

Bat and Reptile Survey Results

Woodcotes
Sandon
Hertfordshire

July 2024

For and on behalf of:
Sworders
The Gatehouse
Hadham Hall
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Declaration

*This report has been produced following the guidelines published by
 The Bat Conservation Trust in Bat Surveys for Professional Ecologists Good Practice Guidelines
 4th Edition 2023*

Quality Assurance

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Special Note

Whilst every effort has been taken to ensure this report accurately identifies potential ecological constraints to development or the likely presence or absence of species and the spatial and temporal use of the site by such species, it must only be viewed as a snap shot in time and reflects the ecological status of the site at the time of survey.
 No liability can be assumed for ecological changes that may or may not occur on the surveyed site after the production of this report. The author of this report must be consulted as to the current applicability of the report if there are any seasonal delays in the use of this report.
 This report can only be used for the purposes for which it was instructed and agreed at the time of commission.

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Executive Summary

In December 2023, Hybrid Ecology Ltd carried out a Preliminary Ecological Appraisal of a small parcel of land at Woodcotes, in Sandon, Hertfordshire. At the time of reporting the results of this appraisal, in January 2024, it was concluded that Buildings B1 and B2 had a moderate bat roosting potential. Therefore, these two buildings should be subject to two bat evening emergence surveys. In addition, the report concluded that the application site had the potential to support reptiles and that a presence/likely absence survey should be conducted.

During the summer of 2024, these further surveys have been carried out and this report details the results of the two bat evening emergence surveys and the reptile presence/likely absence survey.

To provide up-to-date bat roosting data, Buildings B1 and B2 have been the subject of two bat observational surveys each, carried out on the 20th May 2024 and the 20th June 2024. The surveys were carried out by Natural England licensed and experienced bat surveyors from ELMAW Consulting.

The surveys of May and June 2024 did not reveal any bat emergence from either building and only a very low level of bat activity was recorded around the site generally. It is therefore considered highly unlikely that the redevelopment of the application site would have a significant adverse effect on the local bat population, at this time.

However, there is a low risk that the redevelopment may disturb or injure roosting bats and damage and/or destroy bat roosts, albeit likely to be of low numbers of common transient and opportunist bats. Therefore a precautionary approach to planned works to the buildings is recommended and should a bat or bats be found during planned activities, all works must stop and the advice sought of a licensed bat ecologist as to how to proceed lawfully.

To provide up-to-date reptile data for the application site, the areas of suitable reptile habitat within the site have been surveyed for the presence/likely absence of reptiles between the 29th April 2024 and the 22nd July 2024. No reptiles were encountered during the survey and so reptiles are not considered a constraint to the redevelopment of the application site at this time.

1.0 Introduction

1.1 Background

- 1.1.1 In preparation for a planning application, further species-specific surveys for bats and reptiles for Woodcotes, Sandon, Hertfordshire are required.
- 1.1.2 In December 2023, a Preliminary Ecological Appraisal (PEA) was completed of the application site by Hybrid Ecology Ltd. This included an assessment of the likelihood of the application site's buildings' potential to support roosting bats. At that time, it was concluded that Buildings B1 and B2 had a moderate potential to support roosting bats and that because they were implicated in the site's proposed redevelopment, further bat survey work would be required to establish presence/likely absence of bats and to characterise any roost(s), if present.
- 1.1.3 Consequently, this report details the results of the two observational bat activity surveys undertaken of the two buildings within the application site, in May and June of 2024, during the optimum bat survey season.
- 1.1.4 In addition, Hybrid Ecology Ltd concluded that the application site supported suitable habitat for reptile species such as slow worm (*Anguis fragilis*), common lizard (*Lacerta vivipara*) and grass snake (*Natrix natrix*). Since the suitable habitat will be cleared as a result of the site's redevelopment, it was recommended that a reptile presence/likely absence survey be carried out.
- 1.1.5 Consequently, this report also details the results of the reptile presence/likely absence survey undertaken of the suitable habitat within the application site, in April, May, June and July of 2024.

