Sycamore Lodge, Hickling Pastures

Protected Species Surveys Report

September 2023

B.A.T ECOLOGICAL

B.A.T. Ecological | www.bat-ecological.co.uk | info@bat-ecological.co.uk | 07870 157022

Report Information:

Report title:	Sycamore Lodge, Hickling Pastures – Protected Species Surveys Report, September 2023
Prepared by:	Matt Cook BSc (Hons) MSc MCIEEM
Prepared for:	Mr and Mrs R. Allum
First version issued on:	18 November 2022 (B.A.T.221101)
Second version (following 2023 surveys) issued:	28 September 2023
Document reference:	B.A.T. 230903

Disclosure:

Cover photograph by Dan Cook @ https://danscape.co/

Contents

Executive Summary 4
1 Introduction 6
1.1 Background 6
1.2 Site Location 6
1.3 Site and Building Descriptions 7
2 Relevant Wildlife Legislation and Planning Policy 9
2.1 General 9
2.2 Legislation - Bats 9
2.3 Legislation - Birds 10
2.4 Relevant Planning Policy 10
3 Methods 12
3.1 General 12
3.2 Desk Study 12
3.3 Daytime Bat Roost Assessment and Inspection 12
3.4 Nocturnal Bat Surveys 13
3.5 Nesting Birds 15
3.6 Personnel 16
3.7 Equipment 16
4 Results 18
4.1 Desk Study 18
4.2 Daytime Bat Roost Assessment and Inspection 18
4.3 Nocturnal Bat Surveys 19
4.4 Nesting Birds 22
5 Evaluation 23
6 Conclusions 24
6.1 Bats 24
6.2 Nesting Birds 24
7 Recommendations 25
7.1 Bats 25
7.2 Nesting Birds 26
7.3 Biodiversity Enhancements 26
7.4 General 27
Appendix 1: Site and Survey Results Plan 28
Appendix 2: 2022 Survey Results and Photographs – House 29

Executive Summary

This report presents the findings and recommendations from a suite of protected species surveys undertaken by B.A.T. Ecological of the buildings at Sycamore Lodge, Hickling Pastures, LE14 3QF, which is hereafter referred to as the 'Site'. The central Ordnance Survey grid reference of the Site is SK 67435 27397 and it is located here.

Protected species surveys of the barns and outbuildings on the Site were initially completed by B.A.T. Ecological in the summer of 2019 to inform a planning application to redevelop it. Planning permission was subsequently issued by Rushcliffe Borough Council in December 2019 (reference no. 19/02868/FUL) for the conversion and extension of the existing barns and outbuildings to form two new dwellings. The 2019 surveys identified several bat roosts in the barns and outbuildings; refer to B.A.T. Ecological report B.A.T.191101 (*Sycamore Lodge, Hickling Pastures – Bat Surveys Report, November 2019*) for more information.

The current owners of Sycamore Lodge now wish to submit a revised planning application for the Site to include demolition of the main house which was not part of the 2019 scope. Additional protected species surveys have therefore been undertaken in the summers of 2022 and 2023 to update the 2019 surveys, and now including of the house.

The bat surveys conducted at this Site by B.A.T. Ecological have identified that Building 2 on the Site, the large barn, provides a satellite roost site for a breeding colony of at least eight brown long-eared bats. These bats also occasionally use the adjoining barns and outbuildings for feeding and commuting.

In addition, five other lower conservation status bat roosts have been identified on the Site. The brickwork of Building 2 supports a mating roost for low numbers of common pipistrelles (1) and a day roost of low numbers of soprano pipistrelles (2), a Natterer's bat occasionally night roosts among the roof timbers of this building (3), and the house supports two common pipistrelle day roosts, both of individual bats (4 and 5).

Appendix 1 provides a Site and Survey Plan including the location of all bat roosts identified from 2019 to 2023.

The desk study did not identify any constraints to the proposed redevelopment of the Site due to nearby sites of conservation importance for bats or redevelopment already licensed by Natural England

If damage, destruction, or disturbance of any bat roosts on this Site cannot be avoided during the proposed redevelopment then a European Protected Species Mitigation Licence (EPSML) will be required from Natural England to derogate the laws that protect bats to facilitate it.

To acquire an EPSML a comprehensive mitigation strategy will need to ensure that no bats are harmed or unnecessarily disturbed during the proposed redevelopment. Work in areas of high risk to bats will be attended by the Named Ecologist on the EPSML (or their Accredited Agent) and disturbance during sensitive periods for bats will be avoided where applicable.

There will also need to be alternative roost habitat made available on the Site ahead of the loss of any existing roosts. For each of the five lower conservation status roosts identified on the Site one bat box, tile / slate, brick, or crevice habitat suitable for the species concerned will be provided (i.e., five in total) on suitable trees or retained buildings on the Site. As compensation for the loss of the brown long-eared bat roost in Building 2 a bespoke 'bat loft' will be provided above a new tractor store near the north-west corner of the Site; refer to the accompanying plan provided by Allan Joyce Architects for more information. The specification for this bat loft will accord with recommendations in Mitchell-Jones (2004) in respect of artificial roof spaces provided for brown long-eared bats, and Swift (1998) in respect

of the species' preferences. Monitoring, maintenance, and management of the roost habitat will be mandatory under the EPSML.

Note that planning consent must be in place (with all relevant wildlife conditions discharged) before an EPSML can be applied for.

Given the low risk of day roosting bats in Buildings 3, 5, 6, 7, 8, 9, and the garages, demolition / redevelopment of these buildings does not require an EPSML. Given the proximity of bat roosts to these buildings, however, it is strongly recommended that a professional bat ecologist is consulted before any work on them commences, and a Precautionary Method of Working in respect of bats should be adopted.

The barns and outbuildings on the Site have also been and could be exploited by several species of nesting birds during the breeding season of March to August annually. It is therefore recommended that any demolition of these buildings is programmed to avoid this period if possible. If this is not possible, however, then an updated nesting bird assessment should be undertaken by a suitably experienced ecologist before work commences.

As general Site enhancements for protected species the following should be incorporated into the renovated or new buildings: at least two bat boxes, bricks, tubes, or tiles / slates - in addition to any EPSML requirements - and at least two bird boxes suitable for Birds of Conservation Concern (Stanbury, *et al*., 2021). At least one outbuilding within the redeveloped site will also be open sided to facilitate nesting by swallows. The Site will also be enhanced for wildlife more generally – see accompanying planning documents.

Lighting on the Site post-development should be 'wildlife friendly'. A lighting strategy / plan should ensure that illumination levels do not exceed 0.5 lux in areas that are likely to be used by bats or other nocturnal wildlife.

