# Assessment of the Impacts on Bats & Nesting Birds: Proposed Alterations to the Old Forge, New Alresford, Hampshire



*For* Mr & Mrs Bristow

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# Assessment of the Impacts on Bats & Nesting Birds: Proposed Alterations to the Old Forge, New Alresford, Hampshire

# **Executive Summary**

The Old Forge is a Grade II Listed residential property situated on Broad Street in New Alresford, Hampshire. Mr & Mrs Bristow purchased the house and now wish to re-roof the Forge and extend the property at the rear.

Ecological Consultancy Services (ECS Ltd) were appointed to undertake bat and nesting bird surveys of The Old Forge in August 2020. No signs of bats were evident during a daytime survey but ECS advised that further evening emergence and dawn re-entry surveys were required to assess the use of features such as roof and hanging tiles for use by bats. During subsequent surveys in autumn 2020 and summer 2021 two soprano pipistrelle *Pipistrellus pygmaeus* bat roost sites have been identified in the building. One of these will be impacted when the roof is replaced. The second roost is behind hanging tiles and this will not be directly impacted by the proposals.

All bats in the UK and their roost sites are legally protected. Because a roost will be destroyed a European Protected Species Mitigation (EPSM) licence will be required. The site qualifies for a Bat Low Impact Class Licence (BLICL) on the basis of it being of low conservation value, supporting day roosts of small number of common species of bats. No bird nest sites have been confirmed in the building but birds nest in the adjacent garden and there is a small amount of climbing vegetation on the house which could support nesting birds.

This report details the methodology and results of surveys undertaken in 2020/2021. The legislation and policy relating to bats and nesting birds is explained. A mitigation strategy is presented which includes appropriate timing of tile removal outside the bat hibernation season (i.e. outside the period November-March inclusive). Any tiles being removed will be directly supervised by an ecologist under a BLICL. Suitable compensatory bat roost provision will be provided beneath roof and ridge tiles on the replacement roof which will be lined with black bitumen felt. This strategy will satisfy Natural England in a future licence application and demonstrates to the local planning authority how the proposals will be implemented whilst remaining compliant with legislation and policy.

#### 1.0 Site Description, Background & Proposed Works and Legislation & Policy

#### 1.1 Site Description & Setting

The Old Forge is situated on Broad Street in New Alresford, near Winchester at Ordnance Survey grid reference SU 588 328. The house consists of a two-storey cottage with the single-storey former blacksmith's forge to the north. The latter was converted to living area some years ago. There is a small garden with mature trees and shrubs to the rear (east). The surrounding area is densely populated but Alresford is a small town and most properties have mature gardens. The River Alre and Alresford Pond are approximately 300m to the northwest.

#### 1.2 Background

ECS were appointed by Mr & Mrs Bristow (owners of the property) to undertake the necessary bat and nesting bird surveys and provide a report to support a planning application to Winchester City Council in 2020.

#### **1.3** Proposed Works

The proposals are as follows:

- Remove concrete tiles and internal boarding from the single-storey former forge;
- Replace older style clay tiles on the former forge with insulation beneath;
- Build a two-storey extension at the rear (this will tie into the existing elevations but the roof line will be slightly lower than the current gable end).

The proposals are currently planned for autumn 2021 or spring 2022.

Figure 1 shows the site location. Figure 2 shows an aerial image of the site. Figures 3a - e show existing and proposed roof plan and elevations. Figure 4 shows a plan of the building with key features referred to in the text. Photographs of the site are shown in Figure 5.

# 1.4 Legislation & Policy

All bats and their roost sites are legally protected in the UK. The two key pieces of legislation affording protection to bats and their habitats are the 'Conservation of Habitats and Species Regulations 2017' (as amended)<sup>1</sup> and the 'Wildlife & Countryside Act 1981' (as amended). It is an offence to deliberately kill, capture or injure a bat or to damage or destroy a bat roost site. Disturbance may also constitute an offence.

All bird species, their nests and eggs are protected in law by the Wildlife and Countryside Act 1981 (as amended). Seventy-nine species of bird (including barn owl) are afforded special protection from disturbance at the nest.

<sup>&</sup>lt;sup>1</sup> Conservation (Natural Habitats &c) Regulations 2017, (England & Wales, as amended)

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The legislation and policy relating to bats and nesting birds is explained more fully in **Appendix 1.** 

# Figure 1 Site location



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*Figure 2* Aerial image (taken from Google Earth). Inset provided by the client (from map provided by the Goddard Partnership)





**Figure 3a** Existing roof plan (above) and perspective view of the proposed taken from the rear garden (below)

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#### 2.0 Methodology of Survey & Assessment

#### 2.1 Survey & Reporting Standards

Surveys & assessments were undertaken in accordance with Bat Conservation Trust<sup>2</sup> (BCT) and Natural England survey and mitigation guidelines<sup>3</sup> and conform to the Chartered Institute of Ecology & Environmental Management (CIEEM) assessment and reporting standards<sup>4</sup>.

