species or species of conservation concern and identify habitats of conservation importance.

- The site is approximately 775m^2 in size and contains a detached residential dwelling with associated garden and parking.

- No evidence of roosting bats was identified during the survey and the property was assessed to have negligible suitability for use by roosting bats due to a lack of suitable access points into potential roost features.

- The habitats within the site are common and widespread with the proposed rear extension impacting an area of existing sealed hard standing area and unsealed developed land containing a small number of individual ornamental plants.

- The total area of habitat to be impacted is less than 25m^2 therefore the site is considered to be exempt from BNG through the *de-minimis* exemption.

- Vegetation or tree removal must be undertaken outside the breeding bird period from March to August. Should any vegetation clearance be scheduled to take place between the beginning of March and the end of August, this must be immediately preceded by a survey to check for nesting birds. No vegetation can be cleared whilst a nest is occupied, regardless of species.

- The daytime assessment identified negligible potential for bats within the building on site due to a lack of suitable access points into potential roost features therefore there are no known constraints regarding these species and the proposed development, and no further surveys are required. In the unlikely event bats are identified during works the procedure detailed in section 8 of this report must be followed.

- An apple tree present on the site boundary was identified to have PRF-I suitability for bats. A further inspection was carried out on the 10th July for both bats and birds prior to the felling of the tree on the same day. No evidence of use by bats, or active bird nests were identified. In line with the 4th Edition Good Practice Guidelines a single bat box, or integrated bat roost feature should be installed on the site to replace the removed roost resource.

- Good building practice must be followed to ensure no faunal species are injured, killed or trapped during the proposed development works.

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1. Introduction

1.1 Kennet Properties commissioned AKB Ecology to undertake an Ecological Appraisal including a Preliminary Bat Roost assessment at 10 Shinfield Road, Reading, RG2 7BW to help inform the proposed development of the site.

1.2 No surveys are known to have been carried out on site previously. An initial assessment was therefore required to ascertain whether bats or other protected species are present at the site and represent a constraint to the proposed development.

1.3 This survey comprised a bat assessment plus ecological walkover survey for all protected wildlife and species of conservation importance, including habitats, and was carried out by Annika Binet, a Natural England licensed bat ecologist on the 26th June 2025. A further site visit was carried out on the 10th July 2025.

1.4 The bat surveys and report writing were carried out in accordance with Bat Surveys: Good Practice Guidelines (Bat Conservation Trust, 2023).

1.5 The purpose of this report is to detail the results of the bat assessment and walkover survey, give an assessment as to the presence or potential presence of any protected species, ecological issues and impacts that would be generated by the proposed developments, outline recommendations in relation to protected species and the proposed development of the site and identify recommendations for further surveys that may be necessary.

2. Background

2.1 The proposed development site is located at central grid reference SU 72809 71927. The site is located in a residential area within the city of Reading, close to the University Campus and associated parkland containing a lake and woodland. The surrounding landscape comprises residential properties with associated gardens and amenity facilities, commercial development and public and private parkland, further areas of woodland are present within the wider area. See Figure 1.

2.2 The site is approximately 775m^2 in size and contains a detached residential dwelling with associated garden and parking. See Figure 2.

Project: AKB-25.26-25 - 10 Shinfield Road

Client: Kennet Properties
Date: 01/07/2025

0 0.2 0.4 0.6 0.8 1 1.2 1.4 1.6 km
QGIS mapping

AKB Ecology

FIGURE 1: SHOWING THE SITE LOCATION

Project: AKB-25.26-25 - 10 Shinfield Road

Client: Kennet Properties
Date: 01/07/2025

0 4 8 12 16 20 m
QGIS mapping

AKB Ecology

FIGURE 2: AERIAL VIEW OF THE SITE SHOWING THE SITE BOUNDARY AND BUILDINGS SUBJECT TO SURVEY

2.3 The proposed development plan involves creation of a rear, side, front and first floor extensions of the existing property to create two 6-bedroom multiple occupancy homes. The majority of the habitat area on site is unlikely to be negatively affected by these proposals as the rear extension is located predominantly over existing hardstanding, with only a small area of amenity planting lost. See Figure 3.

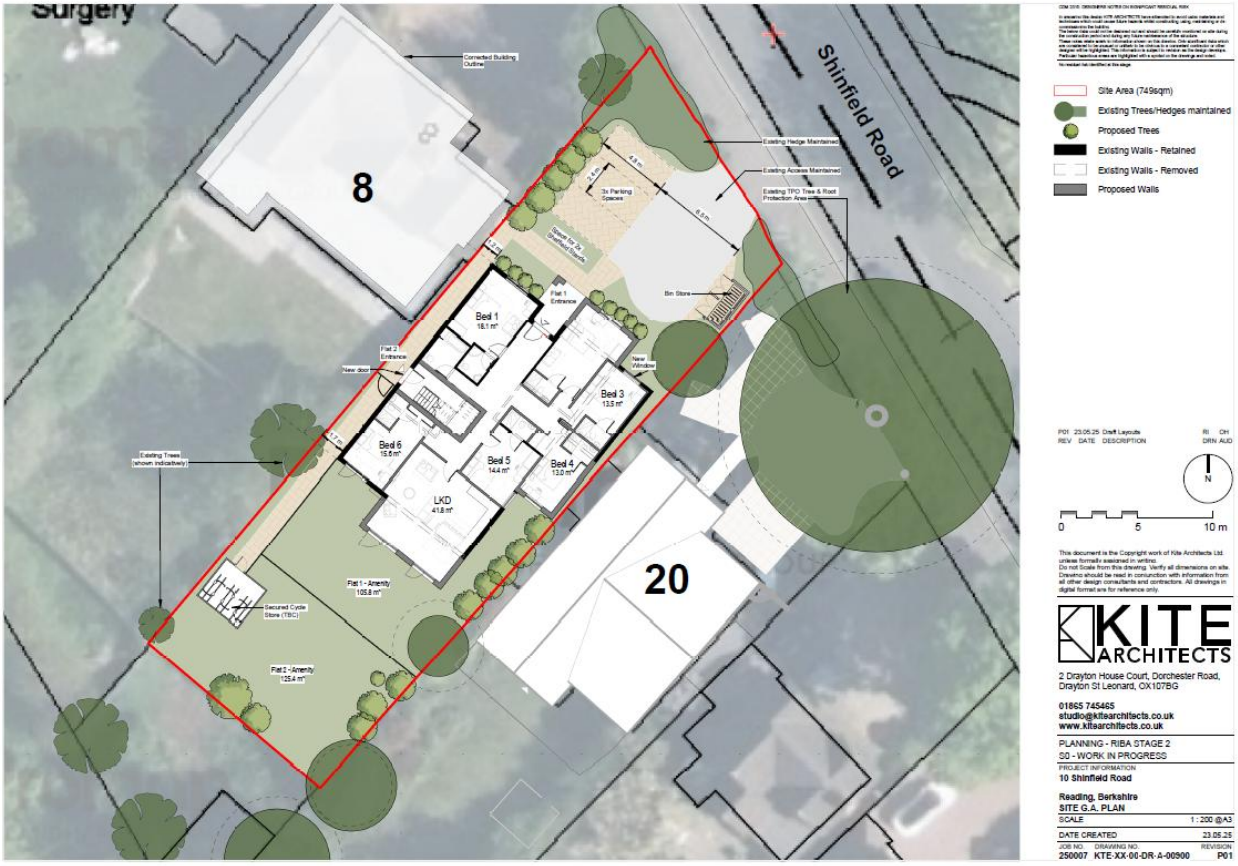


FIGURE 3: SHOWING THE PROPOSED PLANS.

