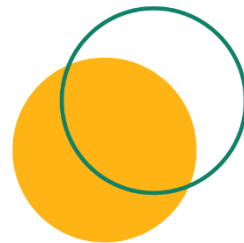




Bat Emergence Survey Report



Catherine Mountain
114 Kidmore End Road, Emmer Green, Reading RG4 8SL

June 2026

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1. Introduction

1.1. Background

The client, Catherine Mountain, has instructed ACP Consultants Ltd to conduct a Bat Emergence Survey (BES). The survey was commissioned to accompany the planning application to the Reading Borough Council for the “two-storey side extension with front dormer, single-storey rear orangery and front porch canopy, and a conversion of the garage” (hereafter referred to as ‘the proposed development’) at 114 Kidmore End Road, Emmer Green, Reading RG4 8SL (hereafter referred to as ‘the site’). The site is currently classed as residential and will remain as such. The proposed development plan is provided in **Appendix 1**.

The site has previously been subject to survey. The following survey reports are of relevance:

- Preliminary Ecological Appraisal (PEA) (Urban Tree Experts, 2025)

This report should be read in conjunction with the Preliminary Ecological Appraisal (Urban Tree Experts, 2025). The PEA recommends two emergence surveys as the building is considered to have moderate suitability for bats.

1.2. Scope of Report

A Bat Emergence Survey (BES) report records the bat activity observed and recorded during a BES. The aim of the survey(s) is to determine the presence or likely-absence of bats. In the event bats are identified as roosting at the site, the aim is then to characterise any roosts present, identify the number and location of roost access points, identify bat species, determine the number of individuals, and to understand how bats are using the site. The report details possible ecological constraints resulting from the proposed development as a result of bats being present, and recommendations for further survey or mitigation required, such as a European Protected Species Licence, to obtain planning permission or other statutory consent, and to comply with wildlife legislation.

The following actions were undertaken to achieve these aims:

- Built structures and/or trees were surveyed to determine the presence or likely-absence of bat roosts.
- Identified potential impacts of the proposed development on roosts.
- Recommendations were made for mitigation, and advice given on the requirements for attaining a European Protected Species Licence (EPSL) where appropriate.
- Enhancement opportunities for the site for bats have been advised.

This assessment has been conducted in accordance with good practice guidelines, the National Planning Policy Framework (2025) and relevant local supplementary guidance.

Relevant planning policy and legislation can be found in **Appendix 4**.

1.3. Proportionality

BS 42020:2013 – The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary, and material to the application in question.

Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

This approach is enshrined in Government planning guidance, for example, paragraph 193 of the National Planning Policy Framework for England.

The desk studies and field surveys undertaken to provide a preliminary ecological appraisal (PEA) might in some cases be all that is necessary.

1.4. Validity Statement

The survey results and recommendations contained within this report are valid for 18 months for the purposes of planning, unless works have taken place since the production of this report (CIEEM, 2019). With regards to bats, this report is only considered up to date for a licence application until the start of the next bat activity season. Some level of update surveys will be required outside of this, and will depend on the site itself.

2. Methodology

To achieve the objectives set out in the scope of the report, a desk study was completed as part of the PEA or PRA, followed by a site survey as recommended.

The number of evening emergence surveys for each survey was determined using Table 7.1 from the 4th edition of Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2023). Further survey and mitigation recommendations were based on the above considerations, as well as Tables 7.1 and 7.2 of the bat survey guidance.

Dusk emergence surveys begin 15 minutes before sunset and continue for 1.5 to 2 hours after sunset, depending on bat activity, the nature of the suspected roost, and surveyor visibility. Surveys are conducted under optimal weather conditions, with temperatures above 10°C, with no rain or strong winds (exceeding 5 m/s), as adverse conditions can affect bat emergence and foraging behaviour. Where possible, periods of high moon illuminance (over 80%) were avoided, as this can reduce bat activity. When multiple surveys are required, they are spaced at least three weeks apart, and one survey may have been undertaken in sub-optimal weather conditions, where bat activity was still recorded.

During each survey, surveyors are positioned around each relevant building or tree to ensure all elevations, roof sections, and sides with potential roosting features are clearly observable by surveyors and/or infrared cameras. Particular focus is given to areas identified as providing suitable access points for bat roosts. Each surveyor is paired with a night vision aid camera and is assigned a specific section of the building or tree to monitor for the duration of the survey.

Surveyors use full spectrum recording bat detectors. Bat echolocation calls recorded during surveys are analysed after the survey using acoustic analysis software when necessary. While the Echo Meter Touch 2 includes an auto-ID function for bat species, this is not entirely reliable, and further post-survey sound analysis is often required to confirm species that could not be identified during the survey.

Surveyors also use red-light head torches, survey record sheets, and pens to document all observed activity. Each surveyor is equipped with a handheld radio to facilitate communication and help clarify ambiguous bat activity, such as distinguishing between bat emergence and bats passing over the building or tree.