#### 2.2 Scope of Surveys

Impacts may extend beyond the footprint of the proposed works. The term 'Zone of Influence' (ZoI) refers to the area which could be impacted by the works prior to, during and after development. This varies between species and should consider linear features such as watercourses including ditches and hedgerows which provide a link between habitats or commuting routes/foraging areas used by bats. Lighting may also adversely affect bats.

#### 2.3 Desktop Research & Liaison

A data search was not conducted for this application. The Multi Geographical Information Centre (MAGIC) was used to look for EPSM licence applications for bats within 1km.

The ecologist at Winchester City Council and the Natural England licensing team (Bat Low Impact Licence team) were contacted and to discuss the survey approach and timing.

# 2.4 Personnel

The initial daytime survey was undertaken by Colleen Hope (Chartered Ecologist, MCIEEM). Evening emergence bat surveys were undertaken by Colleen Hope and Dr Paul Hope (MCIEEM). Colleen and Paul are both licenced bat ecologists, each with over 20 years of experience assessing sites for bats. **Appendix 2** provides details of surveyor experience and qualifications.

# 2.5 Assessment & Evaluation

#### 2.5.1 Assessment

A visual examination of the external areas of the house and two loft voids was undertaken on 17 August 2020.

<sup>&</sup>lt;sup>2</sup> Bat Surveys, Good Practice Guidelines 3<sup>rd</sup> Ed, BCT (2016)

<sup>&</sup>lt;sup>3</sup> Bat Workers Manual (2004), Bat Mitigation Guidelines, (2004) both published by Natural England (formerly English Nature).

<sup>&</sup>lt;sup>4</sup>CIEEM Guidelines for Ecological Impact Assessment in the United Kingdom (June 2015).

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The following equipment was used or on hand during the daytime surveys:

- Leica x 8 close focus binoculars;
- Cluson 1M candlepower torch;
- Head torch;
- 5m section surveyors ladders;
- VS36-10WW endoscope;
- Selection of small mirrors and torches.
- Digital camera.

The following signs of bats were searched for:

- Bat droppings below or around potential roost sites, on walls, roofing materials or on other surfaces e.g. soffits;
- Urine spotting/staining on woodwork, tiles or walls;
- Staining or scratch marks around potential roost sites;
- Signs of bats or bats within the two loft voids.

Because signs of bats are not always present any feature with potential to support bats was considered using the following criteria:

- High potential: features ideal to support bats, evidence of bat presence, past records of presence, droppings/staining etc.;
- Medium potential: moderate potential as a roost site but has no evidence or limitations such as size, location, lack of connectivity, presence of lighting or regular disturbance etc.;
- Low potential: features present which provide some potential but on balance of probability unlikely to support bats;
- Negligible potential: feature which in some circumstances may support bats but for whatever reason on this site considered unlikely to support a bat roost site (e.g. evidence of water ingress or damage/nesting birds or wasps).

Accurate population figures are not available for all bat species because of the difficulties in assessing bat populations. The evaluation method is explained further in **Appendix 3**.

Evidence of bird nesting was also noted.

# 2.5.2 Evening Emergence/Dawn Re-Entry Bat Surveys

Evening emergence surveys were conducted on 24 August and 16 September 2020 and 2 June 2021. Two surveyors obtained adequate sight lines of the property on each survey. The surveys commenced 0.5-0.25 hours before sunset and continued for 1.5 hours after sunset. On both occasions each surveyors used a time expansion Petterson D240x bat detector and recorded calls onto an Edirol R09 recorder. Calls were analysed in the field and any which required confirmation were assessed using Batsound V3 software. Temperature, wind speed (Beaufort scale), precipitation and percentage cloud cover

were recorded. Species, flight direction, time and behaviour were recorded for any bats emerging from the building.

#### 2.6 Survey Limitations and Precautionary Approach to Evaluation

Signs of bats are frequently not present for example they can be washed off external surfaces by wind and rain and are often not visible where bats roost in crevices such as gaps between tiles, boarding and felt. Bats move between roost sites on a regular basis and consequently any set of surveys provide only a 'snapshot' of time. Notwithstanding this surveys have been conducted in accordance with best practice and there is a high degree of confidence in the evaluation and assessment of impacts.

#### 3.0 Survey Results & Evaluation

#### 3.1 Data Search & Liaison

#### 3.1.1 Desktop Search (MAGIC)

There are records of four bat EPSM licences held within 1km of The Old Forge as follows:

- EPSM 2016-26001-EPS-MIT (200m north) for soprano pipistrelle, bat;
- EPSM 2015 11018-EPS-MIT (300m southwest) for common pipistrelle *P.pipistrellus* bat;
- EPSM 2013-6444 (300m southwest) for common and soprano pipistrelle bat;
- EPSM 2017-32669 EPS-MIT (500m west) for common pipistrelle bat.

