



BAT EMERGENCE SURVEY FOR:

PINEWOOD COTTAGE
COLGATE
HORSHAM
WEST SUSSEX
RH13 6HU

For: **NJA Town Planning Ltd**
on behalf of Mr and Mrs N Warner

Issued by: **Wychwood Environmental Ltd**

www.wychwoodenvironmental.com

July 2026

CONTENTS

EXECUTIVE SUMMARY.....	3
1.0 INTRODUCTION.....	5
2.0 METHODOLOGY	8
ACTIVITY/EMERGENCE SURVEYS.....	8
CONSTRAINTS AND LIMITATIONS	9
3.0 RESULTS	11
ACTIVITY/EMERGENCE SURVEYS.....	11
4.0 DISCUSSION & IMPLICATIONS FOR DEVELOPMENT	14
LEGISLATION.....	14
<i>RECOMMENDED ENHANCEMENTS (NON- COMPULSORY)</i>	19
5.0 CONCLUSION.....	20
6.0 REFERENCES	22
APPENDIX 1 – LEGISLATION, POLICY & LICENSING	23
APPENDIX 2 – FIGURES.	24
APPENDIX 3 – IMAGES OF THE SITE.....	32
APPENDIX 4 – EDNA RESULTS	36
APPENDIX 5 – LIGHTING GUIDANCE - THE IMPACT OF ARTIFICIAL LIGHT ON BATS.	37
APPENDIX 6 – GARDENING FOR BATS.	38

EXECUTIVE SUMMARY

Proposed development

- It is understood development proposals include the demolition of the existing dwelling on site and the construction of one new dwelling with associated hard and soft landscaping. The new dwelling will use the existing access off Woodlands Lane.
- The new dwelling will be constructed prior to the existing dwelling being demolished.
- Two trees - a Chinese juniper *juniperus chinensis* and a Eucalyptus *eucalyptus sp.* - will be removed as a result of the proposed development.

Likely impact on protected species

- A brown long-eared *plecotus auritus* bat day roost was found in the main void of the existing house. Subsequent eDNA analysis confirmed the bat droppings found were brown long-eared *plecotus auritus* bat droppings.
- A maternity roost comprising of 79 common pipistrelles *pipistrellus pipistrellus* and soprano pipistrelles *pipistrellus pygmaeus* was found on the northwest elevation of the existing house.
- Thought to be the same maternity roost that had moved round the house between surveys, a maternity roost comprising of 75 soprano pipistrelles *pipistrellus pygmaeus* was found on the southwest elevation of the existing house.
- In addition, two/three-day roosts were found, including a day roost supporting three soprano pipistrelles on the southeast elevation, one possible day roost supporting one pipistrelle species on the northwest elevation and one day roost supporting one common pipistrelle on the gable end on the northeast elevation of the existing house.
- As the proposed works include demolishing the existing house on site, all of these roosts will be lost as a result of proposed development.
- The site was used by foraging and commuting bats particularly common pipistrelles *pipistrellus pipistrellus*, soprano pipistrelles *pipistrellus pygmaeus* and brown long-eared *plecotus auritus* bats. Occasional myotis species *myotis sp.*, were also briefly heard on site.
- There is the potential for indirect impacts on foraging/commuting bats from artificial lighting as part of the proposed scheme for the newly constructed house.

Mitigation

- As all of the roosts will be lost; a European Protected Species and Mitigation (EPSM) licence will be required for demolition works to progress to the existing house.
- Roof works and soft stripping of tiles and hanging tiles work is recommended for Autumn (September - November) or Spring (March - April) to avoid periods of maternity roosting and hibernation, however other times are permitted. Tile and roof removal/modification to be done under supervision of suitably qualified and licensed ecologist.
- Compensation for loss of roosting areas to be included within the design for the newly constructed house. Compensatory roosts will include a roost area for void-dwelling bats in the main roof space, an integrated maternity roost, six bat access tiles/slates, six bat boxes on mature trees around the site and four integrated boxes for crevice-dwelling bats.
- The use of breathable membrane under tiles will not be permitted due to the entanglement risk to bats. Bat safe membrane or Type 1F felt should be used.

- A Tool Box Talk will be provided to building and demolition contractors outlining precautionary working practices and where necessary sensitive works will be supervised by a suitably qualified ecologist.

Further actions to be taken

- The erection of six bat boxes for pipistrelles and long-eared bats (e.g. 2F or 2FN Schwegler) on site in mature trees present in the grounds prior to any works commencing and then retained as an enhancement.
- A detailed plan to be drawn up showing the proposed location of compensatory roost areas (e.g. integrated box and access tiles), as part of any licence application to Natural England.
- Appropriate (wildlife friendly) landscaping.
- Lighting plan to be agreed as part of any mitigation licence application.

Report completed by: Laura Cook BSc (Hons)

Verified by: Dr Craig Turner BSc MSC MCIEEM FRGS

Date of issue: 9th July 2026

Contacts: Dr. Craig Turner - E: craig@wychwoodenvironmental.com
T: 07760234934, W: www.wychwoodenvironmental.com

1.0 INTRODUCTION

- 1.1 Wychwood Environmental Ltd was instructed to undertake bat emergence surveys at the main house at Pinewood, Woodlands Lane, Colgate, West Sussex, RH13 6HU (Figures 1-3, Appendix 2) to provide supporting information for a planning application. Development proposals include demolishing the existing house on site and replacing it with a new house on a similar sized footprint close to the existing house and within the garden setting. Full details are given in the planning submission. The location of the site is shown in Figures 1-3, Appendix 2.
- 1.2 These surveys follow an earlier Preliminary Ecological Assessment (PEA) including a Potential Roost Assessment (PRA) completed in January 2026¹. The PRA identified several external potential roost features (PRF's) including gaps under the hanging tiles, particularly along the corner edges, lifted hanging tiles on the dormer windows, gaps at the bottom of the wooden window surrounds and gaps under the wooden soffits. All of these features offered potential roosting opportunities for crevice dwelling-bats.
- 1.3 Evidence of roosting bats was found within the main void (bat droppings) of the house. The droppings were morphologically consistent with those of the brown long-eared *plecotus auritus* species of bat. Subsequent DNA analysis concluded the droppings were brown long-eared *plecotus auritus* species of bat (Appendix 4). Large quantities of mouse droppings were also found in the void.
- 1.4 Overall, based on the evidence found in the main void i.e. bat droppings and the external features present offering opportunities for crevice dwelling-bats, The PRA concluded that the house is a **CONFIRMED ROOST** for void-dwelling bats (most likely brown long-eared bats) and has **HIGH POTENTIAL** to support crevice-dwelling roosting bats, as outlined in Table 4.1 of the BCT 2023 Good Practice Guidelines.
- 1.5 The PEA/PRA subsequently recommended further bat emergence/re-entry surveys on the main house. The surveys were necessary to collect data relating to the possible presence of roosting bats and to provide any necessary guidance and mitigation

¹ Wychwood Environmental (January 2026) Preliminary Ecological Assessment Report: Pinewood Cottage, Horsham, West Sussex, RH13 6HU.

advice to ensure that no bats or roosts are likely to be adversely affected by the development. The surveys were conducted to ensure that plans would not be constrained by the presence of roosting bats. Where roosts are present, these surveys should also refine the classification of the roost.