1 Introduction

1.1 Background

1.1.1 This report presents the findings and recommendations from a suite of protected species surveys undertaken by B.A.T. Ecological of buildings at Sycamore Lodge, Hickling Pastures, Nottinghamshire, LE14 3QF, which is hereafter referred to as the 'Site'. Appendix 1 provides a Site and Survey Plan.

1.1.2 Protected species surveys of the barns and outbuildings on the Site were initially completed by B.A.T. Ecological in the summer of 2019 to inform a planning application to redevelop it. Planning permission was subsequently issued by Rushcliffe Borough Council in December 2019 (reference no. 19/02868/FUL) for the conversion and extension of the existing barns and outbuildings to form two new dwellings.

1.1.3 The 2019 surveys identified several bat roosts in the barns and outbuildings; refer to B.A.T. Ecological report B.A.T.191101 (*Sycamore Lodge, Hickling Pastures – Bat Surveys Report, November 2019*) for more information.

1.1.4 The current owners of Sycamore Lodge now wish to submit a revised planning application for the Site to include demolition of the main house, which was not part of the 2019 scope. Additional protected species surveys have therefore been undertaken in the summers of 2022 and 2023 to update the 2019 surveys, and now including of the house. The findings of the 2019 surveys have been accounted for within this report.

1.1.5 The initial objective of all surveys was to determine the presence or likely absence of roosting bats in a target building, and then to characterise any roosts identified. Bats and their roosts are legally protected. Evidence of nesting birds within the buildings was also recorded because of their legal protection. All legally protected species are a Material Consideration within the planning system - see section 2.

1.2 Site Location

1.2.1 The central Ordnance Survey grid reference of the Site is SK 67435 27397.

1.2.2 The blue polygon in Figure 1.2.1 depicts the location of the Site, which can be viewed here.

1.2.3 The Site is located to the south-east of Hickling Pastures, which is a small rural village on the A606 road between Nottingham, and Melton Mowbray in north-east Leicestershire. The site is *c*.16 km south-west of central Nottingham and *c*.11 km north-west of Melton Mowbray town centre.

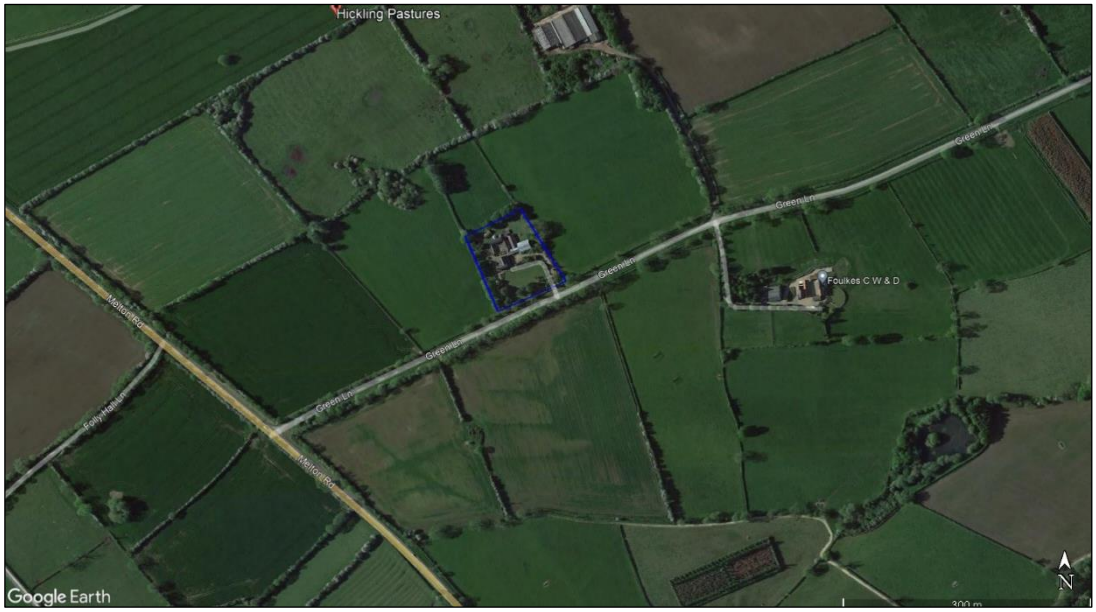

Figure 1.2.1: The location of the Site (blue polygon) and the surveyed buildings at Sycamore Lodge. Image reproduced from Google Earth, August 2022 (imagery date 30 May 2021).

1.3 Site and Building Descriptions

1.3.1 Photographs and descriptions of the Site and the barns and outbuildings on it are provided in the 2019 B.A.T. Ecological report B.A.T.191101. The Site and the barns and outbuildings on it were structurally unchanged between the 2019 and 2023 surveys.

1.3.2 Photographs 1.3.1 to 1.3.3 show the house on the Site in 2022, which remains unchanged in 2023. This two-storey building comprises the main dwelling and is constructed from cavity brick walls. The house has previously been extended on the ground floor of the eastern elevation, and a conservatory has been added to the rear northern aspect.

1.3.3 The roof of the house is covered with slates underlined by a uPVC-type membrane. The roof rests on a timber frame and is finished at the eaves by large timber soffit boxes. There are four dormer windows on the southern elevation of the house also finished by timber soffit boxes. The small void above the house is *c.*1m in height from the joists to the ridge. Lead flashing is present around the chimneys, within the valleys where roof pitches meet, and where the roof of the extension on the eastern elevation meets the original house.

Photograph 1.3.1: View of the southern elevation of the house; photograph taken facing north.

Photograph 1.3.2: View of the north-west elevation of the house; photograph taken facing south-east.

Photograph 1.3.3: View of the eastern elevation of the house; photograph taken facing west.

2 Relevant Wildlife Legislation and Planning Policy

2.1 General

2.1.1 The following is intended only as a guide to the relevant wildlife legislation and planning policy. This report does not purport to give legal or planning advice and the relevant Acts and policies should be referred to directly for the precise wording.

2.2 Legislation - Bats

2.2.1 All bats and their roosts are protected in England and Wales via the Conservation of Habitats and Species Regulations 2017 (as amended, including by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019) which are commonly referred to as 'the Habitats Regulations'. Bats and their roosts are also protected in the UK under the Wildlife and Countryside Act 1981 (as amended), which was reinforced in England and Wales by the Countryside and Rights of Way Act 2000.

2.2.2 In combination, the above legislation makes it an offence to:

- Deliberately capture, injure, or kill a bat.
- Deliberately disturb any bat; in particular, any disturbance which is likely to (i) impair a bats' ability to survive, breed, reproduce or to rear or nurture their young; or in the case of hibernating or migratory species, to hibernate or migrate; or (ii) to affect significantly the local distribution or abundance of the species to which they belong.
- To be in possession or control of any live or dead bat or any part of, or anything derived from a bat.
- Damage or destroy a breeding site or resting place of a bat.
- Intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection.
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection.

