PRELIMINARY BAT ROOST ASSESSMENT

8 HIGH STREET, COLLYWESTON,
NORTHAMPTONSHIRE
FOR
MR AND MRS McCABE

(October 2021)
(Contract number 356)

Prepared by:
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PROJECT DATA

Site Address	8 High Street, Collyweston, Northamptonshire PE9 3PW
Project Proposed	Conversion of a barn and an outbuilding into a residential property
Boundary as Specified by Client	Yes
Central Ordnance Survey Grid Reference	SK 99588 02832
Survey Dates	21 October 2021
Date Report Issued	22 October 2021
Report Version	Version 1

SUMMARY

A preliminary bat roost assessment of a barn and an outbuilding at 8 High Street, Collyweston, Northamptonshire, was undertaken on 21st October 2021. Mr and Mrs McCabe intend to apply for permission to convert the barn and the outbuilding into a residential property. Following the assessment, the buildings were judged to have 'low' potential to support roosting bats as some potential roosting features were observed which could be used by bats. The buildings are, however, unlikely to support a roost of high conservation status.

Non-active feral pigeon nests were observed in the outbuilding.

The results of this survey indicate that one further dawn bat activity survey at the appropriate time of year is required to establish whether bats use the buildings for roosting.

INTRODUCTION

This report has been prepared by Craig Emms and Linda Barnett who were contracted by Mr and Mrs McCabe to undertake a preliminary bat roost assessment of a barn and an outbuilding situated at 8 High Street, Collyweston, Northamptonshire. Mr and Mrs McCabe intend to apply for permission to convert the buildings into a residential property. The buildings are located at central Ordnance Survey Grid Reference: SK 99588 02832 and are hereafter referred to as 'the site'.

The site is located in the centre of Collyweston, a small village in Northamptonshire. The surrounding landscape is dominated by arable land.

The preliminary bat roost assessment was undertaken in October 2021.

This report describes the survey carried out and outlines the further surveys which are required.

AIMS AND OBJECTIVES

The aims of the study were to:

- Identify, quantify and report on the use of the site by roosting bats.
- Identify potential impacts of conversion works on roosting bats and suggest appropriate outline mitigation and compensation measures.
- Identify the legal and policy implications of any anticipated impacts.
- Make recommendations for any necessary further survey work or licensing, as required.

Ecological information for the assessment and subsequent recommendations is provided by the results of the preliminary bat roost assessment conducted in October 2021.

Relevant background information to roosting bats and nesting birds, and their legal protection is provided in the Appendix.

CONSTRAINTS

All surveys are a snapshot of a site at the time of the survey. However best practice has been followed and all reasonable effort made to complete the surveys to a high standard. There were no limitations to the field study with full access to the interior and exterior of the buildings.

Ecological constraints will change over time and therefore the findings of this report are considered to be valid for a period of one year, after which the report should be reviewed to consider whether the survey should be updated.

METHODOLOGY – FIELD SURVEY

The preliminary bat roost assessment was undertaken by Craig Emms (Natural England Class Licence Registration Numbers: 2015-12020-CLS-CLS and 2015-12019-CLS-CLS). The survey was conducted on 21st October 2021 following the methodology contained in Collins (2016). The survey date falls within the optimal survey period to conduct preliminary roost assessments on structures.

The preliminary bat roost assessment involved a detailed external and internal inspection of the buildings specifically for potential or actual bat access points and roosting places and any direct evidence of bats, including:

- Live or dead bats
- Droppings
- Urine splashes
- Fur-oil staining
- Squeaking noises

The buildings were then attributed a grade of negligible, low, moderate or high suitability to support roosting bats according to Bat Conservation Trust guidelines criteria following Collins (2016). Table 1 in the Appendix provides a more detailed explanation of the bat roost assessment criteria. If evidence of bats is found further surveys may be necessary.