3. Surveyor Information

TABLE 1: SURVEYOR INFORMATION

Surveyor	Licences	Ecological Experience or qualification
Annika Binet	Class licence CL19 and CL20 (Bats): 2018-38642-CLS-CLS and 2018-38643-CLS-CLS Class licence CL08 (GCN): 2019-40004-CLS-CLS Class licence CL29 (barn owls): accredited agent under Kate Sharma-Vicary 00288	Full member of the Chartered Institute of Ecology and Environmental Management BSc (Hons) Environmental Chemistry Certificate in Ecological Consultancy

4. Methods

Desk Study

TABLE 2: DATA SEARCH SOURCES

Data source	Information Obtained
Multi Agency Geographic Information for the Countryside (MAGIC) website provided by the Department for Environment, Food and Rural Affairs (Defra).	International or European level designated sites protected under the Conservation of Habitat and Species (Amendment)(EU Exit) Regulations 2019 or to the same level of protection through planning policy (the National Planning Policy Framework and Local Development Framework), within 2km of the site
MAGIC	Impact zones for statutory designated sites, such as Sites of Special Scientific Interest (SSSI), in which the site is located
MAGIC	Granted EPS licences and protected species records within 2km of the site
MAGIC and Google Earth/Google Maps	Location of waterbodies within 500m of the site boundary
Google Earth / Google Maps	To view current and historic aerial photographs to assess the ecological context of the site at a landscape scale

Walkover Survey

4.1 A daytime ecological walkover assessment was carried out on the 26th June 2025 to evaluate the site for its potential to support protected species in addition to other species of conservation importance that could be relevant in respect of planning policies.

4.2 During the survey an assessment is made of habitats present to determine whether they meet the criteria for Habitats of Principal Importance (HPI), observations of any invasive species, important plant communities, plant species of note, or other valuable ecological features are additionally recorded and detailed.

4.3 Assessment of habitats for protected species is made following the standard guidelines set out by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018). Field signs and incidental sightings are noted when encountered.

4.4 Details of the initial survey method for each species are given below.

4.5 Badger –Signs of badgers *Meles meles* including setts, foraging signs, runs, hairs and latrines are recorded if encountered during the survey. Where possible the area within 30m of the site is also searched for badger setts.

4.6 Barn owl – The buildings were subject to a full external and internal inspection for evidence of use by barn owl *Tyto Alba* including presence of live/dead owls, pellets, droppings, feathers, nest debris, nestling fluff and eggs or eggshells.

4.7 Breeding Birds - habitats were assessed for suitability for nesting and wintering birds on site including active and inactive nesting sites.

4.8 Great Crested Newt – Any ponds present within the site are subject to Habitat Suitability Index (HSI) to quantifiably assess whether a pond is suitable for GCN. The HSI for the great crested newt was developed by Oldham et al. (2000). It is numerical index, between 0 and 1 where 0 indicates unsuitable habitat and 1 represents optimal habitat. The HSI for the great crested newt incorporates ten suitability indices, all of which are factors thought to affect great crested newts.

4.9 The ten Suitability Indices are scored for a pond, in the field and from map work and are then converted to SI scores, on a scale from 0.01 to 1 (0.01 is used as the bottom end of the range instead of 0, because multiplying by 0 reduces all other SI scores to 0). The ten scores are then multiplied together, and the tenth root of this number is calculated (X)1/10. The calculated HSI for a pond should score between 0 and 1 and these scores are then used to define pond suitability for GCN, see Table 3.

TABLE 3: HSI SCORE CATEGORISATION

HSI	Pond suitability
Poor	<0.5
Below Average	0.5-59
Average	0.6-0.69
Good	0.7-0.79
Excellent	>0.8

4.10 Hazel Dormice – Suitability of the habitats for foraging and nesting hazel dormice *Muscardinus avellanarius* is assessed. The connectivity of habitats on site and the presence of dense scrub, native hedgerows and favoured berry and nut bearing species such as hawthorn, hazel and bramble were looked for in particular. If hazel nuts are present a brief search for nuts that have been chewed by hazel dormouse (i.e. displaying the characteristic smooth round hole) was conducted.

4.11 Otter - If suitable watercourses are present on site, evidence of otter *Lutra lutra* includes spraints, feeding remains are looked for and sightings are recorded.

4.12 Reptiles - suitability to support reptiles through the presence of features that provide suitable basking areas; such as south-facing slopes and walls, potential hibernation sites; such as banks, log piles and piles of rotting vegetation and opportunities for foraging; such as rough grassland and scrub.

4.13 All UK reptile species require sunny, undisturbed glades and/or slopes, usually in the vicinity of some thick cover (vegetation). Species specific requirements are as follows:

Common Lizard
- Open areas in which to bask, especially piles of rubble and wood in sunny areas.
- Ground cover of ivy is especially good for lizards for feeding and to avoid predators.
- Dense but short vegetation, open to the sun.
- Typically, small home range.

Slow Worm
- Recorded basking less frequently than other UK species. Thick ground vegetation preferred.
- Regularly found in habitats influenced by people, such as railway cuttings, allotments and gardens.
- Typically, small home range.

Grass Snake
- Highly aquatic and are strongly associated with riparian habitat.
- Compost heaps or dung piles often used as egg laying habitat.
- This species has a large home range.

Adder
- Light chalk or sandy soils are preferred.
- Undisturbed habitat with basking areas in addition to dense vegetation in which to shelter
- Most frequently recorded in heathlands, woodlands rides and chalk down land

Sand Lizard
- Areas of open sand dunes.
- Mature dry heath.
- Very restricted range within the UK

Smooth Snake
- Found almost exclusively in dry heathland, especially in mature stands of heather or gravely lowland heaths.
- Very restricted range within the UK

4.14 The most suitable conditions for reptile survey are intermittent or hazy sunshine with a relatively mild air temperature (10-20°C) and dry with little or no wind (Gent & Gibson, 1998).

