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## **Ecological Impact Assessment**

The Stable Block at Rossley Manor  
London Road  
Cheltenham  
GL54 4HG

23 August 2022

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<b>QUALITY CONTROL</b>		
<p>The information which we have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.</p>		
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Approved by	Emily Wood MSci (Hons) Ecologist & Logistics Administrator	
<p>This report remains valid for 12 months from date of issue.</p> <p>Survey data are valid for 12-18 months from the date the survey was undertaken.</p>		
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## 1. EXECUTIVE SUMMARY

- 1.1. Darwin Ecology Ltd was commissioned by Darren Price, Director of Adam Architecture, to undertake an Ecological Impact Assessment (EclA) of proposals for The Stable Block at Rossley Manor, London Road, Cheltenham, GL54 4HG<sup>1</sup>. The assessment was required to support a planning application for the replacement of the roof and conversion into a boiler room and gym, and was informed by a desk study, internal / external building inspection and a dusk emergence survey for bats.
- 1.2. During the external building inspection, the Stable Block was assessed as having **low suitability** to support roosting bats, as the building was well sealed with only a small number of potential roosting features identified on the ridge capping tiles. The internal inspection discovered no roosting bats in the stable block and identified no bat droppings in the internal spaces.
- 1.3. Due to the building being assessed as having low suitability to support roosting bats, a single dusk emergence survey was advised to be carried out during the optimal bat survey season. This emergence survey was carried out on 15th August 2022. While bats were observed passing over and foraging, **no bats were identified emerging from the building.**
- 1.4. From the building inspections and the emergence survey, it is justified to assume that roosting bats are likely absent from the Stable Block building at Rossley Manor.
- 1.5. As bats are likely absent from the building, no mitigation is required for the works on the roof to be conducted. In the unlikely event that a bat is discovered during the works, all works must cease and a bat licensed ecologist contacted for advice.
- 1.6. Bats were found to be using other habitats on site and enhancements to the site could therefore include the installation of bat boxes on trees in the manor grounds. A wildlife beneficial planting scheme should be considered to promote species diversity and food insects for bats.

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<sup>1</sup> Ordnance Survey (OS) grid reference SO 99109 19461.

## 2. INTRODUCTION AND BACKGROUND

- 2.1. Darwin Ecology Ltd was commissioned by Darren Price, Director of Adam Architecture, to undertake an Ecological Impact Assessment (EclA) of proposals for The Stable Block at Rossley Manor, London Road, Cheltenham, GL54 4HG<sup>2</sup>. The assessment was required to support a planning application for the replacement of the roof and conversion of the building into a boiler room and gym. The assessment has been informed by a desk study, internal / external building inspection, and a single dusk emergence survey for bats.
- 2.2. The proposals call for replacement of a portion of the Stable Block roof. This will include the removal of the current roof and the retention of the stone tile capping on the building. These proposals would involve the modification of the current timber structure of the roof. Installation of a boiler at the Stable Block would include a new chimney to facilitate the addition of boiler flue pipes and associated ventilation.
- 2.3. The proposed drawings on which this assessment is based are provided at **Appendix 1, Proposed Plans**.
- 2.4. This document is intended to support a planning application for roof replacement to the Stable Block at Rossley Manor, and is designed to assess the impacts of works conducted on the Stable Block only. Further planning applications at the Rossley Manor site will be subject to a separate planning application and a separate ecological report and will not be considered further in this report.
- 2.5. The internal / external building inspection followed the Bat Conservation Trust (BCT) Good Practice Guidelines (2016).
- 2.6. The subsequent Ecological Impact Assessment (EclA) follows the CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (2018).

### Site Overview

- 2.7. Rossley Manor is located to the southeast of Cheltenham. The site subject to assessment consists only of the Stable Block, adjacent to the coach house area of the Rossley Manor estate. This is a four room block which is currently used as a storage area. It is located at the northeast corner of the manor house complex (see **Figure 1**).
- 2.8. The Rossley Manor estate is comprised of the main house and gardens with areas of semi-improved grassland, coniferous woodland, scattered trees and hedgerows (see **Figure 1**).
- 2.9. In the wider landscape, numerous areas of woodland and agricultural land surround the site. The A40 is present to the north. Dowdeswell reservoir is situated 200 metres to the north. Rossley Manor is situated approximately 140 metres northeast from Lineover Wood, a 2.9 ha area of ancient replanted woodland (see **Figure 2**).

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<sup>2</sup> Ordnance Survey (OS) grid reference SO 99109 19461.

### **Scope of Assessment**

2.10. The process of EclA aims to identify, quantify and evaluate the potential effects of development-related or other proposed actions on habitats, species and ecosystems.

2.11. Potential effects on the following ecologically sensitive receptors have been considered during the EclA of The Stable Block at Rossley Manor:

Statutory and non-statutory designated sites; and

Features of potential importance (such as loft voids or external crevice features).

2.12. The aim of this report is to:

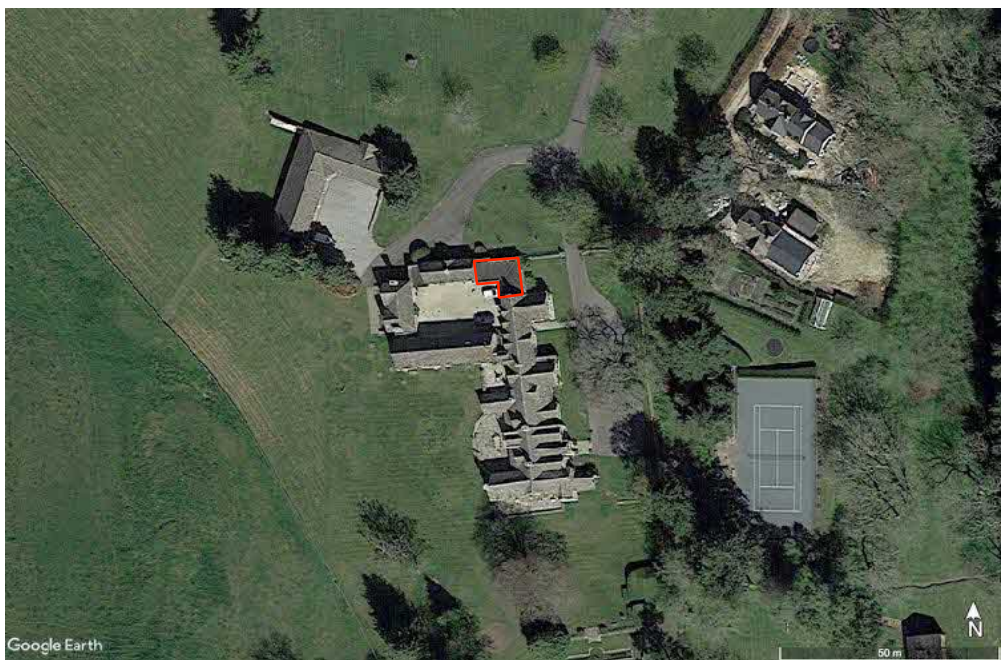
Identify and describe bats roosts present within the site;

