

Liz Anderson
North Herts District Council
Council Offices
Gernon Road
Letchworth Garden City
SG6 3JF

10/12/2025

Dear Liz,

**Ecological Impact Assessment (EclA) Addendum Report - Land South of Turnpike Lane, Ickleford
(Planning Ref: 25/02401/OP)**

I am writing to confirm the findings of the remaining ecology surveys as specified within the EclA of the above site¹, which were conducted to inform potential impacts on bats, riparian mammals and reptiles. This letter report should be read in conjunction with the original EclA report, which provides details of site information, prior survey results, proposed mitigation and enhancement measures, and the initial impact assessment for the site.

This report presents the methodology and findings of static bat detector and night-time bat walkover surveys conducted on site between April and October 2025, surveys for otter and water vole, and incidental findings relating to reptiles. Results of a tree climbing survey of potential bat roosting features identified from ground-level on a single lime tree anticipated to be removed as a result of the Proposed Development are also presented. An assessment of the development implications and any further recommendations for mitigation and enhancement have also been provided.

Findings of the bat surveys from July to October 2025 are consistent with results from May to June at the site, with similar species assemblage and activity levels recorded. The tree climbing survey confirmed the absence of bats or evidence of bat roosting activity within the single lime tree and classified the tree as having negligible potential for roosting bats. Otter and water vole surveys confirmed the presence of otter within the River Oughton, reflecting the suitability assessment presented in the EclA. The evaluation of importance and impact assessment for bats, riparian mammals, and reptiles set out within the EclA report are therefore considered appropriate. No changes to the recommendations for ecological mitigation and enhancement are proposed.

Yours sincerely,



Molly Brown BSc MSc ACIEEM
Ecologist

¹ Ecological Impact Assessment. Land South of Turnpike Lane, Ickleford, Hertfordshire. Clarkson and Woods. September 2025

Document Tracking

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The information, data and advice which has been prepared and provided is true and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions. This report and its contents remain the property of Clarkson and Woods Ltd. until payment has been made in full.

Bats

Methodology

Trees

Ground level tree assessment methodology and personnel is detailed within the EclA.

Three trees were identified during preliminary ground level tree assessment surveys as having PRF-I or PRF-M suitability, identified as T1, T2 and T3 in the EclA. Of these trees, only T2 required further survey as T1 and T3 were located within an area of retained, unaffected woodland. The EclA recommended further survey of this tree from the ground in late autumn/winter once the visibility through the leaf canopy had improved.

T2 is a mature lime *Tilia sp.* which is proposed for removal to create the access road into Site and is referenced as T63 in arboricultural documents for the Site². The tree reference T2 has been used in this addendum report for consistency with the original EclA.

An update ground-level inspection of a T2 was carried out on 13 October 2025 by James Gilbert CEnv MCIEEM. James has 20 years' experience undertaking ecological surveys and has an MSc in relevant subjects and has been assessed under Clarkson and Woods quality assurance (QA) processes as competent to complete the survey.

A PRF inspection survey using tree climbing equipment of T2 was undertaken on 01 December 2025 in order to assess the PRFs identified from ground level in more detail and determine the presence/likely absence of roosting bats. The survey was undertaken by Jason Walker (Class 2 Bat Licence Numbers 2025-84650-CL18-BAT) and Eleanor Sheehan (Class 2 Bat Licence Number 2025-84686-CL18-BAT) of Bat Tree Surveys. Further details of the survey methodology and personnel are provided in a report produced by Bat Tree Surveys (Appendix A refers).

Static Detector Survey

In order to establish the use of the site by bats, four automated full spectrum bat detectors (SongMeter (SM) Mini and Anabat Swift) were deployed to record over at least five consecutive nights per month (May to October, inclusive). The results from August to October 2025, as well as a summary of results across the full survey period are reported below. Between May and October 2025, bat activity was recorded for a total of 51 nights on site.

The deployment dates and details of weather conditions are given in Table 1, with the locations of the detectors shown on Figure 1.

In August, the static detector at Location 1 recorded only three out of seven deployed nights. However, given the extensive data collected within the site, this was not considered to be a limitation to the assessment of bat activity at that survey location or across the site as a whole.

² Arboricultural Implications Assessment for a proposed development at Land south of Turnpike Lane, Ickleford, Hitchin. Rev A. (August 2025) Merewood Arboricultural Consultancy.



