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**Rose Barn, Cemetery Lane, Bourton-on-the-Water,  
Gloucestershire GL54 2HB**

**Protected Species Survey & Assessment**

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**October 2022**

***on behalf of J. Finch***



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<b>Client</b>	Judy Finch <i>care of</i> David Hicks
<b>Job name</b>	Rose Barn, Cemetery Lane, Bourton-on-the-Water, Gloucestershire GL54 2HB
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	<b>Signed</b>	<b>Name</b>	<b>Position</b>	<b>Date</b>
<b>Prepared by</b>		Edward Bodsworth <i>MA (Cantab)</i> <i>PhD MCIEEM</i>	Director	10/10/2022

## Contents

<b>1</b>	<b>Introduction.....</b>	<b>1</b>
1.1	Site Description .....	1
1.2	Proposed Works.....	1
1.3	Aims of Study .....	1
1.4	Great Crested Newt Ecology .....	1
<b>2</b>	<b>Methodology .....</b>	<b>2</b>
2.1	Limitations on Survey Data .....	2
2.2	Field Survey .....	2
2.2.1	Great Crested Newt Habitat Assessment.....	2
2.2.2	Preliminary Bat Roost Assessment (PRA) .....	2
2.2.3	Other Species .....	3
<b>3</b>	<b>Results.....</b>	<b>3</b>
3.1	Habitats .....	3
3.1.1	Garden .....	3
3.1.2	Building .....	4
3.2	Species.....	4
3.2.1	Great Crested Newts.....	4
3.2.2	Bats.....	4
3.2.3	Other Species .....	5
<b>4</b>	<b>Discussion .....</b>	<b>5</b>
4.1	Great Crested Newts .....	5
4.2	Bats .....	5
4.3	Legislative Guidance.....	5
4.3.1	Great Crested Newts.....	5
4.3.2	Bats.....	6
4.3.3	Nesting Birds.....	7
4.4	Potential Impacts.....	7
4.4.1	Great Crested Newts.....	7
4.4.2	Bats .....	7
4.4.3	Birds.....	8
4.4.4	Other Species .....	8
<b>5</b>	<b>Recommendations.....</b>	<b>8</b>
5.1	Further Surveys.....	8
5.2	Timing.....	8
5.3	Careful Work Practices .....	8
<b>6</b>	<b>References .....</b>	<b>8</b>
<b>7</b>	<b>Appendix 1. Photographs.....</b>	<b>9</b>
<b>8</b>	<b>Appendix 2. Site Location Plans.....</b>	<b>10</b>
<b>9</b>	<b>Appendix 3. Proposal Plan.....</b>	<b>11</b>

## 1 Introduction

### 1.1 Site Description

Rose Barn, referred to as the 'site' within this report, is a detached dwelling located off Cemetery Lane, to the east of the town of Bourton-on-the-Water in Gloucestershire GL54 2HB. The approximate Ordnance Survey grid reference for the site is SP 1759 2058.

The site comprises the detached dwelling of Rose Barn and its garden. The building is of stone construction, with a pitched roof of slate tiles. There is no loft or attic space, and the roof space is occupied by accommodation. The front garden is mainly laid to lawn, with a gravel drive to the east and patio to the west sides of the dwelling. The garden to the north and west sides of the dwelling comprises areas of disturbed bare ground.

The site is located within the open countryside to the east of Bourton-on-the-Water, with other dwellings to the north and south. To the east and south are a number of ponds/lakes.

### 1.2 Proposed Works

There is a proposal to extend the dwelling to its northern and western elevations. Please see Appendix 3 for a proposal plan.

### 1.3 Aims of Study

The aim of this study is to assess the potential impacts on protected species, particularly great crested newts *Triturus cristatus*, as a result of the proposed development at Rose Barn, Bourton-on-the-Water. The study assesses the overall potential of the site to support great crested newts and other protected species. The report discusses the potential impacts of the proposed works on great crested newts, other protected species and their habitats.

The report makes recommendations for appropriate mitigation, compensation and enhancement measures, and the potential impacts are assessed in accordance with the legal protection afforded to great crested newts under The Conservation of Habitats & Species Regulations 2017. The requirement for a European Protected Species (Great Crested Newt) Licence is also discussed in light of the impact assessment.

### 1.4 Great Crested Newt Ecology

Great crested newts are the largest of the three species of newt that occur in the UK. They are distinctive due to their relatively large size, dark colour and yellow or orange-coloured undersides covered in large black blotches. Males can be distinguished from females by the presence of a blue/grey flash on the tail and a jagged crest during the breeding season.