2.2.3 The term 'roost' is not used in the above legislation, however, a site that a bat uses for breeding, resting, shelter or protection is called a roost in ecological terms. Bats tend to re-use the same roost sites and sometimes over many years but may not always be in residence. Current legal opinion is that a roost is protected irrespective of whether the bats are present.

2.2.4 *Damaging or destroying* a place used by a bat for breeding or resting anywhere in the UK is an *absolute offence* carrying *strict liability* under the Habitats Regulations. This means that no element of intent, reckless, or deliberate action needs to be evidenced to establish guilt; the prosecution only needs to demonstrate that the accused performed the prohibited act.

2.2.5 Where an activity will result in any destruction, damage, or obstruction of any bat roost, whether occupied or not, or it risks harming or disturbing bats, then a European Protected Species (EPS) Mitigation Licence (EPSML) is required from the Statutory Nature Conservation Body (e.g., Natural England) to derogate the law to facilitate this activity.

2.2.6 In determining whether to grant a licence for an activity affecting a legally protected species Natural England must apply the requirements of Regulation 53 of the Habitats Regulations, and, in particular, the following three tests set out in sub-paragraphs (2)(e), (9)(a) and (9)(b):

1. Regulation 53(2)(e) states that: a licence can [only] be granted for the purposes of "*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".

2. Regulation 53(9)(a) states that the appropriate authority (i.e., Natural England) shall not grant a licence unless they are satisfied "*that there is no satisfactory alternative*" to the proposed actions; and,
3. Regulation 53(9)(b) states that the appropriate authority shall not grant a licence unless they are satisfied "*that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range*".

2.2.7 These three tests are often referred to as the 'purpose test', the 'NSA test' and the 'FCS test' respectively.

2.2.8 Note that the original legislation which provides the framework for licensing in respect of bats was transposed from European Union (EU) directives, and as such bats may continue to be referred to as EPS despite the UK's withdrawal from the EU.

2.3 Legislation - Birds

2.3.1 All species of bird are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended). This protection was extended by the Countryside & Rights of Way Act, 2000. This legislation makes it an offence to:

- Kill, injure, or take any wild bird.
- Take, damage, or destroy the nest of any wild bird while that nest is in use or being built.
- Take or destroy an egg of any wild bird.

2.3.2 In addition to the above, certain species of bird (e.g., the barn owl *Tyto alba*) are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and receive protection under Sections 1(4) and 1(5) of this Act. This protection was extended by the Countryside & Rights of Way Act, 2000. This legislation confers special penalties where the above offences are committed for any such bird, and it also makes it an offence to intentionally or recklessly:

- Disturb any such bird, while building its nest or it is in or near a nest containing dependant young; and / or,
- Disturb the dependant young of such a bird.

2.4 Relevant Planning Policy

2.4.1 In 2005, ODPM (Office of the Deputy Prime Minister) Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their impact within the Planning System stated that "*the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat*". It also stated that it is "*essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision*".

2.4.2 In 2006, Section 40 (S40) of the Natural Environment and Rural Communities (NERC) Act 2006 placed a statutory duty on every public authority to have due regard to conserving biodiversity. Furthermore, Section 41 (S41) of this Act required the Secretary of State to publish a list of the living organisms and types of habitats that are of 'Principal Importance' for the purpose of conserving biodiversity, and the Secretary of State must then take steps, as appear reasonably practicable, to further the conservation of the living organisms and

habitats in any list published under this Section. The list of Species of Principal Importance currently includes 943 species, including seven bat species and 49 bird species, and the list of Habitats of Principal Importance currently includes 56 habitat types.

2.4.3 In 2012, the National Planning Policy Framework (NPPF) was introduced to help deliver sustainable development in the UK, and environmental objectives comprise one of three key elements within this policy framework. The NPPF includes a range of statements and policies intended to contribute to conserving and enhancing our natural and local environment (primarily chapter 15), including the protection and enhancement of biodiversity by, for example, minimising impacts on and providing net gains for it, and by promoting the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species. The NPPF has been updated several times since 2012.

2.4.4 The National Planning Practice Guidance (NPPG) adds further context to the NPPF. In relation to the natural environment, amongst other things, it provides guidance on how protected and priority species and biodiversity should be considered in preparing a planning application. The NPPG states that:

- information on biodiversity and geodiversity impacts and opportunities needs to inform all stages of development (including site selection and design, pre-application consultation and the application itself)
- an ecological survey will be necessary in advance of a planning application if the type and location of development could have a significant impact on biodiversity and existing information is lacking or inadequate
- where an Environmental Impact Assessment is not needed it might still be appropriate to undertake an ecological survey, for example, where protected species may be present.

2.4.5 The NPPG also states, however, that LPAs should only require ecological surveys where clearly justified, and that assessments should be proportionate to the nature and scale of the development proposed and the likely impact on biodiversity. On behalf of the UK Government and the Department for Environment, Food and Rural Affairs (Defra), Natural England provides standing advice for Local Planning Authorities (LPAs) on where protected species are likely to be present, when to survey for them, and how to assess a planning application when there are protected species on or near a proposed development site. This standing advice, which is useful for developers too, can be viewed here.

2.4.6 The NPPF and NPPG also reference the principle of Biodiversity Net Gain (BNG) and in 2019 the UK Government announced that, via Defra and an Environment Bill, it would mandate almost all development in England to deliver net gains for biodiversity, except where the development area is below 25 m^2 or it comprises a householder application.

2.4.7 BNG is intended to ensure that all development leaves biodiversity in a better state than before, and as such it is hoped that the current loss of biodiversity through development will be halted, and ecological networks can be restored. The Environment Bill was finally passed by Parliament in late 2021. The fundamental principle of BNG is that where a development has an impact on biodiversity, planning consent should only be given if the project increases levels of biodiversity present on a site by providing appropriate natural habitat and ecological features.

3 Methods

3.1 General

3.1.1 B.A.T. Ecological undertakes professional bat surveys in accordance with best practice guidance wherever this is required. At the time of the surveys this guidance comprised Collins (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition, Bat Conservation Trust and Bat Conservation Trust Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys (May 2022).

3.1.2 Current guidance on professional bat surveys should be referred to by all professional ecologists, developers, planners, and the policy-makers responsible for reviewing and assessing the implications of such surveys.

3.1.3 The methods employed in 2019 are detailed in B.A.T. Ecological report B.A.T.191101. The methods employed in 2022 and 2023 are detailed in the following sections.

3.2 Desk Study

3.2.1 Using an eight-figure centroid OSGR for the Site of SK 6743 2740, a search of the Natural England Multi-Agency Geographic Information for the Countryside (MAGIC) web portal was undertaken in August 2022 for:

- Any statutory designated sites of nature conservation importance within a 2 km radius of the Site where bats are mentioned in their qualifying citations or criteria e.g., Sites of Special Scientific Interest (SSSI), Local Nature Reserves (LNR) or National Nature Reserves (NNR); and,
- Any EPSML issued for bats within 2 km of the Site since 2008.