3. Results

3.1. Site context

The site is located at National Grid Reference SU 71896 76999 and has an approximate area of 0.09ha.

3.2. Field Survey

The suite of surveys was designed and project-managed by Ella Walker and Brydie Stacey BSc (Hons.), MSc.

3.2.1. Dusk Survey – visit 1

Date: 06/05/2026

Start-End time: 20:20-22:05

Sunset time: 20:35

Factor	Start	End
Temperature (° Celsius)	11	9
Wind (m/s)	2	3
Cloud Cover (%)	70	25
Precipitation	None	None

Building B1

Position	Name	Years of Experience	Observing
1	Unmanned camera	-	North-east elevation
2	Ayan Chakravartty	7 years	North-west elevation
3	Unmanned camera	-	South-east elevation
4 - Lead	Anna Smith	6 years	South-west elevation

Surveyor Observations

IR Position 1 (Unmanned) 1x EMT2 1x Nightfox Whisker 1x Nightfox XB5 Torch 1x Nightfox Arc Floodlight	Common pipistrelle (CP) activity was first recorded at 20:45, with foraging behaviour continuing until approximately 21:30. Further Common pipistrelle commuting activity was noted at 21:23, with a bat observed moving west to east along the south side of the house. At 21:16, a Noctule (NOC) was recorded commuting	
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	overhead in a south-west to north-east direction across the garden. At 21:28, a <i>Myotis</i> species (MYO) was detected but not seen. A <i>Serotine</i> (SER) was also recorded during the survey, with foraging behaviour noted later in the session. No roosting bat activity was recorded.	
Surveyor 2 1x EMT2 1x Nightfox Whisker 1x Nightfox XB5 Torch 1x Nightfox Arc Floodlight	Soprano pipistrelle (SP) activity was first recorded at 20:59, with foraging behaviour continuing until 21:10. Foraging activity and directional commuting of Common pipistrelle (CP) activity were recorded from 21:00 to 21:47. One Noctule (NOC) call was captured at 21:15; this was not seen. No roosting bat activity was observed.	
IR Position 2 1x EMT2 1x Nightfox Whisker 1x Nightfox XB5 Torch 1x Nightfox Arc Floodlight	The footage reflected the view and observations of surveyor 2. No additional activity was recorded.	

IR Position 3 (Unmanned) 1x Nightfox Nova 1x Nightfox XB5 Torch	At 20:59, one Common pipistrelle was observed flying across the elevation, consistent with notes from surveyor four. No roosting bat activity was recorded.	
Surveyor 4 1x EMT2 1x Nightfox Whisker 1x Nightfox XB5 Torch 1x Nightfox Arc Floodlight	At 20:59, a Common pipistrelle (CP) was recorded passing from north-east to south-west across the Southern elevation. A Soprano pipistrelle (SP) was detected at 21:07 but not seen. At 21:11, an unidentified bat (UNID) was observed passing from south-west to north-east following the foot path line. This bat was not detected by the monitor and therefore remains UNID. A Serotine (SER) was recorded at 21:14 and visible foraging behaviour observed at 21:16 by a Noctule was recorded flying southwest - northeast overhead. Several Common pipistrelle passes were recorded and seen between 21:14 and 21:16. Constant foraging behaviour was observed from 21:16, specifically	

	around the rear gable and movement along the front garden hedge. No roosting bat activity was observed.	
IR Position 4 1x EMT2 1x Nightfox Whisker 1x Nightfox XB5 Torch 1x Nightfox Arc Floodlight	The footage reflected the view and observations of surveyor two. No additional activity was recorded.	

Limitations

Position 4 was partially obstructed by a small tree in the front garden, restricting the view of the ground floor bay window. This is not considered a significant limitation as position 3 was able to cross-reference the section of the building with restricted view.

3.2.2. Dusk Survey – visit 2

Date: 27/05/2026

Start-End time: 20:50-22:40

Sunset time: 21:05

Factor	Start	End
Temperature (° Celsius)	20	18
Wind (m/s)	5	5
Cloud Cover (%)	40	10
Precipitation	None	None

Building B1

Position	Name	Years of Experience	Observing
1	Charlotte Mollon	2 years	North-east elevation
2	Unmanned camera	-	North-west elevation
3	Unmanned camera	-	South-east elevation
4 - Lead	Anna Smith	6 years	South-west elevation

Surveyor Observations

Surveyor 1 1x EMT2 1x Nightfox Whisker 1x Nightfox XB5 Torch 1x Nightfox Arc Floodlight	Activity commenced at 21:28 with a Soprano pipistrelle recorded but not seen. A Serotine was detected at 21:39 but not seen. At 21:43, four Soprano pipistrelles were observed foraging across the rear garden area for 3-4 minutes, moving through habitat features including the hedgerow and exhibiting repeated feeding behaviour. Further Serotine activity was recorded at 21:47, with two individuals observed foraging and making passes around the western side of the property. The highest level of activity occurred at 21:56, when approximately four to five Soprano pipistrelles were recorded foraging in the vicinity of Position 1. Similar activity levels were noted around the adjacent garden area. A further Soprano pipistrelle was recorded at 22:10, followed by a Common Pipistrelle at 22:15. Both species were observed undertaking foraging activity. No roosting bat activity was observed.	
IR Position 1 1x Nightfox Whisker 1x Nightfox XB5 Torch	The footage reflected the view and observations of surveyor 1. No additional activity was recorded.	