Figure 1: Static Bat Detector Locations

Table 1: Details of Static Detector Deployment

Date Deployed/Collected	Number of Detectors	No. of Nights Surveyed	Weather Conditions
01/05/2025 – 06/05/2025	4	5/5	Minimum overnight temp: 3-14°C Average wind: 3-14 mph (1-4 Bf)
28/05/2025 – 02/06/2025	4	5/5	Minimum overnight temp: 10-14°C Average wind: 7-15 mph (2-4 Bf)
17/06/2025 – 30/06/2025	4	13/13	Minimum overnight temp: 11-17°C Average wind: 5-17 mph (2-4 Bf)
21/07/2025 – 28/07/2025	4	7/7	Minimum overnight temp: 12-14°C Average wind: 1-4 mph (1-2 Bf)
19/08/2025 – 26/08/2025	4	Location 1: 3/7 Location 2: 6/7 Location 3 & 4: 7/7	Minimum overnight temp: 8-17°C Average wind: 4-10 mph (2-3 Bf)
15/09/2025 – 22/09/2025	4	7/7	Minimum overnight temp: 6-17°C Average wind: 6-22 mph (2-5 Bf)
13/10/2025 – 20/10/2025	4	7/7	Minimum overnight temp: 9-13°C Average wind: 4-12 mph (2-3 Bf)

Night-time Bat Walkover Survey

Seasonal night-time bat walkover (NBW) surveys have been undertaken on site, according to BCT Good Practice Guidelines³, and involved static monitoring of bats followed by the walking of a pre-determined transect route by two surveyors experienced in the use of bat detectors and in carrying out bat activity surveys.

The surveys were carried out by Bryan Tan, a qualifying member of CIEEM, and Mark Jermy. Bryan has over 2 years' experience undertaking ecological surveys and holds an MBiolSci in Zoology. Mark has 14 years' experience conducting ecological surveys and holds a Level 1 Natural England licence for the survey of bats (2024-12278-CL17-BAT). Both surveyors have been assessed under the Clarkson and Woods QA processes as competent to complete the survey.

Surveyors were equipped with handheld bat detectors (Anabat Scout and Echo Meter Touch 2 Pro) with either iPad mini or Samsung Galaxy Tab Active5, which feature integrated recorders. The survey recordings were later analysed on a computer using Kaleidoscope (Wildlife Acoustics) software to verify automated recordings.

The autumn NBW survey was conducted on 29 September 2025 and has been summarised alongside the spring and summer NBW survey data below. Table 2 provides the dates, weather conditions, survey start and end times for each of the NBW surveys.

Table 2: NBW Survey Details

Date	Surveyor	Survey Timings	Weather Conditions
19/05/2025	Bryan Tan & Mark Jermy	20:56 – 22:26	Start: 17°C, 0 Bf, 7 Okta End: 14°C, 1 Bf, 0 Okta
03/07/2025	Bryan Tan & Mark Jermy	21:23 – 23:23	Start: 19°C, 1 Bf, 1 Okta End: 17°C, 1 Bf, 0 Okta
29/09/2025	Bryan Tan & Mark Jermy	18:43 – 20:43	Start: 15°C, 0 Bf, 8 Okta End: 13°C, 0 Bf, 7 Okta

Results

Trees

T2 was initially assessed as PRF-I in June 2025, in line with current bat survey guidelines for categorising potential roost features (PRFs). At least four types of PRFs were noted on the tree from ground-level: knothole (1no. SSW-facing), transverse snap (1no. SSW-facing), lifting bark (topmost canopy branches), and loose (and dead) thick ivy stems covering the main stem.

In line with the EclA recommendations, a further GLTA was undertaken in October 2025. This inspection did not change the findings from the June 2025 inspection. Visibility was still somewhat obscured from the ground due to dense leaf coverage at the top of the canopy.

During the tree climbing survey conducted in December 2025, the four PRFs identified from ground-level were inspected using aerial rope techniques. No confirmed bat roosts, evidence of roosting bats or features capable of supporting roosting bats were found. All four features were downgraded to 'negligible' potential for roosting bats as the features were superficial only, and no further PRFs were identified.

Static Detector Surveys

The static detectors identified a total of 13,409 bat passes (combined) over the 51 recording nights. This represents an average of 262.92 bat passes per night between the 4 detector locations over the entire survey period.

³ Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition) The Bat Conservation Trust (BCT), London.

At least eight bat species were recorded during the static detector surveys. The *Nyctalus sp.* and *Myotis sp.* bats, whose calls are often too difficult to separate when analysing recordings, may comprise more than one species. The following (minimum) species were recorded during the surveys:

- Common pipistrelle *Pipistrellus pipistrellus*;
- Soprano pipistrelle *Pipistrellus pygmaeus*;
- Nathusius' pipistrelle *Pipistrellus nathusii*;
- Barbastelle *Barbastella barbastellus*;
- Myotis bats *Myotis sp.* – an aggregation of common Myotis species is likely to include Daubenton's bat *Myotis daubentonii*, Natterer's bat *Myotis nattereri*, Brandt's bat *Myotis brandtii* and whiskered bat *Myotis mystacinus*;
- Nyctalus bats – likely to include both noctule *Nyctalus noctula* and Leisler's bat *Nyctalus leisleri*;
- Serotine *Eptesicus serotinus*; and
- Brown long-eared bat *Plecotus auritus*.

Four additional species were recorded during the static detector surveys that were not recorded during the NBW surveys (see relevant NBW section below). This includes rarer species such as Nathusius' pipistrelle, not previously identified in the EclA for the site. The presence of this species is not considered to have significant implications for impact assessment, given the very low numbers (<10 total passes) recorded throughout the survey period and due to the migratory status of the species.

Tables 3 and 4 below provide detailed summaries of the number of calls per species for each detector location during the static surveys.

Table 3: Summary of Automated Bat Activity Data - May to October 2025

Month	Location	Barbastelle	Serotine	Myotis sp.	Nyctalus sp.	Nathusius pipistrelle	Common pipistrelle	Soprano pipistrelle	Pipistrellus sp.	Brown long-eared	Total Passes	
Early May 2025 5 nights	1	1	0	4	9	0	39	29	0	1	83	1328
	2	16	0	8	16	0	550	27	0	5	622	
	3	1	1	3	6	0	152	14	0	2	179	
	4	1	0	1	16	0	339	81	0	6	444	
Late May 2025 5 nights	1	11	0	1	10	0	525	71	0	3	621	1735
	2	8	0	13	16	0	422	31	0	15	505	
	3	1	0	2	21	0	309	20	0	0	353	
	4	2	0	6	36	0	146	64	0	2	256	
June 2025 13 nights	1	1	2	2	44	0	94	0	0	2	348	2577
	2	4	0	17	77	0	129	0	0	32	817	
	3	0	1	0	39	0	15	0	0	0	316	
	4	4	4	4	56	0	484	0	0	19	1096	
July 2025 7 nights	1	2	0	5	28	0	132	56	0	5	228	2699
	2	5	0	6	5	0	630	77	0	6	729	

Month	Location	Barbastelle	Serotine	<i>Myotis sp.</i>	<i>Nyctalus sp.</i>	<i>Nathusius pipistrelle</i>	Common pipistrelle	Soprano pipistrelle	<i>Pipistrellus sp.</i>	Brown long-eared	Total Passes	
	3	3	0	4	23	0	1003	27	0	6	1066	
	4	0	0	0	36	0	265	371	0	4	676	
August 2025 Location 1: 3 nights Location 2: 6 nights Locations 3 & 4: 7 nights	1	0	0	4	15	0	54	71	0	1	145	2760
	2	56	4	19	115	0	842	252	0	29	1317	
	3	3	5	8	54	0	389	43	0	4	506	
	4	10	8	15	98	0	393	237	0	31	792	
September 2025 7 nights	1	3	0	2	67	2	147	76	0	1	298	1569
	2	3	0	5	41	0	276	612	9	3	949	
	3	3	0	0	37	0	49	19	0	1	109	
	4	0	3	1	38	0	68	81	16	6	213	
October 2025 7 nights	1	0	0	1	6	0	47	42	0	2	98	741
	2	5	0	7	12	2	266	136	6	11	445	
	3	6	0	6	12	3	29	9	0	3	68	
	4	1	0	0	8	0	72	46	2	1	130	

Table 4: Average Number of Bat Passes per Night Recorded by Static Detectors per Month