RESULTS – GENERAL SITE DESCRIPTION

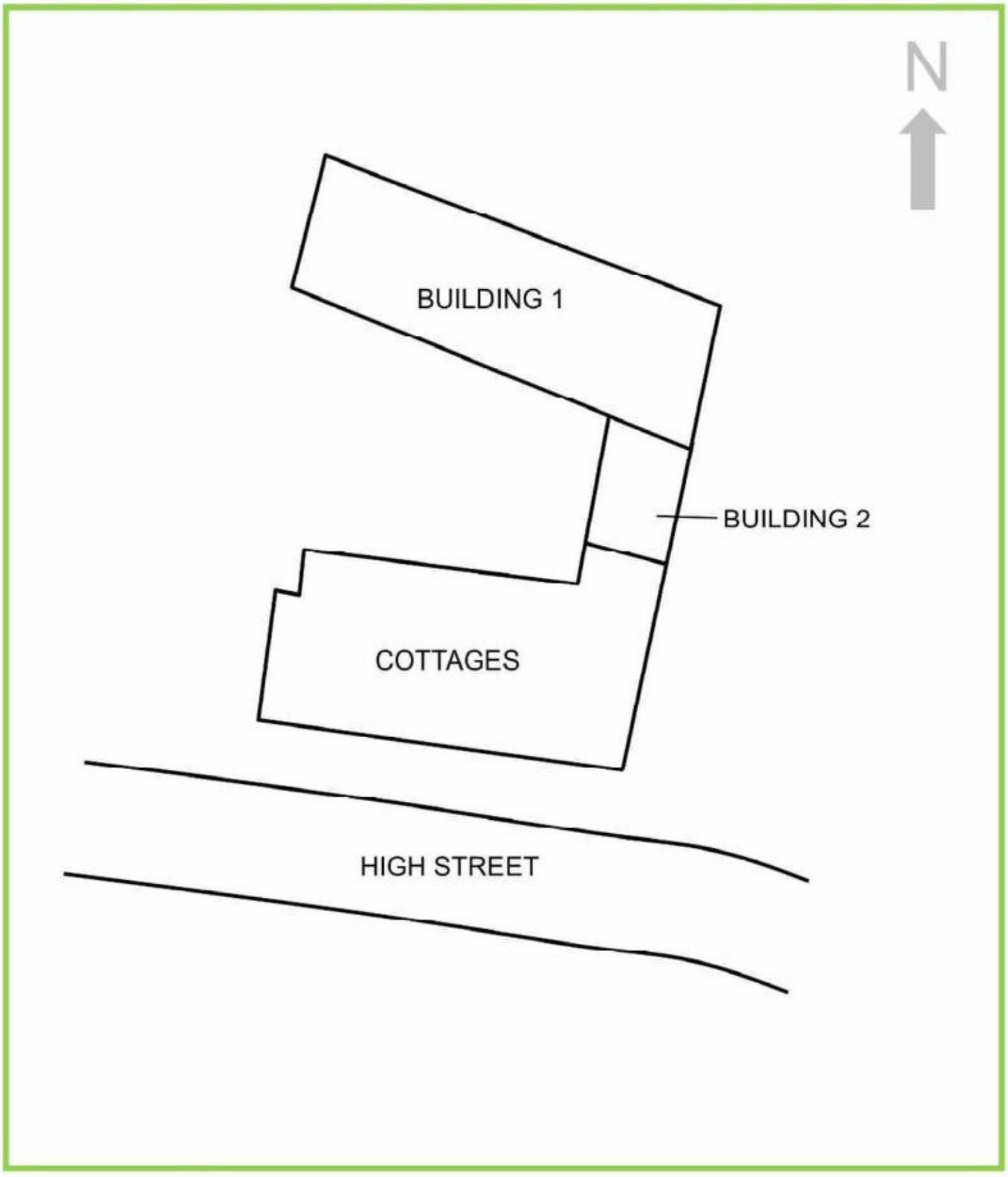
The site is situated in Collyweston village. Buildings adjacent to the site include residential properties. Collyweston Slate Mine Site of Special Scientific Interest (SSSI) is located approximately 416m to the north-east of the site, Collyweston Quarries SSSI is located 1.12 km to the north-east, and Collyweston Great Wood and Eastern Hornstocks SSSI and National Nature Reserve is located approximately 1.39 km south-east of the proposed development.

