



The Ecology Co-op

ENVIRONMENTAL CONSULTANTS

Unit 4, Langham Stables, Langham Lane, Lodsworth, Petworth, West Sussex, GU28 9BU

Tel: 01798 861 800 – E-Mail: info@ecologyco-op.co.uk – www.ecologyco-op.co.uk

Bat Scoping Report

Land at 42 Bulmershe Road, Reading, RG1 5RJ

Author: Dr Ryan Walker, MCIEEM, CEnv

Reviewed by: Paul Whitby, BSc, MCIEEM, CEcol

19th October 2018

Project No: 2987

The Ecology Co-operation Ltd
Registered Office: Greens Court, West Street, Midhurst, West Sussex, GU29 9NQ
Company number: 8905527



Report Summary

1. Mr & Mrs Dillon has commissioned the Ecology Co-op to undertake an updated Preliminary Ecological Appraisal and bat scoping survey at 42 Bulmershe Road in Reading. The purpose of this report is to present the findings of the appraisal and identify potential ecological constraints to a proposed planning application for demolition of an existing garage and the development of an area of self-seeded scrub habitat to support a small-scale housing development. The site was first surveyed by the Ecology Co-op during the summer of 2016.
2. An updated assessment of the site was carried out by Dr Ryan Walker on the 15th October 2018. This included a ground-based internal and external inspection of the building and an appraisal of the surrounding habitats, to evaluate the site for its potential to support roosting bats. All bats are European Protected Species (Annex IV, 'Habitats Directive').
3. The site remains largely unchanged since the survey undertaken in 2016. The garage and trees within the site support a negligible potential to support roosting bats. No further surveys with regards to bats are recommended, however per the 2016 report, all vegetation removal should be undertaken outside the nesting bird season (March to August inclusive) so that this work does not impact nesting birds.
4. An appropriate wildlife sensitive lighting plan should be integrated into the development, to reduce potential impact up foraging and commuting bats and other wildlife. Appropriate biodiversity enhancement opportunities are outlined in section 4.3.

This report has been prepared by The Ecology Co-operation Ltd, with all reasonable skill, care and diligence within the terms of the Contract with the client. This report only becomes the property of the client once payment for it has been received in full.

We disclaim responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.



CONTENTS PAGE

1 INTRODUCTION	4
1.1 Purpose of the Report.....	4
1.2 Background.....	4
1.3 Policy and Legislation	5
2 METHODOLOGY	6
2.1 Desk Study	6
2.2 Field Survey.....	6
2.3 Other protected and/or notable species.....	6
3 RESULTS/OBSERVATIONS	7
3.1 Desk Study	7
3.2 Site context and surrounding habitats	7
3.3 Building inspection for bats.....	7
3.4 Other protected and/or notable species.....	7
3.5 Survey Limitations	8
3.6 Photographs	9
4 ECOLOGICAL CONSTRAINTS AND OPPORTUNITIES.....	10
4.1 Bats.....	10
4.2 Other protected and/or notable species.....	10
4.3 Biodiversity Enhancement Opportunities.....	11
APPENDIX 1 –Wildlife Legislation and National Planning Policy	12
APPENDIX 2 Reducing impacts of artificial light.....	14



1 INTRODUCTION

1.1 Purpose of the Report

The Ecology Co-op has been commissioned to undertake an updated bat scoping assessment of the land at 42 Bulmershe Road by Mr and Mrs Dillon. This report presents the findings of a site walkover survey and building inspection for roosting bats, undertaken by Dr Ryan Walker MCIEEM, CEnv, bat survey licence number: 2015-16736-CLS-CLS on 15th October 2018. It provides details on the potential for any protected species and/or habitats to be present at the site and provides an assessment of the potential ecological constraints to the proposed redevelopment of the site. Recommendations for further surveys that are likely to be required to inform a planning application are provided, if necessary. Where appropriate, measures to avoid, mitigate and/or compensate for impacts are outlined.

1.2 Background

The results detailed within this report represent an updated survey of this property. A Preliminary Ecological Appraisal (PEA) of the site was first carried out by the Ecology Co-op in April 2016. The full address is 42 Bulmershe Road, Reading, RG1 5RJ and the central grid reference for the site is SU735729.

The site comprises a single garage and area of self-seeded scrub and accumulations of stored building materials (Figure 1).

The proposed development includes the demolition of the existing single garage followed by the construction of a small-scale residential development and associated hard and soft landscaping works.