IR Position 2 (Unmanned) 1x Nightfox Nova 1x Nightfox XB5 Torch	At 21:43, soprano pipistrelles were observed passing across the elevation, consistent with surveyor one's observations. At 21:47, a serotine is recorded, consistent with surveyor one's observations. Common pipistrelle foraging is recorded at 22:12 to 22:18, consistent with surveyor one. No roosting activity was recorded.	
IR Position 3 (Unmanned) 1x Nightfox Nova 1x Nightfox XB5 Torch	At 21:44, one serotine was recorded, consistent with surveyor one's observations. Two soprano pipistrelles were recorded foraging between 21:54 and 21:55. No roosting activity was recorded.	

Surveyor 4 1x EMT2 1x Nightfox Whisker 1x Nightfox XB5 Torch 1x Nightfox Arc Floodlight	Activity commenced at 21:25 with a Soprano pipistrelle call that was not seen. Further Soprano pipistrelle activity was observed between 21:43 and 21:47, including multiple passes. Two bats were recorded commuting from west to east, while another individual was observed travelling west to east shortly afterwards. At 21:59, a Noctule was recorded passing from south-west to north-east across the survey area. Additional Soprano pipistrelle calls were heard on the detector at 22:09 and 22:24, but neither was seen. Common pipistrelle activity was recorded later in the survey but not seen 22:25. No roosting bat activity was observed.	
IR Position 4 1x EMT2 1x Nightfox Whisker 1x Nightfox XB5 Torch 1x Nightfox Arc Floodlight	The footage reflected the view and observations of surveyor 4. No additional activity was recorded.	

Limitations

Position 4 was partially obstructed by a small tree in the front garden, restricting the view of the ground floor bay window. This is not considered a significant limitation as position 3 was able to cross-reference this section of the building.

4. Conclusion, Impact Assessment, and Recommendations

This section includes further work to commission (if any) to obtain planning permission or comply with legislation for other consent. Impacts as a result of the proposed development are assessed, and recommendations for mitigation and further survey work are given below.

4.1. Conclusion

Moderate amounts bat activity was recorded and seen during the surveys, particularly foraging and commuting behaviours. Foraging was observed within the rear garden and commuting pathways observed alongside the northern and southern aspects of the building. Common and soprano pipistrelles, noctule, and Myotis species were recorded throughout the surveys. No bats were seen emerging from or around the building. Therefore, a likely absence of roosting bats is concluded from B1.

4.2. Impact Assessment

The proposed development is for a two-storey side extension, a single-storey rear orangery and front porch canopy, and a conversion of the garage. This will result in renovations to the existing roof and exterior walls. As it is concluded that there is a likely absence of roosting bats within the building, no impacts are expected on roosting bats.

In the unlikely event that a bat or evidence of bats is discovered during the development, all work must stop and a bat licensed ecologist contacted for further advice.

4.3. Recommendations

A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures:

- Light spill on to retained habitats of bat value including the retained hedgerow and gardens should be avoided.
- Use high-pressure sodium or LED luminaires, ideally warm white (2700Kelvin or lower) as this has a low relative attractiveness of invertebrates.
- Use UV filters to reduce the attractiveness of the lamp to invertebrates, so as not to attract invertebrates away from bat foraging habitat.
- The use of directional lighting by using luminaires with rear shields and an upwards lighting ratio of zero. The spread of light will be kept in line with or below the horizontal.
- Careful selection and spacing out of luminaires to avoid over-lighting.
- Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.