3.2.2 Aerial images (Google Earth) and OS maps were also reviewed to assess the value of the habitats surrounding the Site for bats.

3.3 Daytime Bat Roost Assessment and Inspection

3.3.1 A bat roost assessment and inspection of the buildings on the Site was completed on 27 May 2022 by Matt Cook BSc (Hons) MSc MCIEEM, an experienced bat ecologist who is licensed to an advanced level by Natural England to undertake professional bat surveys - see section 3.6 for detail. For the barns and outbuildings this was an update to the 2019 surveys.

3.3.2 The inspection of the buildings comprised a thorough search of all accessible internal areas and external building surfaces for evidence of roosting bats, which typically comprises bat droppings, the remains of prey (such as moth wings), characteristic staining from urine or fur, marking from bat movement, a distinctive smell, and / or the presence of live or dead bats.

3.3.3 The surveyor also appraised the buildings for their general suitability for roosting bats based on the presence or absence of features where bats might roost or may access or egress a roost i.e., Potential Roost Features (PRF).

3.3.4 PRF for bats typically include but are not limited to apertures beneath and between roof tiles, ridge tiles, and lead flashing; cavities within masonry including where mortar is missing; accessible soffit boxes and roof voids; gaps behind cladding, bargeboards, and fascia's; and recesses and cavities associated with window and door frames and lintels.

3.3.5 For the bat roost suitability assessment Collins (ed.) 2016 requires a category from Table 3.3.1 to be assigned to the target buildings.

Table 3.3.1: Guidelines for assessing the potential suitability of proposed development sites for roosting bats based on the presence of habitat features, to be applied using professional judgement. Table adapted (for buildings only) from Collins (ed.) 2016 (Table 4.1, p.35).

Suitability	Description
Negligible	A building with negligible habitat / roosting features likely to be used by roosting bats.
Low	A building with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions[1], and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e., unlikely to be suitable for maternity or hibernation).
Moderate	A building with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions[1] and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A building with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions, and surrounding habitat.

[1] For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

3.4 Nocturnal Bat Surveys

3.4.1 Following on from an initial bat roost assessment and inspection Collins (ed.) 2016 recommends that the level of nocturnal survey effort of a building to determine the presence or likely absence of roosting bats should reflect its suitability for them. Table 3.4.1 below provides the recommended number of nocturnal surveys in relation to the assessment of a building's suitability for roosting bats – refer to Table 3.3.1 above.

Table 3.4.1: Recommended minimum number of survey visits for presence / likely absence bat surveys. Table adapted from Collins (ed.) 2016 (Table 7.3, p.52).

Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey.	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey* (* see para 3.4.2).	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn.

3.4.2 On a nocturnal bat survey a target building is monitored for bat activity with acoustic bat detecting equipment, and often, night vision aids (NVAs). NVAs comprised infra-red (IR) or thermal imaging (TI) surveillance units paired with auto-triggering bat detectors - see section 3.7. NVAs both improve survey effectiveness and reduce the requirement for pre-dawn re-entry surveys in line with current guidance.

3.4.3 Key information regarding bat activity is recorded on a nocturnal bat survey, such as timings, bat species present, and any activity patterns, with a particular focus on activity which could indicate that bats roost in a building.

3.4.4 For information on the suite of three nocturnal bat surveys undertaken at the Site in 2019 refer to B.A.T. Ecological report B.A.T.191101.

3.4.5 The 2022 nocturnal bat surveys of the barns and outbuildings targeted the buildings where roosts had been identified in 2019: Buildings 1, 2 and 5 (see Appendix 1). An evening emergence survey of these buildings was completed on 29 June. In addition, an NVA was deployed for several hours inside Building 2 on 18/19 May 2022, where the main roosts had been recorded in 2019.

3.4.6 The 2022 nocturnal bat surveys of the house comprised two evening emergence surveys completed on 6 and 29 June. This level of survey effort reflected the initial assessment that the house offered 'moderate suitability' for roosting bats – see Table 3.3.1 above, and section 4.2.

3.4.7 The 2023 nocturnal bat survey comprised an evening emergence survey of all buildings on the Site and was undertaken on 22 September.

3.4.8 Table 3.4.1 summarises which buildings on the Site were subject to which types of nocturnal bat survey in the summers of 2022 and 2023.

Table 3.4.1: Survey target/s and type of survey, with dates and timings, for the nocturnal surveillance conducted at the Site in 2022 and 2023.

Target Building/s and Survey Type	Date	Sunset Time	Civil Twilight Onset	Survey Start Time	Survey End Time	Survey Duration
Building 2 - NVA surveillance	18/19 May 2022	20:59	21:43	21:00	00:48	3 hrs, 48 mins
House - evening emergence survey	2 June 2022	21:19	22:08	21:04	23:04	2 hrs
House and Buildings 1, 2 and 5 - evening emergence surveys	29 June 2022	21:32	22:23	21:17	23:03	1 hr 46 mins
All buildings – evening emergence survey	22 Sept 2023	19:04	19:38	18:49	21:04	2 hrs

3.4.9 The approximate positions of the surveyors or surveillance units on the 2023 survey of all buildings are shown in Figure 3.4.1. In 2022 the same applicable positions were adopted for surveys of Buildings 1, 2 and 5 and the house.