4.15 Direct Observation Survey (DOS) of basking areas was carried out, this comprised a slow approach to any such features whilst carefully looking for reptiles, listening for rustles which may indicate a reptile retreating into vegetation, and stationary observation of features which may be utilised, particularly by lizard species.

4.16 Artificial Refugia Survey (ARS) was carried out, this comprised a survey of existing features such as carpet tiles, plastic and metal sheeting and roof tiles which were carefully lifted to identify whether any reptiles were present underneath.

4.17 Water vole - If suitable watercourses are present on site, evidence of water voles *Arvicola amphibious* is searched for including presence of faeces, latrines, feeding stations, burrows, footprints, runs or pathways.

4.18 Other mammals – any signs of occupancy by other mammals (e.g. Rabbit warrens) are recorded. Open areas of habitat, and boundary features are visually assessed for signs of mammal tracks, push throughs and latrines.

4.19 Other Species of Principal Importance (SPI) – the habitats present on site were assessed for the likelihood of presence for other species of regional and national importance.

Daytime Bat Assessment

4.20 A detailed bat building inspection and ground level tree inspection was undertaken on the 26th June 2025 by Annika Binet, a Natural England licensed bat ecologist.

4.21 A systematic internal inspection of the house was conducted using a high-powered torch to illuminate all areas thought to be suitable for roosting bats, gaps and crevices were noted and surveyed with a high-powered torch, endoscope and ladder as appropriate. Additionally, an external search around the perimeter of the building was conducted and any possible access points were noted and surveyed with a high-powered torch, endoscope and ladder as appropriate.

4.22 The suitability of the building for roosting bats was assessed through examination of structural features including the presence, size, complexity and level of natural light ingress into any roof voids and presence of potential access points into the building, such as soffit or barge board gaps, missing, slipped, lifted or cambered tiles or missing mortar.

4.23 The suitability of the site for roosting and foraging bats was also assessed by examining the surrounding habitat, including presence of linear habitat features such as water courses, mature hedgerows and tree lined lanes, in addition to potential foraging areas including semi-natural greenspace, parkland, heathland, woodland and waterbodies.

4.24 All surfaces and features of potential value to bats were examined for signs of bat presence, such as:

- bat droppings that are dry and do not putrefy, but can crumble away to dust;
- staining of access points used by bats to enter the structure; and
- feeding remains such as moth and butterfly wings.

4.25 Where bat droppings are found, and are accessible, these are collected using an Eppendorf tube and labelled with the site reference and date. Samples are sent for DNA analysis to confirm species where appropriate. If multiple species are

suspected samples from one building are collected into a single tube and multi-species analysis is requested to identify all species present.

4.26 Taking account of these architectural, habitat features and signs of presence, the building was then assigned a level of roost suitability based the criteria given in the Bat Conservation Trust's Bat Surveys: Good Practice Guidelines (Collins, 2023), shown in Table 4, and professional judgement. The primary objective of this exercise was to identify the need for further detailed bat survey later in the year, or alternatively to obtain sufficient information that would dismiss the need for further assessment.

TABLE 4: BAT ROOSTING POTENTIAL DEFINITIONS FOR STRUCTURES BAT MITIGATION GUIDELINES 2023

Potential suitability	Roosting habitats – structures only	Potential commuting/foraging habitats
None	No features on site likely to be used by roosting bats	No suitable habitats/features on site likely to be used for foraging or commuting routes/flight lines
Negligible	No obvious potential roosting features however a very small element of uncertainty remains	No obvious habitats/features on suite likely to be used as foraging or commuting routes/flight lines however a very small element of uncertainty remains
Low	Structures with one or more potential roost features (PRFs) which could be used opportunistically but do not provide sufficient space, shelter, protection, appropriate conditions and / or suitable surrounding habitat to be used regularly or by large numbers/unlikely to be of use as a maternity or hibernation roost.	Habitat present that could be used by small numbers of bats (e.g. isolated habitats, isolated scrub or gappy hedgerows).
Moderate	One or more potential features/sites with potential for high conservation roosts to be present (e.g. maternity or hibernation).	Continuous habitats or habitats connected to the wider landscape (linked hedgerows, woodland or back garden trees)
High	One or more potential features/sites which are obviously suitable for high conservation roosts to be present (e.g. maternity or hibernation).	Continuous and high-quality habitats well connected to the wider landscape (e.g. broadleaved woodland connected by hedgerows to other broadleaved woodland or parkland nearby) If a site is close/connected to known roosts.
Notes: If droppings are confirmed as bat or bat/s are seen during initial appraisal/s then it becomes a confirmed roost with further surveys where needed to characterise the roost.		

4.27 Ground level tree assessment was carried out for trees present within the survey area to look for the presence of Potential Roosting Features (PRF). Features which may be used by bats include, but are not limited to, splits and cracks in stems and branches, hazard beams, tear outs, woodpecker, rot holes, cankers, hollows, double-leaders forming compression forks or occlusions with could include

cavities, gaps between overlapping branches, partially detached bark plates, partially detached ivy with stem diameter exceeding 50mm and bat, bird or dormouse boxes.

4.28 Where accessible features were subject to torchlight and/or endoscope survey to confirm type and extent of features and determine suitability for use by roosting bats. Where features were not accessible an assessment on likely suitability is made, or further survey recommended.

4.29 Trees with no PRFs are classified as holding negligible potential. Where potential roost features are present these are classified as PRF-I or PRF-M. PRF-I are only considered to be suitable for individual or low numbers of bats, either due to size or lack of suitable surrounding habitats. PRF-M are suitable for multiple bats and may therefore be used by a maternity colony.

4.30 A subsequent visit was carried out on the 10th July during which an apple tree on site was subject to pre-felling inspection with an endoscope.

5. Constraints/Limitations

5.1 An initial site assessment such as this is only able to act as a snapshot to record any flora or fauna that is present at the time of the survey. It is therefore possible that some species may not have been present during the survey but may be evident at other times of the year. For this reason, habitats are assessed for their potential to support some species, even where no direct evidence (such as droppings) has been found.

5.2 Bats can be difficult to locate in structures and trees, particularly in inaccessible areas and large buildings, therefore finding the exact roosting site can be difficult, especially male/single bat roosting sites. Many bat species roost between tiles and between linings where droppings become trapped and stay hidden from surveyors. It is not always possible to identify bat presence by examining features internally as droppings and other evidence can deteriorate rapidly with damp conditions and poor weather conditions may wash away droppings which were deposited on exposed surfaces.

5.3 Only around 75% of potential roosting areas within trees are visible from ground level.

5.4 Bats can have seasonal use of buildings and trees. As highly mobile species they may arrive and start using a site after it has been surveyed, or roost somewhere else during the period it was surveyed. For this reason, bats may potentially be present but remain undetected, particularly during daytime assessment, or may colonise a site after survey has been carried out.