- 1.6 *Bats are European protected species, protected via The Conservation of Species and Habitats Regulations (2017) and also the Wildlife and Countryside Act 1981, as amended. Therefore, it is an offence to kill or injure a bat or interfere with any roosting or resting site. A bat roost is interpreted as "any structure or place used for shelter or protection" whether or not bats are present at the time.*
- 1.7 The surveys were completed to inform the Local Planning Authority (LPA) of any material impacts resulting from the proposed development and to ensure compliance with the requirements of the Natural Environment and Rural Communities (NERC) Act (2006) (Section 40) and the Government Circular: Biodiversity and Geological Conservation –Statutory obligations and their impact within the Planning System (ODPM 06/2005, Defra 01/2005). Details of legislation and legal protection afforded to all species of British bats are given in Appendix 1.
- 1.8 The site is located just off Woodlands Lane in the village of Colgate, east of the town of Horsham, West Sussex. The site is surrounded by woodland, pasture and other scattered rural properties set within large mature plots all interconnected within the landscape by hedgerows and mature trees (Figures 1-2, Appendix 2). Connectivity to habitat suitable for bats was deemed to be high (based on Bat Conservation Trust [BCT]² criteria).
- 1.9 The MAGIC (www.magic.gov.uk) study also revealed that there are two European Protected Species (EPS) mitigation licences for bats within 2km of the site. The closest of which is located 0.7km east of the site was granted in 2014 for the destruction of a resting site for common pipistrelle *pipistrellus pipistrellus*, soprano pipistrelle *pipistrellus pygmaeus* and brown long-eared *plecotus auritus* bats. The second is located approximately 1.4km to the northeast of the site and the licence granted in

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

2016 was for the destruction of a resting place for common pipistrelles *pipistrellus pipistrellus*, soprano pipistrelles *pipistrellus pygmaeus* and brown long-eared *plecotus auritus* bats.

- 1.10 Section two of this report describes the methodologies used for the bat surveys. Section three provides the results of these surveys; section four provides discussion and implications for development and conclusions are made in section five. Details of legislation relating to, and legal protection afforded to all species of British bats are given in Appendix 1.

2.0 METHODOLOGY

Activity/Emergence Surveys

- 2.1 Activity/emergence surveys were conducted on the 11th May 2026, 2nd June 2026 and 24th June 2026 (see Table 1). These were completed by Dr. Andrew Perkin (Natural England Bat Class License Holder), Laura Cook BSc (Natural England Bat Class Licence Holder), Dr. Michael Bright, Dr. Ryan Walker MCIEEM CEcol (Natural England Bat Class License Holder), Matthew Cameron BSc (Hons) and Caitlin Hughes BSc (Hons) following best practice guidelines as outlined by the Bat Conservation Trust (BCT 2023)³.
- 2.2 Three dusk activity/emergence surveys were conducted on the main house. These surveys made use of three surveyors to adequately cover the building elevations where features which could be utilised by roosting bats were noted (Figure 11, Appendix 2). The surveys were conducted 15 minutes before sunset and for at least 1.5 hours after sunset (Table 1).
- 2.3 Surveyors positioned themselves to allow for the best visibility of areas, identified as possible emergence points (Figure 11, Appendix 2). Echometer Touch 2 detectors were used to assist with determining the nature of any bat activity and with bat identification. Each surveyor also had an infra-red camera. Analysis software (Analog W and Kaleidoscope) was used to verify calls identified in the field where necessary. Surveys were co-ordinated by Dr Craig Turner MSc CIEEM FLS (Natural England Bat Class licence holder).

Table 1 – Survey weather conditions

Date	Sunset/Sunrise	Temp °C	Conditions	Wind
11/05/2026	20:38 BST	6.2 - 2.3	Cold, calm, 10% cloud cover	BF 0
02/06/2026	21:07 BST	14 - 13	Clear, cool, 20% cloud cover	BF 2
24/06/2026	21:20 BST	29 - 27	Hot, humid, 0% cloud cover	BF 0

³ Collins J (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn) (published by Bat Conservation Trust, London).

2.4 Camera Trap /Static Detector Survey

A Song Meter Mini Bat ultrasonic acoustic recorder⁴ and a Browning Patriot FHD camera trap were in the roof void where bat droppings had been located. This equipment was deployed for 15 nights from 19/05/2026 to 03/06/2026.

2.5 eDNA Survey

Bat dropping samples were collected and sent to the University of Warwick, following their field sample protocols⁵. These were collected in May 2026.

Constraints and Limitations

- 2.6 It should be noted that lack of evidence of a protected species does not necessarily preclude it from being present at a later date. In relation to use of habitats or roost sites by bat species, use of a particular area of land can vary not only on a seasonal basis but also from day to day. Whilst activity surveys are used to provide an estimate of the likely importance of a given area of habitat for bats, due to the highly mobile nature of bats, it is not possible to accurately determine the exact numbers of bats using standard non-intrusive survey methods.
- 2.7 The echolocation used by some bats is very quiet and difficult to detect; species such as brown long-eared bat *Plecotus auritus* may have been present without registering on the bat detectors used during the activity survey.
- 2.8 The identification of bats in the genus *Myotis* to species level based on recorded echolocations is not always possible⁶ with a high degree of confidence. This is due to the similarity and overlap in characteristics between Myotid bats and the calls they make, together with the ability of these bats to emit different calls in different habitats and situations. Techniques are being developed to assist with the identification of these bats from recordings, such as the use of 'slope' in the Analook programme designed for use with Anabat CF detectors. Comparison of slope between Myotid and a library of known calls was used to assist with identification.

⁴ <https://www.wildlifeacoustics.com/products/song-meter-mini-2-bat-aa?token=rOGPVQJ92DxgJ0E5-KiFID0sVv7Y4gmd>

⁵ <https://www.ecowarwickerforensics.com/bat-species-test>

⁶ BCT guidelines identify that *Myotis* bats can only be identified with a low degree of confidence to species level, as set out in section 6.4.3 of the guidelines.

- 2.9 The surveys were not able to adequately cover the eastern elevation due a line of large mature trees blocking the view.

3.0 RESULTS

Activity/Emergence Surveys

- 3.1 During the surveys, four species were seen/detected using the site (or in close proximity to it). These were: common pipistrelle *pipistrellus pipistrellus*, soprano pipistrelle *pipistrelle pygmaeus*, myotis sp. *myotis sp.* and brown long-eared bats *plecotus auritus*. Results are described below (Table 2) and detailed in Figure 12, Appendix 2. Images of the site are shown in Photographs 1-20, Appendix 3.

Table 2 – Summary of bat detections and emergences.

Survey date	Species detected	Species emergences
11/05/2026	common pipistrelle, soprano pipistrelle, brown long-eared bat, myotis sp.	1 pipistrelle sp. (possible) 3 soprano pipistrelles
02/06/2026	common pipistrelle, soprano pipistrelle, myotis species, brown long-eared bat.	79 common and soprano pipistrelles 1 common pipistrelle
24/06/2026	common pipistrelle, soprano pipistrelle, myotis species, brown long-eared bat.	2 common pipistrelles 1 common pipistrelle 75 soprano pipistrelles

- 3.2 On the 11th May 2026 the main house was surveyed by three surveyors in the locations shown in Figure 11, Appendix 2. The first record was at 20:47 (pipistrelle sp.) and the last record was at 21:59 (myotis sp.). At 20:47, a likely pipistrelle species (silent bat) potentially emerged from under the hanging tiles on the rear northwest elevation of the house (Photograph 1, Appendix 3). A soprano pipistrelle was heard at 21:03 and again seen foraging around the southeast elevation of the house between 21:09 and 21:30. Between 21:05 and 21:07, three soprano pipistrelles were seen emerging from under a hanging tile on a dormer window on the front southeast elevation of the house (Photograph 4, Appendix 3). Two soprano pipistrelles were subsequently seen re-entering the same location. At 21:15, a soprano pipistrelle potentially re-emerged from the same location on the dormer window. From 21:22, a brown long-eared bat was seen and heard on site on four occasions. At 21:59, a myotis sp. bat was heard faintly on site. No other bat species were seen or heard during the survey. Figure 12, Appendix 2 provides details of where bats were observed on and adjacent to the site.

