

# PRELIMINARY ECOLOGICAL APPRAISAL REPORT

**Land at Windy Ridge**  
High Street  
Drybrook  
Glos  
GL17 9EU

**October 2022**

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## REPORT SUMMARY

### 1. INTRODUCTION

- This report presents a preliminary ecological appraisal for land at Windy Ridge, a residential garden plot at the north-east of Drybrook. The survey which followed best practice was undertaken by Environmental Methods Consultancy.
- The owner proposes to construct a new dwelling within the existing garden area.

### 2. SURVEY AND ASSESSMENT

- A walkover Phase 1 habitat survey was undertaken in May 2022 to characterise the habitats and identify any fauna or habitats requiring further assessment or protection as a result of the proposed development.

### 3. ASSESSMENT RESULT

- The survey records that the development site consists of an amenity lawn area of the garden bounded by conifer hedging, and bank and tree-lined stream.
- Scoping identified that consideration for great crested newts, nesting birds and foraging/commuting bats was necessary.

### 4. RECOMMENDATIONS

- No formal planning control or timing constraints will be necessary relating to protection of GCN.
- Basic artificial lighting controls are recommended to protect potential bat habitat.
- Precautionary working methods are required to ensure nesting birds are protected.
- **Wildlife habitat enhancement**  
For any new development, national planning policy seeks to reverse the decline in wildlife habitats by introducing opportunities for biodiversity enhancement. The following permanent feature will therefore be incorporated into this development for nesting birds.
  - ❖ One Vivara Pro WoodStone Starling Nest Box will be installed onto the north-east gable façade of the new dwelling at minimum eaves level.

## 1.0 Introduction

This report presents the findings of a preliminary ecological appraisal of land at a residential garden plot at Windy Ridge, Drybrook. The survey which followed best practice was undertaken by Environmental Methods Consultancy.

The property owner proposes to construct a dwelling at the south-west end of the existing garden plot.

A walkover survey was undertaken in May 2022 to characterise the habitats and identify any fauna or habitats requiring further assessment or protection as a result of the proposed development.

## 2.0 Survey objectives

The following scope of assessment was considered appropriate for this site:

- a) Assess the presence of Habitats of Principle Importance (HPIs) and species, particularly those of conservation concern or those protected by law whose disturbance may require legal consent (The Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017), including evaluation of nearby associated features as relevant ecologically linked habitats.
- b) Determine material considerations for the planning proposal and assess any implications. Provide recommendations where necessary.

## 3.0 Methodology

### 3.1 Site walk-over survey

The walkover survey was undertaken in May 2022 during daylight with good visibility. The survey was undertaken in accordance with the following published methodologies:

- Handbook for Phase 1 habitat survey (Joint Nature Conservation Committee, 2010) (noting dominant species; and providing target notes where appropriate to identify particular features/species);
- Guidelines for Preliminary Ecological Appraisal (Institute of Ecology and Environmental Management, 2012);
- Hedgerow Survey Handbook, Defra (2007). A standard procedure for local surveys in the UK. Defra (2007).

During the survey, the following investigations were undertaken in respect of the presence of legally protected species:

- Assessment of suitable habitats for nesting birds;
- A search for signs of badger activity including setts, tracks, snuffle holes and latrines within the application site and up to 50 m outside the application site (where access permitted);
- Assessment of habitat potential for reptiles and amphibians (including great crested newts);
- Assessment of habitat potential for dormice;
- Assessment of trees for bat roosting potential;
- Search for evidence of the presence of invasive plants listed on Schedule 9 of the Wildlife and Countryside Act 1981 and subject to strict legal control.

### **3.2 Desk top data study**

Guidelines suggest that a desk-top data search, including records procured from the local biological records centre can be carried out as an initial step for P.E.A.s.

It was regarded that it would be unreasonable to incur additional considerable expense for the client to have purchased such a data search when it would have been unlikely to have contributed any necessary context to the survey beyond freely available data.

As such, a desk study was undertaken using the Nature on the Map website to establish the presence of relevant designated conservation sites within 2km of the site as well as establishing whether any European Protected Species (EPS) licences have been granted within 2km of the scheme.