Great crested newts tend to spend the majority of their time on land, moving to ponds and pools to breed during the spring and summer (March to July), although some individuals can spend considerably longer within aquatic habitats. The female lays two or three eggs a day between March and mid-July, until a total of 200 to 300 eggs have been laid. The eggs are laid on submerged aquatic vegetation, each carefully wrapped in a leaf.

The larvae (or efts) hatch after about three weeks and live in the pond as aquatic predators until they metamorphose into adult newts. They are vulnerable to fish predation, and water bodies containing fish are rarely used for breeding (this means that they do not usually use running water or larger lakes or ponds where fish are present).

After metamorphosis into air-breathing juveniles at about four months old, they live a terrestrial life until old enough to breed, which is at about two or three years of age. Both the juvenile

newts and the adults (outside the breeding season) live in terrestrial habitats with dense cover such as scrub, rough grass and woodland, usually within about 200-300 metres of the breeding pond. They rest during the day beneath rocks, logs or other shelters.

Larval newts usually feed on tadpoles, worms, insects and insect larvae. Adults hunt in ponds for other newts, tadpoles, froglets, worms, insect larvae and water snails. They also hunt on land for insects, worms and other invertebrates. During the winter months, the newts hibernate under logs and stones. The newts normally return to the same breeding site each year, and can live as much as 25 years, although up to about 10 years is more usual.

## 2 Methodology

### 2.1 Limitations on Survey Data

As with any survey undertaken on a certain date, the data presented within this report provide information at a particular point in time and present a 'snap-shot' of the ecological status of the site. Ecosystems and species behaviour/activity are dynamic and can change over time.

Whilst this report presents a characterisation and evaluation of habitat and species status at the time of the study, it should not be taken as an exhaustive representation of the ecological status of the site either at present or into the future.

### 2.2 Field Survey

#### 2.2.1 Great Crested Newt Habitat Assessment

A Great Crested Newt Habitat Assessment was undertaken on 6<sup>th</sup> October 2022 by Jan-Piet Stuursma on behalf of Windrush Ecology Ltd. A walkover of the site was undertaken, and notes taken on the presence of terrestrial habitats that have the potential to offer shelter and protection to great crested newts whilst on land.

Habitats that can offer shelter and protection to great crested newts and other amphibians include woodland, scrub and tussocky grassland, as well as specific habitat feature such as fallen wood, log piles, stone piles, old stone walls and disused rabbit warrens.

#### 2.2.2 Preliminary Bat Roost Assessment (PRA)

A Preliminary Bat Roost Assessment (PRA) was undertaken on the 6<sup>th</sup> October 2022 by Jan-Piet Stuursma on behalf of Windrush Ecology Ltd. Mr Stuursma holds a licence from Natural England to survey for bats within all counties of England (Licence No. Level 2 2019-44236-CLS-CLS).

The dwelling of Rose Barn was assessed for its potential suitability for roosting bats according to best practice guidelines published by the Bat Conservation Trust (Collins, 2016).

The study takes into account the structure and ecological context of the building, including the following factors which may increase the likelihood of roosting bats being present:

- Age of the building (pre-20<sup>th</sup> Century or early 20<sup>th</sup> Century construction)
- Nature of construction; traditional brick, stone or timber construction
- Large and complicated roof void with unobstructed flying spaces
- Large (>20 cm) roof timbers with mortice/tenon joints, cracks and holes
- Entrances and gaps for bats to fly and crawl through
- Poorly maintained fabric providing ready access points for bats into roofs, walls; but at the same time not being too draughty and cool.
- Roof warmed by the sun, south-facing roofs in particular

Weatherboarding and/or hanging tiles with gaps  
 Undisturbed roof voids  
 Buildings and built structures in proximity to each other providing a variety of roosting opportunities throughout the year  
 Buildings or built structures close to good foraging habitat, in particular mature trees, parkland, woodland or wetland, especially in a rural setting.

The following criteria are used for as guidelines for assessing the potential suitability of buildings for bats (Collins, 2016):

Suitability	Description of Roosting Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure 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 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 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 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 the presence is confirmed).
High	A structure 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 habitats.

In addition to the bat survey, the building was checked for evidence of nesting birds including old birds' nests, bird droppings, feathers and eggs. Specific observations were made with regard to species such as the house sparrow *Passer domesticus* and house martin *Delichon urbicum*; species that are often associated with buildings.