The above species are all common and widespread both nationally and locally.

#### 3.1.2 Liaison

The application was originally scheduled for autumn 2020. Natural England and Winchester City Council were contacted to confirm whether the survey data (only two evening surveys at that time rather than the recommended three) would be adequate. They confirmed this to be the case; Natural England advised that best practice would be to undertake an updated survey in 2021 if the works were likely to be delayed further. The decision was taken to update by way of a third survey in June 2021 in order to include the bat maternity season and to extend the period in 2021 whereby an application for a subsequent EPSM licence may be submitted.

# **3.2** Description of Building and Results of Surveys

#### 3.2.1 External Inspection

The Old Forge consists of a two-storey cottage constructed of brick with a pitched roof which is covered in clay tiles. There are gaps to c 20% of the roof tiles. There is a gable end on the east elevation with a small area of hanging tiles and some climbing vegetation. There are wooden fascias to the eaves. The site of the former forge is on the north elevation. This is has a pitched, half-hipped roof which is covered in concrete tiles; a small number of gaps were noted between the roof tiles with further gaps beneath some of the bonnet and ridge tiles. The elevations of the forge are clad in timber; a small number of gaps were noted mainly on the west elevation. The house is attached to the neighbouring property to the south.

Features identified as having some potential to support bat roost sites were identified during the initial daytime survey as follows:

• Gaps under ridge/bonnet tiles on the roof of the forge,

- Cavity between tiles and roof lining on the two-storey cottage accessed via gaps between roof tiles,
- Cavity between hanging tiles and any lining or wall on small area of elevation,
- Cavity between wooden cladding and any lining/wall on elevations of the forge.

Some bird droppings were evident behind hanging tiles suggesting either nest site or roost site. Potential bird nesting sites are present in the garden vegetation and climbing plants on the east elevation.

# 3.2.2 Internal Inspection

There are two loft voids. The void over the cottage measures approximately 5x10m with a floor to apex height of c 2m. The roof has been insulated with spray foam on the inside which obscures the timbers. No signs of bats were found inside the void and it is unlikely to have any access points to it.

Part of the roof to the single-storey former forge is open but there is a loft over the rear section. This measures  $3 \times 4m$  with a maximum floor to pitch height of  $c \ 3m$ . There is no lining inside the tiles (there is some insulation on the end wall). No signs of bats were found in this loft void.

No evidence of past bird nesting was noted in either of the loft voids.



Figure 4 Plan of the property showing features referred to in the text

# Figure 5 Site photographs



Plate 1: West elevation with Forge in foreground



Plate 2: Former Forge





Plate 3: East elevation showing the gable end which will be extended



Plate 5: The location of the soprano pipistrelle roost beneath a ridge tile is shown

Plate 4: The soprano pipistrelle roost behind hanging tiles is shown



Plate 6: Interior of the Forge; this section is



Plate 7: Loft void over the Forge



Plate 8: Loft void over the cottage

#### 3.3 Evening Emergence Surveys

#### 3.3.1 Evening Emergence Survey 24 August 2020 Sunset at 20.08

One soprano pipistrelle bat emerged from the gable apex on the east elevation (rear) of the forge roof; it is thought that a second emerged a minute later from the same location (but out of sight just over the ridge). A third soprano pipistrelle bat emerged from behind hanging tiles at the rear of the two-storey element of the house. No other bats were seen emerging from the property; one soprano pipistrelle bat was seen emerging from hanging tiles on the adjacent property to the north.

Some soprano pipistrelle bats commuted south to north over the rear garden having emerged from elsewhere and were probably heading to the river or Alresford Pond. Some social calling was heard later in the survey (soprano pipistrelle). Other bats heard included a small number of common pipistrelle bats *P.pipistrellus*, and two passes from noctule bat *Nyctalus noctula*.

#### 3.3.2 Evening Emergence Survey 16 September 2020 Sunset at 19.15

No bats were seen emerging from the property; one soprano pipistrelle bat was seen emerging from hanging tiles on the adjacent property to the north. Bat activity levels were much quieter than in August. One or two soprano and the occasional common pipistrelle bat bats were heard social calling and foraging.

#### 3.3.3 Evening Emergence Survey 2 June 2021 Sunset at 21.11

No bats were seen emerging from the property. A small number of soprano pipistrelle bats commuted over and past the building. Later on single serotine *Eptesicus serotinus*, noctule and long-eared *Plecotus sp*. bat passes were heard.