2.0 Methodologies

2.1 Bat Observational Surveys

- 2.1.1 As a result of Hybrid Ecology Ltd's PEA, Buildings B1 and B2 were considered to have a moderate bat roosting potential. Consequently, two evening bat emergence surveys were recommended and have subsequently been carried out by licensed surveyors from ELMAW Consulting - Mr Keith Seaman, Mrs Emma Seaman (Natural England licence numbers are available on request) and experienced bat surveyor Ms Jasmine Stephenson – Assistant Ecologist with ELMAW Consulting.
- 2.1.2 In accordance with The Bat Conservation Trust's *Best Practice Guidelines 4th Edition* (Ref. 1), evening emergence surveys were commenced fifteen minutes before sunset and continued for one and three quarter hours after sunset, during the typical bat roosting emergence period. All elevations that contain Potential Roosting Features (PRFs) were covered by Night Vision Aids (NVAs), maintained by surveyors.
- 2.1.3 The equipment used included Canon XA series infrared video cameras (XA10, XA25, XA30 and XA40) and Nightfox Whisker Digital Infrared Cameras mounted on tripods. Additional Ward Optimal Extreme Limited Dark Sun Infrared torches and Nightfox XB5 Pro Infrared LED Torches were used for better vision in the darkest period. Each camera was paired with an Echo Meter Touch 2 PRO (EMT2PRO) full-spectrum detector, to record bat echolocation. All cameras and EMT2PROs were time-synced at the start of recording. Each surveyor also carried their own EMT2PRO detector, as well as two-way radios to liaise with other surveyors during the survey. Surveyors were patrolling the site during the survey, to ensure all technology was running and recording correctly and to maintain the security of the equipment. A selection of still-shots from the infrared cameras are appended. Analysis of the bat echolocation recordings were undertaken using BatSound software.
- 2.1.4 With regard to establishing the presence of roosting bats, it must be further acknowledged that surveys carried out in accordance with industry standards endeavour to establish the presence of bat roosts appropriate to the time of year when the surveys have been carried out. Surveys completed within the optimum period, as required by Natural England, endeavour to establish the

presence of non-breeding summer roosts or important summer maternity roosts. Surveys carried out at this time of the year cannot, with any certainty, establish the presence of spring transitory or winter roosts, or seasonally occupied opportunist roosts by single or low numbers of bats.

2.2 Assessment & Mitigation

- 2.2.1 The resulting assessment and evaluation of the survey findings and subsequent mitigation and compensatory strategy are informed by the advice and guidance published by The Bat Conservation Trust and Natural England in *Bat Surveys for Professional Ecologists - Good Practice Guidelines 4th Edition 2023* (Ref. 1), *Bat Workers' Manual 2004* (Ref. 4) and *Bat Mitigation Guidelines 2004* (Ref. 3).

2.3 Limitations of the Bat Activity Surveys

- 2.3.1 The surveys were completed in ideal weather conditions and in temperatures above 10°C. Therefore, the environmental conditions of the surveys did not constrain or limit the results. Survey methods, timings and equipment used were in line with industry standards as advocated by Natural England and the Bat Conservation Trust.

2.4 Reptile Presence/Likely Absence Survey

- 2.4.1 The reptile presence/likely absence survey was carried out of all suitable habitat throughout the application site. The survey was completed by experienced and qualified Ecologists Keith Seaman – Principal Ecologist with ELMAW Consulting and Jasmine Stephenson – Assistant Ecologist with ELMAW Consulting, in April, May, June and July of 2024.
- 2.4.2 Following industry standard methodology, a total of 19 Artificial Cover Objects (ACOs) were placed on the 2nd of April 2024 and left for two weeks to bed-in and for reptiles to begin to use them (should they be present). ACOs used are a mixture of corrugated tin, corrugated bitumen sheets or roofing felt at 0.5m², placed in suitable locations - in sunny areas and away from public areas to avoid disturbance (an aerial photograph showing the locations of the ACOs is appended to this report).