Figure 1. Site plan. Images produced courtesy of Google maps (Map data ©2018 Microsoft).



1.3 Policy and Legislation

Legal protection applying to all bat species in the UK is outlined in Appendix 1 of this report.

The results of this survey will be used to determine the need for further surveys, impact avoidance measures and/or an appropriate mitigation strategy to ensure compliance with UK and EU wildlife legislation.



2 METHODOLOGY

The methodology used for this survey are in accordance with the bat survey guidelines produced by the Bat Conservation Trust¹.

2.1 Desk Study

A search of on-line mapping resources was undertaken to characterise the local context of the site with respect to semi-natural habitats and linear features of value to foraging and commuting bats.

The MAGIC website resource (www.magic.gov.uk) was used to identify the location of designated sites for nature conservation and European Protected Species (EPS) licences granted within a 1km radius of the survey site.

2.2 Field Survey

Bats can use a wide range of features including loft spaces, cavity walls, loose tiles, mortice joints and cracks/gaps in a variety of built structures. They can also be found in trees with holes, splits, cracks, cavities, ivy, and loose bark.

An updated detailed building inspection of the garage was carried out, looking for potential access points and potential roosting feature that bats could use and any evidence indicating the presence of bats using the building, such as rub marks, staining or droppings. This included a ground-based external inspection around the building and internal inspection of any enclosed loft spaces or roof voids.

The potential for roosting bats for each feature, or group of features was assessed as either negligible, low, moderate, or high, in accordance with best practice. Any evidence confirming the presence of bats that was found was clearly recorded including photos and samples taken (e.g. droppings) where appropriate.

The habitats surrounding the site and wider landscape were broadly assessed for their potential to support foraging and commuting bats.

2.3 Other protected and/or notable species

Any birds identified, or evidence of nesting birds discovered during the site visit were recorded. Special attention was paid to notable species such as red-listed Birds of Conservation Concern (Eaton et al. 2015) and those species afforded special protection on Schedule 1 of the Wildlife and Countryside Act (1981).

Whilst this survey focussed on bats and no specific searches were made with respect to other protected

¹ Collins, J.(ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London.



species, any evidence of other protected species that was encountered during the site visit was also recorded.

3 RESULTS/OBSERVATIONS

3.1 Desk Study

There are no designated sites that include bats as a designated feature within the zone of influence from the site. The closest designated site is Lodge Woods and Sandford Mill SSSI approximately 5km to the east of the site.

There is a single EPS licence granted for a mitigation projects concerning common pipistrelle and brown long eared bats approximately 650m south of the site during 2010. This data is shown on the Magic maps website – magic.defra.gov.uk.

3.2 Site context and surrounding habitats

The site is set within a suburban setting, in an area that supports large detached and semi-detached residential properties and gardens (Figure 1). The wider area could potentially support foraging habitat for some of the commoner, more light tolerant species such as common pipistrelle bats that often persist within more urban/suburban environments.

3.3 Building inspection for bats

The garage structure has remained largely unchanged within the two years since it was last surveyed. The garage supports a footprint of approximately 5x2m with a floor to apex height of approximately 3m. The garage is timber framed, clad in cement board and supports a corrugated material roof (Photographs 1 & 2). There is a small amount of ivy upon the east and west facing elevations, however this ivy is thin, with narrow stems and appears unsuitable for supporting bat roosting crevices. All other external aspects of the garage appear unsuitable to support crevice roosting species of bat. The internal aspects of the shed are well lit and airy and there appears to be no evidence to suggest that bats have been using the internal aspects of the shed within the recent past.

None of the trees within the site support features that could be considered potentially suitable for roosting bats.

Overall, the bat roost potential at this site is rated as negligible. The site as a moderate potential for supporting foraging/commuting habitat for some of the more light tolerant species such as the pipistrelle species.

3.4 Other protected and/or notable species

The vegetation and self-seeded scrub throughout the centre and west of the site supports habitat that could be considered potentially suitable for supporting species of garden birds such as blackbird *Turdus*



merula or chaffinch *Fringilla coelebs*, robin *Erithacus rubecula* or wren *Troglodytes troglodytes*. The garage has the potential to support smaller nesting birds that often use outbuildings as nest sites during the summer months such as house sparrows *Passer domesticus* and wrens.