Species	Average No. of Bat Passes per Night per Species							% of Total Passes
	Early May 2025	Late May/ Early June 2025	June 2025	July 2025	August 2025	September 2025	October 2025	
Barbastelle	3.8	4.4	0.7	1.4	11.2	1.3	1.7	1.25
Serotine	0.2	0	0.5	0	2.5	0.4	0.0	0.19
<i>Myotis sp.</i>	3.2	4.4	1.8	2.1	7.5	1.1	2.0	1.12
<i>Nyctalus sp.</i>	9.4	16.6	16.6	13.1	44.6	26.1	5.4	6.71
<i>Nathusius' pipistrelle</i>	0.0	0.0	0.0	0.0	0.0	0.3	0.7	0.05

Species	Average No. of Bat Passes per Night per Species							% of Total Passes
	Early May 2025	Late May/ Early June 2025	June 2025	July 2025	August 2025	September 2025	October 2025	
Common pipistrelle	216.0	280.4	119.0	290.0	265.5	77.1	59.1	66.44
Soprano pipistrelle	30.2	37.2	55.5	75.9	99.8	112.6	33.3	22.59
<i>Pipistrellus sp.</i>	0.0	0.0	0.0	0.0	0.0	3.6	1.1	0.24
Brown long-eared	2.8	4.0	4.1	3.0	10.1	1.6	2.4	1.42
Total Average No. Passes	265.6	347.0	198.2	385.6	441.2	224.1	105.9	100%

Night-time Bat Walkover Surveys

Table 5 below provides a summary of bat species and the total number of bat passes (foraging and commuting combined) recorded during the NBW surveys. The number of bat passes given is the combination recorded during the observation points and walked transects.

Table 5: Number of Bat Passes Recorded During Seasonal NBW Surveys

Species	Month and No. of Bat Passes Recorded per Species			
	May (Spring)	July (Summer)	September (Autumn)	Total
Barbastelle	0	0	1	1
<i>Nyctalus sp.</i>	0	61	1	62
Common pipistrelle	10	18	31	59
Soprano pipistrelle	4	6	35	45
Brown long-eared	0	0	1	1
Total No. Passes	14	85	69	168

The spring NBW survey recorded low levels of bat activity near boundary features on site, including hedgerow, scrub and woodland habitat. Bat activity was first recorded at 21:27. Common and soprano pipistrelle were observed foraging off site, east of the manor building, as well as common pipistrelle commuting south from the northern woodland block. Several common and soprano pipistrelle calls were recorded, but the bats were not seen by surveyors to observe behaviour.

Bat activity during the summer NBW was also generally recorded associated with boundary features, and at relatively low levels. Common and soprano pipistrelle foraging was recorded during the first 30 minutes of the survey, associated with the offsite manor building. One *Nyctalus sp.* was recorded foraging consistently above

the southern woodland, with commuting passes recorded between woodland blocks. Additional *Nyctalus sp.* and common pipistrelle passes were also heard but not seen during the survey.

Moderate bat activity levels were recorded during the autumn NBW survey. Common and soprano pipistrelle foraging, and noctule activity were recorded (including pipistrelle foraging associated with the manor building) in line with spring and summer surveys, with two additional species also recorded. A single barbastelle was heard but not seen, and brown long-eared foraging and commuting was recorded associated with the southern woodland block.

Assessment and Recommendations

Roosting: Site Importance, if present, due to presence of some potential roosting features within trees on site. As stated within the Bat Tree Survey report, no negative impacts in relation to bats are anticipated as a result of proposed tree removal works affecting T2. Should no works on site be undertaken within 12-18 month from the date of the survey, a further survey is recommended to ensure the continued absence of PRFs and roosting bats within the tree.

Activity: Commuting and foraging bats are considered to be of **Local-District** Importance due to the diversity of species recorded within the site, including those species that are rarer, such as barbastelle and Nathusius' pipistrelle.

Recommendations set out within the EclA for mitigation and enhancement measures relating to bats remain largely unchanged as a result of the survey outcomes. A neutral, non-significant effect on bats is anticipated.

Riparian Mammals

Methodology

As set out within the EclA for the site, an initial survey for the presence of riparian mammals, namely otter *Lutra lutra* and water vole *Arvicola amphibius*, was undertaken of the River Oughton in May 2025. The river is located outside of the site boundary to the south, and immediately adjacent habitats comprised riparian woodland vegetation. During the survey, no definitive evidence of otter or water vole was recorded.