5.5 No other limitations were encountered, or assumptions made during either the desk study or the field survey and it is considered that with the access gained and

recording undertaken an accurate assessment of the site's ecological value has been made.

6. Results

Desk Study

Sites and Habitats

Statutory Designated Sites:

6.1 Maiden Eriegh Park Local Nature Reserve is located within 2km of the site. See Figure 4.

Impact Risk Zones

6.2 The site is not located within an Impact Risk Zones for any designated sites.

Granted EPS Licences and GCN records

6.3 There are granted EPS licences within 2km of the site. These are detailed in Table 5 and shown in Figure 4 with blue squares showing bat licences and green showing GCN.

TABLE 5: EPS LICENCES WITHIN 2KM OF THE SITE

Case reference of granted application	Species on the licence	Licence Start Date	Licence End Date	Impact on a breeding site	Damage of a breeding site	Damage of a resting place	Destruction of a breeding site	Destruction of a resting place
2016-22301-EPS-MIT	C-PIP	21/04/2016	20/04/2021	N	N	Y	N	Y
EPSM2012-4478	C-PIP;S-PIP	03/09/2012	30/09/2016	N			N	Y
EPSM2010-2126	C-PIP	02/09/2010	31/08/2012	N			N	Y
2019-44194-EPS-MIT	C-PIP S-PIP	01/02/2020	31/03/2020	N	N	N	N	Y
EPSM2010-2266	C-PIP;BLE	01/09/2010	28/02/2011	Y			Y	Y
EPSM2010-1708	Great Crested Newt	09/06/2010	12/06/2012	N			N	Y
2014-500-EPS-MIT	C-PIP S-PIP	29/04/2014	30/09/2016	N	N	N	N	N
2014-3941-EPS-MIT	C-PIP S-PIP	21/10/2014	30/11/2019	N	N	Y	N	Y
2014-3941-EPS-MIT-1	C-PIP S-PIP	17/12/2014	30/09/2019	N	N	Y	N	Y
2014-3941-EPS-MIT-2	C-PIP S-PIP	26/01/2015	30/09/2019	N	N	Y	N	Y

6.4 There is one GCN records within 2km of the site. This is detailed in Table 6 and shown in Figure 4.

TABLE 6: GCN RECORDS

Year of survey	Habitat Suitability Index	Result of great crested newt egg survey	Result of great crested newt visual survey	GCN occurrence	eDNA PCR Score	Detection of Inhibition
2018	0.43	NA	NA	absent	0	No

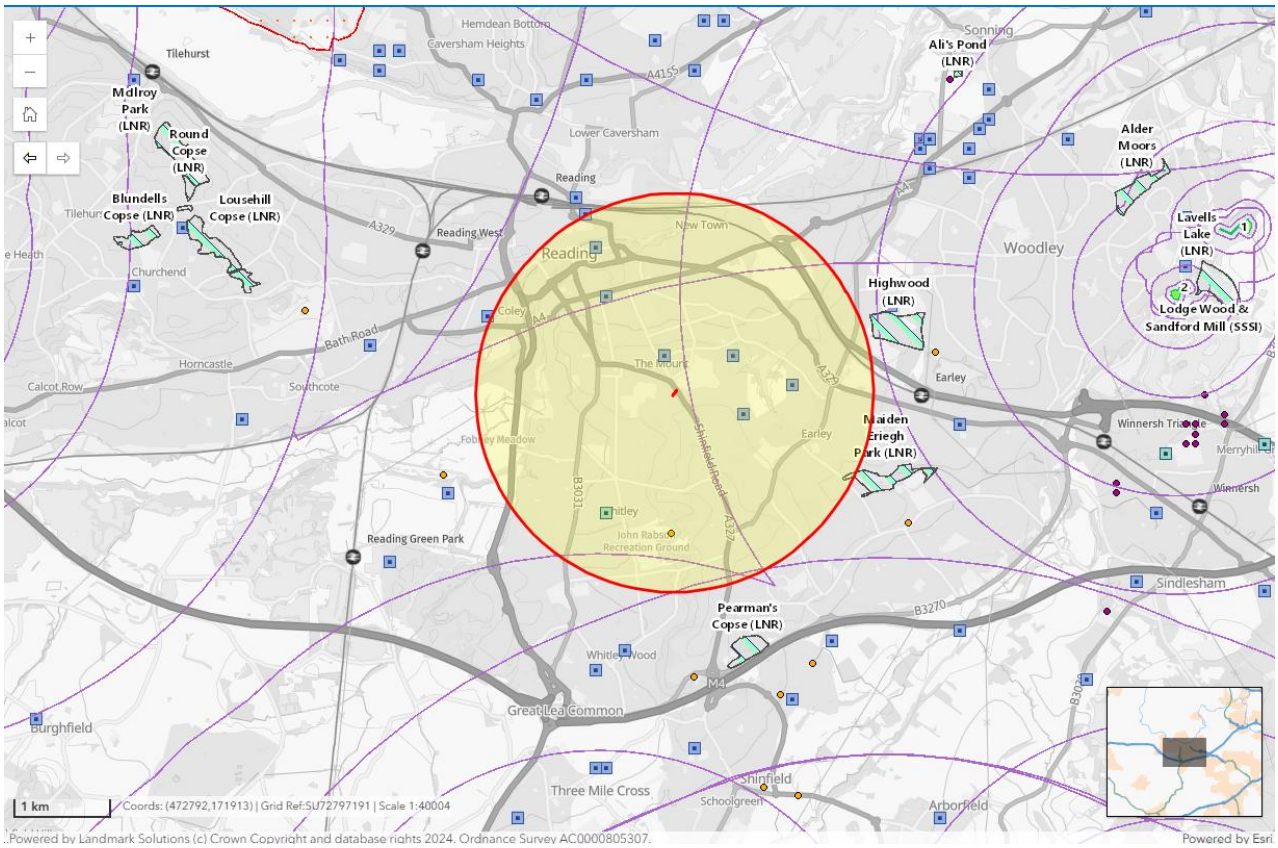


FIGURE 4: SHOWING STATUTORY DESIGNATED SITES, IMPACT RISK ZONES, GRANTED EPS LICENCES AND GCN RECORDS WITHIN 2KM OF THE SITE.

Habitats of Principal Importance

6.5 There are no HPI located within or immediately adjacent to the site. Deciduous woodland and Woodpasture and Parkland are present within the wider area. See Figure 5.