- 3.3 On the 2nd June 2026, the main house was surveyed by three surveyors in the locations shown in Figure 11, Appendix 2. The first record was at 21:12 (soprano pipistrelle) and the last was at 21:33 (soprano pipistrelle). At 21:34, one common pipistrelle emerged from the top of the gable on the northeast elevation (Photograph 13, Appendix 2). Between 21:11 and 21:48, common pipistrelles were seen foraging around the northeast and southeast elevation of the house. Between 21:14 and 21:49, a total of seventy-nine common pipistrelles and soprano pipistrelles were seen emerging from between the wooden soffit and hanging tiles at the top of the northwest elevation of the house (Photographs 8-10, Appendix 2). No other bat species were seen or heard during the survey. Figure 12, Appendix 2 provides details of where bats were observed on and adjacent to the site.
- 3.4 On the 24th June 2026 the main house was surveyed by three surveyors in the locations shown in Figure 11, Appendix 2. The first record was at 21:13 (soprano pipistrelle) and the last was at 22:48 (soprano pipistrelle). At 21:31, one common pipistrelle emerged from between the wooden soffit and the hanging tile at the top of the northwest elevation of the house. At 21:49, a second common pipistrelle emerged from the same location. At 22:07, one common pipistrelle emerged from the apex of the southwest elevation. From 22:20, brown long-eared bats were seen and heard around the front southeast and southwest elevations of the house. Between 21:11 and 22:15, approximately seventy-five soprano pipistrelles emerged from underneath the wooden soffit on the southwest side elevation of the main house (Photograph 16, Appendix 2). One soprano pipistrelle was also seen returning to the same location. Throughout the survey, common pipistrelles and soprano pipistrelles were seen and heard around all elevations of the main house. No other bat species were seen or heard during the survey. Figure 12, Appendix 2 provides details of where bats were observed on and adjacent to the site.
- 3.5 In summary, one mixed maternity roost supporting 79 common and soprano pipistrelles was found on the rear northwest elevation. During the third survey, 75 soprano pipistrelles were found on the southwest elevation of the main house. It is thought that this maternity roost moved from the northwest elevation to the southwest elevation of the main house between the second emergence survey and the third emergence survey. In addition, one possible pipistrelle species roost

supporting one individual was found on the hanging tiles on the northwest elevation, one common pipistrelle roost supporting one individual was found on the gable end on the northeast elevation and one soprano pipistrelle roost was found on the dormer window on the front southeast elevation of the main house during the two emergence surveys to date. No roosts were found on the northeast elevation of the main house during the emergence surveys to date. Figure 12, Appendix 2 and Photographs 1-20, Appendix 3 indicate the location of the roosts found on the main house.

- 3.6 The level of bat activity within the site was high with a peak count of 79 common and soprano pipistrelle individuals. Foraging and commuting activity was recorded around all four elevations of the main house. Four species were recorded during the two surveys to date including species that have sensitivity to high light levels.

Camera trap survey

- 3.7 The camera trap recorded 405 triggered video events and 531 sound files were recorded by the static bat detector. The video files reviewed show no more than two brown long eared bats in a single frame. This indicates very low numbers are occupying the loft space. The time codes of the recordings indicate the likely presence of a day roost. No bats were seen during installation or recovery of the equipment.

eDNA survey

- 3.8 The eDNA results (Appendix 4) have confirmed the presence of brown long-eared *plecotus auritus* bats in the roof void. No other species were confirmed as present.

4.0 DISCUSSION & IMPLICATIONS FOR DEVELOPMENT

Legislation

- 4.1 Bats are European Protected species, protected via The Conservation of Species and Habitats Regulations (2017) and also the Wildlife and Countryside Act 1981 (as amended). These make it illegal to kill, injure, capture or disturb bats; or to obstruct access to, damage or destroy bat roosts. A bat roost is interpreted as "any structure or place used for shelter or protection" whether or not bats are present at the time.
- 4.2 Penalties on conviction - the maximum fine is £5,000 per incident or per bat, up to six months in prison, and forfeiture of items used to commit the offence, e.g. vehicles, plant, machinery. Further details on the protection afforded to bats and their roosts are given in Appendix 1.

Overview

- 4.3 In summary, during the initial PRA in January 2026, evidence in the form of bat droppings morphologically consistent with those of the brown long-eared *plecotus auritus* species of bat was found in the main void of the house. Results from eDNA (Appendix 4) and remote monitoring have confirmed presence of this species. During the subsequent three emergence surveys to date, one mixed maternity roost supporting 79 common and soprano pipistrelles was found on the northwest elevation of the main house and one maternity roost (thought to be the same roost) supporting 75 soprano pipistrelles was found on the southwest elevation of the house. In addition, one possible pipistrelle species roost supporting one individual was found on the hanging tiles on the northwest elevation, one common pipistrelle *pipistrellus pipistrellus* roost supporting one individual was found on the gable end on the northeast elevation and one soprano pipistrelle *pipistrellus pygmaeus* roost was found on the dormer window on the front southeast elevation of the main house.
- 4.4 As roosting bats have found to be using the house, upon securing planning permission and prior to works commencing, the site will require a European Protected Species Mitigation Licence (EPSM) or Bat Mitigation Class Licence (BMCL) to be secured from Natural England, prior to any proposed demolition works. An EPSM application to Natural England will take at least 30-45 working days to be processed, once submitted

and can only be submitted once planning permission has been granted. It is understood that the new house will be built prior to the demolition of the existing and the EPSM is only required for the demolition of the existing house.

- 4.5 As the proposed plans include demolishing the house which will impact more than three roosts, one of which is a maternity roost supporting approximately 79 common and soprano pipistrelles, an EPSM will be required.
- 4.6 The local vicinity around the site recorded four species as active in the area including common pipistrelles *pipistrellus pipistrellus* soprano pipistrelle *pipistrellus pygmaeus*, myotis sp. and brown long-eared *plecotus auritus* bats. As such secondary disturbance impacts, such as lighting should be considered for the newly constructed house. Foraging/commuting behaviour was recorded in the garden around the property and bat foraging and commuting was observed past all elevations of the existing house.

Avoidance and Mitigation

- 4.7 Mitigation for all roosts impacted will be required. A detailed mitigation statement will be prepared as part of the EPSM Licence. In light of current and previous survey findings, brief mitigation guidelines are however provided below:

Timing

- 4.8 Demolition works to the property, particularly the removal of the roof tiles should be conducted at an appropriate time of year to minimise any risk of bats being present during proposed work. As best practice works directly affecting the roof should ideally be conducted during the Spring (March-April) or Autumn (late September-early November) to avoid periods when bats are likely to be present within the building and when they there are least vulnerable, i.e., outside periods of breeding/maternity and hibernation. However, works under licence can be undertaken at other times (avoiding periods of sustained low temperatures), as approved under a licence and always under the supervision of a bat licensed ecologist.