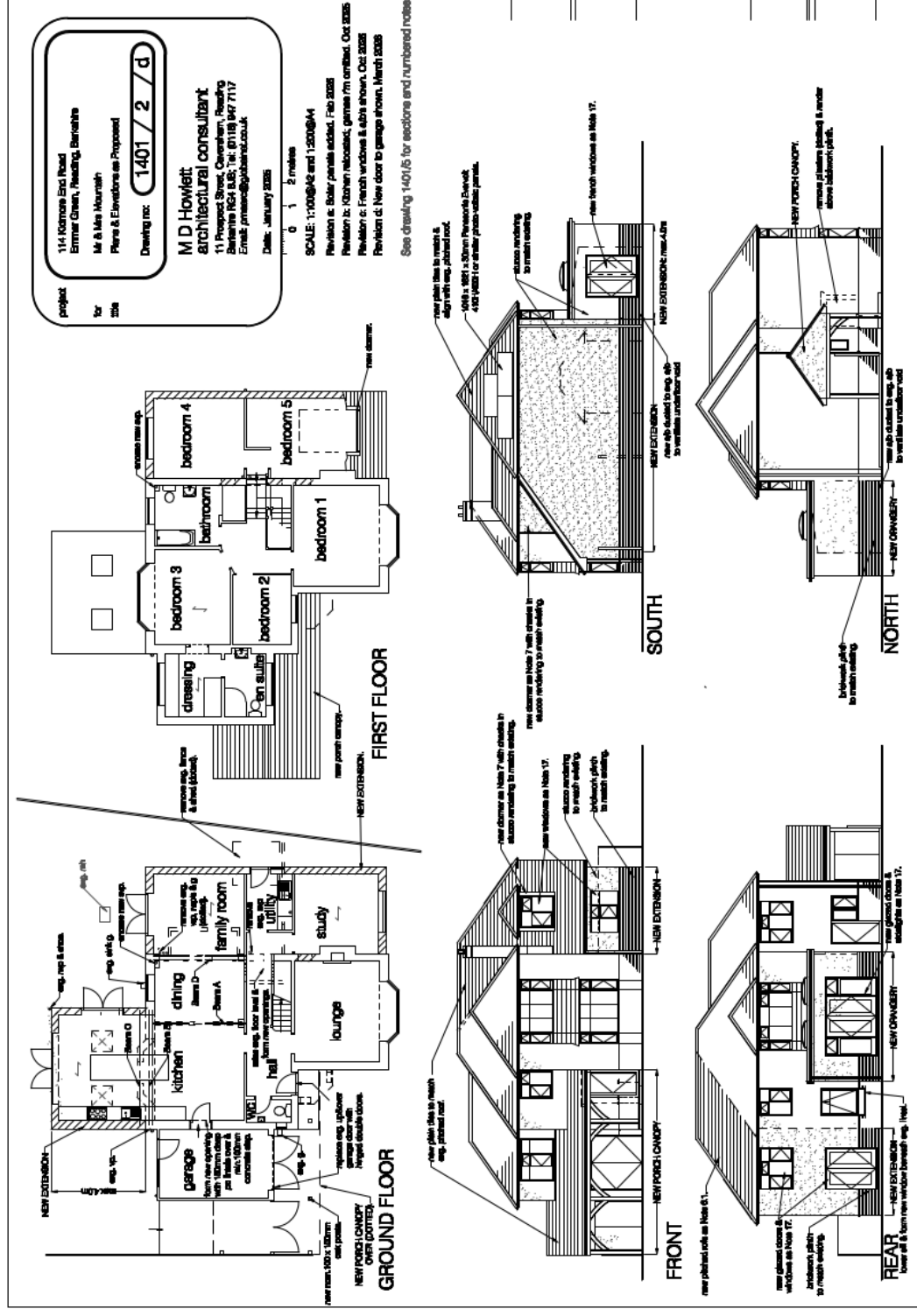
4.4. Enhancements

The following are opportunities for enhancement which could be incorporated into the proposed plans to improve the site's biodiversity post-development.