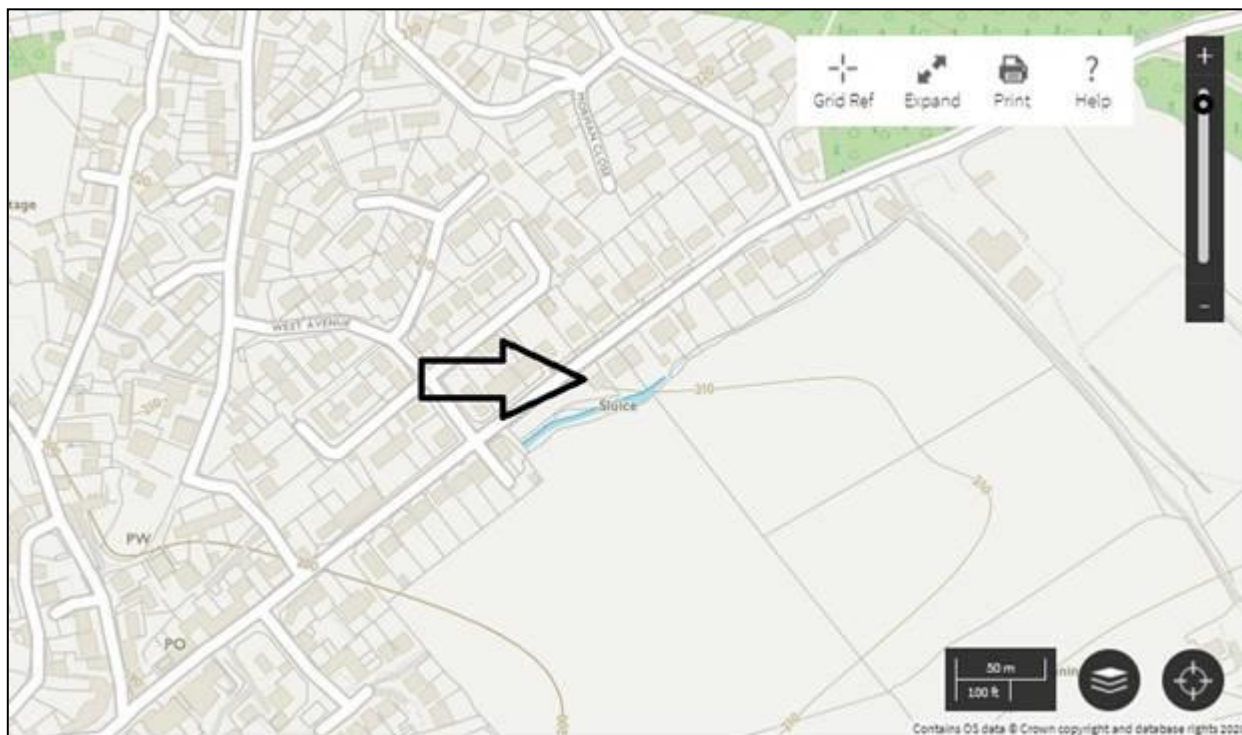
### **3.3 Constraints**

The survey methodology is a walkover survey and assessment. It can only be a snapshot-in-time of habitat features and species that can be seen during the daytime survey. It was considered however that the site conditions and evidence were sufficient to enable a meaningful assessment of the site.