Replacement roosting opportunity

- 4.9 The design proposals, for the newly constructed house should seek to provide roost areas for common pipistrelles, soprano pipistrelles and brown long-eared bats to

compensate for the loss of the existing maternity and day roosts. The new building should incorporate at least six new roosting opportunities by creating crevices under the new roof tiles. These can be bought ready made for example the use of 'bat access tiles' (e.g. clay roofing tiles (Tudor bat tiles⁷), to compensate for the loss of roosting habitat for crevice dwelling bats (e.g. pipistrelles) is recommended. Alternatively, these access tiles can be made by a competent roofer using raised battens under roof or hanging tiles. The exact locations of new roosting opportunities will be dependent on the final design proposals. At least one integrated maternity box⁸ should also be installed on a similar elevation to the location of the roost identified.

4.10 As the brown long-eared roost in the main void of the house will be lost, a roost area for void dwelling brown long-eared bats should be created e.g. in the form of a roof void in the newly constructed house. The bat mitigation guidelines state that this should be a similar size to the void due to be lost, or 5m x 5m x 2.5m high to compensate for the loss of the roost area.

4.11 It is also recommended that two woodcrete bat boxes such as the 2FN Schwegler Bat Box⁹ which is suitable for species including pipistrelles and woodland species such as noctule which are present in the area is installed on a mature tree present in the garden of the property. In addition, at least two cavity type and two crevice type bat boxes should also be installed. The bat boxes will be sited on mature trees and are best positioned at a height of between 3 to 6 metres on a southerly aspect. These will ensure roosting opportunities are available throughout construction and post-development. These boxes should be retained in location once all building works are complete and thus provide an overall enhancement. Full details of all compensatory roosting opportunities will be provided during the licensing process.

Materials

4.12 The roof areas of the newly constructed house and any area lined areas of hanging tiles should be lined with bitumen Type 1F membrane or equivalent BCT approved TLX Membrane¹⁰, and not a breathable membrane where bat access is provided, due to

⁷ <http://www.tudorrooftiles.co.uk/?content=bats>

⁸ <https://www.wildcare.co.uk/habibat-001-maternity-bat-box.html>

⁹ https://www.schwegler-natur.de/portfolio_1395072079/fledermaushoehle-2fn/?lang=en

¹⁰ <https://tlxinsulation.co.uk/bat-friendly-insulation-protecting-bats-while-keeping-roofs-warm/>

the risk of bat entanglement¹¹. The use of bitumen still complies with building regulations¹². Full details would be set out in a method statement under an EPSM Licence. Natural England will not issue mitigation licenses for properties where a breathable membrane is used.

Alternative/enhancement roosting opportunities

- 4.13 It is also recommended that four integrated crevice bat boxes which are suitable for crevice dwelling (e.g. pipistrelle) species are installed on a southern or eastern elevation of the newly constructed house to ensure roosting opportunities are enhanced overall.

Specified supervised work

- 4.14 A suitably qualified and licensed ecologist must oversee any licensed works affecting the known roosts, including the removal of any roof tiles, hanging tiles and ridge tiles, and the demolition works to the roof.

Tool Box Talk

- 4.15 Builders will be made aware of the possible presence of bats, and the legal protection afforded to them, and made to work with caution when removing any tiles. Tiles must be lifted vertically and removed by hand. Should any bats be found workers must cease work immediately and unless present onsite, advice must be sought from a suitably qualified and licensed ecologist.

Lighting

- 4.16 With respect to lighting, street lighting is known to disturb bats and have a negative impact on their commuting and foraging behaviour¹³. With specific reference to light pollution, Section 125 of the National Planning Policy Framework also states: “By encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.” There is also a basis to consider that bat foraging areas and

¹¹ <http://www.batsandbrms.co.uk>

¹² http://www.bats.org.uk/pages/breathable_roof_membranes.html

¹³ Stone et al., (2009) Street Lighting Disturbs Commuting Bats, Current Biology, 19, 1-5.

commuting routes also have some legal protection under the above legislation and planning policy, even on sites not designated for their bats¹⁴.

4.17 The following basic set of guidelines (which includes those in Bat Conservation Trust, 2010) provides a concise checklist of points:

- *Use professional lighting design engineers to model and predict light spill so that it can be avoided.*
- *Reduce light levels to the minimum necessary to meet legal and safety requirements.*
- *Reduce horizontal and upward/downward light spillage to the minimum achievable. The use of cowling, masks, louvers etc. and limiting the height of lighting columns may be important depending on the design of the lighting units. No bare bulbs. Lighting should only light the target area.*
- *Reduce the duration of lighting. The use of lighting 'curfews' can also be helpful - especially in the vicinity of bats roosts. For example, the emergence of bats, typically within the hour after sunset, may be disrupted (delayed) by raised light levels and this may result in a loss of feeding opportunities^{15 16}.*
- *Consider the type of light to be used and whether a different type or design may reduce potential impacts on bats and other wildlife. Narrow spectrum lighting with minimal UV emission should be used.*
- *Use 'screen planting' to limit light spill into dark areas.*

4.18 The site is known to be used by foraging and commuting bats including by bat species which are known to generally avoid well-lit areas. In particular, light spillage should avoid as well as the existing buildings to minimise the risk of disturbing foraging and commuting bats in the local area. Further details on lighting recommendations in relation to bats is provided in Appendix 4.

¹⁴ Garland L. & Markham S. (2007) Is important bat foraging and commuting habitat legally protected?
http://www.bats.org.uk/publications_download.php/351/Batflightpathlegalprotectionarticle_FinalVersionSep2007.pdf

¹⁵ Jones J. (2000) *The impacts of lighting on bats*.
http://www.lbp.org.uk/downloads/Publications/Management/lighting_and_bats.pdf

¹⁶ Fure A. (2006) Bats and Lighting. *The London Naturalist*, No. 85, 93-104

Recommended enhancements (non- compulsory)

- 4.19 Mature trees provide roosting and foraging opportunities for bats. Planting bat friendly species (trees, shrubs and herbaceous plants) throughout the site would help to enhance the site for bats and other wildlife. Any landscaping plan should take account of this guidance. A guide to bat friendly gardening is provided in Appendix 5 and further recommendations are made in the Landscape & Ecological Management Plan (LEMP) for this site.¹⁷

5.0 CONCLUSION

- 5.1 During the PRA in January 2026, evidence of roosting bats i.e. bat droppings was found in the roof void of the main house and the house is a **CONFIRMED ROOST** for void-dwelling bats. Subsequent DNA analysis confirmed the bat droppings were those of the brown long-eared *plecotus auritus* species of bat. In addition, during the PRA survey, internal and external features suitable for crevice dwelling bats e.g. gaps under hanging tiles, gaps under the wooden soffit boards were noted and further emergence surveys were recommended in the active bat season.
- 5.2 During the emergence surveys to date, one maternity roost supporting 79 common pipistrelles and soprano pipistrelles was found on the northwest elevation of the house. One maternity roost supporting 75 soprano pipistrelles was found on the southwest elevation of the house. It is thought that this roost is the same roost found on the northwest elevation and it moved round the house between the second and third surveys. One other possible pipistrelle roost supporting one individual was also found on the northwest elevation. In addition, one day roost supporting three soprano pipistrelles was found on the dormer window on the southeast elevation and one day roost supporting one common pipistrelle was found on the end gable on the southwest elevation of the house. No roosts were found on the northeast elevation of the main house during the emergence surveys to date.
- 5.3 The remote monitoring (camera & static recorder) and eDNA have confirmed the presence of a brown long-eared *plecotus auritus* bat day roost in the roof void.
- 5.4 In total, one roost was found in the main void of the house and four/five roosts for crevice dwelling bats were found on three elevations of the existing house. No roosts were found on the northeast elevation of the house.
- 5.5 Under the current plans, as the house is proposed to be demolished and all of these roosts will be lost. Mitigation measures, as outlined in this report, are advised to be detailed in a Method Statement and carried out under a European Protected Species Mitigation (EPSM). This is required in order to avoid committing an offence and to safeguard the viability of local bat populations. These mitigation measures will ensure

no negative impacts on local bat populations. Enhancement measures to ensure the proposals will provide a net benefit to bats is provided and is recommended.