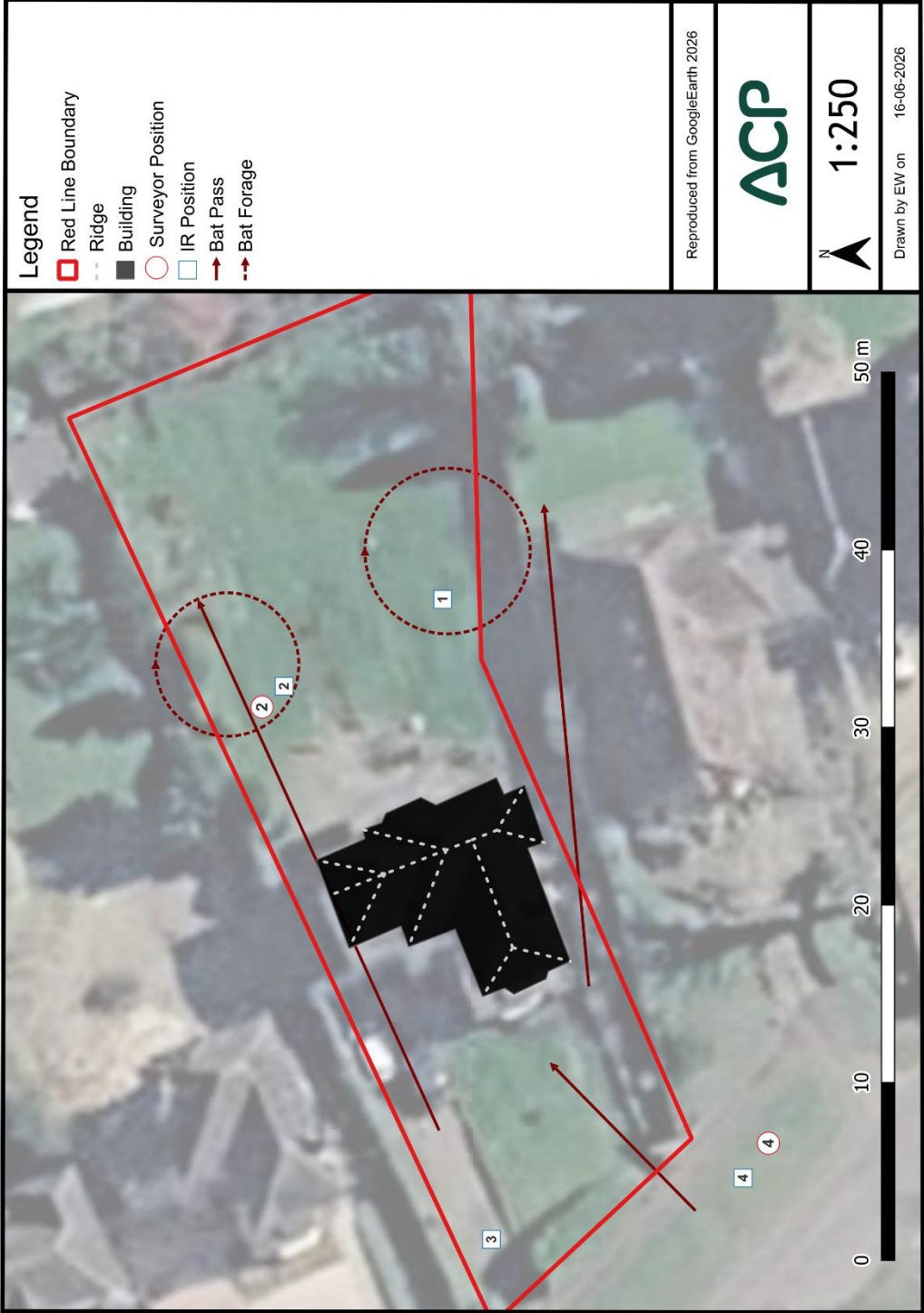
The installation of one bat box at the site will provide additional roosting habitat for bats. The bat boxes will be incorporated into the fabric of the new dwellings. They will be suitable for pipistrelles (which have been identified during the surveys). Suitable bat boxes include Habibat Bat Box, Ibstock Enclosed Bat Box or similar alternative brand. Boxes should be positioned 3-5m above ground level

facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light.

Appendix 1: Proposed plans



Appendix 2: BES Activity Map



Bat Emergence Survey
114 Kidmore End Road, Emmer Green, Reading RG4 8SL

Appendix 3: Unmanned Camera Protocol

Unmanned Night Vision Aid (NVA) Bat Emergence and Re-entry Survey Protocol

1. Overview

ACP Consultants Ltd utilise unmanned Night Vision Aid (NVA) monitoring systems to supplement conventional bat emergence and re-entry surveys. The methodology has been developed with reference to the Bat Conservation Trust (BCT) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition)* and the BCT publication *Bat Emergence Surveys with Night Vision Aids – A Technical Guide for Professional Ecologists* (2026).

The BCT guidance recognises that Night Vision Aids (NVAs), including near infrared (NIR) cameras, infrared illumination systems and thermal imaging technologies, can significantly improve the detection, verification and interpretation of bat emergence and re-entry activity when appropriately deployed. The guidance further emphasises that there is no single equipment solution suitable for all survey situations and that ecologists must understand the capabilities, limitations, deployment requirements and data management implications of the equipment being used.

ACP Consultants utilise unmanned infrared video monitoring systems to supplement direct surveyor observations and facilitate simultaneous monitoring of multiple elevations, roof slopes, access points and potential roost features. The methodology provides a permanent visual and acoustic record of survey observations that can be reviewed following survey completion and, where required, made available to Local Planning Authorities, Statutory Nature Conservation Bodies, licensing authorities and other authorised consultees.

All cameras, acoustic recorders and monitoring equipment are time synchronised prior to deployment to facilitate accurate correlation of visual observations, acoustic recordings and recorded emergence or re-entry events.

2. Equipment

ACP Consultants deploy professional-grade video recording, night vision and acoustic monitoring equipment selected to satisfy the operational principles described within the BCT *Bat Emergence Surveys with Night Vision Aids – A Technical Guide for Professional Ecologists*. Equipment is selected to provide high-quality image acquisition, wide field coverage, infrared-assisted monitoring, reliable recording capability and robust post-survey review opportunities.