### 2.2.3 Other Species

The site was assessed for its potential to offer habitat to other protected species, such as reptiles and dormice *Muscardinus avellanarius*, and the garden was surveyed for badger *Meles meles* setts and evidence of badger activity.

## 3 Results

Please refer to Appendix 1 for photographs of the site. Location plans can be found within Appendix 2.

### 3.1 Habitats

#### 3.1.1 Garden

The garden of Rose Barn comprises areas of lawn (amenity grassland), gravel hard-standing, patio and bare ground. Areas under the footprint of the proposed extensions comprise patio and bare ground.

### 3.1.2 Building

The dwelling of Rose Barn is of stone construction, with a pitched roof of slate tiles. There is no loft or attic space, and the roof space is occupied by accommodation.

The building is in a good state of repair, with solid stone walls and intact slate roof tiles. The tiles are flush and close-fitting, and no gaps were noted under or between the roof tiles, or at the eaves of the building.

## 3.2 Species

### 3.2.1 Great Crested Newts

There are no ponds, or habitats that may be suitable for breeding great crested newts, within the site. However, there are a number of ponds/lakes to the east and south of the site, with the nearest waterbody located approximately 25m east of the dwelling. Great crested newts are known to disperse up to 500m from their breeding ponds, with the majority of individuals being found within 50m of a breeding pond, given suitable terrestrial habitat (Cresswell & Whitworth, 2004).

However, there are considered to be no suitable terrestrial habitats for great crested newts within the site, or under the footprint of the proposed extensions to the dwelling. These areas comprise a patio and bare ground. The slabs of the patio are solid and intact, and the patio does not offer any suitable shelter to amphibians. The disturbed bare ground is completely exposed, and offers no suitable terrestrial habitat to amphibians.

Other habitats, such as mown amenity grassland and gravelled hard-standing, are also considered to be unsuitable for great crested newts and other amphibians. Great crested newts are considered to be absent from the site.

### 3.2.2 Bats

The dwelling of Rose Barn is assessed as having 'negligible' potential to offer shelter to roosting bats (Collins, 2016). The building has no loft space and is in a very good state of repair, with no external features that could offer access for bats or roosting opportunities to crevice-dwelling species of bat. Roosting bats are considered to be absent from the building.

Bats will choose to roost within different locations within the summer and winter periods (see Figure 1), favouring dark, enclosed, humid and cool locations for hibernation such as caves and cellars. These locations must maintain a constant low temperature (2-8°C), but temperatures must also not go below freezing. In addition, bats favour places that are undisturbed and retain relatively high humidity during the winter period.

The building is not considered to be suitable for hibernation due to the fact that the internal space is unsuitable, and it exhibits no features that could be used by hibernating bats and is unlikely to maintain the constantly cool and humid conditions which are required by overwintering bats.

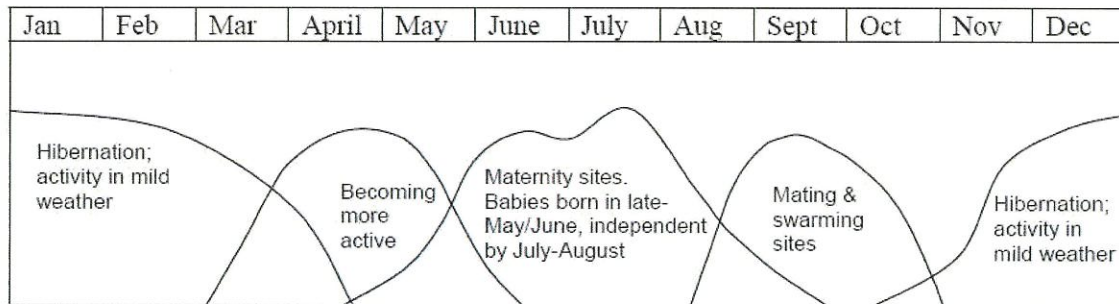


Figure 1. Diagram showing the yearly life cycle of a bat. Taken from the Bat Mitigation Guidelines by Mitchell-Jones (2004).

### 3.2.3 Other Species

No evidence of nesting birds was noted. In particular, there is no evidence of nesting house martins or house sparrows.

No badger setts, or evidence of badger activity, were noted within the garden.

The habitats are not suitable for reptiles or dormice.

## 4 Discussion

### 4.1 Great Crested Newts

There are considered to be no habitats within the site that could offer shelter or protection to great crested newts whilst on land.

### 4.2 Bats

It is considered that roosting bats are absent from Rose Barn and the building is assessed as having 'negligible' potential (Collins, 2016) to provide shelter to roosting bats.