6.0 REFERENCES

Wychwood Environmental Ltd (2026). Ecological Appraisal Report. Pinewood Cottage, Colgate, Horsham, West Sussex.

Wychwood Environmental Ltd (2024). Ecological Appraisal Report. Pinewood Cottage, Colgate, Horsham, West Sussex.

Bat Conservation Trust (2023) Bat Surveys – Good Practice Guidelines. Bat Conservation Trust, London.

Bat Conservation Trust (2011) Statement on the impact and design of artificial light on bats.

Mitchell-Jones, J. (2004) Bat Mitigation Guidelines. Natural England.

Mitchell-Jones, A.J. and McLeish, A.P. (2004) Bat Workers Manual. JNCC

APPENDIX 1 – Legislation, Policy & Licensing

Bats

All bat species in the UK are included in Schedule II of the Conservation of Habitats and Species Regulations 2018 which transpose Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora ("EC Habitats Directive") which defines European protected species of animals. All species of British bat are fully protected under the Wildlife and Countryside Act 1981 (as amended) through inclusion in Schedule V.

Bat species are afforded further protection by the Countryside and Rights of Way (CROW) Act 2000; and the Natural Environment and Rural Communities Act 2006.

Under the above legislation it is an offence to:

- kill, injure or take an individual;
- possess any part of an individual either alive or dead;
- intentionally or recklessly damage, destroy or obstruct access to any place or structure used by these species for shelter, rest, protection or breeding;
- intentionally or recklessly disturb these species whilst using any place of shelter or protection; or
- deliberate disturbance in such a way as to be 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;
- keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead bat, or any part of, or anything derived from a bat.

It is also an offence to set and use articles capable of catching, injuring or killing bats (for example a trap or poison), or knowingly cause or permit such an action. In the case all species of British bat there is also protection under *Schedule 6 of The Wildlife and Countryside Act 1981* (as amended) relating specifically to trapping and direct pursuit of these species.

Penalties on conviction

The maximum fine is £5,000 per incident or per bat (some roosts contain several hundred bats), up to six months in prison, and forfeiture of items used to commit the offence, e.g. vehicles, plant, machinery.

Licensing

A European Protected Species Mitigation (EPSM) Licence or a Bat Mitigation Class Licence (BMCL) in relation to bats is required from Natural England for any work that would result in an otherwise unlawful activity (e.g. damage to a bat roost). A BMCL permits activities resulting in the disturbance and/or capture of certain species of bats and/or damage or destruction of roosts of low conservation significance. A license can only be issued to permit otherwise prohibited acts if Natural England are satisfied that all of the following three tests are met:

- The proposal is for 'preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment';
- There is no satisfactory alternative; and,
- The action authorised by the license will not be detrimental to the maintenance of bat populations at a favourable conservation status in their natural range.

A bat roost is defined by the Bat Conservation Trust publication *Bat Surveys for Professional Ecologists—Good Practice Guidelines 3rd Edition* as "*the resting place of a bat*"¹⁸. Generally however, the word roost is interpreted as "*any structure or place, which any wild bat uses for shelter or protection.*"

Bats tend to re-use the same roosts; therefore legal opinion is guided by recent case law precedents, that a roost is protected whether or not the bats are present at the time. This can include for summer roosts, used for breeding; or winter roosts, used for hibernating.

¹⁸ Collins J (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edn) (published by Bat Conservation Trust, London)

APPENDIX 2 – Figures.

Figure 1 – Approximate location of the site (red outline). Land under the same ownership as the site but outside of the site boundary (blue outline). Image taken from Google Earth.



Figure 2. Site location shown within the wider landscape. Base image taken from GoogleMaps 2026.

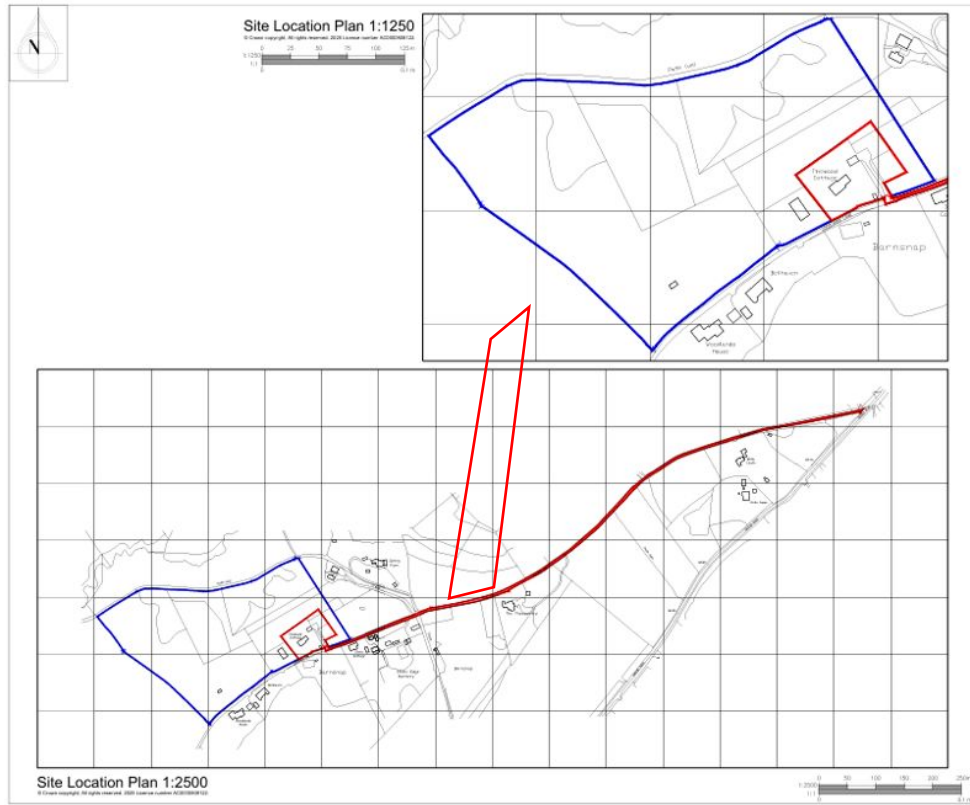


Figure 3. Site location plan. Image produced by Oakwrights Ltd.



Figure 4 – Existing site plan. Image produced by Oakwrights Ltd.