According to MAGIC (Multi-Agency Geographic Information for the Countryside - www.magic.gov.uk) two bat mitigation (development) licences have been granted within a 2 km radius of the site. These were granted for:

- the damage of a bat resting place (pertaining to Daubenton's bat, Natterer's bat and whiskered bat) located approximately 625m north-east of the site. The registered number of this licence is 2015-17256-EPS-MIT-1 and it was granted for the period 2015-2027; and

- the destruction of a bat resting place (pertaining to brown long-eared bat) located approximately 1.6 km north-west of the site. The registered number of this licence is 2015-11176-EPS-MIT and it was granted for the period 2015-2020.

FIGURE 1: THE SURVEYED BUILDINGS



RESULTS – DESCRIPTION OF THE SURVEYED BUILDINGS

The site consists of a barn (Building 1) and an outbuilding (Building 2) joined in an L-shape and located to the north of two cottages (see Figure 1)

Building 1

Building 1 (see Figure 1 and Plate 1) is a stone-built barn with a pitched slate-tiled roof and a floor-space of approximately 122m^2. The building is divided into two parts. The part at the western gable end is single-storey and open from the floor to the roof (see Plate 2). The roof in this part has no lining and has a small dormer window and two small skylights (see Plate 3). It has two timber doors, one on the northern side and one on the southern side.

The part at the eastern gable end is two-storey with an internal roof-lining of timber (see Plate 4) and a chimney breast (see Plate 5). It is divided into four rooms, two on the ground floor and two on the first floor, with two glass windows on the northern side on the ground floor, one on the southern side on the ground floor and one on the first floor at the eastern gable end. There are two timber doors on the southern side. The interior frame is timber throughout.

Plate 1: a view of Building 1. Photograph taken from the north.

Plate 2: Building 1, showing the room at the western gable end.

	**Plate 3:** Building 1, showing the skylights and the unlined roof tiles.
	**Plate 4:** Building 1, showing the internal timber roof lining.
	**Plate 5:** Building 1, showing the chimney breast.

Building 2

Building 2 (see Figure 1 and Plate 6) is a single-storey stone-built outbuilding with a pitched roof constructed of clay pan tiles lined with roofing felt (see Plate 7). It has a floor-space of approximately 20m^2. The outbuilding is open from the floor to roof and has a permanent large opening on part of its western side (see Plate 6). There is small open timber store on its southern end suspended from the ground (see Plate 8). The outbuilding is joined to an adjacent building which is part of a neighbouring cottage to the south (see Plate 9). The interior frame is timber.

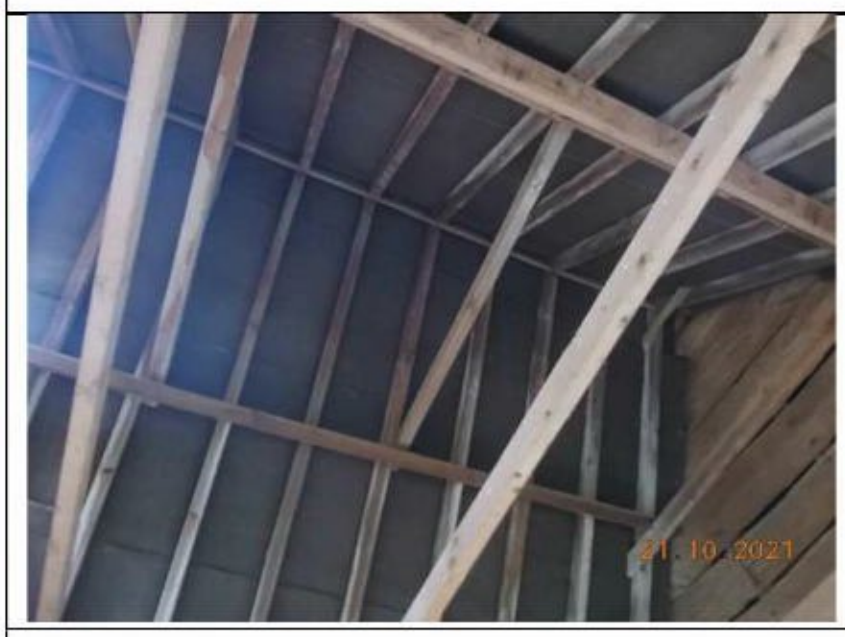
	**Plate 6:** Building 2. Photograph taken from the west.
	**Plate 7:** Building 2, showing the lined roof.
	**Plate 8:** Building 2, showing the small suspended timber store at its southern end.