### 4.3 Legislative Guidance

#### 4.3.1 Great Crested Newts

Great crested newts and their habitat are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) and under The Conservation of Habitats and Species Regulations 2017. Taken together, these make it an offence to:

- (a) Deliberately capture or intentionally take a great crested newt
- (b) Deliberately or intentionally kill or injure a great crested newt
- (c) To be in possession or control of any live or dead wild great crested newt or any part of, or anything derived from a wild newt
- (d) Damage or destroy a breeding site or resting place of such an animal or intentionally or recklessly damage, destroy or obstruct access to any place that a wild great crested newt uses for shelter or protection
- (e) Intentionally or recklessly disturb any wild great crested newt while it is occupying a structure or place that it uses for shelter or protection
- (f) Deliberately disturb great crested newts, in particular any disturbance which is likely  
- to impair their ability;



- (i) to survive, breed, reproduce or to rear or nurture their young;
- (ii) to hibernate;
- to affect significantly the local distribution or abundance of the species to which they belong

Although the law provides strict protection to great crested newts, it also allows this protection to be set aside (derogation) under The Conservation of Habitats and Species Regulations 2017 through the issuing of licences (referred to as European Protected Species Licences or EPSL). Where a lawful operation is required to be carried out but which is likely to result in one of the above offences, a licence may be obtained from Natural England (the statutory body in England with responsibility for nature conservation) to allow the operation to proceed. However, in accordance with the requirements of The Conservation of Habitats and Species Regulations 2017, a licence can only be issued where the following requirements are satisfied:

The proposal is necessary 'to preserve 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';  
The proposals 'will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range'.

These three criteria are often referred to as the 'three tests' of the Regulations. All three must be satisfied in order for a licence to be granted.

#### 4.3.2 Bats

As with many animal species within the UK, declines in the abundance and distribution of many bat species have been documented through recent decades. The reasons for these declines are various and complex but it is considered that the major factors are changes in land use and agriculture, the loss of woodlands and hedgerows and the loss of suitable roosting sites.

Bats are particularly sensitive to human activity due to the fact that they roost within buildings, trees and underground structures such as mines, and the availability of suitable roost sites is considered to be a key factor in the conservation of bats within the UK. As a consequence, all species of bat and their roost sites are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) and under The Conservation of Habitats and Species Regulations 2017. Taken together, these make it an offence to:

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

A bat roost may be any structure a bat uses for breeding, resting, shelter or protection. It is important to note that since bats tend to re-use the same roost sites, current legal opinion is that a bat roost is protected whether or not the bats are present at the time.

Although the law provides strict protection to bats, it also allows this protection to be set aside (derogation) under The Conservation of Habitats and Species Regulations 2017 through the issuing of licences. Where a lawful operation is required to be carried out, but which is likely to result in one of the above offences, a licence may be obtained from Natural England (the statutory body in England with responsibility for nature conservation) to allow the operation to proceed. However, in accordance with the requirements of The Conservation of Habitats and Species Regulations 2017, a licence can only be issued where the following requirements are satisfied:

The proposal is necessary 'to preserve 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';

The proposals 'will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range'.

#### 4.3.3 *Nesting Birds*

Nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. The nesting season for most species is between March and August inclusive.

### 4.4 **Potential Impacts**

#### 4.4.1 *Great Crested Newts*

There are no foreseeable impacts on great crested newts or their habitats as a result of the proposed extension of Rose Barn.

Since no significant impacts on bats are predicted under The Conservation of Habitats and Species Regulations 2017, a European Protected Species (Great Crested Newt) Licence will not be required for the proposed works to proceed. Since there are no predicted impacts on bats or their habitats, it is not necessary to consider the 'three tests' of The Conservation of Habitats and Species Regulations 2017 in this instance.

#### 4.4.2 *Bats*

There is no evidence to indicate that Rose Barn is being used as a place of shelter or protection by roosting bats, and roosting bats are considered to be absent.

The proposed works will not result in any significant impacts on bats or the places that bats use for breeding, shelter and/or protection (roosts) and no specific compensation measures are considered necessary (Mitchell-Jones, 2004).

Since no significant impacts on bats are predicted under The Conservation of Habitats and Species Regulations 2017, a European Protected Species (Bat) Licence will not be required for the proposed works to proceed. Since there are no predicted impacts on bats or their habitats, it is not necessary to consider the 'three tests' of The Conservation of Habitats and Species Regulations 2017 in this instance.