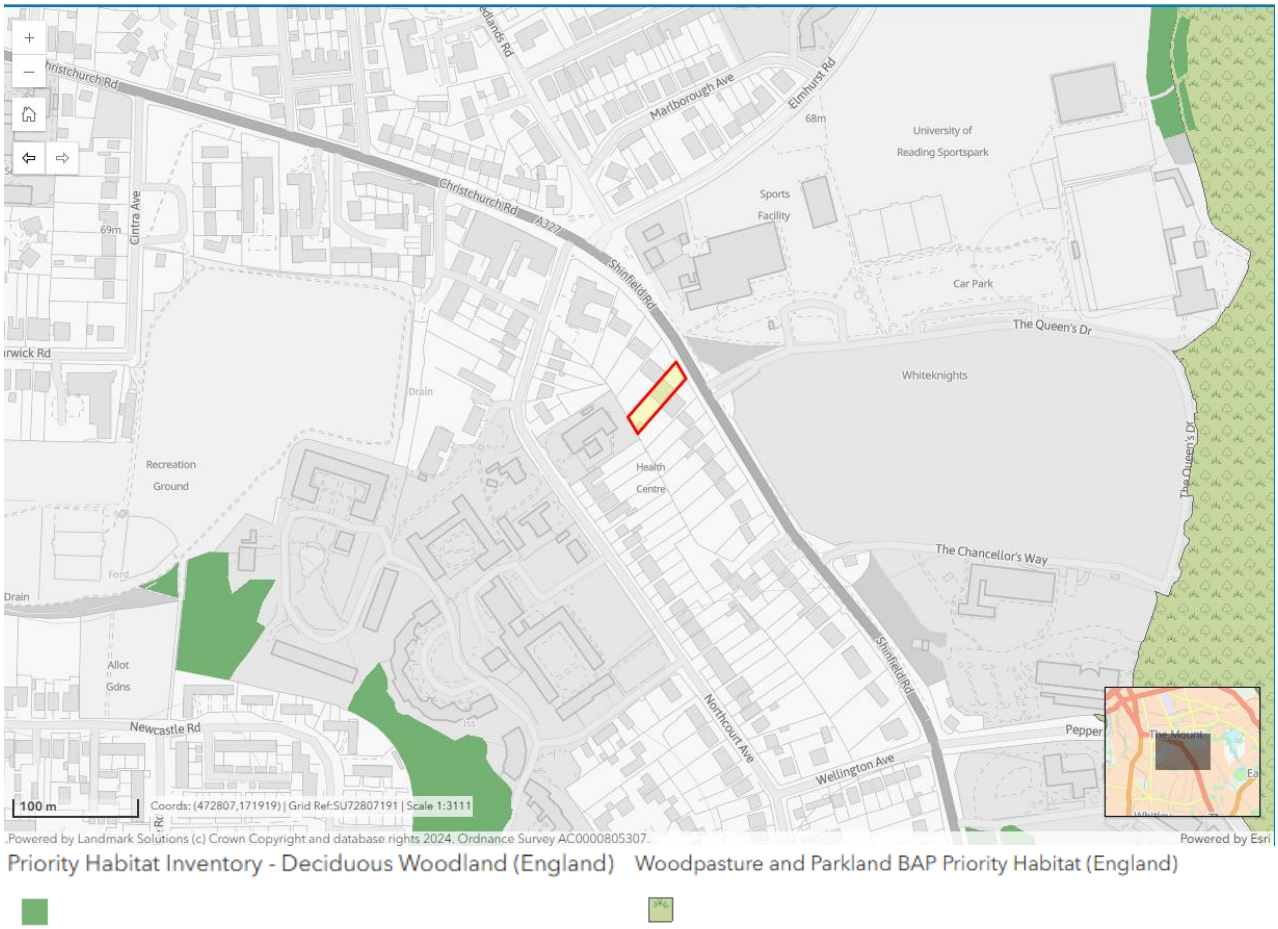


FIGURE 5: SHOWING PRIORITY HABITATS IN PROXIMITY TO THE SITE.

Field Survey

Weather conditions

6.6 TABLE 7 Summaries the weather conditions during the survey.

TABLE 7: WEATHER CONDITIONS DURING FIELD SURVEY

Survey Date	26/06/2025
Temperature start	26°C
Temperature finish	27°C
Wind speed (Beaufort Scale)	1
Cloud Cover (Oktas Scale)	1
Precipitation	0
Notes	Conditions were fine and dry

Priority Habitats

6.7 No priority habitats were identified. Habitats present on site are shown in FIGURE 7.

Plant species of note

6.8 No plant species of note were identified.

Invasive species

6.9 No invasive species of note were identified.

Other valuable ecological features

6.10 Native and fruit-bearing trees have been planted within the garden which, whilst currently very young, will provide future biodiversity benefits.

Badger

6.11 No badger setts were identified present on site. No evidence of badger activity such as latrines, tracks, guard hairs or snuffle holes were observed on or directly adjacent to the site, which would suggest that the site is otherwise used for foraging. It is considered unlikely that any badger setts are present within 30m of the site boundary as no evidence of badger activity was identified during the survey.

Barn owl

6.12 A detached residential dwelling is located on the site. This is fully sealed with no fly in access available for barn owls.

Breeding birds

6.13 There is habitat suitable for breeding birds on the site within the trees and amenity planting. A hollow was identified within an apple tree on the site boundary which contained evidence of nesting birds, the nest was not active at the time of the survey.

Great Crested Newt (GCN)

6.14 The site is considered to have some potential to support terrestrial GCN within the amenity garden, however there is limited access onto the site due to the presence of solid board fencing.

6.15 No ponds were recorded within the site boundary. The Ordnance Survey map available via MAGIC was reviewed for ponds within the accepted dispersal distance of 500m that are not separated from the site by significant barriers to dispersal such as main roads. Two ponds and a drainage ditch were found occurring to the south-west of the site within the grounds of Reading University, see Figure 6. The ponds are separated from the site by the university campus and residential properties with solid fence boundaries, limiting the connectivity between the site and these water bodies.