Classify the the type of roost present (e.g. day roost, maternity roost etc);

Carry out an impact assessment of the proposed works and how they will directly / indirectly affect bats and their roosts;

Outline the relevant legislation and protection afforded to bats; and

Provide avoidance, compensation, mitigation and enhancement measures recommended to avoid harm / injury to roosting bats.



**Figure 1:** Site location within the local landscape (Copyright Map data ©2021 Google)



**Figure 2:** Site location within the wider landscape (Copyright Map data ©2021 Google)

### 3. LEGISLATION & POLICY

#### General Wildlife Legislation

- 3.1. Wildlife in the United Kingdom (UK) is protected through European and national legislation, supported by national and local policy and guidance. Development can contribute to conservation and enhancement goals outlined by these various legislation and policy by retaining and protecting the most valuable ecological features within a site and incorporating enhancements to provide biodiversity net gain.
- 3.2. This section provides a brief summary of the principle legalisation and policy that triggers the requirement for preliminary and further ecological assessments in the UK. The presence of protected species within a site are a material consideration during the planning process. Preliminary and any necessary further ecological assessments provide an ecological baseline for a site and evaluation of the potential impact of proposals.
- 3.3. It is the responsibility of those involved with development works to ensure that the relevant legislation is complied with at every stage of a project. Such legislation applies even in the absence of related planning conditions or projects outside the scope of the usual planning process (i.e. permitted development projects or projects requiring Listed Building Consent only).

#### Bat Legislation

- 3.1. In England and Wales, all bat species and their roosts are legally protected under the European *Habitats Directive (1992)*; the *Conservation of Habitats and Species Regulations (2017)*; the *Wildlife and Countryside Act (1981) (as amended)*; the *Countryside and Rights of Way Act, 2000*; and the *Natural Environment and Rural Communities Act (NERC, 2006)*.
- 3.2. Barbastelle (*Barbastella barbastellus*), Bechstein's (*Myotis bechsteinii*), greater horseshoe (*Rhinolophus ferrumequinum*), lesser horseshoe (*Rhinolophus hipposideros*), brown long-eared (*Plecotus auritus*), soprano pipistrelle (*Pipistrellus pygmaeus*), and noctule (*Nyctalus noctula*) bats are all species of principal importance in England under *Section 41* of the *Natural Environment and Rural Communities Act 2006*.
- 3.3. You will be committing a criminal offence if you:
  - Deliberately capture, injure or kill a bat;
  - Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
  - Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
  - Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat; or



- Intentionally or recklessly obstruct access to a bat roost.
- 3.4. The government's statutory conservation advisory organisation, Natural England, is responsible for administering EPS licenses that permit activities that would otherwise lead to an offence.
- 3.5. A licence can be obtained if the following three tests have been met:
- Regulation 53(9)(a) - there is "no satisfactory alternative" to the derogation, and;
  - Regulation 53(9)(b) - the derogation "will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range" and;
  - Regulation 53(2)(e) - the derogation is 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".

### **National Planning Policy**

- 3.1. The *National Planning Policy Framework (2021)* aims to minimise impacts on biodiversity and provide net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity. Chapter 15 'Conserving and enhancing the natural environment' details what local planning policies should seek to consider with regard to planning applications.
- 3.2. Planning policies and decisions should contribute to and enhance the natural and local environment by:
- 174 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);
  - 174 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;
  - 174 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;
  - 175) Plans should: distinguish between the hierarchy of international, national and local 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;

176) Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural beauty 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 Broads. The scale and extent of development within all these designated areas should be limited, while development within their settings should be sensitively located and designed to avoid or minimize adverse impacts on the designated area.

4. Specific policies regarding habitats and biodiversity comprise:

179) 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 stepping stones 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.

180) 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 of Sites 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 feature 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 development 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.

### **Local Planning Policy**

4.1. The local planning policy for the site is the Cotswold District Local Plan, with relevant policies comprising:

#### *Policy EN1 BUILT, NATURAL AND HISTORIC ENVIRONMENT*

New development will, where appropriate, promote the protection, conservation and enhancement of the historic and natural environment by:

- ensuring the protection and enhancement of existing natural and historic environmental assets and their settings in proportion with the significance of the asset;
- contributing to the provision and enhancement of multi-functional green infrastructure;
- addressing climate change, habitat loss and fragmentation through creating new habitats and the better management of existing habitats;
- seeking to improve air, soil and water quality where feasible; and e. ensuring design standards that complement the character of the area and the sustainable use of the development.

#### *Policy EN5 COTSWOLDS AREA OF OUTSTANDING NATURAL BEAUTY (AONB)*

- In determining development proposals within the AONB or its setting, the conservation and enhancement of the natural beauty of the landscape, its character and special qualities will be given great weight.
- Major development will not be permitted within the AONB unless it satisfies the exceptions set out in national Policy and Guidance.

### *Policy EN6 SPECIAL LANDSCAPE AREAS*

Development within Special Landscape Areas (as shown on the Policies Map) will be permitted provided it does not have a significant detrimental impact upon the special character and key landscape qualities of the area including its tranquillity.