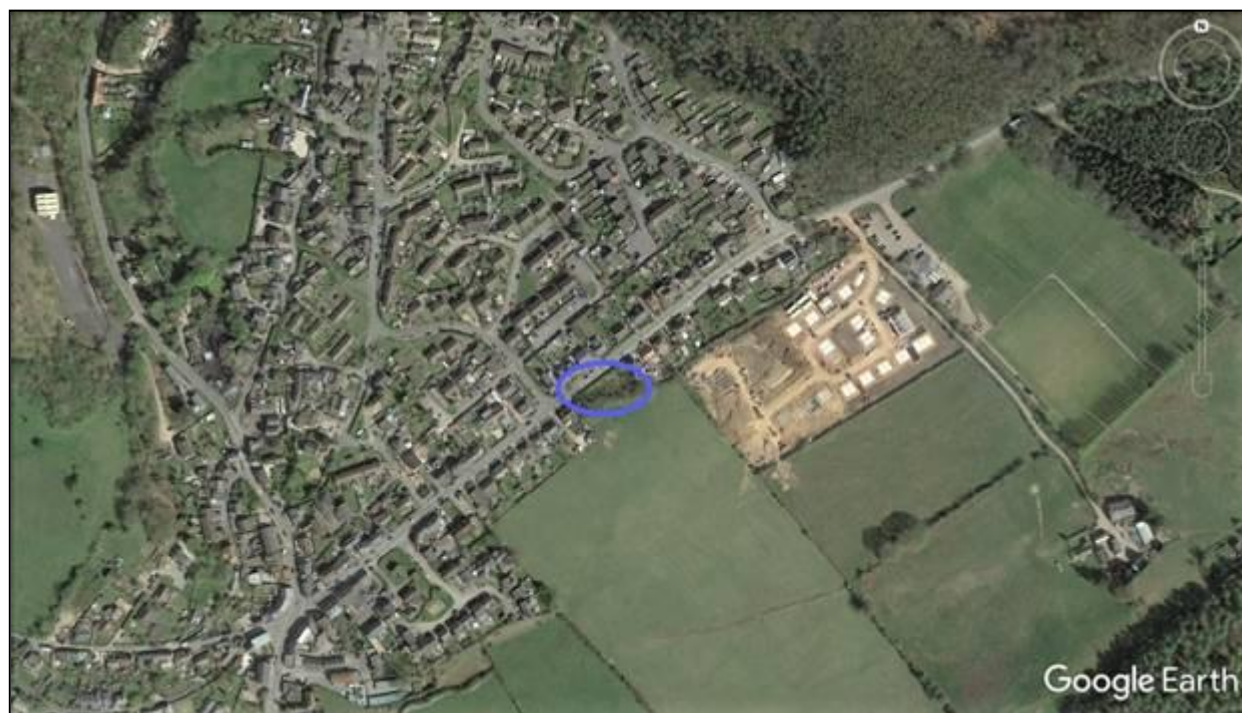
## 4.0 Survey results

### 4.1 Site location

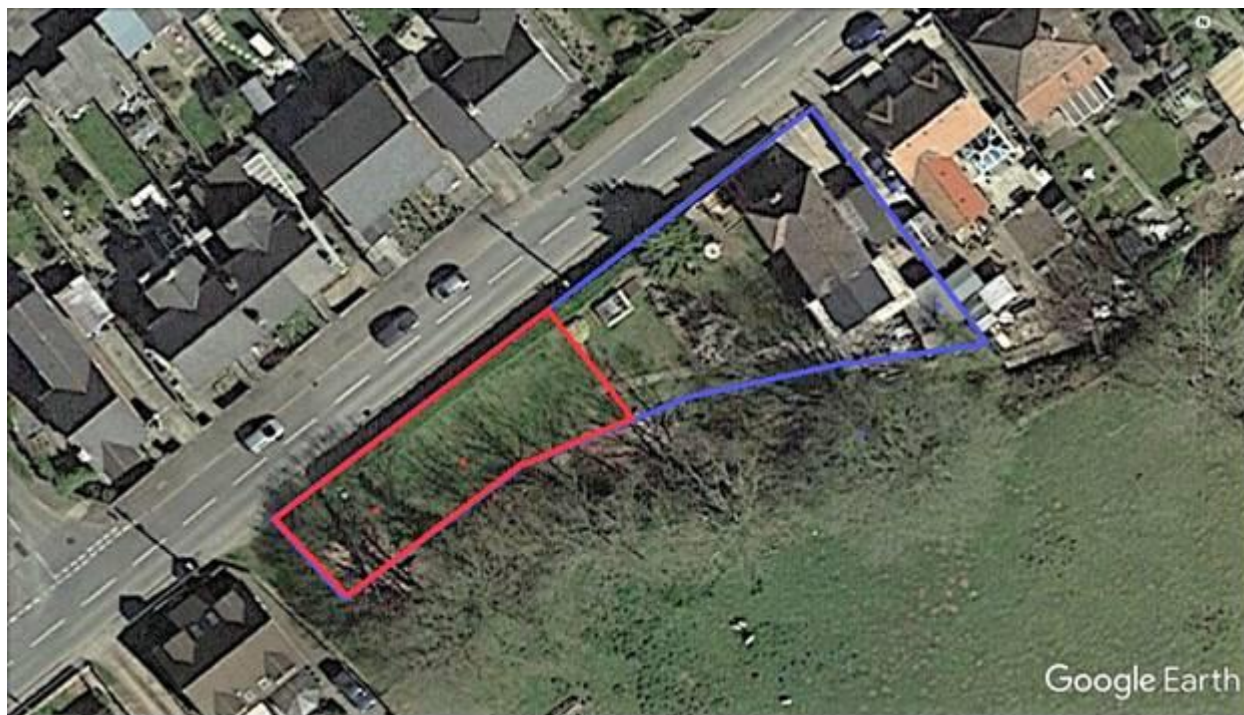
The property is situated at OS grid ref: **SO 64798 17748**



**Figure 1** – 2022 Ordnance Survey map showing Windyridge location



**Figure 2** – Wide aerial view showing landscape setting (property circled)



*Figure 3 – Close aerial view showing area of proposed development area outlined red*

## 4.2 Desk top data search results

### 4.2.1 European Protected Species (EPS)

There is one EPS licence granted within the 2km search radius:

- Common pipistrelle, brown long-eared and lesser horseshoe bats in 2016 423m to the east.

