

Ecological Impact Assessment

BE-1185.1a

**The Barn, The Copse, Scholes Lane, Scholes,
Cleckheaton, BD19 6NE**



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Executive Summary

Bagshaw Ecology Ltd have been requested by Debbie Marshall to undertake an Ecological Impact Assessment of The Barn, The Copse, Scholes Lane, Scholes, Cleckheaton, BD19 6NE, in relation to an application for planning. The development proposals are to lift the roofline of the existing barn and construct an adjoined garage to the south.

The site survey found the habitats within the majority of the site to be composed of well-maintained residential gardens with amenity grassland, hedges and hardstanding. These habitats are of low ecological value and do not contribute any additional connectivity to semi-natural habitats, or habitats included within the Kirklees Wildlife Habitat Network, in the surrounding area. Therefore, it is not anticipated that the development will have any significant ecological impacts on the site or the surrounding landscape.

The building affected by the developments consisted of a stone barn with a pitched stone flag tile roof and four dormers. The interior roof void had been converted into living space and was open and well-lit with no opportunities for roosting bats observed. The exterior of the building was in good condition however, some slightly lifted roof tiles were observed on the southeast aspect. No evidence of roosting bats was identified after close inspection with a high-powered torch, and it is not anticipated that bats are roosting within the building. As a precautionary measure, it is recommended that the lifted roof tiles on the southeast aspect are removed by hand under the supervision of a licenced ecologist.

Three ponds were recorded within 500m of the site, however due to the suboptimal terrestrial habitat, distance of the ponds and small scale of the development it is considered highly unlikely that the development proposals will impact upon great crested newts *Triturus cristatus*.

It is recommended that the ecological value of the site is enhanced through the incorporation of bat boxes into the development proposals.

1. Introduction

1.1. Background

Bagshaw Ecology Ltd have been requested by Debbie Marshall to undertake an Ecological Impact Assessment of The Barn, The Copse, Scholes Lane, Scholes, Cleckheaton, BD19 6NE, hereafter referred to as 'the site'.

The purpose of the report is to identify the habitat types on the site, along with the presence or absence of any protected or notable species. The ecological impact of any proposed development is assessed, and mitigation, management and aftercare proposals are suggested when appropriate.

1.2. Site Details

The site located at grid reference SE 16661 25209 and is accessed north off the north of The Copse. The site is bound by residential developments to the north, south and east and by agricultural farmland to the west.

The site comprises a barn adjoined to residential dwelling and associated garden.



Figure 1.1 Aerial imagery of site and surrounding area (Google Earth Pro, 2019)

1.3. Development Proposals

The development proposals are to lift the roofline of the existing barn and construct an adjoined garage to the south.

2. Legislative Context

2.1. Legislation

The Wildlife and Countryside Act 1981 (As Amended), makes it an offence to:

- Deliberately or recklessly injure, kill or capture any animal protected under Schedule 5 of the act.
- Deliberately or recklessly kill, injure or take any wild bird; to take, damage or destroy the nest of any wild bird while occupied or being built, or to take or destroy the egg of a wild bird. Additional protection is afforded to bird species listed under Schedule 1 of the Act.
- Intentionally pick, uproot or destroy any wild plant included in Schedule 8 of the Act.

The Conservation of Habitats and Species Regulation 2017 makes it an offence to deliberately capture, kill or disturb any animal protected under Schedule 2 of the regulations. It is also an offence to damage or destroy a breeding site or resting place of an animal, even if the animal is not present at the time.

2.2. Policy

The UK Biodiversity Action Plan (UKBAP) includes a list of 943 national priority species and 56 habitats of principal importance, with all species and habitats having specific action plans defining the measures required to ensure their conservation. Although the UKBAP has since been superseded by the UK-Post 2010 Biodiversity Framework and a focus on County Biodiversity Plans, it remains a useful point of reference.

Section 41 of the Natural Environment and Rural Communities Act (NERC) 2006 required that any public bodies take into consideration any species and habitats listed in the UKBAP when implementing their duty and exercising any normal functions.

The National Planning Policy Framework (NPPF) states that planning decisions should aim to protect or enhance biodiversity and conservation interests, and where possible any development should aim to increase net gains in biodiversity.

3. Methods

3.1. Ecological Data Search

As the site is a small area of cultivated garden and due to the small scale of the development, in accordance with CIEEM’s guidelines on Preliminary Ecological Appraisal (CIEEM, 2017), a full consultation with the local biological records centre was not undertaken.