### *Policy EN8 BIODIVERSITY AND GEODIVERSITY: FEATURES, HABITATS AND SPECIES*

- Development will be permitted that conserves and enhances biodiversity and geodiversity, providing net gains where possible.
- Proposals that would result in significant habitat fragmentation and loss of ecological connectivity will not be permitted.
- Proposals that reverse habitat fragmentation and promote creation, restoration and beneficial management of ecological networks, habitats and features will be permitted, particularly in areas subject to landscape-scale biodiversity initiatives. Developer contributions may be sought in this regard.
- Proposals that would result in the loss or deterioration of irreplaceable habitats and resources, or which are likely to have an adverse effect on internationally protected species, will not be permitted.
- Development with a detrimental impact on other protected species and species and habitats “of principal importance for the purpose of conserving biodiversity”(42) will not be permitted unless adequate provision can be made to ensure the conservation of the species or habitat.

### *Policy EN9 BIODIVERSITY AND GEODIVERSITY: DESIGNATED SITES*

#### International Sites

- Internationally designated wildlife sites (including proposed sites and sites acquired for compensatory measures) will be safeguarded from development that could cause a significant effect that would adversely affect their integrity.

#### National Sites

- Development that is likely to have an adverse effect upon a nationally designated nature conservation site will not be permitted unless the benefits of development at the site clearly outweigh the impact development is likely to have both on (a) its special features and (b) the national network of Sites of Special Scientific Interest. Where a proposal is permitted appropriate mitigation or compensation will be required.

#### Local Sites

- Development proposals that are likely to cause significant harm to locally identified wildlife sites(43) and Local Nature Reserves, where such harm cannot

be satisfactorily mitigated or adequately compensated for, will not be permitted unless it can be demonstrated that the benefits of the proposal clearly outweigh the impact of the development on the nature conservation value of the site.

- Development should maintain Local Geological Sites for their scientific and educational value. Development that significantly adversely affects local geological features will be permitted only where comparable sites can be identified or created elsewhere, or the impact can be adequately mitigated through other measures.

*Policy EN11* HISTORIC ENVIRONMENT: DESIGNATED HERITAGE ASSETS  
CONSERVATION AREAS

- Development proposals, including demolition, that would affect Conservation Areas and their settings, will be permitted provided they:
  - preserve and where appropriate enhance the special character and appearance of the Conservation Area in terms of siting, scale, form, proportion, design, materials and the retention of positive features;
  - include hard and soft landscape proposals, where appropriate, that respect the character and appearance of the Conservation Area;
  - will not result in the loss of open spaces, including garden areas and village greens, which make a valuable contribution to the character and/or appearance, and/or allow important views into or out of the Conservation Area;
  - have regard to the relevant Conservation Area appraisal (where available); and e. do not include internally illuminated advertisement signage unless the signage does not have an adverse impact on the Conservation Area or its setting.

4.2. The local biodiversity action plan relevant to the site is the Gloucestershire Local Nature Partnership. It aims to set out a long-term strategy for biodiversity conservation within Gloucestershire and provide a series of objectives and actions for achieving successful conservation of habitats and species across the county. Local Nature Partnerships (LNPs) are seen by DEFRA as the local delivery of the Government's 25 Year Environment Plan. The common purpose of the LNPs as set out by DEFRA in 2011 are to:

- Drive positive change in the local natural environment, taking a strategic view of the challenges and opportunities involved and identifying ways to manage it as a system for the benefit of nature, people and the economy.
- Contribute to achieving the Government's national environmental objectives locally, including the identification of local ecological networks, alongside addressing local priorities.

- Become local champions influencing decision-making relating to the natural environment and its value to social and economic outcomes, in particular, through working closely with local authorities, Local Enterprise Partnerships (LEPs) and Health and Wellbeing Boards (HWBs).

4.3. The Gloucestershire Local Nature Partnership are in the process of developing a **Nature Recovery Network**. This initiative provides us with the opportunity to draw together all past works in a revised spatial format, looking to identify not merely where our special wildlife and natural habitats currently are, but also the opportunities that exist for enhancing and creating additional habitat networks and connectivity - whilst also helping to strategically inform development and growth opportunities locally, rather than simply hinder them.

## 5. METHODOLOGY

### Desk Study

- 5.1. A desk study was undertaken for designated sites and bat species and habitat records within 2 km of the site:
- The MagicMap website was reviewed, to obtain information on any designated sites of nature conservation interest within 2 km of the site and details of any EPS licences for bats issued within 2 km;
  - The Cotswold District Council Planning Portal was searched for past and pending planning applications that may have associated ecological documents detailing results of bat surveys; and
  - Google Maps and Ordnance Survey (OS) Leisure Maps was utilised to view aerial photographs, maps and mapnik data, and to assess the ecological context of the site within the wider landscape.

### Building Inspection

- 5.2. Director of Ecology Michael Cummings MSc MCIEEM (Bat Licence no: 2015-13903-CLS) conducted a building inspection at The Stable Block at Rossley Manor on 15th August 2022 in accordance with the following methodology:

#### *External Survey*

- 5.3. An investigation was carried out of external features with potential for use by roosting bats, such as gaps under roof and ridge tiles, gaps at soffit boxes or fascias. A search for bat droppings was made beneath each potential entry / exit point identified, where accessible. The surveyor used binoculars and a powerful, low-heat LED torch.

#### *Internal Survey*

- 5.4. An investigation was carried out of the roof void (including the floor and walls) for signs of roosting bats and the access potential into the roof void for bats. The surveyor looked for bats, bat droppings, likely access points, signs of feeding, dead bats, scratch marks and staining, and made a suitability assessment of the structure of the roof.

### Emergence / Re-Entry Surveys

- 5.5. One dusk emergence survey was conducted during the 2022 survey season on the 15th August 2022. The survey was undertaken in line with BCT Good Practice Guidelines (2016), with any limitations outlined below.
- 5.6. The surveyors who conducted the survey are listed in **Table 1** below.
- 5.7. Surveyors were positioned strategically around the building in order to provide adequate coverage of all elevations. Surveyors focused on any features identified during the

Preliminary Roost Assessment (PRA) as having potential to be used as bat access points. The location of the surveyors and building names are shown on **Figure 3, Bat Survey Results**.