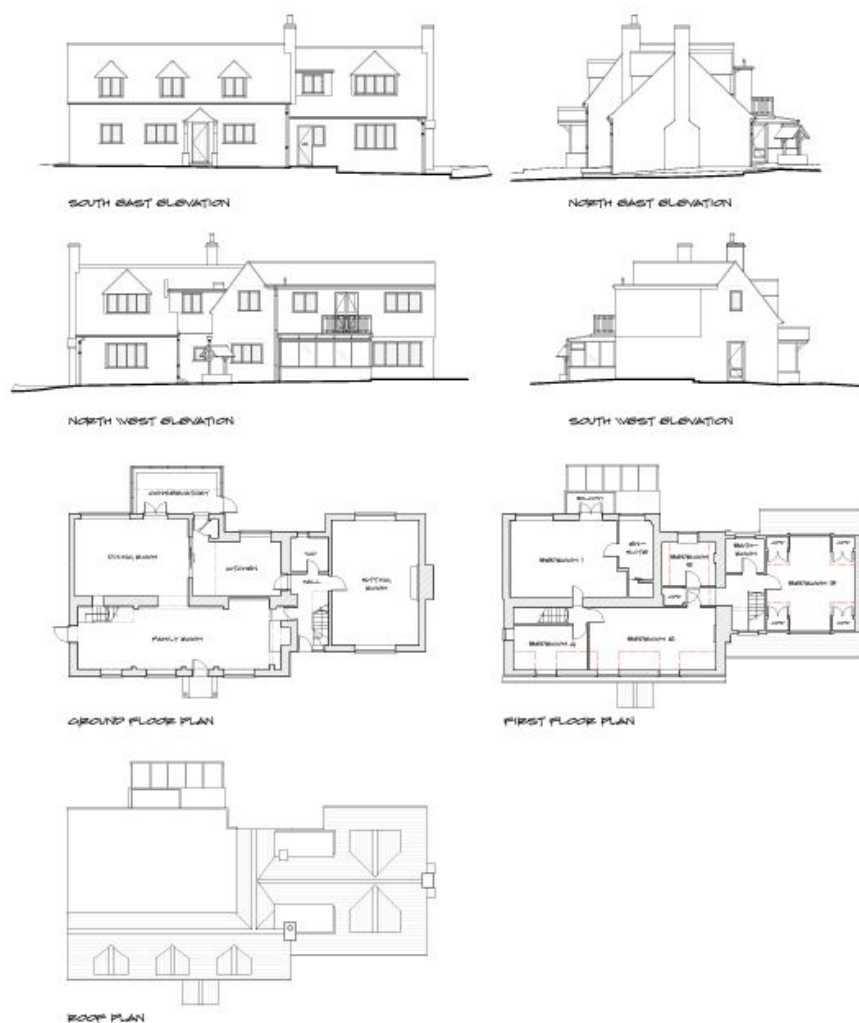


Figure 6 – Existing elevations. Image produced by Oakwrights Ltd.





NORTH WEST ELEVATION



SOUTH WEST ELEVATION



SOUTH EAST ELEVATION

Figures 7 - 10 – Proposed elevations for the new dwelling. Images produced by Oakwrights Ltd.

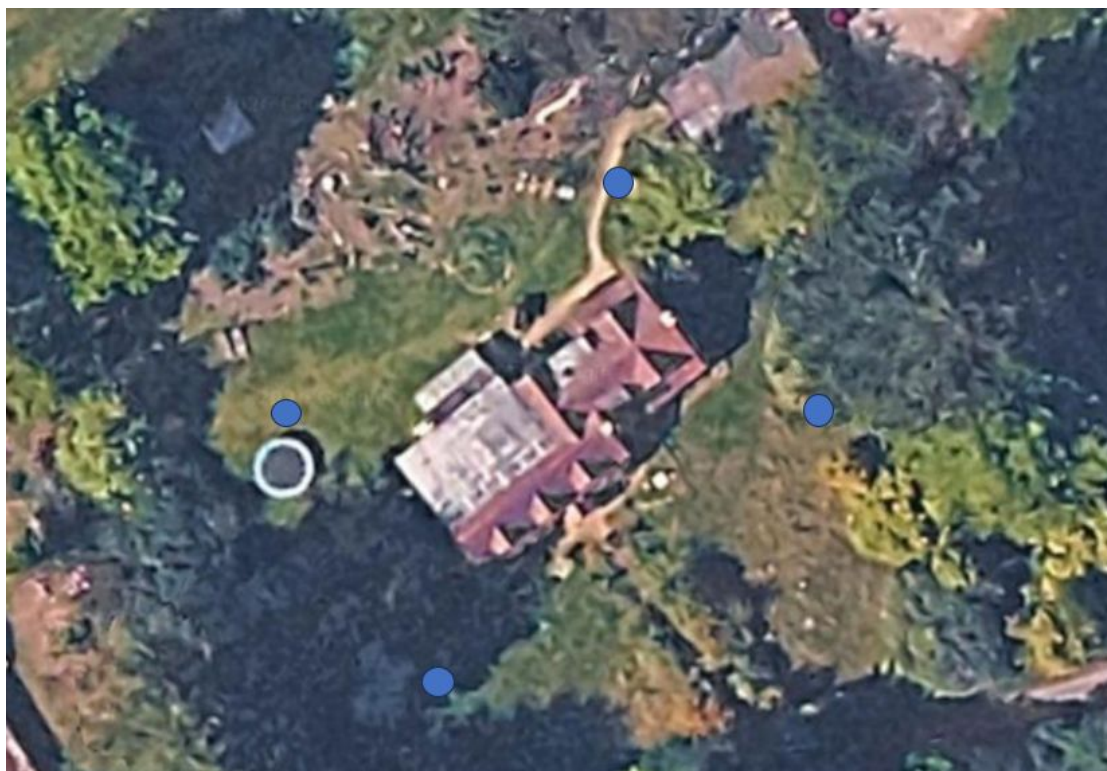


Figure 11 – Surveyor locations. Blue dots – indicate the surveyor and infra-red camera locations. N.B these locations were not static.



Figure 12 - Bat activity around the site during the emergence surveys to date. Red arrows – indicate the location of the bat emergences. Yellow arrows – indicate the commuting/activity lines.



Figure 13 – Roost locations found during the three emergence surveys to date. Blue star – location of the possible pipistrelle sp. emergence on the first survey. Green star – location of the three pipistrelle emergences and two possible soprano pipistrelle emergences on the second survey. Yellow star – location of the common pipistrelle emergence on the second survey. Red star – location of the seventy-nine (approximately) common and soprano pipistrelles. Pink star – location of the seventy-five (approximately) soprano pipistrelles on the third survey.



Figure 14 – Suggested locations for mitigation measures for new dwelling. Pink star – location of integrated maternity box. Blue rectangle – location of bat access tiles. Red triangle – location of four integrated crevice type bat boxes.

APPENDIX 3 – Images of the site.



Photograph 1 – View at the start of the first survey on 11th May 2026 for surveyor one by the corner of the rear northwest elevation and side southwest elevation. Red star – indicates possible pipistrelle emergence.



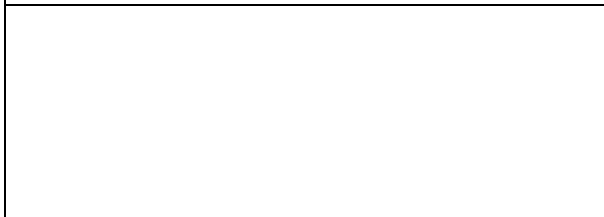
Photograph 2 – Surveyor one, camera image at dark on the first survey on 11th May 2026.



Photograph 3 – View at the start of the first survey on 11th May 2026 for surveyor two by the corner on the front southeast elevation and side southwest elevation.



Photograph 4 – Surveyor two, camera image at dark on the first survey on 11th May 2026. Red circle indicates the location of the emergence point for three soprano pipistrelles and two possible soprano pipistrelle returns.



Photograph 5 – View at the start of the first survey on 11th May 2026 for surveyor three by the corner on the front southeast elevation and side northeast elevation.



Photograph 6 – View at the start of the first survey on 11th May 2026 for surveyor three by the corner on the front southeast elevation and side northeast elevation.