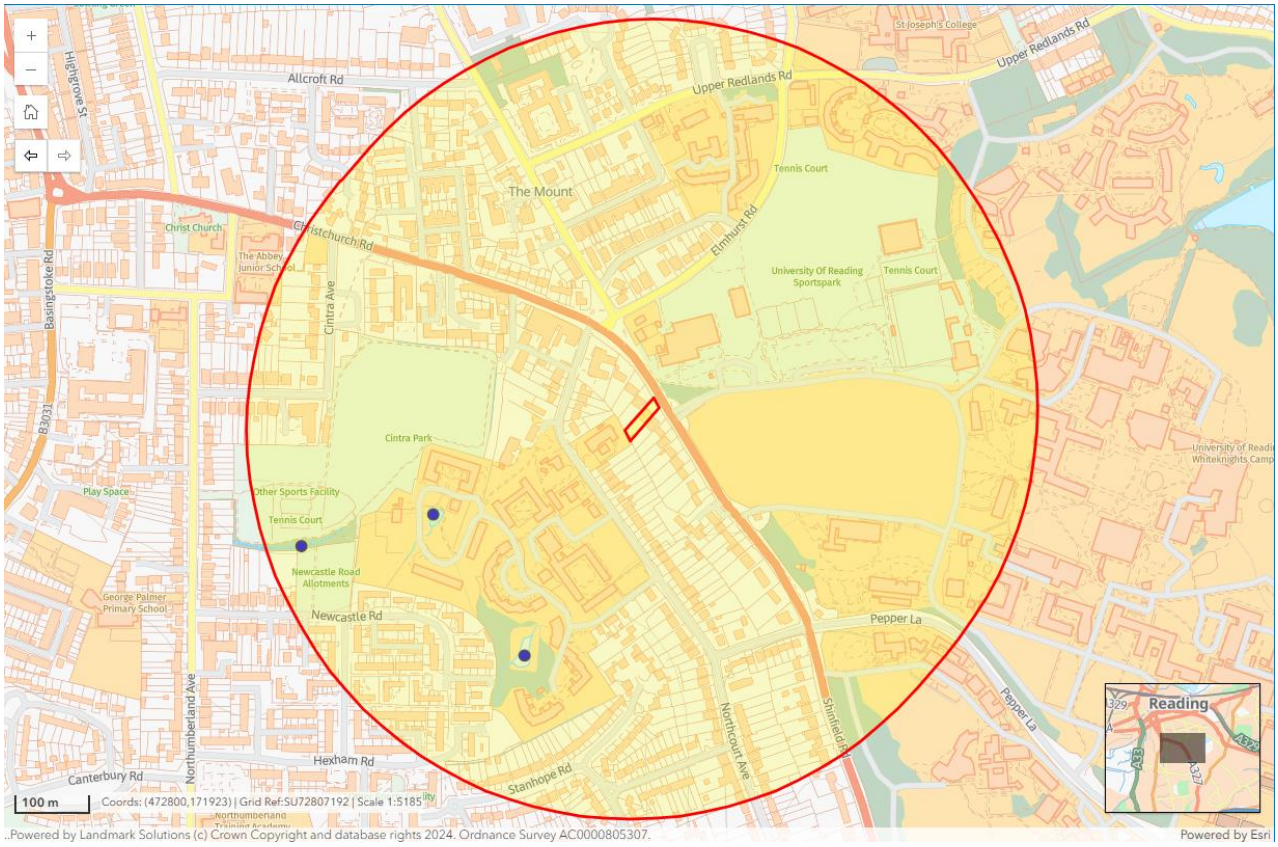


FIGURE 6: WATERBODIES WITHIN 500M OF THE SITE SHOWN AS BLUE CIRCLES

Hazel dormice

6.16 The site is considered to have negligible potential to support hazel dormice due to the lack of suitable habitat, connectivity and edible plant species.

Otter

6.17 No suitable habitat for otters was present on the site and, as such, no evidence was recorded.

Reptiles

6.18 The amenity garden provides some suitable foraging and shelter habitat for common reptiles such as slow worms, but due to the small size and presence of solid boundaries the suitability is restricted and likely to only be used by very low numbers of individuals if at all.

Water vole

6.19 No suitable habitat for water voles was present on the site and, as such, no evidence was recorded.

Other Mammals

6.20 No evidence of other mammals was recorded within the site.

Other Species of Principal Importance

6.21 The site does not appear to have suitability for any other SPI. The house is well sealed with no suitable nesting features for house sparrows, the solid fencing

around the site prevents easy access for hedgehogs and toads, there is no deadwood habitat for stag beetles or significant floral presence to support SPI invertebrates.

FIGURE 7: SHOWING THE HABITATS PRESENT ON SITE

PHOTOGRAPH 1– REAR OF THE PROPERTY WITH SHORT MOWN LAWN AND AMENITY PLANTING

PHOTOGRAPH 2– SMALL PLANTING BEDS AT THE FRONT OF THE PROPERTY

PHOTOGRAPH 3– SOLID BOARD FENCING ON THE SITE BOUNDARIES

PHOTOGRAPH 4– DECKING AREA LOCATED WHERE THE EXTENSION WILL BE

Daytime Bat Assessment

6.22 The house is a single storey brick-built property with hipped roofs supporting flat clay tiles. A large roof void is present extending over the whole property. The void is highly trussed with bitumastic under tile felt lining and fibreglass insulation present at floor level.

6.23 The soffits and roof are well sealed with no significant gaps which could provide access for roosting bats. All mortar is present at the ridge and hips. Internally the under tile felt is in good condition with no splits or gaps noted aside from minor wilting at some joins.

6.24 No evidence of the presence of bats was identified internally or externally around the property.

PHOTOGRAPH 5– FLAT TILES ON THE ROOF WITH NO SIGNIFICANT GAPS PRESENT

PHOTOGRAPH 6– WELL SEALED SOFFITS AT THE EAVES

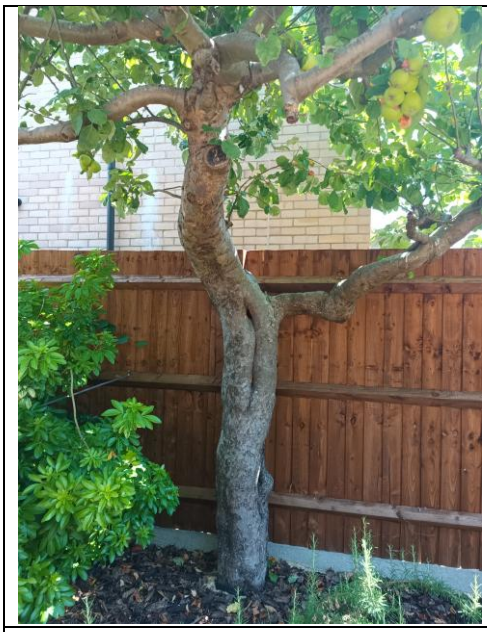
PHOTOGRAPH 7– HIGHLY TRUSSED ROOF VOID

PHOTOGRAPH 8– BITUMASTIC UNDER TILE FELT

Ground Level Tree Assessment

6.25 A single apple tree present within the garden was identified to contain any potential roost features. A split was identified within the main stem which opened into a cavity in which an inactive bird nest was identified. The cavity was open at the top and therefore likely subject to weather ingress and was additionally low to the ground within an amenity garden. No evidence of use by bats was noted and the feature was assessed to have PRF-I suitability. The location of this tree is identified in FIGURE 7 as target note 1.

6.26 A further endoscope inspection of the tree was carried out on the 10th July prior to the tree being felled on the same day.



PHOTOGRAPH 9– APPLE TREE WITH PRF-I SUITABILITY

PHOTOGRAPH 10– OLD BIRD NEST AND COBWEBBING WITHIN THE CAVITY

7. Conclusions & Recommendations

7.1 In line with Natural England's Standing Advice, where further survey for protected species is recommended these should be conducted prior to submitting a planning application and appropriate mitigation measures be incorporated into the development design.