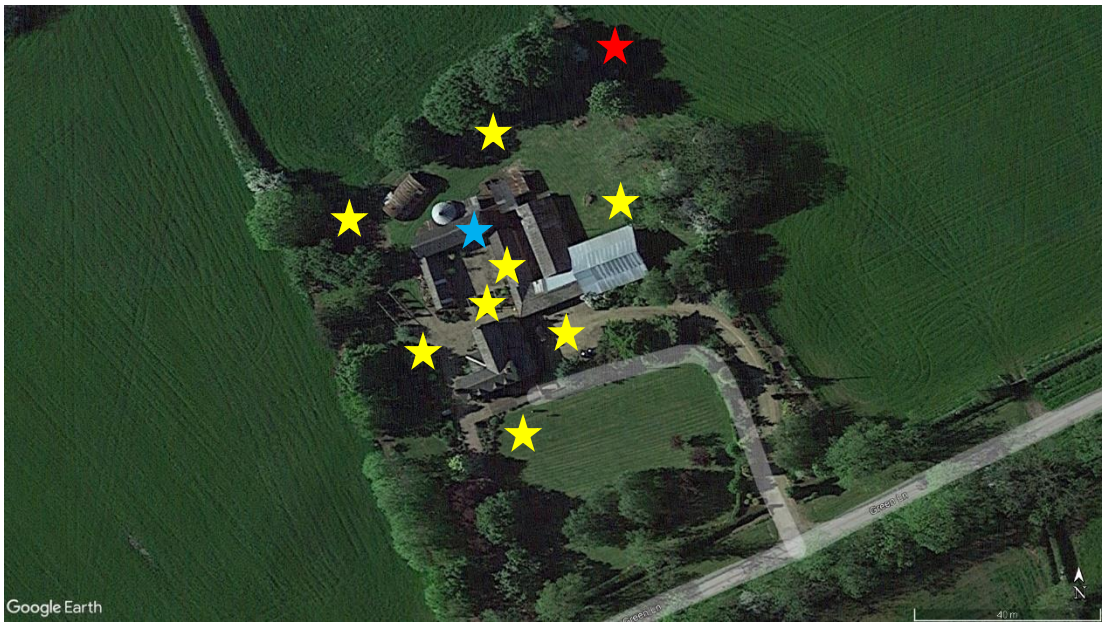

Figure 3.4.1: The positions of the surveyors or surveillance units are shown by the stars. The red star shows the location of the TI unit, and the blue star shows the location of the NVA deployed inside Building 2 in May 2022.

3.4.10 The weather conditions throughout the evening emergence surveys were conducive for bat activity being dry, mild, and calm. Table 3.4.3 shows these weather conditions.

Table 3.4.3: Weather conditions for the evening emergence surveys conducted at the Site in 2023 and 2022.

Date	Air Temperature Start / Finish (°C)	Cloud Cover Start / Finish (Octas)	Precipitation	Wind Strength (Beaufort Scale)
2 June 2022	15 / 13	5 - 6	Dry	1 - 2
29 June 2022	16 / 14	8	Dry	1
22 Sept 2023	13 / 11	6 - 5	Dry (few spots of rain)	4 - 5

3.4.11 During the automated monitoring inside Building 2 on 18/19 May 2022 the weather was very wet overnight, from *c*.21:00 hours onwards.

3.5 Nesting Birds

3.5.1 During the above survey visits any evidence of nesting bird activity within the buildings was also recorded; for example, any active or old nests, any accumulations of droppings, any regurgitated pellets or prey items, and / or any birds entering or exiting the buildings. The buildings were also assessed for their accessibility and suitability for nesting birds.

3.6 Personnel

3.6.1 The daytime roost inspection and assessment was undertaken by Matt Cook BSc (Hons) MSc MCIEEM, who also led the suite of nocturnal surveys in both 2022 and 2023 and authored this report.

3.6.2 Matt Cook has been a professional bat ecologist and consultant for over 15 years. He has been licensed by Natural England to undertake bat surveys for over 13 years and has been licensed to undertake professional bat surveys to an advanced level (Class licence levels 3 and 4) since 2014. Since 2017 Matt has also been registered to use the bespoke Natural England Bats in Churches Class Licence (at Level 2) and the Bat Mitigation Class (BMCL) Licence (formerly the Bat Low Impact Licence). Matt has been the Registered Consultant or Named Ecologist on multiple BMCL or EPSML for various bat species and roost types.

3.6.3 Matt is a Full Member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and is bound by its professional Code of Conduct.

3.6.4 Matt was assisted on the evening emergence surveys of the buildings by the following experienced surveyors:

- James Whiteford MSc MCIEEM CEcol - Natural England Level 2 Class Licence, *c*.15 years' relevant professional experience – in 2022 and 2023
- Holly Spencer – Natural England Level 1 Class Licence, *c*.5 years' relevant professional experience – in 2023.
- Anna Maka – c.2 years' relevant professional experience – in 2023.
- Nathalie Cossa – Natural England Level 2 Class Licence, *c*.9 years' relevant professional experience – in 2022.
- John Parker - Natural England Level 2 Class Licence, *c*.4 years' relevant professional experience – in 2022.
- Chris Almond – Natural England Level 1 Class Licence, *c*.5 years' relevant professional experience – in 2022.
- Andrew Neilson – *c*.3 years' relevant professional experience – in 2022.
- Ann Gleave – *c.*2 years' relevant professional experience – in 2022.

3.6.5 Natural England survey licence reference numbers can be provided upon request.

3.7 Equipment

3.7.1 Equipment used for the daytime assessments and inspections comprised a combination of the following: high-powered Cluson Clulite CB2 and Clu-Briter 1000 lumen torches, ≥450 lumen Lenser P7 LED hand-torches, close-focusing German Precision Optics and Pentax binoculars, a Ridgid Seesnake CA-300 inspection camera, an Apple iPad, iPhone, and Panasonic Lumix DC-FZ82 digital camera for photographs, and telescopic ladders for access at height.

3.7.2 NVAs comprised the following high-specification IR or TI equipment capable of recording: a FLIR Scion OTM266 and a Guide TrackIR Pro 19 TI monocular; one Canon XA-30, three Canon XA-11 and one Canon XA-10 IR capable Camcorders; a Panasonic HC-VX980 IR capable camcorder, and a pair of Nightfox Whisker Night Vision Binoculars (with onboard IR). These units were paired with Lilliput A7s 1920x1200 HD 4K HDMI capable field monitors.

3.7.3 Infrared illumination was provided alongside the camcorders by three Dedolight DLOBML-BI-IR iRedzilla on-board LED light heads (860 to 960 nm), two Raytec 850 nm illuminators, six Nightfox XC5 850 nm illuminators, and a generic multi-LED 850 nm floodlight.

3.7.4 Where any NVAs were deployed remotely, auto-triggering bat detectors were deployed alongside them, and the units were checked by nearby surveyors, to ensure that they were recording, and the view and (where applicable) IR illumination was correct.

3.7.5 Bat detecting equipment used for nocturnal surveillance comprised a combination of the following auto-triggering Full Spectrum or Time Expansion units (with Heterodyne audio): Elekon Batlogger M, Anabat Scout, Anabat Walkabout, Wildlife Acoustics EMT Pro's.

3.7.6 Bat call analysis software used comprised the current versions of Wildlife Acoustics' Kaleidoscope Pro, Titley's Anabat Insight, Elekon BatExplorer, and / or Pettersson BatSound.

4 Results

4.1 Desk Study

4.1.1 There are no statutorily designated sites of nature conservation importance within 2 km of the Site.

4.1.2 There are no records of any EPSML issued by Natural England to allow the damage or destruction of any bat roosts within 2 km of the Site.

4.1.3 The rural landscape surrounding the Site supports the following habitats that are likely to be important for roosting, foraging, and commuting bats locally:

- Buildings including dwellings and farm buildings
- Established hedgerows (many with mature trees)
- Scattered trees and tree lines
- Small areas of broadleaved and mixed woodland
- Ponds and streams

4.2 Daytime Bat Roost Assessment and Inspection

4.2.1 Appendix 1 provides a Site and Survey Plan including the location of all bat roosts identified to date (2019-23). Appendix 2 shows the detailed results of the 2022 daytime roost assessment and inspection of the dwelling house on the Site.