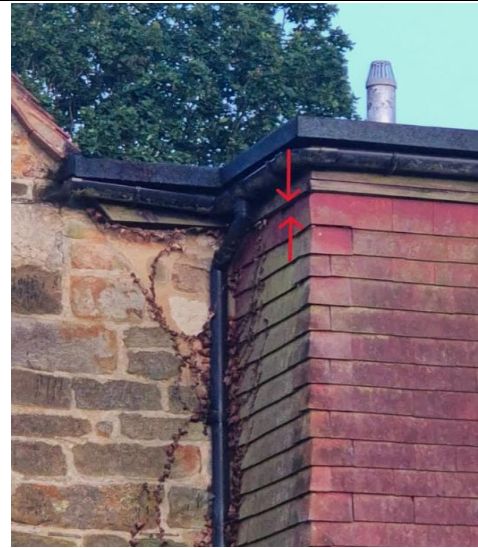
Photograph 7 – View at the start of the second survey on 2nd June 2026 for surveyor one in front of the rear northwest elevation.



Photograph 8 – Surveyor one, camera image at dark on the second survey on 2nd June 2026. Red circle indicates the location of the emergence point of 79 common and soprano pipistrelles.



Photograph 9 – Red rectangle – indicates the location of where 79 common and soprano pipistrelles emerged from during the second survey on 2nd June 2026.



Photograph 10 – Red arrows - the location of where 79 common and soprano pipistrelles emerged from on the northwest elevation of the house during the second survey on 2nd June 2026.



Photograph 11 – View at the start of the second survey on 2nd June 2026 for surveyor two by the corner on the front southeast elevation and side southwest elevation.



Photograph 12 – Surveyor two, camera image at dark on the second survey on 2nd June 2026.



Photograph 13 – View at the start of the second survey on 2nd June 2026 for surveyor three by the corner on the front southeast elevation and side northeast elevation. Red star – indicates location of the common pipistrelle emergence.



Photograph 14 – Surveyor three, camera image at dark on the second survey on 2nd June 2026.



Photograph 15 – Camera view at the start of the third survey on 24th June 2026 for surveyor one by the corner on the front southeast elevation and side southwest elevation.



Photograph 16 – Location of the main emergence point for the seventy-five soprano pipistrelles on the southwest side elevation of the house on the third survey on 24th June 2026.



Photograph 17 – View at the start of the third survey on 24th June 2026 for surveyor two by the corner on the front southeast elevation and side southwest elevation.



Photograph 18 – Surveyor three, camera image at dark on the third survey on 24th June 2026.



Photograph 19 – View at the start of the third survey on 24th June 2026 for surveyor three by the corner on the front southeast elevation and side northeast elevation. Red star – indicates location of the common pipistrelle emergence. Red star – indicates the location of two common pipistrelle emergences.



Photograph 20 – Surveyor three, camera image at dark on the third survey on 24th June 2026.

APPENDIX 4 – eDNA Results

17 June 26

Re: Identification Results for Craig Turner, Wychwood Environmental

Job number 22319, received 05 June 2026

Sample labelled: Pinewood, Colgate, West Sussex, RH13 6HU. 3/06/2026.

PCR amplification successful. DNA sequence:

GTGCTAGGCAAATGCCTAGAAGAGATCCAAAGTTTCATCATGATGAAATATTTGAGG
GAGCAGGTAAGTCAATGAATGAGTCATTGATAATTTTATGAGAGGGTGGGACTTTC
GAATGTTGGTCAT

Phylogenetic analysis identification: *Plecotus auritus*

Confirmed by maximum likelihood, maximum parsimony, bootstrap 100%.

Best regards,

Professor Robin Allaby

The results and conclusions in this report are based on an investigation of mtDNA sequence analysis. The results obtained have been reported with accuracy. The interpretation represents the most probable conclusion for the DNA sequence obtained rather than the sample provided given current levels of species data. It should be borne in mind that different circumstances might produce different results. Therefore, care must be taken with interpretation of the results especially if they are used as the basis for commercial recommendations.

Professor Robin Allaby

School of Life Sciences,
Gibbet Hill Campus,
University of Warwick,
Coventry CV4 7AL
Tel: 02476575059
Fax: 02476574500
Email: r.g.allaby@warwick.ac.uk

APPENDIX 5 – Lighting guidance - the impact of artificial light on bats.

The following basic set of guidelines is summarized from the latest Guidance Note (08/18)¹⁹ provides a concise checklist of points to consider with any lighting scheme:

- *Use professional lighting design engineers to model and predict light spill so that it can be avoided.*
- *Reduce light levels to the minimum necessary to meet legal and safety requirements.*
- *Reduce horizontal and upward/downward light spillage to the minimum achievable. The use of cowling, masks, louvers etc. and limiting the height of lighting columns may be important depending on the design of the lighting units. No bare bulbs. Lighting should only light the target area.*
- *Use non-reflective surfaces within the area to be lit to minimise indirect (reflected) spillage of light. The use of planting or other structures to add screening.*
- *Reduce the duration of lighting. The use of lighting 'curfews' can also be helpful - especially in the vicinity of bats roosts. For example, the emergence of bats, typically within the hour after sunset, may be disrupted (delayed) by raised light levels and this may result in a loss of feeding opportunities.*
- *Consider the type of light to be used and whether a different type or design may reduce potential impacts on bats and other wildlife. Narrow spectrum lighting with minimal UV emission should be used.*
- *Use 'screen planting' to limit light spill into dark areas.*
- *Use narrow spectrum light sources to lower the range of species affected by lighting, as research has shown that spectral composition does impact biodiversity.*
- *Use light sources that emit minimal ultra-violet light*
- *Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue short wave length content they should be of a warm / neutral colour temperature <4,200 kelvin.*

For more details, please refer to:

<https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

http://www.bats.org.uk/pages/bats_and_lighting.html

<http://www.batsandlighting.co.uk/index.html>

¹⁹ <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

APPENDIX 6 – Gardening for bats.

GARDENING FOR BATS



All sixteen species of bats in the UK eat insects, and need a good supply of these from spring through to the autumn. By growing flowers attractive to a range of insects, our gardens can become important feeding stations for bats, birds and other wildlife.

Many plants depend on insects

We grow flowers in our gardens for our own enjoyment. But colour and perfume are really the plants' way of advertising themselves to insects. Sweet nectar and protein-rich pollen are bait to encourage insects to visit. In return, pollen is carried from one flower to another on their bodies so the flowers are fertilised.

Bats need insects

Flying uses a lot of energy, so bats have huge appetites. All our UK bats eat insects. Five species, including the long-eared bat, prefer moths, but most bats rely more heavily on flies as food than any other insect group. Especially important are craneflies, and a range of midge families and their relatives. Pipistrelles, the bats most likely to visit your garden, depend on catching very large numbers of tiny insects, some of which are pests.

Flower shape and insect tongues

Flowers with long narrow petal tubes, such as evening primrose and honeysuckle, are visited by moths and butterflies. Only their long tongues can reach deep down to the hidden nectar. Short-tongued insects include many families of flies and some moths. They can only reach nectar in flowers with short florets. By planting a mixture of flowering plants, vegetables, trees and shrubs, you can encourage a diversity of insects to drop in and refuel.

Follow these general rules

- ? Plant flowers varying not only in colour and fragrance, but also in shape.
- ? Daisies and daisy-like flowers are open with a mass of shallow florets.
- ? Pale flowers are more easily seen in poor light.
- ? Single flowers have more nectar than double varieties
- ? Native wild flowers or those closely related are most useful
- ? Flowers with landing platforms and short florets such as daisy or carrot family attract many insects.
- ? Many flowering vegetables such as beans and courgettes are also good for insects.