### 4.2.2 Designated sites within 1km search radius

#### Relevant designated sites

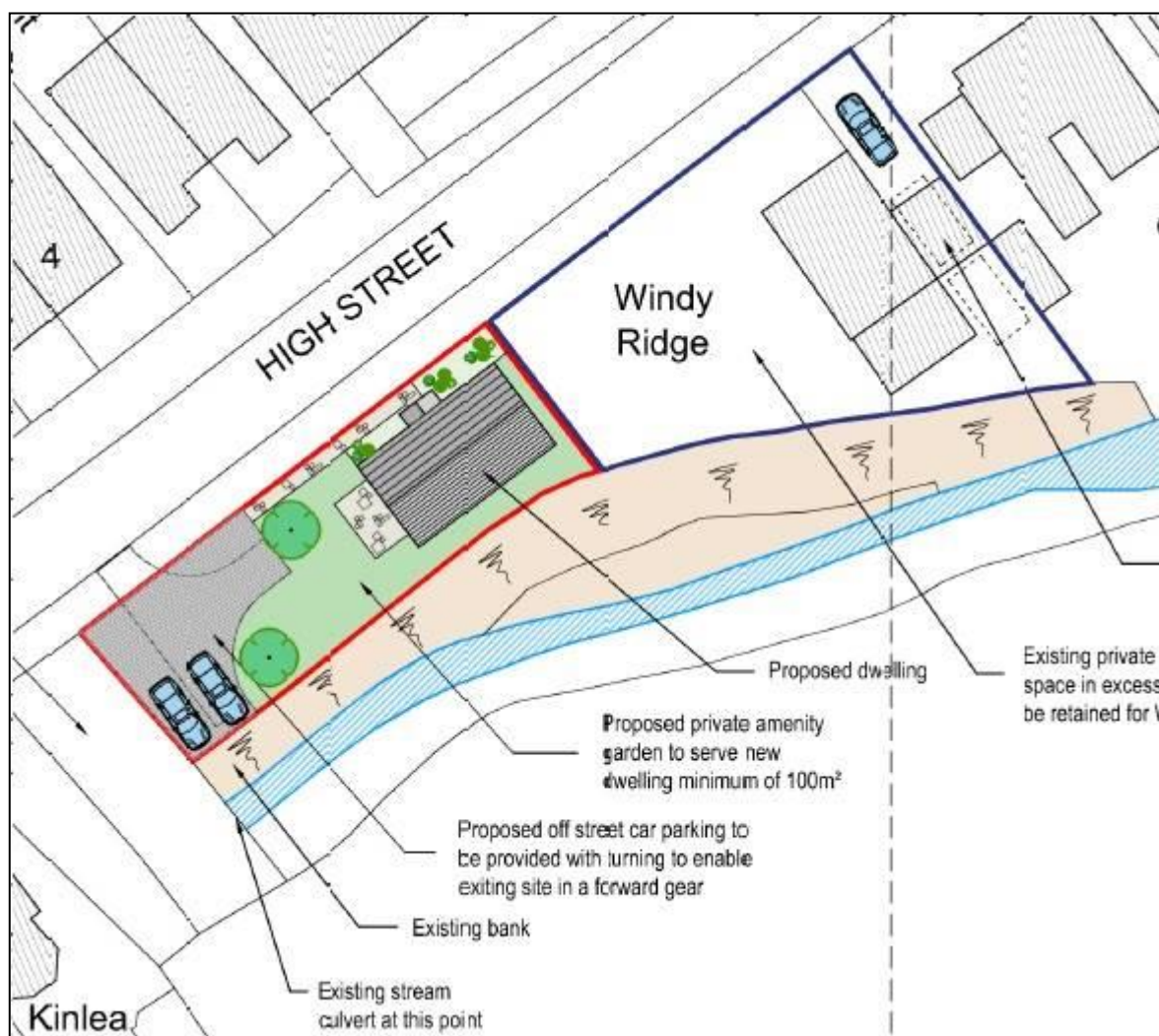
- **Puddlebrook Quarry SSSI** 525m to the north. Geological and botanical interest.
- **Stenders Quarry SSSI** 1.2km to the north-east. Geological interest.
- **Scully Grove Quarry SSSI** 1.3km to the north. Geological interest.
- **Edgehills Quarry / Westbury Brook Ironstone Mine SSSI** 1.4km to the south-east, and **Wigpool Ironstone Mine SSSI** 1.6km to the north.