4.2.2 The 2022 survey of the barns and outbuildings found the same as the survey undertaken in 2019, albeit there was less evidence of brown long-eared bat feeding behaviour - yellow underwing moth *Noctua pronuba* remains - apparent in some of the outbuildings. Photographs 4.2.1 and 4.2.2 show some of the brown long-eared bat droppings and feeding remains in the hayloft of Building 2 in May 2022.

Photographs 4.2.1 and 4.2.2: Evidence of brown long-eared bats in the hayloft of Building 2 in 2022.

4.2.3 The survey of the house in 2022 identified several PRF – see Appendix 2 – which are most suitable for low numbers of small, crevice-dwelling bat species such as Pipistrelles *Pipistrellus sp*.

4.2.4 Two old bat droppings typical of those voided by Pipistrelles were identified amongst the many rodent droppings within the roof void. There was no evidence of any larger 'attic-dwelling' bat species (such as brown long-eared bats) apparent within the roof void. There was no evidence of a bat roost in the building apparent on the external walls and windows.

4.2.5 Overall, in accordance with Collins (ed.) 2016 – table 3.3.1 above - the house was assessed to be of 'moderate' suitability for roosting bats i.e., it is a "*structure with one or more potential*

roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but is unlikely to support a roost of high conservation status".

4.3 Nocturnal Bat Surveys

Summary – Barns and Outbuildings

4.3.1 A peak count of eight brown long-eared bats has been recorded inside Building 2 during the 2022 and 2023 surveys. These bats have been observed emerging from and entering roosts among the roof timbers and flying throughout this building. At least one brown long-eared bat has been observed inside this building on all surveys.

4.3.2 Two soprano pipistrelles *Pipistrellus pygmaeus,* a Natterer's bat *Myotis nattereri*, and a common pipistrelle *P. pipistrellus* have also been observed roosting inside Building 2 during the 2022 and 2023 surveys.

4.3.3 On the 22 September 2023 a common pipistrelle was recorded entering a roost in the external brickwork of Building 2, which had been previously used by two common pipistrelles on 5 September 2019. This was previously classified as a transitional roost for low numbers of this species but is more likely to be a mating roost.

Summary - House

4.3.4 Two common pipistrelle day roosts, each of one individual, have been identified in the roof of the house. These were first identified during the emergence survey on 2 June 2022, with one of these roosts also used on 22 September 2023. No bats were recorded emerging from the house during the emergence survey on 29 June 2022.

Automated Monitoring – Building 2 - 18/19 May 2022

4.3.5 The first bat activity recorded inside Building 2 during this surveillance was at 21:18 hours, which was 19 minutes after sunset and 25 minutes before the onset of civil twilight. This was a soprano pipistrelle flying inside.

4.3.6 Bats were apparent on camera regularly from 21:18 hours until recording ceased at 00:48. Bat activity was recorded on the bat detector from 21:18 hours until the last bat recording at 04:24, which was 36 minutes before sunrise and 9 minutes after civil twilight ended.

4.3.7 At least four bat species were recorded inside the barn during this surveillance, on camera and corroborated with bat detector recordings: brown long-eared bat, soprano pipistrelle, common pipistrelle, and Natterer's bat.

4.3.8 During this surveillance the peak count of each species recorded on camera simultaneously inside Building 2, and corroborated with bat detector recordings, was as follows:

- Eight brown long-eared bats
- Two soprano pipistrelles
- One Natterer's bat
- One common pipistrelle

4.3.9 The brown long-eared bats and Natterer's bat roost among the roof timbers of Building 2. The soprano pipistrelles roost within the brickwork of this building.

4.3.10 There was heavy rain on the night of 18 May from *c*.21:00. This may have resulted in more bats taking shelter inside Building 2 than on a night with dry weather.

Evening Emergence Survey – House - 2 June 2022

4.3.11 The first bat activity recorded during this survey was at 21:18 hours, which was one minute prior to sunset and 50 minutes before the onset of civil twilight. This was a noctule *Nyctalus noctula* flying high over the Site.

4.3.12 Two common pipistrelles were identified emerging from different roost sites on this survey at 21:38. One common pipistrelle emerged from the corner of the westernmost dormer on the southern elevation of the house – see photograph 4.3.1 and Appendix 2, PRF 5 – and one common pipistrelle emerged from a gap associated with the lead flashing around the chimney on the northern elevation – see photograph 4.3.2 and Appendix 2, PRF 1.

4.3.13 There were no other bats recorded roosting within the house on this survey. At least three other bat species were recorded incidentally on the Site during this survey: noctule, soprano pipistrelle, and a Myotis bat species. Incidental bat activity recorded during this survey was relatively limited.

Photograph 4.3.1: View of the southern elevation of the house (photograph taken facing north) showing the location of one of the common pipistrelle roosts, recorded on 2 June 2022 (red arrow).

Photograph 4.3.2: View of the eastern elevation of the house (photograph taken facing west) showing the location of the other common pipistrelle roost, recorded on 2 June 2022 and 22 September 2023.

Evening Emergence Survey – House, Barns, and Outbuildings – 29 June 2022

4.3.14 The first bat activity recorded during this survey was at 21:42 hours, which was 10 minutes after sunset and 41 minutes before the onset of civil twilight. This was a noctule flying high over the Site.

4.3.15 There were no bats recorded emerging from or returning to roosts in the house on this survey. Bat activity near the house was relatively limited.

4.3.16 In respect of the barns and outbuildings, a brown long-eared bat was recorded flying inside Building 2 at 22:12, 22:21, 22:36-37, and 22:44; a brown long-eared bat was recorded entering Building 2 at 22:23, 22:25 and 22:56; and the same species was recorded exiting this building at 22:44 and 22:57. An unidentified Myotis bat species was also observed flying near to Building 2 at 22:59.

4.3.17 There was no bat activity recorded in association with the other barns and outbuildings on this survey.

4.3.18 Incidental common pipistrelle and soprano pipistrelle activity was recorded on the wider Site during this survey.

Evening Emergence Survey – All Buildings – 22 September 2023

4.3.19 The first bat activity recorded on this survey was at 19:07, which was three minutes after sunset and 31 minutes before the onset of civil twilight. This was a soprano pipistrelle heard by the surveyor on the east side of the house but not seen.

4.3.20 A brown long-eared bat was first recorded emerging from a roost among the roof timbers of Building 2 and then flying inside at 19:33, which was 29 minutes after sunset and five minutes before the onset of civil twilight. A further three brown long-eared bats were recorded emerging from roosts, flying throughout, and exiting and accessing this building during this survey.

4.3.21 In addition, a common pipistrelle was recorded entering a known roost (from 2019) in the external brickwork of Building 2 at 20:48, 1 hour and 44 minutes after sunset and 1 hour and ten minutes after the onset of civil twilight.