Plant trees and shrubs

These are important in providing

- food for insect larvae
- food for adult insects
- shelter for flying insects

- roosting opportunities for bats.

In a small garden, choose trees that can be coppiced – cut down to the ground every few years - to allow new shoots to spring from the base. Young shoots and leaves will support leaf-eating insects, even if they do not produce flowers. Hawthorn and elder are useful small trees.

Create a wet area

A pond, a marshy area, even a half-tub made into a mini-pond can attract insects. Many of the tiny flies favoured by bats start life in water as aquatic larvae.

Say NO to insecticides

Chemical pesticides kill natural predators and so may do more harm than good. They reduce bats' insect prey, and surviving insects carry traces of poison.

Encourage natural predators

Hoverflies, wasps, ladybirds, lacewings, ground beetles and centipedes are the gardener's friends. As natural predators they help keep the balance, eating many pests.

- ? Allow some weeds to grow to provide ground cover for natural predators
- ? Grow favourites of hoverflies and other predators close to the flowers and vegetables that tend to become infested.
- ? Leave hollow-stemmed plants to overwinter as shelter for ladybirds.
- ? Leave heaps of dead leaves and brushwood undisturbed for hedgehogs.
- ? Most garden birds are effective predators. Provide them with regular food and water.

Prevent a CATastrophe

Many bats and other small mammals fall prey to Britain's most dangerous four-legged predator, the domestic cat. Cats do not need to stay out all night. Bring your cat in an hour before sunset so bats can emerge undisturbed.

(Send for our special leaflet on cats and bats.)

The Bat Conservation Trust, 15 Cloisters House
8 Battersea Park Road, London SW8 4BG
Tel 0845 1300 228 Fax 020 7627 2628
enquiries@bats.org.uk www.bats.org.uk
Registered Charity no 1012361 Company limited by guarantee, registered in England no 271282

August 2004

Gardening for bats

Aim at having flowers in bloom through the year, including both annuals and herbaceous perennials.

Below are some suggestions, but this is by no means an exhaustive list. See what grows well in YOUR garden, and what seems most attractive to insects. Flowering times are approximate, varying in different areas. Regular dead-heading extends flowering period in many flowers. A=annual, HA=hardy annual, HHA=half-hardy annual, P=perennial, W=wild flower,

Flowers for borders			
St John's Wort	<i>Hypericum</i>	P	March-
marigolds	<i>Calendula</i>	H/A	March – Oct.
subretia	<i>a. deltoidea</i>	P	March-June
honesty	<i>Lunaria rediviva</i>	HB	March
forget-me-not	<i>Myosotis</i> sp.	A/P	March - May
elephant ears	<i>Bergenia</i>	P	April
Wallflowers	<i>Erysimum</i>	B	April - June
Cranesbills	<i>Geranium</i> sp.	P	May – Sept.
Yarrow	<i>Achillea</i>	P	May -
Poppies	<i>Papaver</i> sp.	A	May - July
Dames violet	<i>Hepernis matronalis</i>	P	May - August
Red Valerian	<i>Centranthus ruber</i>	P	May – Sept.
Poached egg plant	<i>Limnathes</i>	HA	June – Aug.
Knapweed	<i>Centaura nigra</i>	P	June- Sept.
Phacelia		HA	June – Sept.
Ox-eye daisy	<i>Leucanthemum vulgare</i>	P	June – Aug.
Evening primrose	<i>Oenothera biennis</i>	B	June-Sept.
Candytuft	<i>Iberis umbellata</i>	HA	June – Sept.
Sweet William	<i>Dianthus barbatus</i>	B	June - July
Blanket flowers	<i>Gaillardia</i>	P	June -
Verbena	<i>V. bonariensis</i>	HHA	June – Oct.
Scabious	<i>Anastia anensis</i>	P	July-Aug.
Night-scented stock	<i>matthiola bloomis</i>	HA	July-Aug.
Pincushion flower	<i>Scabious</i> sp.	A/P	July – Sept.
Cherry pie	<i>heliotrope</i>	HHA	July – Oct.
Mexican aster	<i>Cosmos</i> sp.	A/P	July – Oct.
Cone flower	<i>Rudbeckia</i> sp.	A/P	August-Nov.
Mallow	<i>lavatera</i> sp.	P	August-Oct.
Michaelmas daisy	<i>Aster</i> sp.	P	August-Sept.
Ice plant 'Pink lady'	<i>Sedum spectabile</i>	P	Sept.
Herbs – both leaves and flowers are fragrant			
Fennel	<i>Foeniculum vulgare</i>		July – Sept.
Bergamot	<i>Monarda didyma</i>		June - Sept
Sweet Cicely	<i>Myrrhis odorata</i>		April - June
Hyssop	<i>Hyssopus officinalis</i>		July - Sept
Feverfew	<i>Tanacetum parthenium</i>		June – Sept.
Borage	<i>Borago officinalis</i>		May – Sept.

Rosemary	<i>Rosemary officinalis</i>	March - May
Lemon balm	<i>Melissa officinalis</i>	
Coriander	<i>Copranum sativum</i>	June - August
Lavenders	<i>Lavandula</i> sp.	
Marjoram	<i>Origanum</i> sp.	
Trees, shrubs and climbers important to insects		
Oak	<i>Quercus</i> sp.	large gardens only
Silver birch	<i>Betula pendula</i>	
Common alder	<i>Alnus glutinosa</i>	Suitable for coppicing
Hazel	<i>Corylus avellana</i>	Suitable for coppicing
Elder	<i>Sambucus nigra</i>	Small
Pussy willow	<i>Salix caprea</i>	Suitable for coppicing
Hawthorn	<i>Crataegus monogyna</i>	Suitable for coppicing
Honeysuckle	<i>Lonicera</i> sp.	grow a variety for succession.
Dog rose	<i>Rosa canina</i>	Climber
Bramble	<i>Rubus fruticosus</i>	Climber
Ivy	<i>hedera helix</i>	Climber
Buddleia	<i>Buddleia davidii</i>	shrub
Guelder rose	<i>Viburnum opulus</i>	shrub
Gorse	<i>Ulex</i> sp.	shrub
Plants for pond edges and marshy areas		
Purple loosestrife	<i>Lythrum salicaria</i>	W June – Aug.
Meadow sweet	<i>Filipendula ulmaria</i>	W June – Sept.
Lady's smock	<i>Cardamine pratensis</i>	W April - June
Water mint	<i>mentha aquatica</i>	W July – Sept.
Angelica	<i>Angelica sylvestris</i>	W July – Sept.
Hemp agrimony	<i>Eupatorium cannabinum</i>	W July – Sept.
Marsh marigold	<i>Caltha palustris</i>	W March – May
Creeping Jenny	<i>Lysimachia nummularia</i>	W May - August
Fringed water lily	<i>Nymphoides peltata</i>	W June – Sept.
Water forget-me-not	<i>Myosotis scorpioides</i>	W June – Sept.

Allow part of your lawn to grow long in summer and cut in autumn, removing the clippings. Avoid using fertilizers. Compost heaps are good producers of insects too.

Add a seat to watch your garden come to life!

Other sources include:

<https://www.buglife.org.uk/activities-for-you/wildlife-gardening>

<https://www.rspb.org.uk/birds-and-wildlife/advice/gardening-for-wildlife/creating-a-wildlife-friendly-garden/>

<https://www.rhs.org.uk/advice/design/design-with-plants/wildlife-friendly-garden-plants>

<https://www.wildlifetrusts.org/gardening>