3.5 Survey Limitations

An initial site assessment such as this is only able to act like a 'snapshot' to record any flora or fauna that is present at the time of the survey. It is therefore possible that some species may not have been present during the survey, but may be evident at other times of the year. For this reason, habitats are assessed for their potential to support some species, even where no direct evidence (such as droppings) has been found.



3.6 Photographs



Photograph 1. The east facing elevation of the garage.



Photograph 2. The south facing elevation of the garage.



Photograph 3. The dense, self seeded trees within the site mostly comprising of hazel and willow.

4 ECOLOGICAL CONSTRAINTS AND OPPORTUNITIES

4.1 Bats

In accordance with the Bat Conservation Trust guidelines, the overall potential for the garage and trees within the site to support roosting bats is rated as negligible. The ecological conditions within the site have remained largely the same as that recorded during the surveying undertaken in 2016. No further surveying or mitigation with regards to roosting bats is required.

As the site may be used by foraging and commuting bats, it is important that the potential for disturbance from artificial lights is considered. The proposed development should include an 'ecologically sensitive lighting scheme' in accordance with guidance produced by the Bat Conservation Trust (summarised in Appendix 2).

4.2 Other protected and/or notable species

As described within the 2016 Preliminary Ecological Appraisal undertaken for the site by the Ecology Co-op, nesting birds should be considered within the site. Since the garage has potential to support nesting birds such as house sparrows and robins and wrens and that the vegetation within the site has the potential to support a number of garden bird species, demolition and vegetation clearance upon the



site should be timed outside of the nesting bird season (1st March – 31st August). If this is not possible, the building and vegetation should be subjected to nesting bird checks by a suitably qualified ecologist as appropriate to the works. If an active nest is identified, a minimum exclusion zone for all works within 5 meters radius of the nest must be established to the nest to protect it from disturbance until the young have fledged.

The 2016 PEA undertaken for the site identified habitat that could be considered potentially suitable for supporting populations of reptiles. As a result, a reptile presence/absence survey was undertaken during the summer of 2016. This survey produced a negative result.

4.3 Biodiversity Enhancement Opportunities

The proposed development represents an opportunity for habitat enhancement to benefit insects, birds, and bats. Any planting scheme for the proposed development should include native shrub species and flowering species known to encourage insect diversity.

The developer is also encouraged to consider including integral bat roosting opportunities into the building fabric such as bat tiles and internal voids/access points for bats. For example, a Schwegler 2FR bat tube could be built into the south, west or east facing elevations. Incorporating only native planting into the grounds of the property will also encourage wildlife and fruiting tree species will provide food for birds and a variety of invertebrates

Such enhancement measures are in line with the recommendations of the National Planning Policy Framework and as such would be considered favourably when determining the planning application.

If any protected species are found during the proposed work, work should be stopped immediately, and an ecologist must be contacted immediately for advice.

Should you need any further advice on the information provided above, please do not hesitate to contact The Ecology Co-op.



APPENDIX 1 –Wildlife Legislation and National Planning Policy

The following text is intended for general guidance only and does not constitute comprehensive professional legal advice. It provides a summary of the current legal protection afforded to bats.

All bat species in the UK are included in Schedule II of the Habitats Regulations 2010, which transpose Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora ("The EC Habitats Directive"). As such all bat species in the UK are defined as 'European Protected Species (EPS).

Four species of bat (Bechstein's bat *Myotis bechsteinii*, Barbastelle bat *Barbastella barbastellus*, greater and lesser horseshoe bats, *Rhinolophus ferrumequinum* and *R. hipposideros*) are also listed on Annex IV of the EC Habitats Directive. This requires the designation of a series of sites which contain important populations of these species as Special Areas of Conservation (SACs).

All species of British bat are also fully protected under the Wildlife and Countryside Act (1981), as amended, through inclusion in Schedule V.

All species of bat are listed on Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). Section 41 of the NERC Act lists the habitats and species of principle importance. This places a statutory duty on all public bodies, including planning authorities, under Section 40, to take, or promote the taking by others, steps to further the conservation of habitats and species of principal importance for the conservation of biodiversity in England (commonly referred to as the 'Biodiversity Duty'). This duty extends to all public bodies the biodiversity duty of Section 74 of the Countryside and Rights of Way (CROW) Act 2000, which placed a duty only on Government and Ministers.