A second survey visit was undertaken on 22 September 2025, in line with survey guidance set out in the Water Vole Mitigation Handbook⁴. The banks of the River Oughton were searched for water vole field signs including latrines, burrow entrances, feeding stations, 'runways', and footprints. A search was also made for signs of otter including spraints, tracks, castling, and rolling, as well as for the presence or potential for holts or other sheltering areas.

The survey was carried out by Bryan Tan and James Gilbert CEnv MCIEEM. James has 20 years' experience undertaking ecological surveys and has an MSc in relevant subjects. Both surveyors have been assessed under the Clarkson and Woods QA processes as competent to complete the survey.

It should be noted that the banks towards the east of the river were not surveyed due to the unsafe, high water levels and soft bankside material, however this was not considered a significant limitation to the survey.

Results

No evidence of water vole was recorded during the survey.

Two otter spraints were recorded on a tree root growing from the bankside protruding into the river (TL 17959 31019). No other evidence of otter or their holts was found during the survey.

Assessment and Recommendations

No evidence of water vole was recorded during the surveys, however records of water vole presence are known nearby. Given that the River Oughton lies outside the site boundary with at least 15m buffer from the site boundary and approximately 100m from proposed built development, it is considered unlikely that any adverse impacts on the species would arise as a result of the development. Water vole has therefore been considered to be of Site importance, if present.

Otter spraints recorded during the survey confirmed the presence of the species in the River Oughton, which likely provides transitional habitat for otters moving through the wider landscape as well as foraging opportunities. No impacts to the river habitat or bankside are anticipated to occur as a result of the proposed development, therefore otter is considered to be of Site importance.

Recommendations set out within the EclA for mitigation and enhancement measures relating to otter remain unchanged as a result of the survey outcomes. No significant adverse effects on otter are anticipated.

⁴ Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016). *The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series)*. Eds. Fiona Mathews and Paul Chanin. The Mammal Society, London.

Reptiles

Methodology

An assessment of the site identified habitat of limited suitability for reptiles. Further surveys did not record reptile presence within the site, as set out within the EclA report.

Results

During the habitat assessment, several manure heaps were noted within the site which offer suitable egg-laying sites for grass snake, if present. The locations of manure heaps on site were recorded and are shown in Figure 3 below.



Figure 3: Manure Heap Locations

Assessment and Recommendations

Recommendations set out within the EclA for mitigation and enhancement measures relating to reptiles remain unchanged as a result of the survey outcomes. Overall neutral effects on reptiles are anticipated, if present.

Appendix A: Tree Climbing Survey Report

Potential Roost Feature Inspection survey of single tree at:

Land South of Turnpike Lane, Ickleford, Hitchin

FOR: Hawridge Strategic Land Ltd.

AUTHORS: Jason Walker (Level 2 Bat Class Licence: 2025-84650-CL18-BAT)

Eleanor Sheehan (Level 2 Bat Class Licence: 2025-84686- CL18-BAT)

REPORT DATE: 02/12/2025



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1. Executive summary

A potential roost feature (PRF) inspection survey by tree climbing was completed in accordance with current best practice guidelines¹ of a single tree at Land South of Turnpike Lane, Ickleford, Hitchin, Herts (hereafter referred to as the 'site'). The tree is proposed for removal to facilitate an access road to the proposed site (Planning Ref: 25/02401/OP).

An Ecological Impact Assessment (EclA) was carried out by Clarkson & Woods Ecological Consultants in October 2025 which identified a mature lime (T2), with potential to support roosting bats requiring further surveys². An aerial inspection by tree climbing was completed on the 1st December 2025. The tree was found to be negligible for roosting bats.

No live bats or definitive evidence of bat presence was seen in/on any of the trees during the initial aerial inspections.

Further climbed surveys are not recommended on the surveyed tree.

2. Introduction

2.1. Site description

The site is located in Hitchin, a market town in the North Hertfordshire district. The tree was located on land south of Turnpike lane, Ickleford. The tree was situated in a line of mature trees bordering Turnpike Land. An aerial map of the site and surveyed tree location is provided in Appendix A.