- 5.8. The dusk survey began 15 minutes prior to sunset and lasted 1.5 hours after sunset. Surveyors recorded bat activity using hand-held Echometer Touch detectors connected to Android or iPhone devices. Analysis of recordings was undertaken after the survey to confirm species identification. Observations recorded during the survey included bat access points, bat species, time, and type of activity (e.g. emergence, re-entry, commuting, foraging, etc.). Incidental records of bats within the vicinity of the building (but not necessarily roosting) were also recorded.
- 5.9. A summary of the survey conditions is provided in **Table 1**.

**Table 1:** Emergence survey date and weather conditions.

Date	Survey type	Sunset time	Start weather conditions	End weather conditions	Surveyors
15.08.2022	Dusk	20:32	Rain: 0 Wind: 0 Cloud cover: 10% Temperature: 22°C	Rain: 0 Wind: 0 Cloud cover: 100% Temperature: 22°C	Assistant Ecologist Abigail Harrington

### Evaluating Bat Roosts

- 5.10. The value of bat roosts on site is assessed in accordance with the article published in the CIEEM, In Practice Magazine - *Valuing Bats in Ecological Impact Assessment* (Wray, et al., 2010).
- 5.11. Roosts are assigned a relative ecological value based on the rarity of the species (Table 2) and categorisation of roost type (Table 3), informed by survey results. Once a value has been calculated, robust mitigation for any impacts identified from the proposed development can be determined.



**Table 2:** Categorising bat species by distribution and rarity.

Rarest	Rare	Common
Greater horseshoe Bechstein's Alcathoe Greater mouse-eared Grey long-eared Barbastelle	Lesser horseshoe Whiskered Brandt's Daubenton's Natterer's Leisler's Noctule Nathusius' pipistrelle Serotine	Common pipistrelle Soprano pipistrelle Brown long-eared

**Table 3:** Valuing bat roosts.

Geographic Frame of Reference	Roost Type
District, Local or Parish	Feeding perches (common species) Individual bats (common species) Small numbers of non-breeding bats (common species) Mating sites (common species)
County	Maternity sites (common species) Small number of hibernating bats (common and rarer species) Feeding perches (rarer/rarest species) Individual bats (rarer/rarest species) Small numbers of non-breeding bats (rarer/rarest species)
Regional	Mating sites(rarer/rarest species) including well-used swarming sites Maternity roosts (rarer species) Hibernation sites (rarest species) Significant hibernation sites for rarer/rarest species or all species assemblages
National/UK	Maternity sites (rarest species) Sites meeting Sites of Special Scientific Interest (SSSI) guidelines
International	Special Areas of conservation (SAC) sites

**Limitations**

- 5.12. The surveys were undertaken in accordance with the best practice guidelines within the peak bat activity period (May to September inclusive). The results are therefore considered to be an accurate representation of the general use of the building by roosting bats.
- 5.13. Nevertheless, bats may use roosting features intermittently throughout the year and may be present in larger or smaller numbers depending on their breeding cycle, weather conditions and in response to disturbance. Bats may be present at other times of the year and the results in this report should therefore be viewed in the context intended.

**Quality Assurance**

- 5.14. The surveys and assessments have been overseen by and the report checked and verified by a member of CIEEM, whom is bound by its code of professional conduct. All surveys and assessments have been undertaken with reference to the recommendations given in the British Standard BS 42020, and as stated within specialist guidance, as appropriate.

## 6. SURVEY RESULTS

### Desk Study

- 6.1. There is one statutory site designated as an Area of Outstanding Natural beauty (AONB) within the site boundaries, and two statutory sites designated as Sites of Special Scientific Interest (SSSI) within 2 km of the site.

**Table 2:** Statutory designated sites within 2 km of the site at Rossley Manor.

Designated sites	Name and designation type	Reason for designation	Approximate distance from site
Within Site Boundaries	Costwolds AONB	Designated an Area of Outstanding Natural Beauty (AONB) in 1966 in recognition of its rich, diverse and high quality landscape. It is the largest of 46 AONBs in England, Wales and Northern Ireland and covers 760 square miles. Its central feature are the Cotswolds Hills which rise gently from the broad, green meadows of the upper Thames to crest in a dramatic escarpment above the Severn Valley and Evesham Vale. Rural England at its most mellow, the landscape draws a unique warmth and richness from the famous limestone beauty of its buildings.	
Within 5 km of Site	Lineover Wood (SSSI)	Approximately 17.5 ha designated for biological interest. The site forms part of a more extensive wood which has largely been replanted with conifers and broadleaved mixtures. It has been selected as an outstanding example of the ancient semi-natural coppice woodland. The diverse woodland includes ash <i>Fraxinus excelsior</i> , pedunculate oak <i>Quercus robur</i> , whitebeam <i>Sorbus aria</i> , small-leaved lime <i>Tilia cordata</i> and the nationally rare large-leaved lime <i>T. platyphyllos</i> .	140 m southwest
	Puckham Woods (SSSI)	A 32.38 ha biological Site of Special Scientific Interest in Gloucestershire to the east of Cheltenham near Whittington, notified in 1954. The woods are an example of old woodland which comprises Ash, Oak, Silver Birch, Whitebeam and Rowan.	1,910 m northeast

- 6.2. Rossley Manor is located within an impact risk zone for the Lineover Wood SSSI.
- 6.3. MagicMap has records of five European Protected Species (EPS) Licences within 2 km of the site including:
- EPS mitigation licence (2019-40807-EPS-MIT) to allow for the damage of a resting place for brown long-eared (*Plecotus auritus*) and common pipistrelle (*pipistrelles pipistrelles*), approximately 420 m east of the site.
  - EPS mitigation licence (2020-50191-EPS-MIT) to allow for the destruction of a resting place for lesser horseshoe (*Rhinolophus hipposideros*), approximately 590 m southwest of the site.