Under the above legislation it is an offence to:

- Kill, injure or take any individual bat of any species;
- possess any part of an individual bat, either alive or dead;
- intentionally or recklessly damage, destroy or obstruct access to any place or structure used by bats for shelter, rest, protection, or breeding;
- intentionally or recklessly disturb these species whilst using any place of shelter or protection; or
- deliberately disturb bats in such a way as to be likely to impair their ability to:
 - survive, to breed or reproduce, to rear or nurture their young; to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong;
- keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead bat, or any part of, or anything derived from a bat.

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



A European Protected Species License (EPSL) in relation to bats is required from Natural England for any work that would result in an otherwise unlawful activity (e.g. damage to a bat roost). A license can only be issued to permit otherwise prohibited acts if Natural England are satisfied that all the following three tests are met:

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

A bat roost is defined by the Bat Conservation Trust’s Bat Surveys—Good Practice Guidelines 2nd Edition as “the resting place of a bat”. In general, the word roost is interpreted as “any structure or place, which any wild bat uses for shelter or protection.”

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



APPENDIX 2 Reducing impacts of artificial light

Bright external lighting can have a detrimental impact upon foraging and commuting bat flight paths, but more importantly can also cause bats to remain in their roosts for longer. Artificial lighting can also cause significant impacts on other nocturnal species, most notably moths and other nocturnal insects. It can also result in disruption of the circadian rhythms of birds, reducing their fitness. Guidelines issued by the Bat Conservation Trust should be considered while designing the lighting scheme. A simple process which should be followed where the impact on bats is being considered as part of a proposed lighting scheme. It contains techniques which can be used on all sites, whether a small domestic project or larger

mixed-use, commercial or infrastructure development. This includes the following measures:

Avoid lighting on key habitats and features altogether

there is no legal duty requiring any place to be lit. British Standards and other policy documents allow for deviation from their own guidance where there are significant ecological/environmental reasons for doing so. It is acknowledged that in certain situations lighting is critical in maintaining safety, such as some industrial sites with 24-hour operation. However, in the public realm, while lighting can increase the perception of safety and security, measurable benefits can be subjective. Consequently, lighting design should be flexible and be able to fully consider the presence of protected species

Apply mitigation methods to reduce lighting to agreed limits in other sensitive locations – lighting design considerations

Where bat habitats and features are considered to be of lower importance or sensitivity to illumination, the need to provide lighting may outweigh the needs of bats. Consequently, a balance between a reduced lighting level appropriate to the ecological importance of each feature and species, and the lighting objectives for that area will need to be achieved. The following are techniques which have been successfully used on projects and are often used in combination for best results;

Dark buffers, illuminance limits and zonation

- Sensitive site configuration, whereby the location, orientation and height of newly built structures and hard standing can have a considerable impact on light spill
- Consider the design of the light and fittings, whereby the spread of light is minimised ensuring that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required. Consider the height of lighting columns. It should be noted that a lower mounting height is not always better. A lower mounting height can create more light-spill or require more columns. Column height should be carefully considered to balance task and mitigation measures. Consider no lighting solutions where possible such as white lining, good signage, and LED cat's eyes. For example, light only high-risk stretches of roads, such as crossings and junctions, allowing headlights to provide any necessary illumination at other times.
- Screening, whereby light spill can be successfully screened through soft landscaping and the installation of walls, fences and bunding
- Glazing treatments, whereby glazing should be restricted or redesigned wherever the ecologist and lighting professional determine there is a likely significant effect upon key bat habitat and



features.

- Creation of alternative valuable bat habitat on site, whereby additional or alternative bat flightpaths, commuting habitat or foraging habitat could result in appropriate compensation for any such habitat being lost to the development.
- Dimming and part-night lighting. Depending on the pattern of bat activity across the key features identified on site it may be appropriate for an element of on-site lighting to be controlled either diurnally, seasonally or according to human activity. A control management system can be used to dim (typically to 25% or less) or turn off groups of lights when not in use.

Demonstrate compliance with illuminance limits and buffers

- *Design and pre-planning phase*; It may be necessary to demonstrate that the proposed lighting will comply with any agreed light-limitation or screening measures set as a result of your ecologist's recommendations and evaluation. This is especially likely to be requested if planning permission is required.
- *Baseline and post-completion light monitoring surveys*; baseline, pre-development lighting surveys may be useful where existing on or off-site lighting is suspected to be acting on key habitats and features and so may prevent the agreed or modelled illuminance limits being achieved.
- *Post-construction/operational phase compliance-checking*