	**Plate 9:** Building 2, showing that the outbuilding is joined to the neighbouring property at its southern end.

RESULTS – DESCRIPTION OF OBSERVATIONS OF ROOSTING BATS OR POTENTIAL BAT ROOSTING FEATURES AND BIRD NESTS

No roosting bats or direct signs of roosting bats were observed in the buildings. There were, however, numerous potential bat roosting features observed, including but not limited to: gaps beneath roof tiles on Building 1 (see Plate 10); gaps beneath the flashing around the chimney breast on Building 1 (see Plate 11); holes and deep cracks in the walls of Building 1 (see Plate 12); holes between the walls and the eaves on Building 1 (see Plate 13) and thick ivy on the outside walls of Building 1 (see Plates 14 and 15). In addition, there is a potential bat access point from the southern end of Building 2 into the neighbouring property (see Plate 16).

	**Plate 10:** gaps beneath some of the roof tiles on Building 1.
	**Plate 11:** showing a gap beneath the flashing on the chimney of Building 1.

	**Plate 12**: some of the holes and deep cracks in the walls of Building 1.
	**Plate 13:** one of the holes at the eaves of Building 1.
	**Plate 14:** some of the thick ivy on the northern wall of Building 1.

	**Plate 15:** some of the thick ivy on the southern wall of Building 1.
	**Plate 16:** the potential bat access point leading from Building 2 into the neighbouring property.

Two non-active feral pigeon nests (one with two deserted eggs) were present in Building 2 (see Plate 17).

	**Plate 17:** a deserted feral pigeon nest in Building 2.

RESULTS – SUMMARY OF SURVEY FINDINGS

PRELIMINARY BAT ROOST ASSESSMENT

The buildings were judged to have 'low' suitability to support roosting bats because:

- There were one or more potential roost sites that could be used by individual bats opportunistically;

- These potential roost sites do not, however, 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.* they are unlikely to be suitable for maternity or hibernation).

No roosting bats or direct evidence of roosting bats were found in the buildings.

DISCUSSION

DEVELOPMENT PROPOSALS

At the time of writing the report, the development proposals entail the conversion of a barn and an outbuilding into a residential property.

EVALUATION

It is possible that bats roost in the buildings on the site. A further dawn bat activity survey is required to establish whether bats roost in the buildings (see Recommendations for Mitigation and Further Surveys below). If roosting bats are found to be present during this survey, then further studies will be required to inform an application for a bat mitigation (development) licence to Natural England.

Feral pigeons nest in the outbuilding on the site.

POTENTIAL IMPACTS

All British bats are protected from disturbance, killing and injury and their roosts are also protected (see the Appendix for further details).

Without mitigation the works may possibly disturb, kill or injure bats or disturb or destroy their roosts.

All wild bird nests are protected and it is illegal to intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions). See the Appendix for further details.

Without mitigation the works are likely to disturb, kill or injure nesting birds or to disturb or destroy their nests.