Survey Type	Date & sunset/sunrise time	Start/end Time	Temp Max- min C	Wind Speed	Cloud Cover (%)	Precipitation
Daytime survey	17/08/2020	N/A				
Evening Emergence Survey	24/08/2020 Sunset 20.08	19.50- 21.38	17.2- 17.0C	1	100	Dry but with very light misty drizzle 21.03-21.10
Evening Emergence Survey	16/09/2020 Sunset at 19.15	18.57- 20.45	22.9- 19.3C	2	0	Dry
Evening emergence survey	02/06/2021 Sunset at 21.11	20.56- 22.41	19.6- 18.2C	0	0	Dry

Table 1 below shows the weather data recorded during the surveys.

**Figures 6a-c** overleaf presents the results of the evening and dawn bat surveys. A key to the map is provided below.



	→ 20.25 → (E)	bat flight bat emerg	direction a ging from c	nd time or entering building
Pp Sp Es Nn (E)	common pipist soprano pipist serotine noctule emerging bat	relle relle	Le P? (s) (f) (c)	long-eared bat unidentified pipistrelle bat social calling bat foraging bat commuting bat
•	surveyor positions HxS bat heard but SxH bat seen but n	not seen ot heard		



#### Figure 6a Results of Evening Emergence Survey 24 August 2020



# Figure 6b Results of Evening Emergence Survey 16 September 2020



#### Figure 6c Results of Evening Emergence Survey 2 June 2021

# 3.4 Evaluation

# 3.4.1 Bats

The Forge supports two day roosts for one species of bat. Soprano pipistrelle bats are common and widespread although they show a preference for riparian habitats and their distribution correlates to river valleys and large bodies of open water. Notwithstanding this all bat roost sites are legally protected.

The property is considered to be of Low (Site) Value for common species of bats.

# 3.4.2 Nesting Birds

One or two nest sites for common species such as blue tit *Cyanistes caeruleus,* great tit *Parus major* or house sparrow *Passer domesticus* can be expected behind tiles and in the climbing vegetation. Species such as blackbird *Turdus merula* and dunnock *Prunella modularis* are likely to occur nesting in vegetation in the garden. A number of swifts *Apus apus* were noted nesting in the adjacent property to the north but no signs of swifts nesting were noted at the Forge.

The property is considered to be of Low (Site) Value for common species of nesting bird.

# 4.0 Assessment of Impacts in the Absence of Mitigation

This section identifies the potential impacts on bats or nesting birds which could result from the biophysical changes associated with the development in the absence of any mitigation. It considers the impacts prior to, during and post works including the operation phase of the site.

#### 4.1 Bats

# 4.1.1 Killing/Injury

If a bat/s were present when tiles are removed then there would be a high risk of killing or injuring a bat/s.

This would result in an offence and contravention of policy.

#### 4.1.2 Damage to/Destruction of a Roost Site, Obstruction of Access to a Roost Site

Removal of roof tiles would result in the destruction and permanent loss of a bat roost site of Local (Site) Value. If scaffold abuts the hanging tiles then it could obstruct access to a second bat roost site.

#### This would constitute an offence and contravention of policy.

If roof tiles are replaced with no gaps suitable for bats to gain entry beneath then this would result in a permanent loss of bat roost sites.

# This would contravene policy on biodiversity enhancement.

If the roof is lined with breathable roofing membrane (BRM) and if bats can find roost sites beneath tiles and come into contact with this material then they are at risk of harm<sup>5</sup>. Natural England will not licence works where bats may come into contact with BRMs.

Unmitigated the proposals would result in an offence, would contravene policy and result in a permanent negative effect on bats at a Local Level.

# 4.2 Common Species of Nesting Birds

If works progressed to clear vegetation during the bird nesting season there is a risk that birds could be killed or injured or nests damaged. Similarly if a bird were nesting beneath a roof tile when this was removed then these actions would result in an offence and a contravention of policy.

Unmitigated the proposals would be likely to result in a permanent significant negative impact at a Local (Site) Level.

<sup>&</sup>lt;sup>5</sup> BRMS are made of one long spun fibre. Bats can become entangled in this fibre and entombed leading to death Colleen Hope (nee Mainstone), Chartered Ecologist, MCIEEM, BSc, PGCE Ecological Consultancy Services Ltd (ECS) <u>colleen@econserve.co.uk</u> <u>www.econserve.co.uk</u> tel 01794 524232 (m) 07719 170200 copyright ECS

#### 5.0 Recommendations & Residual Impacts

# 5.1 European Protected Species Mitigation (ESPM) Licencing

#### 5.1.1 Considering the Need for an EPSM Licence

An EPSM licence will be required because the proposals will result in the destruction of a bat roost site. Full planning permission and Listed Buildings Consent must be obtained before a licence application can be made. The planning authority must be confident that the proposals meet the '3 Tests' of the Regulations when considering a planning application (see below).