#### 4.4.3 Birds

There are no foreseeable impacts on nesting birds.

#### 4.4.4 Other Species

There are no foreseeable impacts on other protected species.

## 5 Recommendations

### 5.1 Further Surveys

No further surveys are considered necessary.

### 5.2 Timing

There are no constraints with regard to the timing of works.

### 5.3 Careful Work Practices

Works should proceed in a careful and controlled manner. Contractors should be briefed with regard to the legal protection afforded to great crested newts, and the presence of potential breeding habitats within the wider local area.

In the very unlikely event that a great crested newt is encountered, works should stop immediately, and advice sought from a qualified ecologist.

## 6 References

Altringham, J., 2003. *British Bats*. Harper Collins.

Collins, J. 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> edition)*. The Bat Conservation Trust, London.

Cresswell W. and Whitworth R., 2004. *An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt Triturus cristatus*. English Nature Research Report 576. English Nature, Peterborough.

Gent, T. & Gibson, S., 2003. *Herpetofauna Workers Manual*. JNCC

7 Appendix 1. Photographs



Photograph 1. Rose Barn viewed from the east.



Photograph 2. Rose Barn viewed from the west.



Photograph 3. Detail showing the patio and bare ground to the western side of Rose Barn.



Photograph 4. Bare ground to the west of Rose Barn.



Photograph 5. The northern gable end of Rose Barn.

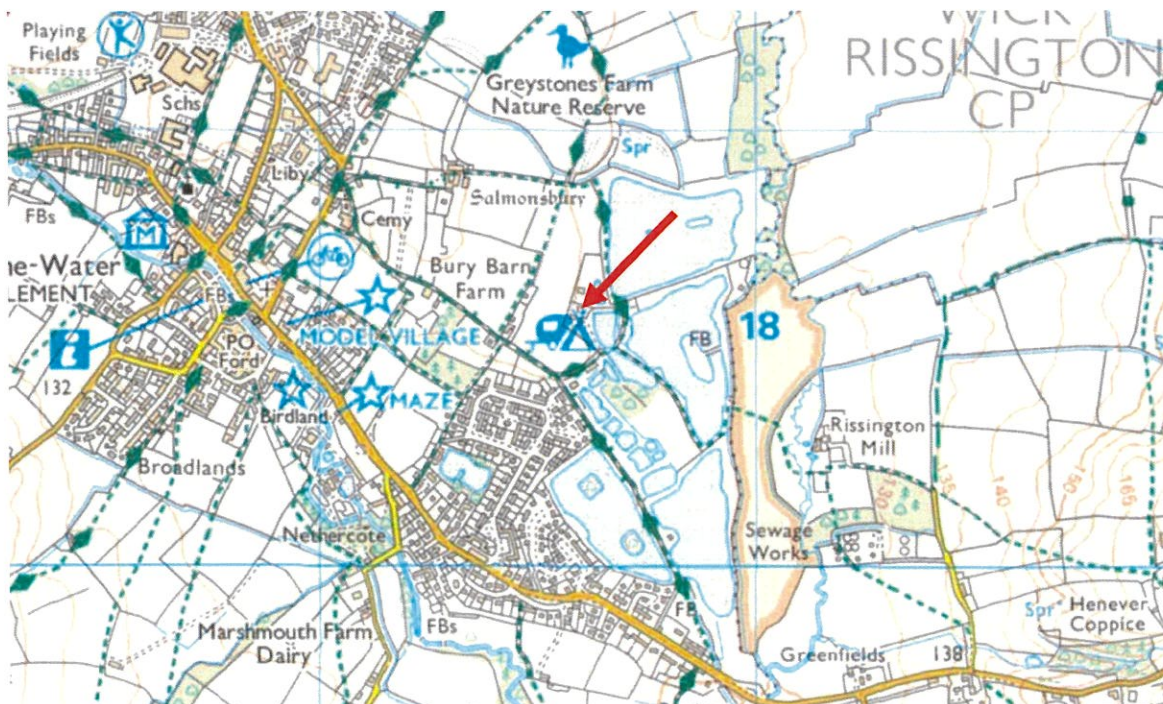


Photograph 6. One of the ponds/lakes to the east of Rose Barn.

8 Appendix 2. Site Location Plans



An aerial photograph showing the location of the Rose Barn (indicated by the red arrow). Source: Google Satellite



Ordnance Survey map showing the approximate location of Rose Barn (indicated by the red arrow) within the wider local area. Source: OSM Standard

9 Appendix 3. Proposal Plan