RECOMMENDATIONS FOR MITIGATION AND FURTHER SURVEY

RECOMMENDATIONS

- As a precautionary measure the works should be timed to avoid sensitive times of year when roosting bats are likely to be present (*e.g.* the development works should normally be carried out between the months of November to February inclusive);

- Ecological supervision of the development works (this refers only to ecological matters and not to supervision of the development works in themselves, which must always be conducted in compliance with current regulations by suitably qualified and competent demolition personnel). In practice, this supervision normally entails a site briefing to the development works team on appropriate ecological working methods to avoid accidental harm to wildlife. Work such as stripping of roof materials and renovation of walls where bats are suspected as roosting would be undertaken delicately (often by hand) by the qualified building contractor under the direct observation of the licensed ecologist;

- To comply with the latest planning guidance and to enhance the site for swifts, two integral swift nesting boxes and two integral bat roosting boxes should be built into the new dwelling. This will provide new roosting and nesting places for these declining species.

- To also comply with the latest planning guidance hedgehog holes (measuring 13cm by 13cm) should be provided in the base of any new fencing erected on the site to allow the free movement of this declining species between foraging habitats.

Please be aware that any works which have the potential to harm or disturb bats must not take place until appropriate mitigation measures have been agreed with the Local Planning Authority and/or the statutory licencing body (Natural England). This is because bats, as European Protected Species, are protected under the "strict liability" regimen. There is no defence for unintentional/incidental harm.

FURTHER SURVEYS

- One further dawn re-entry bat activity survey conducted at the appropriate time of year is required to establish if bats roost in the buildings on the site.

CONCLUSIONS

It is possible that bats roost in the buildings on the site. A further bat activity survey conducted at the appropriate time of year is required to establish if bats roost in the buildings. If roosting bats are identified in the buildings further studies may be needed and a bat mitigation (development) licence will need to be applied for from Natural England. Birds nest in the outbuilding.

REFERENCES

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

APPENDIX

BACKGROUND TO ROOSTING BATS AND THEIR LEGAL PROTECTION

BAT ROOSTS

Bats use a variety of different structures for the purposes of roosting, including mature trees, caves, mines, buildings (both modern and ancient), bridges and tunnels. In addition, many bat species will occupy purpose-built bat-boxes or even boxes designed to house nesting birds. Bats also use different types of roost at different times of year, including:

- **Day Roost** – a place where individual bats, or small groups of male bats, rest or shelter in the day but are rarely found by night in the summer;

- **Night Roost** - a place where bats rest or shelter in the night but are rarely found in the day. May be used by a single individual on occasion or it could be used regularly by the whole colony;

- **Feeding Post** - a place where individual bats or a few individuals rest or feed during the night but are rarely present by day;

- **Transitional/Occasional Roost** - used by a few individuals or occasionally by small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation;

- **Swarming Site** - where large numbers of male and female bats gather in late summer to autumn. These appear to be important mating sites;

- **Mating Site** - sites where mating takes place from late summer and can continue through the winter;

- **Maternity Roost** - where female bats give birth and raise their young to independence;

- **Satellite Roost** - an alternative roost found in close proximity to the main nursery colony used by a few individual females to small groups of breeding females throughout the breeding season.

The use of roosts is rather unpredictable, particularly amongst tree-roosting species, but female bats are typically loyal to maternity roosts.

LEGISLATION

All species of bat in Britain are 'European Protected Species' and are protected under the Conservation of Habitats and Species Regulations 2017, and the Wildlife and Countryside Act 1981, as amended by the Countryside & Rights of Way Act 2000. These pieces of legislation combine to give substantial protection to bats and their habitats, making it an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat;
- Intentionally or recklessly obstruct access to a bat roost.

Table 1: Bat Roost Assessment Criteria.