Habitats of Principal Importance

7.2 No HPI habitat was recorded within the site.

Invasive species

7.3 No invasive species were recorded and therefore no further action is required.

Plant species of note

7.4 No plant species of note were recorded and therefore no further action is required.

Other valuable ecological features

7.5 The local authority should be contacted to check if any trees within the survey area have Tree Preservation Orders.

Habitat evaluation

7.6 Habitats within the site are common and widespread with low biodiversity value.

Badger

7.7 The survey did not identify any evidence of badgers on the site, and it is considered unlikely that there is a sett present within 30m. No further surveys for badgers are considered necessary.

7.8 As badgers could potentially be present in the wider area, good building practice should be followed to prevent animals from becoming trapped, such as covering trenches at night or providing a ramp to allow animals to escape.

Barn owl

7.9 The survey did not identify any evidence of barn owls on the site.

7.10 The building had no access into the interior for barn owls and is therefore considered to hold negligible potential for this species.

Breeding birds

7.11 A historic bird nest was identified within an apple tree on site. Cobwebs were present within the cavity and no signs of current use were identified.

7.12 Vegetation or tree removal must be undertaken outside the breeding bird period from March to August. Should any vegetation clearance be scheduled to take place between the beginning of March and the end of August, this must be immediately preceded by a survey to check for nesting birds. No vegetation can be cleared whilst a nest is occupied, regardless of species.

Great Crested Newt (GCN)

7.13 Based on the area of the site to be impacted and the location of the nearest water bodies which are over 250m from the site, a Rapid Risk Assessment calculation carried out for the site identifies that if breeding GCN are present in ponds identified within 500m of the site and in the absence of mitigation there is no likely offence. See FIGURE 8.

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)	No effect	0
Land >250m from any breeding pond(s)	0.001 - 0.01 ha lost or damaged	0.0005
Individual great crested newts	No effect	0
	Maximum:	0.0005
Rapid risk assessment result:	**GREEN: OFFENCE HIGHLY UNLIKELY**	

Guidance on risk assessment result categories

"Green: offence highly unlikely" indicates that the development activities are of such a type, scale and location that it is highly unlikely any offence would be committed should the development proceed. Therefore, no licence would be required. However, bearing in mind that this is a generic assessment, you should carefully examine your specific plans to ensure this is a sound conclusion, and take precautions (see **Non-licensed avoidance measures tool**) to avoid offences if appropriate. It is likely that any residual offences would have negligible impact on conservation status, and enforcement of such breaches is unlikely to be in the public interest.

FIGURE 8: RAPID RISK ASSESSMENT OF THE SITE

7.14 Due to the small area of habitat to be removed and the results of the rapid risk assessment the site is considered unlikely to be used by GCN and therefore no further surveys or mitigation for this species is required.

Hazel dormice

7.15 The site is considered unlikely to be used by hazel dormouse and therefore no further surveys for this species are required.

Otter

7.16 The site is considered unlikely to be used by otter and therefore no further surveys for this species are required.

Reptiles

7.17 The site provides a small amount of habitat for reptiles within the amenity garden; however, the areas are very small and are isolated from surrounding habitat by buildings, hard standing and walls. A small number of individual shrubs located within unsealed developed land will be removed as part of the works, these areas are considered to be unsuitable for reptiles and common amphibians therefore there are considered to be no likely significant impacts on reptiles or common amphibians if present and therefore no further surveys are required.

Water vole

7.18 The site is considered unlikely to be used by water vole and therefore no further surveys for this species are required.

Other Mammals

7.19 Good building practice must be followed to ensure that no mammals are injured during works or become trapped in excavations or stored materials.

Other Species of Principal Importance

7.20 The site has very limited suitability for other SPI therefore no further works are required. Good building practice must be followed to ensure any species which may be present are not injured, killed or become trapped during the development works. It is recommended that hedgehog holes are cut within the boundary fences as an enhancement to the site to allow hedgehogs, if present, to traverse the area.

Bats

7.21 Initial observations consider the local area to have some suitability for common bat species such as Pipistrellus species. High levels of street lighting reduce the suitability of the area of light intolerant species.

7.22 The daytime assessment identified negligible potential for bats within the building on site due to a lack of suitable access points into potential roost features therefore there are no known constraints regarding these species and the proposed development, and no further surveys are required. In the unlikely event bats are identified during works the procedure detailed in section 8 of this report must be followed.

7.23 An apple tree present on the southern boundary was identified to have PRF-I suitability within a single feature on the main stem. In accordance with the 4th Edition Good Practice Guidance no further surveys are required at this time. The tree was subject to a further inspection on the 10th July immediately prior to felling, with no bats, or evidence of use identified.

7.24 In line with the 4th Edition Good Practice Guidelines a single bat box, or integrated bat roost feature should be installed on the site to replace the removed roost resource.

7.25 Lighting can have notable negative impacts on commuting bats, that are known to be present locally. There is potential for lighting during and post-development to cause indirect disturbance to bats in the areas.

7.26 Any additional lighting for the site should be designed in accordance with the Institute of Lighting Professionals Guidance note 8: '*Bats and Artificial lighting in the UK'* which can be downloaded for free from the ILP website.

7.27 Additional work lighting which may be required must be positioned to ensure that it shines onto the area of works with minimal spread into the wider area.

8. Procedure to follow in the event a bat is found on site at unsupervised times.

8.1 Bats are present within the vicinity of the site and may be found at any location on, in or around the buildings. Bats are protected species, and these procedures must be followed to avoid committing an offence.

8.2 If a bat is found at any location around the site DO NOT TOUCH unless necessary for the safety of the bat.

8.3 If the bat was uncovered in a roosting location carefully replace covering ensuring the bat is not crushed or harmed. If this is not possible cover the animal with a loose covering.

8.4 Stop all work at that area and the immediate vicinity. Work may continue at other areas around the site.

8.5 Call the AKB Ecology bat licensed project ecologist Annika Binet 07528 956486.

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Appendix 1 – legal protection

General

This section briefly describes the legal protection afforded to protected species and habitats. 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.

Badger

Badgers are protected under the *Protection of Badgers Act 1992*. Under this legislation it is an offence to kill or injure a badger, to damage, destroy or block access to a badger sett, or to disturb a badger in its sett. The Act also states the conditions for the protection of badger's licence requirements.

Barn Owl

Barn owls are listed on *Schedule 1* of the *Wildlife and Countryside Act 1981 (as amended)* which makes it an offence to:

- intentionally kill, injure or take (capture etc.);
- take, damage or destroy the nest while that nest is in use or being built;
- take or destroy the egg;
- disturb them while they are in, on, or near a nest containing eggs or young, or to disturb their dependent young;
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

The penalty for an offence involving a barn owl, its nest, or egg, includes a fine of up to £5,000, or up to six months imprisonment, or both, per bird, nest or egg.