The site and proposals will qualify for a Bat Low Impact Class Licence (BLICL). A BLICL application takes at least 10 working days to process once the application has been compiled. The mitigation and compensation should be as detailed below.

# 5.1.2 Consideration of the '3 Tests' of the Conservation of Species & Habitats Regulations 2017 (as amended).

The proposals must demonstrate how the '3 Tests' will be met (see Section 2.0).

It is considered that the mitigation/compensation detailed in **Sections 5.2-5.3** of this report would be acceptable to Natural England's licensing team and meets Regulation 55 (9) (b)<sup>6</sup>.

The current extension is required because the roof to the Forge has inadequate insulation. The proposals to improve insulation will reduce the carbon footprint of this part of the building. The roof tiles are not in keeping the historical fabric of this Grade II listed building. The extension will not directly impact on bat roost sites. It will improve the interior living area and provide an additional bedroom/office space. The proposals enable Mr & Mrs Bristow to remain living in the local area.

Consequently it is considered that there are no alternatives to undertaking the proposals and that they meet Regulation 55 (9)(a) and 53  $(1)(e)^7$ .

# 5.2 Mitigation

# 5.2.1 Timing of Works

Works to remove any roof tiles will be undertaken outside the bat hibernation season (i.e. outside the period November-March inclusive).

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<sup>&</sup>lt;sup>6</sup> Conservation of Habitats and Species Regulations 2017 (as amended in 2017) Regulation 55(9)(b) "The action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range."

<sup>&</sup>lt;sup>7</sup> Conservation of Habitats and Species Regulations 2017 (as amended) Regulation 55 (9) (a) "there is no satisfactory alternative" and 53(1)(e) "preserving public health or 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"

The contractor should be mindful that nesting birds may be present between March-August and ideally this period of the year should also be avoided. If this is not possible then an ecologist must confirm the absence of nesting birds before works commence.

# 5.2.2 Method of Works

A licenced ecologist will directly supervise removal of any roof tiles. If a bat is found then the ecologist will capture it and place it in a bat box<sup>8</sup> which should have been erected on a tree or on the garden wall prior to works commencing. Any scaffold should be erected carefully if so as not to sit directly against the roost site on the elevation (because this could block bat access/egress).

# 5.3 Compensatory Roost Provision to Offset the Loss of Bat Roosting Sites

It is anticipated that the replacement clay tiles will have a natural camber creating gaps suitable for bats. However, at least two roost sites and access points will be re-created and inspected by the ecologist; one will be beneath a roof tile and one beneath a ridge tile in the same location where a bat has been recorded roosting. The roof will be lined with black bituminous roofing felt. The gaps will be 20-30mm wide allowing access for bats to the area beneath tiles and between battens as shown in **Appendix 4**.

# 5.4 Other Considerations

Lighting must not be allowed to shine on bat roost sites or flight paths to/from bat roost sites.

# 5.5 Further Surveys

Adequate surveys have been undertaken in order to assess the site however if a period of 12 months or more passes between the most recent survey in June 2021 and an application for planning permission, listed buildings consent or an EPSM licence then a repeat evening survey *may* need to be considered during the active bat season.

# 5.6 Monitoring

Under an EPSM licence Natural England will require a compliance check to make sure all bat compensatory roosting provision has been correctly installed. This must be confirmed in a licence return.

Because the value of the existing roosts is low Natural England will not require further post development monitoring.

<sup>&</sup>lt;sup>8</sup> A bat box should be erected on a tree in the garden prior to works commencing (and left in situ afterwards). These should be a standard Schwegler design box (or similar approved by the ecologist) and sited by the ecologist.

# 5.7 Nesting Birds

Any vegetation removal should be conducted outside the period March-August inclusive.

There will be no anticipated loss of nesting sites but artificial nest sites could be provided as a biodiversity enhancement measure for the site. Nest boxes suitable for a range of common species could be provided on the house, and/or trees. Swift bricks are also likely to be taken up due to the proximity of nesting birds.

Some suitable examples of nesting provision are provided in **Appendix 5**.

If the above mitigation strategy with compensatory nesting provision is made then the proposals will be compliant with legislation and policy.

#### 6.0 Conclusions

The Old Forge supports two soprano pipistrelle bat day roosts for 2-3 individual bats. The proposals to re-roof part of the property will result in the destruction of one of these roost sites; the second roost will be retained. A European Protected Species Mitigation (EPSM) licence will be obtained. Works will be timed to avoid the risk of harm to hibernating bats and tiles will be removed under the direct supervision of a licenced bat ecologist. Replacement roost sites will be created in similar locations.

This report demonstrates how mitigation and compensatory roost provision will be secured under an EPSM licence which will offset the impacts of the proposals. Compensation for the loss of any bird nest sites will also be provided. **Consequently the works will be implemented and result in no permanent significant effects on the local population of bats** or nesting birds.