The Department for Environment, Food and Rural Affairs’ (DEFRA) Magic Maps website was consulted as to any land-based designations and priority habitats within a 1km radius of the site.

Aerial imagery was assessed using OS maps and Google Earth Pro to give an appraisal of the surrounding land use.

3.2. Phase 1 Habitat Survey

The habitat survey and mapping exercise was carried out in suitable weather conditions on the 21st November 2019.

The survey was undertaken by Amy Reddick BSc (Hons) MSc, an ecological consultant who is an associate member of CIEEM, and who holds a Natural England class 2 licence to survey bats.

The study area was surveyed in accordance with JNCC (2010) guidelines. Habitats were classified into hierarchical codes, and a Phase 1 Habitat map was produced.

Habitats and species present on or adjacent to the site were assessed using CIEEM’s (2018) guidelines. Ecological features were classed as being of either international, national, regional, district, local, low or of negligible importance (see table 3.1).

Table 3.1 Importance of ecological features

Value of feature	Key examples
International	Internationally designated sites (SPA, pSPA, SAC, cSAC, Ramsar site, Biogenetic Reserve), or an area which meets designation for such sites; Internationally significant and viable areas of a habitat listed in Annexe 1 of the Habitats Directive; Any regularly occurring, globally threatened species; A regularly occurring population of an internationally important species, which is threatened or rare in the UK.
National	A nationally designated site (SSSI, NNR, LNR), or an area which meets designation for such sites; A regularly occurring significant number/population of a nationally important species (e.g. listed on the Wildlife and Countryside Act 1981 (as amended)); A feature identified as being of critical national importance.
Regional/County	Viable areas of key habitat identified in the regional or county BAP; A regularly occurring significant population/number of any species important at regional/county level; Sites of conservation importance which exceed the district selection, but which fall short of SSSI selection guidelines.
District	Areas of habitat identified in District/City/Borough BAP; Sites that the designating authority has determined meet the published ecological selection criteria for designation; Sites/features which are scarce within the District/City/Borough; A regularly occurring significant population/number of any species important at District/City/Borough level.
Local	Areas identified in a Local BAP; Sites/features which are scarce in the locality or which are considered to appreciably enrich the habitat resource within the local context (e.g. species-rich hedgerows); Any populations, species or habitats of local importance.
Low/Site	Habitats of moderate to low diversity which support a range of locally and nationally common species, the loss of which can be easily mitigated.

3.3. Bat Survey

The survey was based upon methodologies prescribed by Collins (2016), Mitchell-Jones (2004) and Mitchell-Jones and McLeish (2004). This involved an inspection of the exterior and interior of the building. Any structural features with potential for use by roosting bats were recorded and any suitable access points were identified. Any direct evidence of bats, such as scratch marks, oil stains, droppings and feeding remains were also identified.

Taking account of the structural features of the building, the surrounding habitat, buildings were assigned a level of roost suitability based upon professional judgement (see table 3.1).

Table 3.2 Bat roost suitability

Bat Roost Suitability Class	Description
Confirmed presence	Bat presence confirmed during the scoping survey
High	Buildings that have many areas suitable for roosting which are obviously suitable for use by a larger number of bats including maternity colonies.
Moderate	Buildings with a smaller number of areas suitable for roosting, but still supporting feature that could be attractive to bats and potentially support maternity colonies.
Low	Buildings with limited roosting opportunities but which could be used on a sporadic or occasional basis by a low number of bats, but which are unsuitable for maternity roosts.
Negligible	Buildings which appear unsuitable for roosting bats due to a clear lack of roosting spaces such as voids and/or absence of suitable access points.

3.4. Protected and Notable Species

An assessment of the site was undertaken as to the presence of any other protected or notable fauna.

A search of the site was undertaken for signs of protected mammal species (namely those protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), Schedule 2 of the Conservation of Habitats and Species Regulations 2017 and the Protection of Badgers Act 1992), including badger *Meles meles*, otter *Lutra lutra* and water vole *Arvicola amphibius*.

An assessment of the site was undertaken for species of reptiles and amphibians (including great crested newts).

An assessment of the site was undertaken for birds, including nesting birds and bird species protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended).

An assessment of the site was undertaken for its potential for invertebrates, although a detailed invertebrate assessment was not carried out as part of the survey.