Plate 1: Corrugated bitumen ACO placed in suitable reptile habitat

- 2.4.3 All surveys were completed in suitable weather conditions and within acceptable industry standard parameters. Ideal temperatures are between 9 and 18°C. On cooler days, bright sunshine is a good time to survey along with hot days after a cold spell or showery weather after a prolonged dry spell.
- 2.4.4 Each individual ACO was initially inspected for basking reptiles and then lifted to locate sheltering reptiles on each survey visit. ACOs were approached carefully, casting no shadow, so as not to disturb any basking animals. At the same time, Direct Observation Surveys (DOS) were also carried out. This involved searching for reptiles that were basking in the open, on top of the sheets.
- 2.4.5 Five inspection lifts were made on the 29th April 2024, 13th May 2024, 6th June 2024, 4th July 2024 and 22nd July 2024.

3.0 Survey Results

3.1 2024 Bat Survey Results – Buildings B1 and B2

Evening Emergence Survey – 20th May 2024

- 3.1.1 The survey was commenced fifteen minutes before sunset, which was logged at 20:56. The weather was cool and cloudy, with a very light breeze (wind speed was 10mph). The temperature at the start of the survey was 12°C and at the end was 11°C.
- 3.1.2 Between 21:38 (42 minutes after sunset) and 21:45 (49 minutes after sunset), a single common pipistrelle (*Pipistrellus pipistrellus*) bat was observed and recorded feeding and foraging intermittently around the site. The bat was observed arriving from the south and did not emerge from either of the buildings.
- 3.1.3 On this survey occasion, no bat emergence was observed or filmed from the two buildings.

Evening Emergence Survey – 20th June 2024

- 3.1.4 The survey was commenced fifteen minutes before sunset, which was logged at 21:24. The weather was warm with clear skies and a very light breeze (wind speed 6mph) and a temperature of 19°C and the start of the survey and 17°C at the end.
- 3.1.5 On this survey occasion, at 22:38 (one hour and 14 minutes after sunset), a single noctule was observed and recorded flying over the site from south to north.
- 3.1.6 At 22:10 (46 minutes after sunset), a single common pipistrelle was observed and recorded passing through the site from east to west. Other than this, no bats were observed or filmed and no other bat contacts were recorded and no bat emergence was observed or filmed from either building.

3.2 2024 Reptile Presence/Likely Absence Survey Results

- 3.2.1 No reptiles were encountered during the ACO lifts, and the result of the presence/likely absence survey was negative. Details of the reptile survey results are appended to this report.

4.0 2024 Survey Results

4.1 Evaluation & Impact Assessment

- 4.1.1 Overall, Buildings B1 and B2 within the application site were considered to have moderate bat roosting potential. The buildings are situated close to the residential dwelling known as Woodcotes, surrounded by a garden, with arable land and pastures further afield. The application site is well connected to good quality bat feeding and foraging habitat. The PBRA found no indicative evidence of roosting bats in either Building B1 nor B2 however there were several Potential Roosting Features (PRFs) in the buildings.
- 4.1.2 Whilst the bat surveys of the buildings within the application site revealed no evidence of important bat roosts, the surveys do not preclude the potential roosts of opportunist or transient individual or low numbers of bats at other times of the year.
- 4.1.3 During the proposed works to the buildings, should bats or evidence of roosting bats be found, works to the buildings will cease immediately and a Natural England licensed bat Ecologist will re-assess the buildings and the impact of the works on roosting bats. Advice will be provided to ensure that the proposed works can proceed lawfully. This may require the cessation of works, whilst a Bat Mitigation Class Licence (Low Impact) or an EPSM Bat Licence (depending on which is appropriate) is applied for and granted by Natural England.
- 4.1.4 In addition, it is considered that for highly mobile species such as bats and reptiles, the status of a site can only be relied upon for 12 - 18 months. Therefore, it is proposed that the application site would be re-assessed and surveyed should a 12 - 18 month period lapse before site redevelopment.