These sites are two of a series of Sites of Special Scientific Interest within the Forest of Dean and Wye Valley (Gloucestershire and Monmouthshire) notified for the lesser and greater horseshoe bat populations. This suite of sites includes both breeding and hibernation roosts and contributes to the conservation of bat populations of European importance.

### 4.3 Site description

The Windy Ridge site comprises a residential dwelling within an elongated garden plot. The development area for the proposed new dwelling occupies the south-western half of the garden plot.

#### 4.3.1 Site plan



**Figure 4 – Site layout plan showing proposed development area outlined red**

### 4.3.2 Site interior

The site comprises amenity grassland lawn.



*Photo 1 – Site amenity lawn area, looking south*

### 4.3.3 Site boundaries

The area boundary to the north and west is formed by a coniferous hedge (*thuja*), with a short section of panel fencing.

There is no existing east boundary as it is currently an open lawned area.

The southern boundary is formed by the top of a steep bank which drops to the adjacent stream. The stream is lined by mature trees in the eastern bank, not within the development site.





**Photo 2** – Northern boundary hedging viewed from outside on adjacent road



**Photo 3** – General site view looking north-east

## 5.0 Impact assessments and recommendations

With reference to the plans submitted with the proposal, the ecological considerations for the site comprise the following:

- Great crested newts
- Potential bat foraging and commuting
- Nesting birds

These are considered in turn as follows:

### 5.1 Assessment for great crested newts

Whilst the proposed development site is within an amber impact area for GCN as classified under district licence mapping tools, this is a highly generalistic indication. A site-specific assessment remains appropriate.

There is negligible probability for GCN to be present at the development site for the following reasons:

- GCN typical dispersal and migratory range extends to 250m from their breeding waterbodies given good connectivity and dispersal habitat. Where this is not present or is sub-optimal, their presence concentrates within 50-100m of their breeding ponds (Cresswell 2004).

There are no known ponds within 500m of the site. The stream that forms the south-eastern boundary of the property is cascading and very fast flowing, rendering it entirely unsuitable for use as a breeding waterbody.

- The absence of ponds within 500m means there is negligible potential for GCN to be present within the nearby areas of woodland to the north of the site. Moreover, if they *were* present, the ground in between the woodland and the site is largely sub-optimal roadway and it is therefore highly unlikely that they would disperse over the sub-optimal ground from the woodland to the site.
- The area of ground onto which the proposed dwelling will be built is a small area of amenity grassland.
- No potential GCN habitat will be removed or disturbed either temporarily or permanently as a result of the development.



**Photo 4** – *Fast-flowing stream at boundary*

There is therefore negligible probability for GCN to be present at the development site. No further survey or precautionary working methods are necessary.

## **5.2 Assessment for foraging / commuting bats**

The proposed dwelling development will marginally be within 15m of the tree line and stream linear habitat feature that forms the eastern site boundary.

As bats often use linear features within the landscape for commuting and foraging, there is potential for the line of trees and stream to be used as such.

However, proportionately, the introduction of a new dwelling adjacent to this feature is highly unlikely to cause any negative impacts for the following reasons:

- The linear feature will not be physically affected in any way;
- The stream and tree line end at the site with the stream turning into a culvert at the end of the garden;
- The stream and treeline are only approx. 75m in length, and don't form a habitat feature that's linked in the wider landscape;
- It is adjacent to existing dwellings and a sensitive lighting scheme can be designed.

As such, no further surveys or assessment for bats are proposed.

## **5.3 Hedge removal - assessment for nesting birds**

The thuja hedge that forms the northern boundary will be removed.

Whilst such hedging is of little conservation value in itself, it does often host nesting opportunities for birds.

All British wild birds are legally protected while nesting. As such, precautionary working practices will be necessary to ensure that no birds are harmed or disturbed as a result of the hedge removal. These are detailed in recommendations below.