Equipment	Technical Specification	Survey Application	Relevance to BCT NVA Principles
Panasonic HC-X1200	4K Ultra HD (3840 × 2160) recording, up to 60fps, 24x optical zoom, 25mm wide-angle lens, 1/2.5" MOS sensor, SDXC recording	Primary unmanned visual recording of emergence and re-entry activity	Provides high-resolution image acquisition, wide field coverage and continuous recording capability allowing detailed post-survey review of bat activity
Panasonic HC-X1600	4K Ultra HD (3840 × 2160) recording, up to 60fps, 24x optical zoom, 25mm wide-angle lens, enhanced low-light performance, SDXC recording	Primary unmanned visual recording of emergence and re-entry activity	Provides high-definition image quality, wide-angle coverage and reliable recording capability consistent with current NVA survey principles

Canon XA60	4K Ultra HD (3840 × 2160) recording, DIGIC DV6 processor, UHD CMOS sensor, 20x optical zoom, up to 60fps recording, SDXC recording	Primary unmanned visual recording of emergence and re-entry activity	Provides professional-grade image acquisition suitable for detailed verification of emergence and re-entry events
Nightfox Nova Pro	Digital night vision monocular, operation in complete darkness (0 lux), integrated dual 850nm infrared illuminators, approximately 120° field of view, onboard video recording capability	Dedicated NVA monitoring of elevations, roof slopes and emergence features	Provides wide-angle night vision coverage and infrared-assisted monitoring during low-light and no-light conditions
Echo Meter Touch Pro	Full-spectrum ultrasonic detector, GPS functionality, real-time monitoring, automated species classification support and WAV recording	Acoustic monitoring and species identification support	Provides supplementary acoustic evidence to support interpretation of visual observations and assist species identification
Nightfox Infrared Floodlights	850nm infrared wavelength, wide beam angle, site-wide illumination, tripod-mounted deployment	Site-wide infrared illumination of structures and roof features	Provides even illumination across target features and supports high-quality video recording in complete darkness
Nightfox Infrared Torches	850nm infrared wavelength, adjustable beam width, focused illumination of individual features and access points	Targeted illumination of crevices, soffits, ridge tiles, flashing interfaces and confirmed emergence locations	Allows enhanced visibility of individual features where additional focused illumination is required
Heavy-Duty Tripod and Horizontal Mounting Arm	Stable elevated mounting platform supporting simultaneous deployment of camera, NVA and acoustic recorder	Secure deployment of unmanned monitoring stations	Enables stable, repeatable and consistent positioning of monitoring equipment throughout the survey period

Each unmanned monitoring station comprises a heavy-duty tripod fitted with a horizontal mounting arm supporting a primary video recording camera, Nightfox Nova Pro NVA unit and Echo Meter Touch Pro acoustic recorder. The configuration enables all monitoring devices to be aligned towards the same target elevation whilst minimising obstruction between equipment and maintaining consistent coverage of identified potential roost features.

All primary recording devices are capable of recording at frame rates exceeding the minimum 25fps recording rate recommended within the BCT guidance. Recording settings are selected to maximise image quality whilst maintaining manageable file sizes for post-survey review.

3. Deployment Methodology

Survey positions are selected following an assessment of the building or structure to identify all potential bat access points and roost features requiring monitoring. Particular attention is given to

lifted roof tiles, ridge tiles, flashing interfaces, soffits, fascia boards, crevices, cracks, dormer features, weatherboarding and any locations identified during the Preliminary Roost Assessment.

Each unmanned monitoring station is positioned to maximise visibility of target features whilst minimising blind spots. Where required, multiple cameras are deployed to provide overlapping fields of view and comprehensive coverage of all elevations and roof features.

The number of monitoring stations deployed is determined on a site-specific basis having regard to building complexity, visibility constraints, identified roost features and survey objectives.

4. Infrared Illumination Strategy

Appropriate infrared lighting design is considered fundamental to survey success. In accordance with BCT guidance, ACP Consultants recognise that inadequate, uneven or poorly positioned infrared illumination can reduce image quality and increase the likelihood of missing bat activity.

Infrared illumination is provided through a combination of integrated Nightfox Nova Pro illuminators, dedicated infrared torches and independent infrared floodlights.

Lighting is deployed independently from cameras wherever practicable and may be positioned at differing heights and angles to improve image contrast and reduce shadowing. Multiple floodlights may be deployed to eliminate dark areas and ensure even illumination of all target features.

Dedicated infrared torches may be directed towards specific access points requiring enhanced visibility, including lifted roof tiles, ridge tiles, soffits, flashing interfaces, crevices and confirmed emergence or re-entry locations.

The number, power and positioning of infrared illumination units is determined on a site-specific basis by the Lead Ecologist and may be adjusted following darkness verification checks to ensure all target features remain visible throughout the survey period.

5. Quality Assurance

Prior to deployment, all equipment undergoes operational checks to verify:

- battery charge levels;
- memory card installation and available storage capacity;
- recording settings;
- time synchronisation;
- infrared illumination functionality;
- acoustic monitoring functionality;
- lens cleanliness and focus;
- tripod stability and equipment security.

Following the onset of darkness, the Lead Ecologist undertakes a final verification assessment to confirm that all target features remain visible and that recording systems, acoustic monitoring equipment and infrared illumination remain fully operational.

Where visibility is considered inadequate, additional infrared illumination may be deployed and equipment positions adjusted as necessary.

6. Survey Recording and Review

All unmanned monitoring stations record continuously throughout the survey period.