- EPS mitigation licence (2020-50639-EPS-MIT) to allow for the destruction of a resting place for soprano pipistrelle (*Pipistrellus pygmaeus*) and Brandt's bat (*Myotis brandti*), approximately 940m southwest of the site.
  - EPS mitigation licence (2018-36795-EPS-MIT) to allow for the impact on a breeding site, the damage of a breeding site, the damage of a resting place, and the destruction of a resting place for brown long-eared, common pipistrelle, lesser horseshoe and whiskered bat (*Myotis mystacinus*), approximately 1,625m northeast of the site.
  - EPS mitigation licence (2019-39426-EPS-MIT) to allow for the destruction of a resting place for brown long-eared, common pipistrelle and lesser horseshoe, approximately 1,990m northeast of the site.
- 6.4. Cotswold District Council has no relevant records of planning applications and associated ecological documents within the last two years in the nearby area.
- 6.5. There are numerous areas of priority deciduous woodland site within the site boundaries and within 2 km of the site. [These areas of woodland are also registered on the National Forest Inventory (Woodland - Broadleaved)]. Further priority habitats within 1 km of the site comprise traditional orchard, wood pasture and parkland, good quality semi-improved grassland, and lowland calcareous grassland.
- 6.6. There are multiple areas of ancient woodland within 1 km of the application site, the closest of which is Dowdeswell Wood approximately 150 m north of the site.

### **Building Inspection**

#### *External Assessment*

- 6.7. The Stable Block is a single storey brick building currently used for light storage. It has a bitumen felt roof reinforced by a timber structure with traditional stone tile capping and hanging tiles towards the rear. The eaves have wire meshing that block possible entry points. Wooden panelling on the front and rear looks tight.

#### *Internal Assessment*

- 6.8. The Stable Block consists of four separately accessed rooms. These rooms contain no interior loft space. Gaps are present between the ceiling rafters where the walls meet the eaves of the roof. Each of these gaps has been blocked by wire mesh to prevent bird nesting.
- 6.9. All rooms were found to be well sealed.

**Image 1:** The Stable Block building southern and western elevations.



**Image 2:** Stone tile capping along the ridge of the Stable Block building



**Image 3:** Interior view of the rooms at the Stable Block.



**Image 4:** Interior view of the rooms at the Stable Block.



**Image 5:** Interior view of the rooms at the Stable Block.



**Image 6:** Gaps present between the roof perlin. These are blocked with wire mesh.



### Emergence Survey Results

- 6.10. During the emergence survey on the 15th August 2022, no bats were recorded emerging from the Stable Block.
- 6.11. Overall, there was moderate bat activity recorded around the building, with foraging noctule bats (blue arrow, Figure 3) and common pipistrelle bats using the courtyard and trees behind the Stable Block (light blue oval, Figure 3). One pass by a *Myotis* species was detected but not visually observed by the surveyor.
- 6.12. Two bright flood lights were active on the building opposite the Stable Block, lighting up the whole of the courtyard. These lights were on throughout the duration of the survey.

**Table 5:** 15/08/2022 - Dusk Emergence Survey Results

Timing	Species	Roost type	No. of bats	Structure	Location on structure	Roost description
Start: 20:17 [Sunset / Sunrise]: 20:32 End: 22:17	No emergences					
<p><b>Observations:</b> Noctule foraging behaviour between 20:52 and 21:02.  <i>Myotis</i> species pass at 21:26.            Common pipistrelle foraging behaviour between 21:30 and 21:56.</p>						



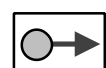
\*NOTE Areas are indicative and are not shown to exact scale.



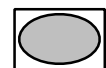
Building surveyed



Surveyor Location

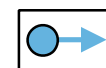


Bat Emergence/ Re-entry Location and Flight Path (coloured by species)

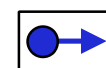


Area of Continuous Bat Activity (coloured by species)

*Bat Species*



Common Pipistrelle



Noctule



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**Project:** Rossley Manor,  
London Road, Cheltenham,  
GU54 4HG

**Figure 3:** Emergence  
Survey Results

**Date:** August 2022

## **7. IMPACT ASSESSMENT**

### **Designated Sites**

- 7.1. Cotswold District Local Plan Policy EN9 states that no developments will be granted if any adverse affects are determined for both local and national designated sites, such as local nature reserves or SSSI.
- 7.2. Lineover Wood SSSI is located 140 m from the site at Rossley Manor and is designated for being a notable area of re-planted ancient woodland and having a diverse range of plant and tree species. The proposed changes to the roof at the Stable Block would have no anticipated impacts on the notable plant assemblage at Lineover Wood. No new dwellings are proposed and so no increased footfall to the woods are anticipated.
- 7.3. The site is located within an impact risk zone for the Lineover Wood SSSI. However the proposals to change the roof construction at the site do not fall into any of the described categories for further consultation with Natural England. Thus no consultation with Natural England regarding the Lineover Wood SSSI will be required.
- 7.4. Puckham Woods SSSI is located approximately 2 km northeast of the site and is also designated for its woodland habitats. Due to the nature of the proposals at Rossley Manor, there is no anticipated negative impact to the woodland. The Rossley Manor site is not within the impact risk zone for Puckham Woods SSSI.
- 7.5. Thus, the proposed reconstruction of the roof at the Stable Block would not be in contravention of policy EN9.

### **Habitats**

- 7.6. The site contains several habitats that could support protected species such as bats. These include the main house and associated buildings, the scattered trees and the woodland on the Rossley Manor estate. Policy EN8 promotes the conservation and enhancement of important habitat and species in the area and seeks to reduce loss and damage to these habitats and species.
- 7.7. The proposed changes to the the roof at the Stable Block will have no anticipated effect on the surrounding habitats at the Rossley Manor site due to the small scale of the proposals. No material changes are expected to any adjacent habitats or trees on site in order to facilitate the works, as the works are expected to be conducted from within the hard standing courtyard.

### **Status of Bats on Site**

- 7.8. The Stable Block building was assessed as having low potential to support bats with no evidence of bat presence found at the internal and external assessment stage. The emergence survey determined that none of the observed flying bats were associated with the potential roosting features identified on the building. It is assumed that the foraging bats



recorded on the survey are associated with features on other buildings in the Rossley Manor site.