4.3.22 Photograph 4.3.3 shows the doorway used principally by the brown long-eared bats to exit and access Building 2 on this survey, as well as the location of the common pipistrelle roost in the external brickwork of this building, likely to be a mating roost.

Photograph 4.3.3: View (in infra-red) of the southern elevation of Building 2. The red oval depicts the doorway used by most brown long-eared bats to exit and access their roosts in this building. The red arrow depicts the location of the common pipistrelle roost in the external brickwork (above some old timber).

4.3.23 A common pipistrelle was recorded emerging from the roost shown in photograph 4.3.2 within the house at 19:37, which was 33 minutes after sunset and one minute before the onset of civil twilight.

4.3.24 There were no bats recorded roosting within any other buildings on this survey, although brown long-eared bats were observed briefly entering, and commuting along and above, Building 1 adjacent to Building 2.

4.3.25 Other bat activity recorded incidentally on the Site during this survey comprised a low number of passes by noctule (high over the Site), soprano pipistrelle, common pipistrelle and unidentified Myotis bats. Bat activity recorded during this survey was relatively limited.

4.4 Nesting Birds

4.4.1 There was a stock dove *Columba oenas* nesting among the roof timbers of Building 2 on the survey visit on 18 May 2022. There is also significant nest debris within this building, likely deposited by jackdaws *Corvus monedula* and stock dove.

4.4.2 A stock dove or woodpigeon *Columba palumbus* was also recorded nesting within Building 9 on 18 May 2022.

4.4.3 Barn swallows *Hirundo rustica* nest during most summers in Buildings 1 and 2 on the Site.

4.4.4 There are several features within the barns and outbuildings on the Site which could be exploited by nesting birds during the bird breeding season of March to August annually.

5 Evaluation

5.1.1 The surveys were undertaken by suitably qualified and experienced professional ecologists. This project was managed and the report has been authored by Matt Cook BSc (Hons) MSc MCIEEM, who is an experienced and suitably qualified ecologist licensed to an advanced level by Natural England to undertake professional bat surveys and assess the impacts of development on bats and nesting birds.

5.1.2 The suite of bat surveys at this Site has been completed in accordance with Collins, J (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.

5.1.3 The 2022 evening emergence surveys were completed within the optimal survey window for nocturnal bat surveys of May to August. The 2023 update survey was completed on 22 September, which might be considered sub-optimal timing for determining the presence or likely absence of certain roosts of some bat species. The timing of this survey is not considered sub-optimal here, however, for three main reasons:

I. the 2023 survey was an 'update' survey – several roosts on the Site have already been detected and the overall value of the Site for bats and the suitability of each building for different roost types has already been established from surveys in 2019 and 2022. The only building with suitability for higher conservation status maternity or satellite roosts on the Site is Building 2, and the presence of breeding bats in this building has already been established;

II. female and young brown long-eared bats often remain in roosts into September (e.g., see Swift, S.M. (1998) Long-Eared Bats. Poyser Natural History) and a survey of this species at this time of year can be useful, as demonstrated by the 2023 survey; and,

III. a late September survey can detect mating roosts of some bat species, which may not be used at other times of year, as well as different day and night roosts.

5.1.4 All surveys were undertaken in weather conditions conducive for bat activity as evidenced by bat activity on each survey. An appropriate number of suitably experienced and equipped professional surveyors were deployed for the nocturnal surveys, and NVAs were also utilised in accordance with best practice.

5.1.5 On the above basis it is therefore considered that the level of survey effort undertaken here is sufficient to provide reasonable confidence in the findings of the bat surveys, and that these provide a robust platform for the subsequent recommendations contained within this report.

5.1.6 Every effort has been made during this study to provide a comprehensive ecological assessment pertaining to the relevant protected species in the context of the commissioned scope of works.

5.1.7 Notwithstanding this, however, it remains important to note that *no* investigation can completely characterise or predict the natural environment as wild animals are inherently unpredictable, all habitats are subject to change, and species may colonise or vacate areas for a variety of reasons after surveys have taken place. The results, conclusions, and recommendations within *any* ecological report therefore become less reliable over time.

6 Conclusions

6.1 Bats

6.1.1 The desk study did not identify any constraints to the proposed redevelopment of the Site due to nearby sites of conservation importance for bats or redevelopment already licensed by Natural England.

6.1.2 The bat surveys conducted in 2019, 2022 and 2023 have identified that Building 2 on the Site, the large barn, provides a satellite roost site for a breeding colony of at least eight brown long-eared bats. These bats also occasionally use the adjoining barns and outbuildings for feeding and commuting.

6.1.3 In addition, the bat surveys conducted in 2019, 2022, and 2023 have identified five other lower conservation status bat roosts on the Site: the brickwork of Building 2 supports a mating roost for low numbers of common pipistrelles (1) and a day roost for low numbers of soprano pipistrelles (2), and a Natterer's bat occasionally night roosts among the roof timbers of this building (3). The house on the Site supports two common pipistrelle day roosts, both of individual bats (4 and 5).

6.2 Nesting Birds

6.2.1 There was evidence of birds nesting within Buildings 1, 2 and 9 on the Site in 2022 and 2023.

6.2.2 The barns and outbuildings on the Site could be exploited by several species of nesting birds during the breeding season of March to August annually.

7 Recommendations

7.1 Bats

7.1.1 If damage, destruction, or disturbance of any bat roosts on this Site cannot be avoided during the proposed redevelopment then an EPSML will be required from Natural England to derogate the laws that protect bats to facilitate it.

7.1.2 In determining whether to grant any EPSML Natural England will need to be satisfied that the development proposals satisfy the 'Purpose Test', the 'NSA Test' and the 'FCS Test' – see Section 2.1 above.

7.1.3 To acquire an EPSML a comprehensive mitigation strategy will need to ensure that no bats are harmed or unnecessarily disturbed during the proposed redevelopment. Work in areas of high risk to bats will be attended by the Named Ecologist on the EPSML (or their Accredited Agent) and disturbance during sensitive periods for bats will be avoided where applicable.

7.1.4 There will also need to be alternative roost habitat made available on the Site ahead of the loss of any existing roosts.

7.1.5 For each of the five lower conservation status roosts identified on the Site one bat box, tile / slate, brick, or crevice habitat suitable for the species concerned will be provided (i.e., five in total) on suitable trees or retained buildings on the Site. These will be sited in dark areas, at a height of at least 3 m, and away from possible disturbance including from pets.

7.1.6 As compensation for the loss of the brown long-eared bat roost in Building 2 a bespoke 'bat loft' will be provided above a new tractor store near the north-west corner of the Site; refer to the accompanying plan provided by Allan Joyce Architects for the location of this. This will be close to the current brown long-eared bat roost in Building 2, and the adjacent hedgerow and trees to provide important cover for commuting bats.