## 6.0 Conclusions

The appraisal confirms that the site provides negligible potential for use by great crested newts.

Whilst foraging and/or commuting bats are assumed to occasionally be using the site, the introduction of a new dwelling adjacent to the stream and line of trees at the eastern boundary feature is highly unlikely to cause any negative impacts.

## 7.0 Recommendations

### 7.1 Nesting bird protection

Hedge removal should be undertaken outside of the breeding bird season (March to mid-August inclusive). If this is not possible then a breeding bird check will need to be undertaken by a suitably experienced ecologist no more than 48hrs before vegetation clearance.

If any active bird nesting is found, the hedge and 3m of hedge either side will remain undisturbed until the young are confirmed by the ecologist to have fledged.

### 7.2 Wildlife habitat enhancement

For any new development, national planning policy seeks to reverse the current decline in wildlife habitats by implementing opportunities for biodiversity enhancement. The following permanent feature will therefore be incorporated into this development for nesting birds, which is proportionate and suitable for the characteristics of the site and scale of development.

- ❖ **One Vivara Pro WoodStone Starling Nest Box** will be permanently installed onto the north-east gable façade of the new building at eaves level or above.

The exact positioning of the bird box is shown on the submitted drawings.

Starling populations have declined dramatically in recent years and are now on the Red List of birds of high conservation concern. Loss of habitat is one of the major pressures on this species and household renovations and new buildings offer much fewer nesting sites than have previously been available.

### 7.3 Lighting design strategy

#### a) Objective

To ensure that the introduction of artificial lighting as a result of the development is suitably controlled so that it does not interfere with any use of the site habitat by bats.

#### b) Assessment of existing site light levels

The site is currently moderately lit at night due to light spill from the adjacent houses on either side. Some species of bat are sensitive to *bright* light which can create a barrier to roost use, foraging and dispersal. Any bats using the site will be accustomed to the existing lighting conditions.

#### c) New lighting

A detailed lighting plan is not available at time of writing.

Any new external lamps installed on all but the north façade will be PIR-activated and 40w max (6w LED equivalent) ~400 lumens (warm white 2700k to avoid blue-white wavelengths). They will be set to deactivate after two minutes max, with a cowl to direct light downwards (no more than 70°). This will ensure that the nearby potential commuting and foraging areas are not subject to unnecessary illumination that could disturb the functionality of the wider site habitat.

## 8.0 References

- Handbook for Phase 1 Habitat Survey - Joint Nature Conservation Committee. 2010.
- Badgers and Development IN75 – A Guide to Best Practice and Licensing, Natural England
- Great Crested Newt Mitigation Guidelines, English Nature
- Amphibian Identification, *Amphibian and Reptile Conservation & Fred Holmes (2014)*
- Institute of Ecology and Environmental Management (2012). Guidelines for preliminary ecological appraisal. Institute for Ecology and Environmental Management. <http://ieem.net/>
- Institute of Environmental Assessment (1995). Guidelines for Baseline Ecological Assessment. E and FN Spon, London.
- Bat Surveys for Professional Ecologists – Good Practice Guidelines, Bat Conservation Trust, third edition 2016;
- Bat Workers Manual, Ed: T. Mitchell-Jones & A. P. McLeish, JNCC 2001
- Bat Mitigation Guidelines version Jan 2004 A.J.Mitchell-Jones, English Nature 2004, ISBN 1 85716 781 3
- Natural England website: [www.gov.uk](http://www.gov.uk)
- Legislation.gov.uk website: [www.legislation.gov.uk](http://www.legislation.gov.uk)

## 9.0 Surveyor

### Haydn Brookes BSc (Hons) Chartered MCIEH

- Over ten years' experience of conservation field study and ecological consultancy surveying, including trained Phase 1 habitat surveys, SSSI impact assessments, reptile, GCN, badger, dormouse and bat surveys;
- Member of Gloucestershire Bat Group (Chairman 2018, Underground Secretary 2014-18, Bat Care Coordinator);
- Natural Resources Wales bat licence to disturb and take (science, education and conservation) **no. S085825/1**;
- Natural England Volunteer Bat Roost Visitor licence registration number **2016-15125-CLS-CLS**;
- Natural England Level 2 Bat Class Survey Licence registration number **2016-15126-CLS-CLS**;
- Local authority Environmental Protection and Licensing Officer/Manager 2000 to 2015;
- Fully EBLV vaccinated with experience of handling many bat species. Registered bat carer and trainer.

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