- 7.9. From the information gathered during the surveys, we can state that bats are likely absent from the Stable Block building and are not currently using the roof as a roosting location.
- 7.10. Other buildings on the Rossley Manor estate, including the coach house and the main house, are likely to support roosting bats. It is not anticipated that these buildings will be affected by any roof works conducted on the Stable Block. The Stable Block roof is not continuously connected to other roofs at the site and therefore any works conducted on the Stable Block would not modify or damage the roofs of any adjacent buildings.
- 7.11. In the unlikely event that a bat is discovered during the works, all works must cease immediately and a bat licensed ecologist contacted for advice.**

### **Mitigation**

- 7.12. *Lighting:* Any new external lighting should be directed to avoid light spillage onto vegetation, particularly linear habitat features such as woodland edges or potential roosting sites within trees and buildings. Bats are sensitive to light and could potentially avoid the area if access points or the surrounding areas become lit. Appropriate lighting options will prevent negative impact on bats potentially using the habitats on site and should be approved by a suitably qualified and licensed bat ecologist. Lighting plans should be approved and signed off by a licensed bat ecologist prior to submission, to ensure the scheme is suitable for bats. If appropriate measures are taken to reduce light spillage from the development, it is likely that there will be no negative impacts on local bat populations.
- 7.13. The Stable Block was noted to be well lit with a floodlight positioned on an opposite building in the courtyard area. It is recommended that this floodlight be replaced with either a timer activated light or a motion activation sensor, as this would reduce light impact on foraging bats in the courtyard area.
- 7.14. See **Appendix 3** for further information on designing lighting to minimise impacts on bats.

## **8. ENHANCEMENT RECOMMENDATIONS**

- 8.1. National planning policy states that all developments should seek to enhance onsite biodiversity whether impacts on protected species are recorded or not. Incorporating enhancement features into new or renovated buildings should be carefully considered. These features can be simple and inexpensive, please see below for specific recommendations.

### **Bats**

- 8.2. Foraging and commuting bat species are known to be present at the site at Rossley Manor and it is expected that areas of the main house may support roosting bats. Enhancement to the site and surrounding areas for bats would be beneficial to the populations already present on site. The installation of bat boxes on the trees around the manor grounds would provide ample roosting opportunities for bats. Bat boxes such as the Schwegler 2F or Schwegler 2FN would be suitable to install for this purpose.
- 8.3. Bats rely on a sufficient population of food insects, and so ensuring that habitat on site supports these insects would be an appropriate enhancement. Details of a wildlife beneficial planting scheme for this purpose are below.

### **Wildlife Beneficial Landscaping Scheme**

- 8.4. Whilst the current proposals call for no landscaping or planting, any future landscape planting at Rossley Manor should seek to enhance biodiversity, improve connectivity to the surrounding habitats and provide food and shelter for a wide range of wildlife. All amenity planting and formally landscaped areas should be designed using a variety of plant species beneficial for wildlife. These do not necessarily have to be native but should be chosen for their ability to provide nectar or fruit and should be non-invasive species. There are a number of specialist seed mixes available specific to certain soil types, growing conditions and designed to benefit different groups of species such as bees or butterflies and moths.
- 8.5. All habitats should be managed in a suitable way to encourage a wide variety of insects and other wildlife to use the site.
- 8.6. Further information regarding habitat creation, enhancement and management can be provided on request and submitted with further survey results for the final planning application.

## 9. REFERENCES

CIEEM (2012) Guidelines for Preliminary Ecological Appraisal. *Technical Guidance Series*.

Collins, J. (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition)* The Bat Conservation Trust, London.

Mitchell-Jones, A.J., (2002). *Bat Mitigation Guidelines*. English Nature, Peterborough.

Mitchell-Jones, A. J. & McLeish, A. P. (2004). *Bat Workers' Manual (3rd Edition)*. JNCC, Peterborough.

Ordnance Survey Maps [online] [www.osmaps.ordnancesurvey.co.uk](http://www.osmaps.ordnancesurvey.co.uk) [Jan 2021].

Schofield, H. W. & Mitchell-Jones, A.J. (2004). *The Bats of Britain and Ireland*. Vincent Wildlife Trust, Ledbury.

UK Government's Countryside Geographic Information Website [online] [www.magic.gov.uk](http://www.magic.gov.uk) [Jan 2021].

### Legislation and Policy

Council of the European Communities (1992) *Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (EN)*. Official Journal of the European Communities [online] [www.eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:1992:206:TOC](http://www.eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:1992:206:TOC) [Jan 2021]

Council of the European Communities (2009) *Council Directive 2009/147/EC of 30 November 2009 on the conservation of wild birds (EN)*. Official Journal of the European Union [online] [eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:020:0007:0025:EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:020:0007:0025:EN:PDF) [Jan 2021]

Department for Environment, Food and Rural Affairs (2011) *Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services* [online] [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf) [Jan 2021]

Ministry of Housing, Communities & Local Governments (2019) National Planning Policy [online] [www.assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/810197/](http://www.assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/)

NPPF\_Feb\_2019\_revised.pdf [Aug 2020] Natural Environment and Rural Communities Act 2006 (UK Parliament). *The National Archives* [online] [www.legislation.gov.uk/ukpga/2006/16/contents](http://www.legislation.gov.uk/ukpga/2006/16/contents) [Jan 2021]

Office of the Deputy Prime Minister Circular (2005) *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their*

*Impact within the Planning System* [online] [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/7692/147570.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf) [Jan 2021]

The Conservation of Habitats and Species (Amendment) Regulations 2012 (UK Parliament). *The National Archives* [online] [www.legislation.gov.uk/uksi/2012/1927/contents/made](http://www.legislation.gov.uk/uksi/2012/1927/contents/made) [Jan 2021]

The Hunting Act (2004) The National Archives [online] [www.legislation.gov.uk/uksi/2012/1927/contents/made](http://www.legislation.gov.uk/uksi/2012/1927/contents/made) [Jan 2021]

The Wildlife and Countryside Act 1981 (England and Wales) (Amendment) Regulations 2004 (UK Parliament). *The National Archives* [online] [www.legislation.gov.uk/ukpga/1991/39/contents](http://www.legislation.gov.uk/ukpga/1991/39/contents) *Countryside and Rights of Way Act, 2000* [Jan 2021]

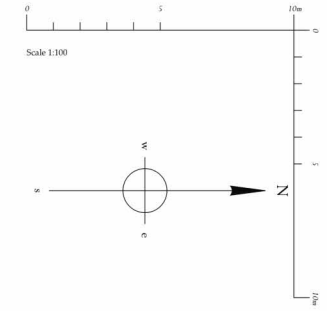
COTSWOLD DISTRICT LOCAL PLAN 2011-2031 (2018). Cotswold District Council. <https://www.cotswold.gov.uk/planning-and-building/planning-policy/local-plan-2011-to-2031/>