# 7.0 References

Bat Conservation Trust (2016) Bat Surveys - Good Practice Guidelines 3rd Ed

The Conservation (Natural Habitats &c.) (England & Wales) Regulations 2017 (as amended).

CIEEM (2017). *Guidelines on Ecological Report Writing.* Chartered Institute of Ecology and Environmental Management, Winchester.

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Ministry of Housing, Communities & Local Government *National Planning Policy Framework* (Feb 2019)

Natural England Bat Mitigation Guidelines (2004)

Natural England Bat Workers Manual, 3rd Ed (2004)

Natural England website: <u>http://www.natural-</u> <u>england.org.uk/regions/east\_of\_england/ourwork/standingadvice/protectedspecies/bats.as</u> <u>px</u>

Natural England (2012) WML-G12-EPS Mitigation Licensing-How to Get a Licence – Version 5 (bats)

ODPM (2006) Planning for Biodiversity and Geological Conservation: A Guide to Good Practice Office of the Deputy Prime Minister

National Planning Policy Framework (2012, updated 2019). *Department for Communities & Local Government* 

# Appendix 1

#### **Legislation & Policy**

#### Legislation

All bats in the UK are European Protected Species (EPS).

The two key pieces of legislation affording protection to EPS and their habitat are the Conservation of Habitats and Species Regulations 2017 (as amended)<sup>9</sup> and the Wildlife & Countryside Act 1981 (amended 2009).

Under the Conservation of Habitats and Species Regulations 2017 (as amended) it is an offence to deliberately kill, capture or injure an EPS, or to damage or destroy the breeding site or resting place of such an animal. Disturbance of a European protected species is also an offence if done in such a manner as to be likely to significantly to affect:

- (a) the ability of an EPS to survive, breed, or reproduce, or to rear or nurture young, to hibernate or migrate; or
- (b) The local distribution of that species.

Because EPS may not always be present or evident in their places of shelter (roost sites) are considered to be legally protected even when the animals themselves are not present. If any activities relating to development which could result in any of the offences above are undertaken it is necessary to obtain a licence from Natural England (formerly issued by Department for Environment, Food and Rural Affairs, DEFRA). In order for a licence to be granted the following conditions must be satisfied:

- The proposal must be 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'.

#### Wildlife & Countryside Act 1981 (as amended)

The Wildlife & Countryside Act 1981 (as amended) (WCA) also makes it an offence to intentionally or recklessly disturb EPS, to obstruct access to places of shelter (as defined above), and to sell or advertise EPS for trade. The Wildlife & Countryside Act extends protection to a range of non EPS. The WCA also lists invasive species on Schedule 9 which it is an offence to plant or otherwise allow to grow in the wild.

All bird species, their nests and eggs are protected in law by the Wildlife and Countryside Act 1981 (as amended). Under Section 1 it is an offence to intentionally;

<sup>&</sup>lt;sup>9</sup> Conservation (Natural Habitats &c) Regulations 2017, (England & Wales, as amended).

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- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird whilst it is in use or being built;
- Take or destroy the eggs of any wild bird.

# Birds Protected on Schedule 1

Seventy-nine species of bird are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and are afforded special protection from disturbance at the nest by way of their rare, endangered, declining or vulnerable status. The dependant young of Schedule 1 species are also protected from disturbance as are adults whilst on the nest.

# The Countryside and Rights of Way (CRoW) Act 2000

Part 3 of Countryside and Rights of Way Act 2000, deals with nature conservation. In England and Wales this amended the Wildlife & Countryside Act 1981 (as amended) and created a new offence of recklessly disturbing a Schedule 1 bird whilst it is at, on or near an active nest or its dependent young. Actions are likely to be considered reckless if no thought was given to whether or not there was a risk of disturbance, that there was a failure to consider disturbance as an obvious risk or the risk of disturbance was foreseen and the risk was taken.

# The Natural Environment & Communities Act (NERC) 2006

# The NERC Act states (s40) that

'Every public body must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.'

# Section 40(3) also states that

'conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat.'

# Policy

The National Planning Policy Framework (NPPF) amended in February 2019 sets out the Government's planning policies for England and how these should be applied. It replaces the NPPF 2012 (which was updated with minor amendments in 2018).

The NPPF provides a framework within which locally-prepared plans for housing and other development can be produced. Planning law requires that applications for planning permission be determined in accordance with the development plan (including Local Plans and Neighbourhood Plans), unless material considerations indicate otherwise. The National Planning Policy Framework must be taken into account in preparing the development plan,

and is a material consideration in planning decisions. Planning policies and decisions must also reflect relevant international obligations and statutory requirements.

Para 11 of the NPPF states "Plans and decisions should apply a presumption in favour of sustainable development". However Para 177 states that "The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment as concluded that the plan or project will not adversely affect the integrity of the habitats site."