4. Results

4.1. Constraints

The site survey was conducted outside the optimum period for Phase 1 Habitat Surveys. However, some species are only visible at certain times of the year and may not have been present during the survey.

4.2. Designated Sites

A search on Magic Maps (DEFRA, 2019) identified six Deciduous Woodland Priority Habitats within 1km of the site, with the closest situated 260m to the southeast of the site.

Magic Maps (DEFRA, 2019) no records of internationally or nationally designated sites within 1km of the site.

4.3. Habitats

The surrounding land use is predominantly suburban and agricultural farmland. Tree cover is moderate, and trees within gardens provide connectivity to the patches of woodland to the south east of the site for generalist species of commuting and foraging bats.

The habitats on site comprised predominantly of well-maintained amenity grassland (**J1.2**) with a short-mown sward and hardstanding (**J4**) flagstones and cobbled areas.

A Leyland cypress *Cupressus × leylandii* hedge (**J2.1**) was situated along the north border of the site.

A map showing the habitats on the site can be viewed in **Appendix 2: Phase 1 Habitat Map**.

4.4. Bat Scoping Survey

DEFRA (2019) holds no records of granted European Protected Species Licenses for bats within 1km of the site.

There was a single building on the site affected by the development proposals, a stone barn which was adjoined to the south aspect of the main residential building. The barn was of stone construction with a pitched stone flag roof. Dormers had been added to the east and west aspects, these were clad in lead with wooden fascias. The dormers were in good condition and all lead flashing was well-sealed. The roof was also in good condition with tight ridge tiles. Some slightly lifted tiles were observed on the southeast aspect of the roof, close inspection with a high-powered torch was carried out, and no evidence of roosting bats was identified. The exterior walls were well-sealed, including the south gable which had a large circular window. The windows and doors were all well-sealed with no gaps observed in lintels or pointing.

The interior roof void of the building had been converted into living space with addition of the dormers. The roof had been plastered, which was well-sealed, and the interior was open and well-lit with no opportunities for roosting bats. The lower floor consisted of an open plan garage with large wooden doors.

4.5. Other Mammals

No signs of any protected or notable mammal species were observed during the site survey.

4.6. Reptiles and Amphibians

DEFRA (2019) holds no records of granted European Protected Species Licences for great crested newts within 1km of the site.

A search on aerial imagery (Google Earth Pro, 2019) revealed several ponds within 500m of the site; Pond 1, located 110m to the southeast across the B6120 road, Pond 2 located 390m to the south across the A649 and Pond 3, located 450m west in agricultural land. As all of the ponds were located on private land, none of these were assessed during the survey.

The site provides suboptimal terrestrial habitat for reptile and amphibian species, due to consisting of well-maintained lawns with a short sward and being constrained by roads and residential development to the north, south and east. No habitats suitable for hibernating reptiles or amphibians were observed.

4.7. Birds

No habitats suitable for nesting birds are due to be affected by the development proposals.

4.8. Invertebrates

The site does not provide any notable habitat suitable for pollinating invertebrates.

5. Impact Assessment

5.1. Habitats

The development proposals will result in the loss of amenity grassland and hardstanding. The habitats on the site are considered to be of **Negligible/Low** value, and do not contribute any additional connectivity to semi-natural habitats or habitats included within the Kirklees Wildlife Habitat Network in the surrounding area. Therefore, it is not anticipated that the development will have any significant ecological impacts on the site or the surrounding landscape.

5.2. Bats

The barn was in good condition and the roof void converted into living space with no opportunities for roosting bats observed within the building. However, there were some slightly lifted tiles on the roof, particularly on the southeast aspect and towards the eaves which had low potential for day roosts of crevice roosting bats. Close inspection with a high-powered torch did not reveal any evidence that these had been utilised by roosting bats, therefore it is not anticipated that bats are roosting within the barn.

5.3. Other Mammals

There are no foreseeable impacts of the development proposals upon any notable or protected mammal species.

5.4. Reptiles and Amphibians

The development proposals will affect an area approximately 86m² (0.009ha) in size within 250m of a pond. An assessment using the Natural England Rapid Risk Assessment Calculator (Natural England, 2013), found that if newts were present in Ponds 1, 2 or 3, then, due to the size of the development and proximity of the site to the ponds, the risk of an offence resulting from the proposed development is highly unlikely.