## **APPENDICES**

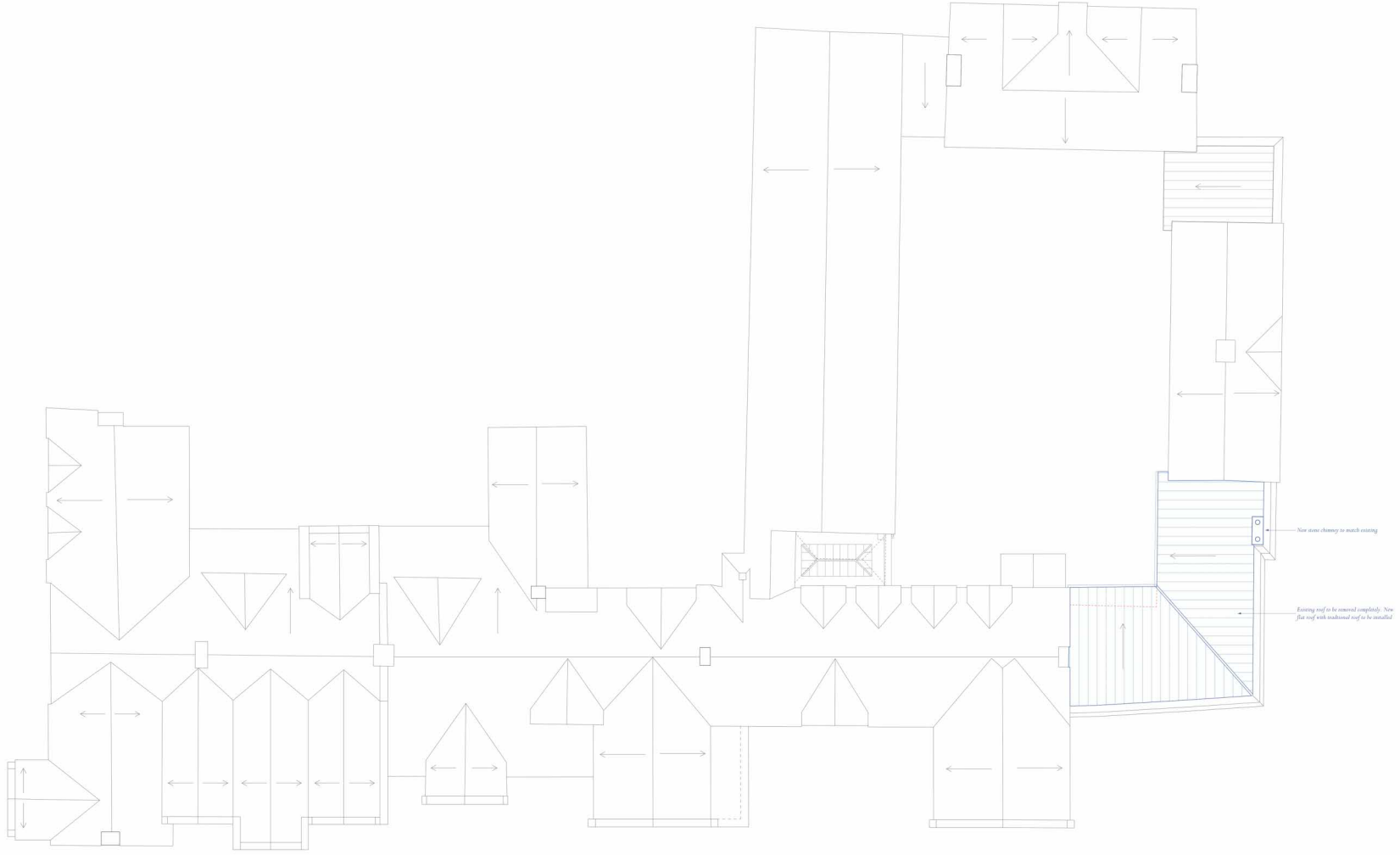
## **APPENDIX 1 - PROPOSED PLANS**

- Demolished fabric
- Existing fabric
- Proposed fabric
- Proposed fabric

Adjacent Properties and Boundaries are shown for illustrative purposes only and have not been surveyed unless otherwise stated.  
 All areas shown are approximate and should be verified before forming the basis of a decision.  
 Do not scale other than for Planning Application purposes.  
 All dimensions must be checked by the contractor before commencing work on site.  
 No deviation from this drawing will be permitted without the prior written consent of the Architect.  
 The copyright of this drawing remains with the Architect and may not be reproduced in any form without prior written consent.  
 Ground Floor Slabs, Foundations, Sub-Structures, etc. All work below ground level is shown provisionally. Inspection of ground condition is essential prior to work commencing.  
 Reassessment is essential when the ground conditions are apparent, and redesign may be necessary in the light of soil conditions found. The responsibility for establishing the soil and sub-soil conditions rests with the contractor.



PLANNING AND LISTED BUILDING  
 CONSENT APPLICATION



PROPOSED ROOF PLAN

Rev	Date	Description	Initials
PROJECT		Rossley Manor, Cheltenham Alterations & Extension	
TITLE:		Proposed Roof Plan	
SCALE:		1:100 @ A1	
DATE:		June 2022	
DRAWING No:		6352 / PL 11	
DRAWN BY:		ZKT	



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## **APPENDIX 2 SURVEY AND REPORTING LIMITATIONS AND EXCEPTIONS**

This report and its survey results should be considered in conjunction with the terms and conditions proposed and scope of works agreed between Darwin Ecology Ltd and the client.

This report has been produced in the context of the proposals stated in the Introduction & Background section of the report (Section 2) and should not be used in any other context.

Darwin Ecology Ltd have endeavoured to identify the likely presence / absence of protected species wherever possible on site, where this falls within the agreed scope of works. Current standard methodologies have been used, which are accepted by Natural England and other statutory conservation bodies. No responsibility can be accepted where the methodologies fail to identify all species or significant species on site.