The NPPF states that opportunities for securing measurable net gains for biodiversity and enhancement should be achieved by *"minimising impacts on biodiversity and providing net gains in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures..."* (Para 170).

When determining planning applications, local planning authorities should apply the Following principles (Par 175):

- 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 a Site 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 features 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 incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

Protection of sites proposed as SPAs, SACs and Ramsar sites or acting as compensation for SPAs, SACs or Ramsar sites should receive the same protection as habitat sites.

#### Appendix 2

#### Surveyor Experience

# Colleen Hope (nee Mainstone), Chartered Ecologist, MCIEEM, BSc, PGCE Director, Ecological Consultancy Services Ltd.

Colleen Hope is joint Director of Ecological Consultancy Services Ltd (ECS), an ecological consultancy which she established in 2008. Prior to this Colleen was employed in a senior role at a consultancy based in Winchester for six years. Colleen is a Chartered Ecologist and full member of CIEEM.

ECS employs two permanent staff who undertake surveys for a wide range of protected species including reptiles, great crested newts, dormice, otters, water voles, bat and barn owls. ECS specialises in surveying and assessing sites for bats.

ECS has a wide client base including local authorities, the Environment Agency, MOD, Forestry Commission, National Trust, Woodland Trust, Weald & Downland Living Museum, South Downs & New Forest National Park Authorities, local planning authorities and large, small and medium sized planning consultancies. ECS also provides specialist bat survey services to other ecological consultancies mainly with regard to Environmental Impact Assessments (EIA). Colleen has successfully obtained over 150 DEFRA/Natural England EPS (bat) development licences for a range of sites including modern and historic buildings, barns, trees, large scale new town developments, wind farms and road schemes.

Over the last 20 years Colleen has managed a number of county and borough wide bat surveys including a capture, ringing and radio tracking study into the distribution of Bechstein's and barbastelle bats in the New Forest, Hampshire. Bat survey work has taken her overseas to India, Burma (Myanmar) and Vietnam.

Colleen holds a Natural England bat survey licence to Levels CL19 & CL20 (and NRW Welsh licence level 2) and is a licenced Natural England trainer. She is also one of a c 150 Registered Ecological Consultant's (REC) under Natural England's Low Impact Licence scheme. Colleen holds Natural England licences to survey/disturb barn owl, great crested newt, dormouse, sand lizard and smooth snake.

# Dr Paul Hope, BSc (Hons), MCIEEM Director, Ecological Consultancy Services Ltd.

Paul is also joint Director of ECS and based in Romsey, Hampshire. He undertakes site appraisals for a range of species including reptiles, badgers, watervoles, dormice and species and specialises in surveying for bats.

Paul has held Natural England bat survey licences for over 19 years and undertaken a range of surveys for both bats and reptiles. He is licenced trainer for Natural England (Conservation licences) and also trains consultants for bat survey licences (to levels CL19 & CL20). He also holds a licence to survey/disturb great crested newts.

Paul obtained a PhD through the University of Bristol where he studied the hibernation ecology of British bats. He has extensive experience in the collection and analysis of field data using of a range of monitoring devices including bat detectors (time expansion, frequency division and heterodyne), infrared motion sensors and radio telemetry equipment for receiving and data logging.

During the process of surveying for environmental impact assessments both Colleen & Paul have undertaken radio tracking and ringing studies of seven bat species. They each have over 1200 hours radio tracking experience radio tracking a range of bat species in relation to impact assessments for development and providing information for bat conservation.

#### **Publications**

Hope, P. R. & Jones, G. (2011) Warming up for dinner: torpor and arousal in hibernating Natterer's bats (*Myotis nattereri*) studied by radiotelemetry. Journal of Comparative Physiology B. DOI 10.1007/s00360-0110631-x

Hope, P. R. & Jones, G. (2013) An entrained circadian cycle of peak activity in a population of hibernating bats. Journal of Mammalogy 94 (2) B. DOI 10.1644/12-MAMM-A-095.1

Hope, P. R. et al (2014) Second generation sequencing and morphological faecal analysis reveal unexpected foraging behaviour by *Myotis nattereri* (Chiroptera, Vespertilionidae) in winter. Frontiers in Zoology 11:39.

Mason, V., & Hope, P.R. (2013) Echoes in the dark: Technological encounters with bats. Journal of Rural Studies, 33, 107-118.

# Appendix 3

# Valuing Sites for Bats

Accurate population figures are not available for all bat species because of the difficulties in assessing bat populations. CIEEM's In Practice magazine (2010)<sup>10</sup> presents a suggested approach to evaluating species' rarity and is shown in **Table A** (figures are estimates based upon Richardson (2000)<sup>11</sup>, Harris et al. (1995)<sup>12</sup> and Harris & Yalden (2008)<sup>13</sup>. These should be considered within a regional context (i.e. some bats have restricted ranges). Natural England<sup>14</sup> provide some guidance on evaluating the significance of different roost types (**Table B**).