4.2 Further Considerations

- 4.2.1 All species of bat, to a greater or lesser degree, use their places of shelter in a temporal and spatial way, which may affect the status of a site or building at any given time. Roost sites which may appear temporarily vacated or abandoned could be re-occupied at any time in the future.
- 4.2.2 Therefore, following the production of this report, should the redevelopment of the application site be delayed for 12-18 months from the date of this survey,

the building will be re-assessed and re-surveyed, if considered necessary, to ensure the current status of roosting bats on site is known and fully considered in the redevelopment of the site and subsequent EPSM licensing considerations. To obtain a derogation of the Habitats Regulations, a Bat Mitigation Class Licence will be required and, as such, the bat status of the current season of redevelopment will be required to support a licence application to Natural England.

5.0 References

- Ref. 1 Collins, J (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition)*. The Bat Conservation Trust, London.
- Ref. 2 Altringham, J.D. (2003). *British Bats*. HarperCollins Publishers. London.
- Ref. 3 Reason, P.F. and Wray, S. (2023). *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats*. Chartered Institute of Ecology and Environmental Management, Ampfield.
- Ref. 4 Joint Nature Conservation Committee. (2004), *Bat Workers' Manual*, JNCC, Peterborough.

6.0 Appendix 1

6.1 *Legislation Relating to Bats*

6.1.1 All bats and their roosts in the UK are protected by the Wildlife & Countryside Act 1981 (as amended), and under Schedule 2 of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.

6.1.2 In England the legislation makes it illegal to;

- Deliberately capture, injure or kill a bat,
- Deliberately disturb a bat which is likely to impair their ability to survive, breed or reproduce, rear or nurture their young, hibernate, migrate or affect significantly their local distribution or abundance
- Damage or destroy a breeding site or resting place of a bat
- Possess, control, transport, sell, exchange or offer for sale or exchange any live or dead bat or any part of a bat

6.1.3 Bats' roosts (including resting places) are protected whether or not bats are present at the time. The Wildlife & Countryside Act 1981(as amended) additionally makes it an offence to;

- Intentionally or recklessly disturb a bat at a roost
- Intentionally or recklessly obstruct access to a roost

6.1.4 Finally, under the Natural Environment and Rural Communities Act (NERC) 2006, a duty is placed on all public bodies to promote and enhance biodiversity in all its functions. There is a general biodiversity duty in the NERC Act (Section 40) which requires every public body in the exercising of its functions to 'have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'. Section 41 draws up lists of species of principal importance to which special attention must be given and a number of bats are included in this list.

6.2 *Legislation Relating to Reptiles*

- 6.2.1 The Wildlife and Countryside Act 1981 (as amended) provides protection for all UK native reptile species under Schedule 5 (Section 9). Common lizard, slow worm, grass snake and adder receive partial protection – namely the intentional killing and injuring and trade in these species is prohibited. The CRow Act 2000 strengthened the existing provisions of the Wildlife & Countryside Act 1981 for the enforcement of wildlife legislation, including a new offence of 'recklessly' killing or injuring the above species.
- 6.2.2 These four species of reptile are also UK Biodiversity Action Plan Species and Species of Principal Importance under Section 41 of the NERC Act 2000. The protection of these species is implemented through Local Planning Policy.

7.0 Appendix 2

7.1 *Example still-shots from the infrared cameras used during the surveys:*



8.0 Appendix 3

8.1 Aerial photo showing location of ACOs



9.0 Appendix 4

9.1 Reptile Survey Results

Site name	Woodcotes, Sandon
Grid Reference	TL327355
Surveyor(s)	Keith Seaman & Jasmine Stephenson
Number of refugia set	19
Date refugia laid	2 nd April 2024
Presence/absence survey?	Yes
Population index?	No

	Date	Weather	Temp	Results
Lift 1	29/04/24	Breezy & sunny	15°C	No reptiles
Lift 2	13/05/24	Overcast & warm	16°C	No reptiles
Lift 3	06/06/24	Overcast & warm	16°C	No reptiles
Lift 4	0/07/24	Sunny with light cloud	16°C	No reptiles
Lift 5	22/07/24	Overcast with sunny intervals	20°C	No reptiles