Preliminary survey techniques provide a preliminary assessment of the likelihood of protected species occurring on the development site, based on the suitability of the habitats and any field signs found during the site visit. A preliminary survey should not be taken as providing a full and definitive survey of any protected species group at a site unless it can be stated with confidence that the potential for that protected species to be present is negligible.

Protected species surveys represent a snapshot of conditions at the time of survey and are limited by factors which affect the presence of animals, such as the time of year, movement patterns and behaviour. Surveys should therefore not be considered as conclusive proof that any particular protected species group is not present or will not be present in the future.

Where the presence / absence of protected species is in question our ecologists must apply a precautionary approach until further survey data can be sought to better inform the decision.

Darwin Ecology Ltd will advise on the optimum survey season for protected species prior to undertaking the survey work. Darwin Ecology Ltd cannot accept responsibility for the accuracy of surveys undertaken outside this period.

The potential impacts, mitigation and enhancement sections of the report provide an overview and is for guidance only. This section should not be solely relied upon, but should be considered in the context of the whole report.

Interpretations of survey results and recommendations outlined in the report represent our professional opinions, expressed in accordance with recognised industry practices and current legislation at the time of reporting. The results of survey work undertaken by Darwin Ecology Ltd are representative at the time of surveying.

Where the client had supplied us with data from previous reports, it has been assumed that this information is valid. No responsibility can be accepted by Darwin Ecology Ltd for inaccuracies within any previous data supplied.

The copyright in this report, plans and other associated documents prepared by Darwin Ecology Ltd is owned by them and no such report, plans and other associated documents may be reproduced without their written consent.

Amendments to this report after its submission may be necessary in light of new, relevant information and / or legislation. This report should be referred to us for re-assessment if any such amendments are necessary or after the expiry of one year from the date of the report.





## THE IMPACT OF LIGHTING ON BATS

Bats favour a dark environment for both roosting and foraging as they are adapted to low-light conditions. Artificial lighting will disturb bats if the lighting covers roost access points, flight paths or foraging habitats.

The main peak of nocturnal insect abundance occurs at dusk and a delay in emergence results in a lower foraging rate for bats.

Artificial lighting creates a 'vacuum effect' for nocturnal insects. During the night nocturnal insects use the light of the moon\* to navigate. However, artificial lighting and even sky glow above cities obscures the natural moonlight as it is closer

and radiates light in multiple directions.

Some species of bats have been recorded foraging around street lights such as Pipistrelle species and Nyctalus species. However, species that are less tolerant of artificial light are at a disadvantage when foraging as insects are drawn away from these species usual foraging grounds into the zones of artificial light.

Lighting must be considered in context to any development as increased lighting may cause roost abandonment, reduced reproductive success, and reduced foraging. Mitigation to reduce the impacts of lighting for bats is therefore of great importance in bat conservation.

Table 1: Summary of predicted impact of lighting for each species/genus

Impact	High	Medium	Low
Behaviour			
Maternity roost	All species	-	-
Night roost	<i>Rhinolophus hipposideros</i> <i>Rhinolophus ferrumequinum</i> <i>Myotis</i> spp. <i>Plecotus</i> spp.	<i>Pipistrellus</i> spp. <i>Nyctalus</i> spp. <i>Eptesicus serotinus</i> <i>Barbastella barbastellus</i>	-
Emergence	All species	-	-
Foraging	<i>Rhinolophus hipposideros</i> <i>Rhinolophus ferrumequinum</i> <i>Myotis</i> spp. <i>Plecotus</i> spp.	-	<i>Pipistrellus</i> spp. <i>Nyctalus</i> spp. <i>Eptesicus serotinus</i> <i>Barbastella barbastellus</i>
Commuting	<i>Rhinolophus hipposideros</i> <i>Rhinolophus ferrumequinum</i> <i>Myotis</i> spp. <i>Plecotus</i> spp.	-	<i>Pipistrellus</i> spp. <i>Nyctalus</i> spp. <i>Eptesicus serotinus</i> <i>Barbastella barbastellus</i>
Swarming	All species	-	-
Hibernation	All species	-	-

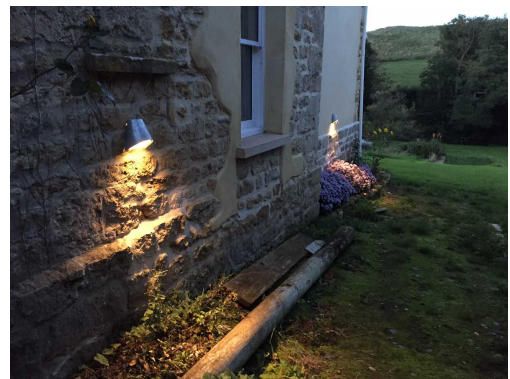
\*For more information see Warrant, E., and Dacke, M. (2016) Visual Navigation in Nocturnal insects. *Physiology*, 31, 182-196.

Sources of light that can disturb bats include; light spill via windows, floodlighting, car headlights, roadside lighting, security lighting, aesthetic lighting of waterways, and aesthetic illumination of buildings. Glare will affect bats over greater distance than the target area directly illuminated.

Avoidance is the most effective method, but if this is not possible the following measures should be considered.

### What lighting should I use?

- Low pressure sodium lights or 'warm' LEDs
- Wavelength above 540nm
- Colour temperature below 2700K
- Shielded lights that prevent light spill above a 70 degree angle
- Passive infrared (PIR) motion sensors



### What to avoid:

- Lighting roost entrances, flightpaths, and foraging or commuting routes
- Reflective surfaces beneath lighting
- High level lights
- Non-directional lighting

Lighting should be considered at an early stage allowing impacts to be minimised through the design of the site.

### Key Points

- Keep lighting intensity to the minimum level required
- Limit the times that lights are on to provide some dark periods (e.g. switching installations off between midnight and 5am)
- Dim lighting according to demand
- As an alternative to lighting pathways use paving materials that reflect moonlight
- Low level lighting allows darkness to be retained within higher vegetation
- Set dark habitat buffers - lighting should always be a minimum of 25m from vegetated margins and 40m from waterbodies
- Incorporate dark corridors within the site
- Compensate for the loss of dark areas by enhancing other dark areas
- Consider building design - install internal lighting away from windows