Where a surveyor temporarily leaves a manned observation position, departure and return times are recorded within the survey notes. During any such period, continuous video recording remains active, ensuring that the observation area continues to be monitored.

In accordance with current BCT guidance, all manned and unmanned recordings are reviewed following survey completion irrespective of whether bat activity was observed during field observations. Associated acoustic recordings are also reviewed and correlated with video footage where appropriate.

This review process provides an additional quality assurance measure and assists in ensuring that emergence, re-entry and other notable bat activity are accurately identified and documented.

7. Recording and Reporting

Survey plans identify the location of surveyors, cameras, acoustic detectors and infrared illumination used during each survey.

Where appropriate, representative screenshots obtained during periods of darkness may be included within survey reports to demonstrate the field of view achieved and the effectiveness of infrared illumination across target features.

Any limitations associated with equipment deployment, visibility, lighting conditions or survey coverage are clearly documented within the survey report.

8. Data Storage and Retention

Survey recordings, acoustic data, field notes and associated survey records are securely stored within ACP Consultants Ltd's digital archive system.

ACP Consultants currently retain survey recordings for a minimum period of one year following survey completion unless otherwise required by project-specific, contractual or legal obligations.

Data may be made available upon request to Local Planning Authorities, Statutory Nature Conservation Bodies, licensing authorities or other authorised consultees where verification or review of survey findings is required.

9. Limitations

Whilst NVA-assisted monitoring significantly enhances survey coverage and provides a permanent survey record, limitations associated with vegetation cover, adverse weather conditions, temporary obstructions, building complexity and unforeseen equipment failure may remain.

Such limitations are considered during survey design and are mitigated wherever reasonably practicable through the deployment of additional monitoring equipment, overlapping fields of view, supplementary infrared illumination and comprehensive post-survey review of recorded data.

Where significant limitations are identified that are considered likely to affect the reliability, completeness or interpretation of survey results, ACP Consultants Ltd will assess the requirement for additional survey effort, supplementary monitoring or repeat surveys on a case-by-case basis. Any such requirement will be determined by the Lead Ecologist having regard to the survey objectives, the nature of the identified limitation and current Bat Conservation Trust guidance. Where necessary, additional survey work may be recommended to ensure that robust and defensible ecological conclusions can be reached.

Appendix 4: Planning Policy & Legislation

This section summarises the relevant national and local legislative and policy background, statutory and non-statutory guidelines relevant to the potential commercial development.

National Policy

National Planning Policy Framework (2025)

Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

The principal national planning policy guidance with respect to the potential development is the National Planning Policy Framework (NPPF). The most recent update of the NPPF was published in December 2024 by the Ministry of Housing, Communities and Local Government. This guidance sets out the Government's planning policies for England and how they are expected to be applied. Three dimensions to sustainable development have been identified in the NPPF: economic, social, and environmental.

The NPPF Section 187 states that:

“Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.”

Section 188 states that:

“Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.”

Section 189 states that:

“Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and National Landscapes, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas and should be given great weight in National Parks and the Broads⁶³. The scale and extent of development within

these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas.”

Section 190 states that:

“When considering applications for development within National Parks, the Broads and National Landscapes, permission should be refused for major development⁶⁴ other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:

- a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;*
- b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and*
- c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.”*

Section 192 states that:

“To protect and enhance biodiversity and geodiversity, plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and steppingstones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*
- b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”*

Section 193 states that:

“When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.”*

Section 194 states that:

“The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or

projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site."

Environment Act 2021

Available at: <https://www.legislation.gov.uk/ukpga/2021/30/contents>

Effective 2024, the statutory mandate for Biodiversity Net Gain (BNG), as established by Schedule 14 of the Environment Act 2021, requires all developments subject to Schedule 7A of the Town and Country Planning Act 1990 to provide a minimum +10% gain in biodiversity value. This requirement is a mandatory condition of planning permission, applicable to all new developments except those expressly excluded under the Biodiversity Gain Requirements (Exemptions) Regulations 2024.

Pursuant to the statutory framework established by Schedule 14 of the Environment Act 2021, every grant of planning permission is subject to a biodiversity gain condition under Schedule 7A of the Town and Country Planning Act 1990. This condition mandates that the biodiversity gain objective be satisfied via a minimum +10% net increase in biodiversity value relative to the pre-development baseline. This requirement serves as a condition precedent; accordingly, a Biodiversity Gain Plan must be submitted to and discharged by the Local Planning Authority (LPA) in writing prior to the commencement of development. Any material operations initiated in the absence of such approval shall constitute a breach of planning control under Section 171A of the Town and Country Planning Act 1990.

Statutory provision requires that significant on-site biodiversity enhancements be maintained for a duration of no less than 30 years following the development's conclusion. This requirement is satisfied through the imposition of a planning condition, a planning obligation, or a conservation covenant. Under the Town and Country Planning Act 1990, LPAs are empowered to utilise section 106 (s106) agreements to facilitate the delivery of on-site enhancements, the transfer of registered off-site biodiversity gains, or the use of statutory credits, while ensuring compliance through rigorous monitoring and reporting frameworks.