2.2. Aims of the study

The purpose of the survey was to assess the suitability of select trees at the site for roosting bats and determine whether any identified features are being used by roosting bats. Following this, the aim was to conclude whether any further surveys would be required on select trees.

2.3. Legislation relating to bats

All UK bat species and their roosts are legally protected under European and UK legislation (Conservation of Habitats and Species Regulations 2017, and the Wildlife and Countryside Act (1981). Provisions of these regulations include making it an offence to

- Deliberately kill, injure or take (capture) bats;
- Deliberately disturb bats in a way that would
 - (i) be likely to impair their ability to survive, breed, or rear or nurture their young, or to hibernate or migrate
 - (ii) significantly affect the local distribution or abundance of the species to which they belong
- Damage or destroy a breeding or resting place used by bats
- Intentionally or recklessly obstruct access to any place used by bats for shelter or protection (even if bats are not in residence at the time)
- The favourable conservation status of the species concerned must be maintained.

Foraging and commuting habitats are also a consideration within planning processes under the National Planning Policy Framework. Further details of legislation and legal protection of all British bat species are provided in Appendix 2.

¹ Collins, J (2023) *Bat Surveys for Professional Ecologists – Good Practice Guidelines 4th Edition*. BCT, London

² Clarkson & Woods Ecological Consultants (2025) Ecological Impact Assessment (EclA) Addendum Report – Land South of Turnpike Lane, Ickleford.

3. Methodology

The suitability of the tree was assessed for use by roosting bats based on best practice guidelines published by the Bat Conservation Trust (Collins, 2024). The tree was climbed by Jason Walker (Class 2 Bat Licence Number 2025-84650-CL18-BAT) and Eleanor Sheehan (Class 2 Bat Licence Number 2025-84686-CL18-BAT). Both surveyors hold CS38 Tree Climbing and Aerial Rescue Qualifications and are registered to use a Natural England Barn Owl CL29 Class Licence. The tree was climbed on 1st December 2025, the weather conditions were 10°C, with no breeze (Beaufort Scale 0), and light drizzle.

The suitability of the tree was initially assessed from the ground, with a risk assessment carried out to identify any hazards associated with the tree or surrounding habitat. This assessment aims to identify the safest method of accessing the tree, or if the features could be surveyed from the ground.

Where necessary, aerial rope techniques were used to gain closer access to identified features. The tree was also inspected for any hidden features that may not have been visible from the ground. Actual bats, and signs of their usage (e.g. droppings and staining) were searched for as part of the assessment. An endoscope (Teslong articulating borescope model no. TD450S), high powered torch, and binoculars were used to facilitate detailed inspection of features. The dimensions and internal conditions of each PRF were recorded along with any bat roost evidence. Photographs of each PRF were taken.

Based on the number, location and type of potential roost features, the tree was categorised based on its potential to support roosting bats; negligible, FAR (Further Assessment Required), PRF-I (Potential roost features – individual) or PRF-M (Potential roost features – maternity) (see Table 1).

Table 1: Classifying bat roost suitability (adapted from Collins, 2024)

Suitability	Roosting features
Negligible	• Tree does not support any suitable features that could be used by roosting bats • Immature trees • Lack of access point • Situated within poor quality foraging habitat • High levels of surrounding external lighting
FAR	• Further Assessment Required (FAR) to establish if any PRFs are present on the tree
PRF-I	• PRFs are only suitable for an individual/small number of bats for opportunistic roosting • Features may be obscured by dense cobwebs • The features are unlikely to support breeding or hibernating bats
PRF-M	• PRF is suitable for multiple bats and may therefore be used by a maternity colony • Features suitable for several different species • Mature or veteran trees • Low levels of disturbance by humans • Little to no external lighting • Situated within good quality foraging habitat

4. Survey results

The EcIA identified 4 potential roost features from ground level (knot hole, transverse snap, lifting bark, and loose dead ivy on the main trunk). Following the climbed survey, all features were downgraded to negligible. There was no confirmed bat roosts found, nor evidence of bat roosts or features capable of housing roosting bats.



Figure 1: Lime tree subject to climbed survey



Figure 2: Knot hole did not lead to any suitable cavity



Figure 3: Lifted bark



Figure 4: Sealed tear out

5. Conclusion and recommendations

A single mature lime tree was inspected by aerial survey to assess potential roosting features identified from ground level. All potential roosting features were found to be unsuitable for roosting bats, the tree was downgraded to negligible potential.