Suitability	Description of Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging 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). A tree of sufficient size and age to contain Potential Roost Features (PRFs) but none seen from the ground or features seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream or lone tree (not in a parkland situation) or a patch of scrub, but isolated, *i.e.* not very well connected to the surrounding landscape by another habitat.
Moderate	A structure or tree with one or more PRFs 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 presence is confirmed).	Continuous habitat connected with the wider landscape that could be used by bats for commuting such as lines of trees, scrub, grassland or water or linked back gardens.
High	A structure or tree 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 habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, tree-lined watercourses, grazed parkland, hedgerows, lines of trees, broad-leaved woodland and woodland edge. Site is close to and connected to known roosts.

Note: Adapted from Collins, 2016.

NESTING BIRDS AND THEIR LEGAL PROTECTION

All wild bird nests are protected under The Wildlife and Countryside Act 1981 (as amended), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting.

QUALITY ASSURANCE

This report format is designed to comply with statutory authority (*e.g.* Natural England, Natural Resources Wales and Scottish Natural Heritage) and the Chartered Institute of Ecology and Environmental Management relevant standing advice. Further studies may be required where there is evidence of protected species or if other notable ecological factors are found.

Craig Emms MSc, MCIEEM
Linda Barnett BSc (Hons), PhD, MCIEEM
Craig and Linda are professional ecologists with over 65 years of combined practical experience in nature conservation, wildlife research and management and ecological consultancy, gained from working in the UK and overseas. Craig has a MSc. in Ecosystems Analysis and Governance and Linda has a PhD in Genetics. Together they have carried out original academic research on a broad range of wildlife; insects, amphibians, reptiles, birds and mammals (including bats), and published the results as scientific papers in a number of international peer-reviewed journals. Linda co-authored the Species Action Plans for Britain's eight most endangered butterflies while working for Butterfly Conservation, and has supervised students in research projects on hazel dormouse, great crested newts and moths whilst she was co-ordinating and lecturing on a Masters course in Analytical Biology at the University of Warwick. Craig was also a lecturer in ecological methods on two Masters courses at the University of Warwick. Linda and Craig are skilled and practiced field ecologists, especially with regard to wildlife and countryside management. They are licenced by Natural England as bat and great crested newt surveyors (and are volunteer bat roost visitors/handlers for Natural England and registered bat carers for the Bat Conservation Trust) and have an extensive and broad experience of a great variety of field surveys including mammals (otter, badger, water vole, hedgehog, small mammals and bats), birds, reptiles, amphibians, dragonflies, butterflies and moths. Both have undergone training in the use of eDNA methodology and field sample collection. Craig is also licenced by Natural Resources Wales as a bat and great crested newt surveyor, by the British Trust for Ornithology as a bird nest recorder and has been the named ecologist and clerk of works on many bat mitigation and compensation (development) licences.

Please be aware that ecological reports generally have a limited period of currency. Many statutory authorities now regard one year as the maximum time that should elapse before a report will need to be updated. Where a European Protected Species licence is to be applied for once planning permission has been granted, a walk-over of the site should be carried out within three months of an application being submitted to check that the habitats have not changed significantly since the survey was carried out.

Any information relating to legal matters, designs, specifications, advice, suggestions, or comments written or verbal in this report is provided in good faith and for consideration only,

and does not purport in any way to give any advice on or interpretation of the law whatsoever. Professional legal advice should always be sought.

It is a requirement under the CIEEM code of practice to provide recorded data to biological record centres. For certain records (*i.e.* data obtained under a government survey licence) we also have a legal obligation to forward such data.

If you have special cause to restrict the distribution of this data (which will be in the public domain), please contact us to discuss this further within one month of the issue of this report.

Note. *Whilst all due and reasonable care is taken in the preparation of reports, Craig Emms and Linda Barnett accept no responsibility whatsoever for any consequences of the release of this report to third parties. Please be aware that site surveys inevitably miss species not apparent on the date of visit(s) by reason of seasonality, mobility, habits or chance. Results are indicative and given in good faith but they are not a guarantee of presence or absence of any particular taxa.*