Rarity within	England	Wales	Scotland	N Ireland
range				
Rarest (pop < 10,000)	Greater horseshoe; Bechstein's; Myotis alcathoe; Greater mouse- eared; Barbastelle; Grey long-eared.	Greater horseshoe; Whiskered; Brandt's; Bechstein's; Myotis alcathoe; Noctule; Nathusius's pipistrelle; Serotine; Greater mouse- eared; Deshastelle	Whiskered; Brandt's; Myotis alcathoe; Noctule; Nathusius's pipistrelle; Leisler's.	Whiskered
Rarer (pop 10,000- 100,000)	Lesser horseshoe; Whiskered; Brandt's; Daubenton's; Natterer's; Leisler's; Noctule; Nathusius's pipistrelle; Serotine.	Lesser horseshoe; Daubenton's; Natterer's; Brown long- eared.	Daubenton's; Natterer's; Brown long- eared.	Daubenton's; Natterer's; Leisler's; Noctule; Nathusius's pipistrelle; Brown long- eared.
Common (pop > 100,000)	Common pipistrelle; Soprano	Common pipistrelle; Soprano	Common pipistrelle; Soprano	Common pipistrelle; Soprano

# Table A: Categorising Bats by Distribution and Rarity (Taken from CIEEM, 2010).

<sup>10</sup> Wray et al (CIEEM In Practice Magazine Dec 2010) Valuing Bats in Ecological Impact Assessment

<sup>11</sup> Richardson P (2000) Distribution Atlas of Bats in Britain and Ireland 1980-1999

<sup>12</sup> Harris et al Natural England Joint Publications JP025 (2018) A Review of the Population and Conservation Status of British Mammals: Technical Summary

<sup>13</sup> Stephen Harris & Derek Yalden (2008) Mammals of the British Isles Handbook (4<sup>th</sup> Ed)

<sup>14</sup> Natural England Bat Mitigation Guidelines (2004)

Rarity within range	England	Wales	Scotland	N Ireland
	pipistrelle; Brown long- eared.	pipistrelle.	pipistrelle.	pipistrelle.

**Table B** Extract from 'Bat Mitigation Guidelines' produced by English Nature (precursor toNatural England) 2004, A.J. Mitchel-Jones

Low	Roost status	Mitigation/compensation requirement (depending on impact)	
	Feeding perches of common inner species	Flexibility over provision of bat- boxes, access to new buildings etc. No conditions about timing or monitoring	
	Individual bats of common species		
	Small numbers of common species. Not a maternity site		
	Feeding perches of Annex II species	Provision of new roost facilities where possible. Need not be exactly like-for-like, but should be suitable, based on species'	
	Small numbers of rarer species. Not a maternity site	requirements. Minimal timing constraints or monitoring requirements	
	Hibernation sites for small numbers of common surer species	Timing constraints. More or less like-for-like replacement. Bars	
	Maternity sites of common species	must to be left without a roost and must be given time to find the replacement. Monitoring for 2 years preferred.	
Conservation ignificance			
1	Matemity sites of rarer species	Timing constraints. Like-foe-like replacement as a minimum. No destruction of former roost until replacement completed and usag demonstrated. Monitoring for at	
	Significant lubernation sites for rarer rarest species or all species assemblages	laast 2 years.	
	Sites meeting SSSI guidelines	Oppose interference with existing roosts or seek improved roost provision. Timing constraints. No destruction of former roost until replacement	
<b>↓</b>	Matemity sites of curest species	completed and significant usage demonstrated. Monitoring for as long as possible.	
High		SL 53	

Figure 4. Guidelines for proportionate mitigation. The definition of common, rare and rarest species requires regional interpretation.

#### Appendix 4

#### Creating roost sites beneath roof and ridge tiles



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# Appendix 5

#### Potential Opportunities for Biodiversity Net Gain







There is a huge variety of bat and bird boxes on the market. Designs cater for different species and roost/nest types. Features can be integrated into buildings but generally work best at second storey height therefore the suggestions here focus on bat roost and bird nest sites which can be placed on buildings or trees in the garden.

A number of other products and suppliers are available. Useful websites include: Jacobijayne.com www.NHBS.com Alana Ecology Ibstockbrick.co.uk

Flat and round bat boxes. Schwegler boxes are more expensive but may last longer than timber boxes





Various designs of swift box are available to make or purchase. The design (upper left) is available from NHBS and is a woodcrete pre-formed box. Other designs are available in wood (lower left photo) or woodcrete. It is recommended that designs or supplies quoted on Hampshire Swifts website are sourced <u>www.hampshireswifts.co.uk</u> or actionforswifts.blogspot.com