Bats

All species of bats are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)* which affords them protection under *Section 9*, as amended. They are also protected under the *Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.);
- possess;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by a scheduled animal for shelter or protection, or disturb any animal occupying such a structure or place; and
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

A roost is defined as 'any structure or place which a bat uses for shelter or protection'. As bats tend to reuse the same roosts, legal opinion is that a roost is protected whether or not bats are present.

Furthermore, seven bat species (barbastelle, bechstein's, noctule, soprano pipistrelle, brown long-eared, lesser horseshoe and greater horseshoe) are also Species of Principal

Importance in England under *Section 41* of the *Natural Environment and Rural Communities Act 2006*.

Breeding Birds

All species of wild bird are protected under Section 1 of the *Wildlife and Countryside Act 1981 (as amended)*. Protection was extended by the *Countryside and Rights of Way (CRoW) Act 2000*. Under the above legislation, it is 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 are listed on *Schedule 1* of the *Wildlife and Countryside Act 1981 (as amended)* and receive protection under *Sections 1(4)* and *1(5)*. There are special penalties where the offences listed above are committed for any *Schedule 1* species and it is also an offence to intentionally or recklessly:

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

Amphibians

Natterjack toad, northern pool frog and great crested newt are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)* which affords them protection under *Section 9*, as amended. They are also protected under the *Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.);
- possess;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by a scheduled animal for shelter or protection, or disturb any animal occupying such a structure or place; and
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

Palmate newts and smooth newts are also afforded protection against sale only under Schedule 5 of the *Wildlife and Countryside Act 1981 (as amended)*.

Natterjack toad, common toad, great crested newt and northern pool frog are also Species of Principal Importance in England under *Section 41* of the *Natural Environment and Rural Communities Act 2006*.

Hazel dormouse

Hazel dormouse is listed on *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)* which affords them protection under *Section 9*, as amended. They are also protected under the *Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.);
- possess;

- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by a scheduled animal for shelter or protection, or disturb any animal occupying such a structure or place; and
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

Hazel dormouse is also a Species of Principal Importance in England under *Section 41* of the *Natural Environment and Rural Communities Act 2006*.

Otter

Otter is listed on *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)*, which affords them protection under *Section 9*, as amended. They are also protected under the *Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.);
- possess;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by a scheduled animal for shelter or protection, or disturb any animal occupying such a structure or place; and
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

Otter is also a Species of Principal Importance in England under *Section 41* of the *Natural Environment and Rural Communities Act 2006*.

Reptiles

Common lizard (*Lacerta vivipara*), grass snake (*Natrix natrix*), slow worm (*Anguis fragilis*), and adder (*Vipera berus*) 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 *Countryside and Rights of Way (CRoW) Act 2000*. Under the legislation, it is an offence to:

- intentionally or deliberately kill or injure any individual of these species; or
- sell or attempt to sell any part of these species either alive or dead.

Smooth snake *(Coronella austriaca)* and sand lizard *(Lacerta agilis)* are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)*, which affords them protection under *Section 9*, as amended. They are also protected under the *Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.);
- possess;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by a scheduled animal for shelter or protection, or disturb any animal occupying such a structure or place; and
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

All UK reptile species are Species of Principal Importance in England under *Section 41* of the *Natural Environment and Rural Communities Act 2006*.

Water vole

Water vole *(Arvicola amphibious*) is listed on *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)*, which affords them protection under *Section 9*, as amended. This makes it an offence to:

- capture, kill or injure;
- damage, destroy or block access to a place of shelter;
- disturb whilst in a place of shelter or possessing, and
- sell any part of a water vole, dead or alive.

Other Mammals

All mammals receive some protection under the *Wild Mammals (Protection) Act 1996*, which makes it an offence to crush or asphyxiate an animal (e.g. within its burrow).

Species and Habitats of Principal Importance

Section 41 of the *Natural Environment and Rural Communities (NERC) (2006)* requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list has 56 Habitats of Principal Importance and 943 species of principal importance listed and has been drawn up in consultation with Natural England.

The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under *Section 40* of the *Natural Environment and Rural Communities Act 2006*, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Invasive species

It is an offence to plant, or otherwise cause to grow in the wild non-native plant species listed under *Schedule 9* of the *Wildlife and Countryside Act 1981 (as amended)*, for which *Section 14* of the Act applies. These include, but are not limited to:

- Himalayan balsam
- Cotoneaster sp.
- Japanese knotweed
- Giant hogweed.

Ancient woodland

The *National Planning Policy Framework (2012)* states that '*Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss'*. In addition, Natural England's standing advice for ancient woodland states that *an appropriate buffer zone of semi-natural habitat* [be in place] *between the development and the ancient woodland (depending on the scale and impact of development), a minimum buffer should be at least 15 metres to avoid root damage and at least 50m for pollution or trampling"*. Ancient woodlands, and ancient and veteran trees, may also be protected by Tree Preservation Orders.

Sites of Special Scientific Interest (SSSI's)

SSSI's are areas notified under the *Wildlife and Countryside Act 1981, as amended*, as being of special interest for nature conservation. They are the finest sites for wildlife and natural features supporting many characteristic, rare and endangered species, habitats and natural features. LPAs have a duty to consult Natural England before granting planning permission on any development that is in or likely to affect a SSSI.

National Site Network: Special Protection Areas (SPA), Special Areas of Conservation (SAC) & RAMSAR sites.
Development proposals which will adversely affect these sites are not permitted (except where there are no alternative solutions, and the proposal is necessary for imperative reasons of overriding public interest). If a development could possibly impact on a SPA or SAC, the applicant will need to submit an assessment of potential impacts and their significance with their planning application for the local authority to make an 'Appropriate Assessment'.

Local Nature Reserves (LNRs)
These are a statutory designation made by local authorities. LNRs may be given protection against damaging operations and development on and around them via the local plan.

Local Wildlife Sites (LWS)
This is a non-statutory designation for sites identified at a county level. They typically form a network of sites that are recognised of being of conservation importance locally and are often included in Local Authority development plans.

Appendix 2 – Survey timetable

Species	Survey	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Badger	Bait marking & sett search												
Bats	Roost assessments												
	Ground level tree assess												
	Emergence and activity												
	Hibernation												
	Trapping												
Birds	Wintering												
	Breeding												
Great crested newt	H S I												
	eDNA												
	Presence/absence & popn												
	Refugia												
Hazel dormouse	Tube												
	Nut search												
Otter	Field signs												
Reptiles	Refugia & search												
Water vole	Field signs												
Invertebrates	Presence & communities												
Vegetation	Phase 1 habitat & NVC												

Optimal

Sub-optimal

Outside survey season