Table 5.1 Natural England rapid risk assessment for ponds 1, 2 and 3 (Natural England, 2013)

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	0.001 - 0.01 ha lost or damaged	0.005
Land >250m from any breeding pond(s)	0.001 - 0.01 ha lost or damaged	0.0005
Individual great crested newts	No effect	0
	Maximum:	0.005
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

Terrestrial connectivity within the surrounding area is severely constrained by roads and the habitats on site were considered unsuitable for reptile or amphibian species. Therefore, it is not anticipated that reptiles or amphibians will be affected by the development proposals.

5.5. Birds

No habitats suitable for nesting birds are due to be affected by the developments, therefore it is not anticipated that there will be any negative impacts on nesting birds.

5.6. Invertebrates

There are no foreseeable impacts of the development proposals upon any notable invertebrate species. The development proposals will not impact significantly upon pollination resources used by invertebrates in the surrounding area.

6. Conclusion and Recommendations

6.1. Avoidance of Ecological Impacts

It is not anticipated that bats are roosting within the building, as the barn was in good condition, the roof void has been converted, limited roosting opportunities were observed and there was a lack of evidence of roosting bats; however, there were some small gaps observed under a number of roof tiles on the southeast aspect, which had low potential for crevice roosting bats. Therefore, as a precautionary measure, it is recommended that these tiles be removed by hand under the supervision of a licenced ecologist. If bats, or signs indicative of bats (e.g. droppings, feeding remains) are identified, works should cease and a Natural England European Protected Species (EPS) licence will be required before they can re-commence. In this instance, further activity surveys may be required to determine the status of the roost and inform the EPS application.

In the unlikely event any bats are encountered during the remaining work, all work should cease immediately, and a licenced bat worker should be consulted.

There are no foreseeable impacts of the development proposals upon any further protected or notable species. In the unlikely event that any protected species such as bats, reptiles or amphibians are identified during works, all works should cease, and a suitably qualified ecologist should be consulted.

6.2. Mitigation and Ecological Enhancement

In accordance with the NPPF, it is recommended that the ecological value of the site is enhanced through the incorporation of roosting bat habitat into the development proposals. This should consist of two Schwegler 1FF bat boxes (or a similar alternative), which should be fixed onto trees on the site. Bat boxes should be situated at least 4m off the ground, on a south aspect, with clear flight paths to the entrances.

6.3. Lifespan of Survey Findings

In accordance with CIEEM's guidelines (CIEEM, 2019), the findings of this report are considered valid for a further 18 months (until June 2021).

7. References

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Mitchell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. English Nature.

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8. Appendices

Appendix 1: Photographs



Plate 1. East aspect of the building



Plate 2. East aspect of the building



Plate 3. East aspect of the building



Plate 4. South aspect of the building



Plate 5. West aspect of the building



Plate 6. Slightly lifted roof tiles on southeast



Plate 7. Slightly lifted roof tiles on southeast



Plate 8. Detail of roof tiles on west aspect



Plate 9. Detail of dormer

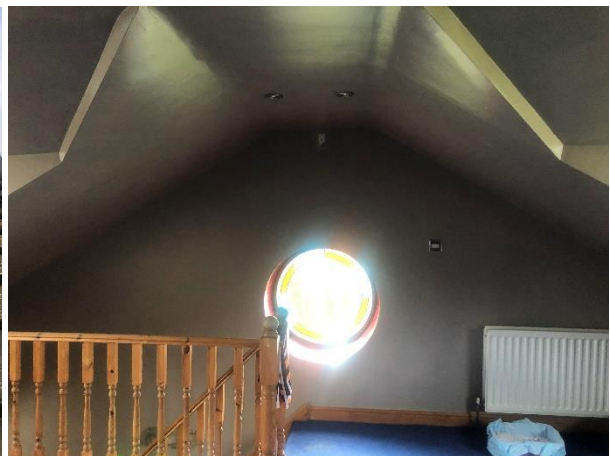


Plate 10. Interior of the upper floor



Plate 11. Interior of the upper floor



Plate 12. Interior of the upper floor



Plate 13. Habitats on the site




Plate 14. Habitats on the site

Appendix 2: Phase 1 Habitat Map

Project:	The Barn
Drawn by:	Amy Reddick
Date:	03/12/2019


Not to scale


Key:

 The building

JNCC Habitats:

 J1.2 - Amenity grassland

 J2.1.2 - Intact hedge

 J3.6 - Buildings

 J4 - Bare ground