7.1.7 The accompanying plan provided by Allan Joyce Architects provides detail on the dimensions of the bat loft above the tractor store. The specification for this bat loft will accord with recommendations in Mitchell-Jones (2004)[1] in respect of artificial roof spaces provided for brown long-eared bats, and Swift (1998) in respect of the species' preferences. It will be as follows:

- Ground to eaves height minimum 2.5 m.
- Loft floor to roof apex internal height minimum 2.8 m.
- Loft internal size minimum 5 x 5 m.
- Internal temperature regime of 15-30° C, with different microclimates created internally by installing boards and allowing / adapting airflow where required.
- Cut and pitched roof of at least 40°, constructed using purlins and rafters, no internal trusses.
- Rough-sawn timber used to construct the roof (e.g., purlins, rafters, ridge board) and to provide internal roosting opportunities (e.g., battens).
- Only type 1 bitumen roofing felt used if felt is installed.

[1] Mitchell-Jones, A.J. (2004) Bat Mitigation Guidelines. English Nature, Peterborough.

- Predator and bird-proof bat access / egress slot of minimum 100 mm W x 30 mm H in gable nearest hedgerow / trees to west. At least one additional access / egress feature suitable also created.
- No external lighting near bat access / egress features. Only low level and motion-sensor short-duration lighting within 5 m of the building.
- Lockable service hatch to allow inspection (by a licensed bat ecologist)
- Native shrub vegetation planted nearby to provide additional natural connectivity, but vegetation and trees also managed so as not to shade out the loft space.

7.1.8 If there are any additional considerations, or inconsistencies between the accompanying plan depicting the bat loft, the above specification (7.1.7), and the Natural England EPSML documents, then the latter will take precedence.

7.1.9 All bat habitat described above will be readied prior to the commencement of any licensed work affecting the bat roosts, to ensure that bats are not left without a roost on the Site.

7.1.10 Monitoring, maintenance, and management of the roost habitat will be mandatory under the EPSML. As a minimum, a presence / absence monitoring survey of the bat loft will be required in years two and four post-development. The Licensee will also need to commit to maintaining and managing any compensatory roost habitat for a minimum of five years during the licensed period, and in perpetuity if the roost habitat is occupied by bats.

7.1.11 Note that planning consent must be in place (with all relevant wildlife conditions discharged) before an EPSML can be applied for.

7.1.12 Given the low risk of day roosting bats in Buildings 3, 5, 6, 7, 8, 9 and the garages – see Appendix 1 – demolition / redevelopment of these buildings does not require an EPSML. Given the proximity of bat roosts to these buildings, however, it is strongly recommended that a professional bat ecologist is consulted before any work on them commences, and a Precautionary Method of Working on these buildings in respect of bats should be adopted.

7.2 Nesting Birds

7.2.1 The barns and outbuildings on the Site have been and could be exploited by several species of nesting birds during the breeding season of March to August annually. It is therefore recommended that any demolition of these buildings is programmed to avoid this period. If this is not possible, however, then an updated nesting bird assessment should be undertaken by a suitably experienced ecologist before work commences and the advice of this ecologist then followed.

7.3 Biodiversity Enhancements

New Habitat Provision

7.3.1 The following habitat provisions should be incorporated into the fabric of the renovated or new buildings on the Site, to enhance it for wildlife and provide an overall net gain for protected species within this redevelopment:

- At least two bat boxes, bricks, tubes, or tiles / slates - in addition to any EPSML requirements.

- At least two bird boxes suitable for Red Listed Birds of Conservation Concern[2], e.g., house sparrows *Passer domesticus*, house martins *Delichon urbicum*, and / or swifts *Apus apus*.

7.3.2 These habitat provisions must be provided in suitably undisturbed locations i.e., away from pets, bright lights, and noise. They should also be located at a height of at least 3 m and be unobstructed.

7.3.3 At least one building within the redeveloped site will also be open sided to facilitate nesting by swallows. The Site will also be enhanced for wildlife more generally – see accompanying planning documents.

Bats and Lighting

7.3.4 All European bat species are nocturnal and adapted to low-light conditions and the artificial lighting of areas where they are active affects their activities. Where complete 'natural' darkness cannot be ensured on this Site at night post-development, then illumination levels should not exceed 0.5 lux in areas that are likely to be used by bats or other nocturnal wildlife.

7.3.5 To achieve the above, a lighting plan / strategy should ensure that any lighting installations proposed on this Site are low-level and directional to avoid light spill onto natural habitats and potential wildlife corridors. New lighting should also operate by movement detection sensors to ensure any illumination at night is short in its duration, and integrated cowls, hoods and covers should be used within lights wherever possible to avoid excessive, intrusive light-spill.

7.4 General

7.4.1 In reference to section 5 and given the presence of multiple bat roosts on the Site, if the proposed redevelopment has not commenced by July 2024, then an updated protected species survey of the Site should be undertaken before any such work proceeds.

[2] Stanbury, A. *et al*. (2021) The status of our bird populations: the fifth Birds of Conservation Concern in the UK, Channel Islands, and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114; 723-747. https://www.bto.org/our-science/publications/birds-conservation-concern.

Appendix 1: Site and Survey Results Plan

This plan supersedes the plan provided as Appendix 6.3 in the 2019 bat surveys report B.A.T.191101.

Building numbers or names are shown in red

A = Location of brown long-eared bat satellite breeding roost.

A Natterer's bat and low numbers of soprano pipistrelles also roost in Building 2.

B = Location of common pipistrelle mating roost in external brickwork of Building 2.

C = Location of occasional brown long-eared bat feeding perches (various buildings).

D = Locations where the brown long-eared bats access and egress Building 2 via doors and windows.

E = Locations of individual common pipistrelle day roosts in house.

Drawing adapted from those provided in 2019 by Longworth Associates.

Appendix 2: 2022 Survey Results and Photographs – House

Northern elevation

Northern elevation

Western elevation

Northern elevation

Eastern elevation

Southern elevation

Southern elevation

Eastern elevation

TARGET NOTES

PRF 1 - Gaps associated with lead flashing where roofs abut both sides of chimney on northern elevation

PRF 2 - Small settlement crack between chimney and northern wall, with small gap above it

PRF 3 - Gaps between timber soffit boxes and walls along most of western and northern facing elevations

PRF 4 - Gaps behind bargeboard below chimney on western and eastern elevations

PRF 5 - Small gaps behind lead flashing associated with all four dormers on southern elevation

PRF 6 - Missing fascias alongside dormers on southern elevation

PRF 7 - Small gaps between timber soffit boxes and walls along most of southern elevation, including around and above dormers

PRF 8 - Possible access to roof void or soffit beneath valley on eastern elevation

View inside the roof void of the house

END OF REPORT