During the survey, no confirmed bat roosts were found, nor evidence of bat roosts (such as droppings, urine staining, feeding remains or scratch marks). No further surveys are recommended on the surveyed tree. No negative impacts in relation to bats are predicted as a result of the removal of surveyed tree.

Due to the highly mobile life of bats and the potential for tree features to change over time, an updated survey of trees may be required if works have not begun in 12-18 months.

6. Best practice regarding works on trees

- It is recommended that a precautionary approach be taken when undertaking any pollarding, coppicing, felling, ivy stripping, deadwood removal and pruning on any PRF-I and PRF-M graded trees. If necessary, a licenced bat ecologist should check any potential roost features prior to tree works commencing, especially if any features subject to disturbance/removal are confirmed to be used by roosting bats. A toolbox talk by a bat ecologist should be undertaken with the tree surgeons before the tree works begin
- If bats are discovered prior to works beginning, works must cease and advice from Natural England must be sought. A licence may be required to permit destruction of a bat roost
- A licensed bat consultant should be present on-site during any pollarding/ felling/ pruning/ coppicing of the moderate/high graded trees or confirmed roost trees. They should also be present during any particularly sensitive tree related works
- The tree contractors should avoid cutting through any cavities in a trunk section or in a tree branch and instead cut well above and below the cavity
- Wherever possible, branches and trunk sections with any cavities or splits, as well as dense ivy-covered trees should be lowered carefully to the ground, so to avoid injuring or killing any hidden bats. These trees should then be left for 24 hours so any potentially hidden bats can leave
- Bark plates, especially large sized plates, on any trees which have bat roost potential should be removed by hand where this is possible. This will allow the inspection for any bats hiding behind these plates. This is especially important in regard to some rare bat species in the UK which do show a preference for roosting behind large bark plates (e.g. *Barbastella barbastellus*)
- Trees with low to moderate ivy cover can have the ivy stripped by hand if time allows this. This may not be possible with large trees with substantial ivy cover
- Any new cavities or crevices behind stripped ivy cover will need to be checked and assessed for bat presence
- Where any PRF-M trees or confirmed roost trees must be felled, bat boxes should be installed on nearby trees as compensation. Up to three suitable bat boxes can be installed at height per tree or one per tree is suitable. Bat boxes should be placed up to 3m high, facing N, SE, SW, and should be clutter free and away from any artificial light sources. Examples of suitable bat boxes include Schwegler 1FF or 2FN 'woodcrete' boxes.

7. References

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Appendix 1 – Proposed works and tree location



Appendix 2 – Legislation relating to bats

Bats and their roosts receive legal protection under the Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2017) and the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 (Habitats Regulations 2019). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2017, states that a person commits an offence if they:

- Deliberately capture, injure or kill a bat;
- Deliberately disturb bats;
- Damage or destroy a bat roost (breeding site or resting place).

Disturbance of animals includes any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2017 for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead bats, part of a bat or anything derived from bats, which has been unlawfully taken from the wild.

Changes have been made to parts of the Habitats Regulations 2017 so that they operate effectively from 1st January 2021. The changes are made by the Habitats Regulations 2019, which transfer functions from the European Commission to the appropriate authorities in England and Wales. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

The obligations of a competent authority in the 2017 Regulations for the protection of species do not change. A competent authority is a public body, statutory undertaker, minister or department of government, or anyone holding public office.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to *intentionally* kill, injure or take any protected species
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, or obstruct access to, any structure or place which a protected species uses for shelter or protection
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species while it is occupying a structure or place which it uses for shelter or protection.

*Reckless offences were added by the Countryside and Rights of Way (CROW) Act 2000.

As bats re-use the same roosts after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present. The reader should refer to the original legislation for the definitive interpretation.

The following bat species are Species of Principal Importance for Nature Conservation in England: barbastelle bat *Barbastella barbastellus*, Bechstein's bat *Myotis bechsteinii*, noctule *Nyctalus noctula*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auritus*, greater horseshoe bat *Rhinolophus ferrumequinum* and lesser horseshoe bat *Rhinolophus hipposideros*. Species of Principal Importance for Nature Conservation in England are material considerations in the planning process. The list of species is derived from Section 41 list of the Natural Environmental and Rural Communities (NERC) Act 2006.