Species and Habitats Legislation

The Conservation of Habitats and Species Regulations 2017 (as amended)

Available at: <https://www.legislation.gov.uk/uksi/2017/1012/contents>

The Conservation of Habitats and Species Regulations 2017 (as amended) consolidates all various amendments made to The Conservation (Natural Habitats & c.) Regulations 1994, in respect of England and Wales. The 1994 Regulations transposed the EC Habitats Directive 1992 (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) into national law.

Annexes I and II of the Habitats Directive list (respectively) habitats and species for which member states are required to establish and monitor SACs. The EC Birds Directive provides a similar network of sites (SPAs) for all rare or vulnerable species listed in Annex I and all regularly occurring migratory species, with particular focus on wetlands of international importance.

Together with SACs, SPAs form a network of pan-European protected areas known as 'NATURA 2000' sites.

The Habitats Regulations also make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade on the animals listed in Schedule 2, or pick, cut, uproot, destroy or trade in the plants listed in Schedule 4.

This legislation was amended in January 2021: The main changes to the 2017 Regulations are:

- “the creation of a national site network within the UK territory comprising the protected sites already designated under the Nature Directives, and any further sites designated under these Regulations
- the establishment of management objectives for the national site network (the ‘network objectives’)
- a duty for appropriate authorities to manage and where necessary adapt the national site network as a whole to achieve the network objectives
- an amended process for the designation of Special Areas of Conservation (SACs)
- arrangements for reporting on the implementation of the Regulations, given that the UK no longer provides reports to the European Commission
- arrangements replacing the European Commission’s functions with regard to the imperative reasons of overriding public interest (IROPI) test where a plan or project affects a priority habitat or species
- arrangements for amending the schedules to the Regulations and the annexes to the Nature Directives that apply to the UK.”

The Wildlife and Countryside Act 1981 (as amended) (WCA 1981)

Available at: <https://www.legislation.gov.uk/ukpga/1981/69?view=extent>

The WCA is the primary UK mechanism for statutory site designation (Sites of Special Scientific Interest [SSSIs]) and the protection of individual species listed under Schedule 1,2,5 and 8 of the Act, each subject to varying levels of protection.

Bats are fully protected under Schedule 5 and as such in England and Wales it is an offence under the Wildlife & Countryside Act 1981 (as amended) to:

- Deliberately capture, injure or kill a bat
- Damage or destroy a bat roost
- Deliberately or recklessly disturb a bat
- Deliberately or intentionally obstruct access to a roost
- Possess, transport or sell a bat or parts of bats (dead or alive)

The consequences are outlined as 6 months in prison and/or an unlimited fine.

The Countryside and Rights of Way Act 2000 (CROW 2000)

Available at: <https://www.legislation.gov.uk/ukpga/2000/37/contents>

This legislation strengthens the provision of the 1981 WCA (as amended), both in respect of statutory sites such as SSSIs and protected species. It also places a statutory obligation on Local Authorities and other public bodies to further conservation of biodiversity in the exercise of their functions, thus providing a statutory basis to the Biodiversity Action Plan (BAP) process, which began in 1994. Section 74 of the Act lists the habitat types and species of principal importance in England. The UK Biodiversity action Plan has now been superseded by the ‘UK Post-2010 Biodiversity Framework’ (July 2012), however, many of the species and habitats in the UK and local BAPs have not been updated and are still considered relevant to date.

A Bill to amend the Countryside and Rights of Way Act 2000 to extend the right of public access to the countryside, including to woodlands, the Green Belt, waters and more grasslands; and for connected purposes is currently in second reading in the House of Commons (November 2022).

Natural Environmental and Rural Communities Act 2006 (NERC 2006)

Available at: <https://www.legislation.gov.uk/ukpga/2006/16/contents>

The act places a duty of public authorities regarding the conservation of English wildlife and biodiversity. Section 41 sets out a list of species “of principal importance for the purpose of conserving biodiversity”. Such species include but are not restricted to:

- Barbastelle
- Bechstein’s
- Noctule
- Brown long eared
- Greater horseshoe
- Lesser horseshoe

Wild Mammals (Protection) Act (1996)

Available at: <https://www.legislation.gov.uk/ukpga/1996/3/enacted>

Because of the Wild Mammals Act, UK mammal species are protected from any unnecessary cruel acts. Such acts include any actions which may cause unnecessary suffering to the animal. As such, all UK bat species are protected under this law.

The Protection of Badgers Act 1992

Available at: <https://www.legislation.gov.uk/ukpga/1992/51/contents>

Under the Protection of Badgers Act 1992, it is illegal to intentionally harm, injure, kill, and treat badgers with cruelty. The law also protects their setts from damage, destruction, or obstruction, and from having dogs sent into them. The Act consolidates previous laws, making it an offence to dig for badgers, sell, possess or control them without a licence, and badger baiting.

Appendix 4: Reference List

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