BAT RISK ASSESSMENT

Tees View
Yarm

ELGP-22-01
FEBRUARY 2022

Naturally Wild Consultants Limited
3 Halegrove Court
Cygnet Drive
Bowesfield
Stockton-on-Tees
TS18 3DB

Email: hello@naturallywild.co.uk

BAT RISK ASSESSMENT

Tees View
Worsall Road
Yarm
TS15 9EF

GRID REF
NZ41161172

REPORT FOR
ELG Planning

Quality Assurance

Version	Prepared by	Date	Checked by	Date	Approved by	Date
R1	Tom Richardson	23/02/2022	Julie Skinner	24/02/2022	Graeme Skinner	25/02/2022

This assessment is intended to provide an accurate description of findings from the desktop study and from survey work undertaken on the date shown; however, it cannot fully account for the reliability of third party data provided or for any changes to site conditions following the completion of the survey work due to activities carried out on site or the dynamic nature of the natural environment. All work carried out by Naturally Wild Consultants Ltd is subject to our Terms and Conditions.

The report has been produced in accordance with current best practice guidelines.

REPORT CONTENTS

EXECUTIVE SUMMARY

Naturally Wild were instructed to undertake a bat risk assessment at Tees View, Yarm (Figure 1). The survey area comprised of a single story barn constructed of breezeblock and red brick foundation with a wooden beam structure, clad externally in wood with a corrugated sheet roof. The proposals are to renovate the barn building for storage of vehicles and other personal property.

The assessment comprised two parts: a desktop study and a survey visit. The desktop study collated available public information regarding the biodiversity of the area, including the habitat structure of the site and surrounding area and the presence of any statutory or non-statutory designated sites. biological records within 1 km of the site were requested from the Environmental Records Information Centre North East (ERICNE), which included records of protected and notable species and any nearby non-statutory designated sites (Local Wildlife Sites, Sites of Importance for Nature Conservation, etc.) not available through MAGIC.

The survey visit consisted of an assessment of all habitats on site and in the surrounding area to determine their value for bats (as well as other protected/notable species) and was conducted on Friday 4th February 2022 by ecologist Tom Richardson BSc Hons.

Overall, the site was assessed as being of negligible value for roosting bats, however, it was considered to be low ecological value overall. The site offers suitable commuting and foraging habitat for bats in the form of semi-mature trees adjacent to the building adjoining the field to the north of the site

Providing the recommendations of this report are implemented in full, Naturally Wild would conclude that there will not be a significant impact to bats or any other protected species as a result of the proposed works.

1 INTRODUCTION

Naturally Wild were instructed to undertake a bat risk assessment at Tees View, Yarm (Figure 1). The survey area comprised of a single story barn constructed of breezeblock and red brick foundation with a wooden beam structure, clad externally in wood and a corrugated sheet roof. The main objective of the assessment was to determine the suitability of the site to support bats (and other protected species) and to check for any evidence of their presence, as well as the presence of any protected or notable habitats.

The proposals are to renovate the barn building for storage of vehicles and other properties. As part of the planning process, an ecological assessment is required to determine if any protected or notable species/habitats are likely to be affected by the proposed works, and to show how any negative ecological impacts would be mitigated and compensated.

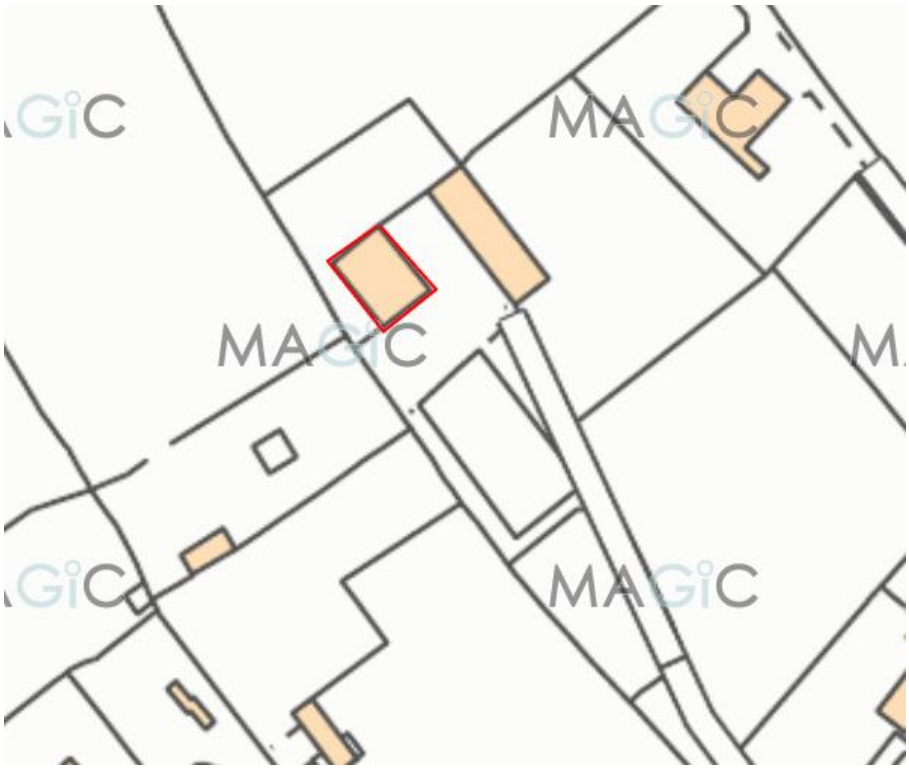

Figure 1. Site location plan. Red line shows the area proposed for (re-)development.

(© Crown Copyright and MAGIC database rights 2020. Ordnance Survey 100022861).

2 RELEVANT LEGISLATION

British wildlife is protected by a range of legislation, the most important being the Wildlife and Countryside Act 1981, the Countryside Rights of Way Act 2000 and The Conservation of Habitats and Species Regulations 2017 (as amended).

The Wildlife and Countryside Act, as amended mainly by the Countryside Rights of Way Act, protects species listed in Schedules 5 and 8 of the Act (animals and plants respectively) from being killed, injured, and used for trade. For some species, such as great crested newts and all bat species, the provisions of this act go further to protect animals from being disturbed or taken from the wild and protects aspects of their habitats. The Act also stipulates that offences occur regardless of whether they were committed intentionally or recklessly. The parts of this legislation that apply to most reptile species are in regard to killing, injury and trade only and do not protect their habitat, nor are they protected from disturbance or from being taken from their habitat.

The Conservation of Habitats and Species Regulations ('the Habitats Regulations') is the English enactment of European legislation and provides similar but subtly different protection for species listed on Schedules 2 and 4 of those regulations. Species to which these provisions apply are known as European Protected Species. Activities that might cause offences to be committed can be legitimised by obtaining a licence from the relevant statutory body.

All British bat species are listed on Schedule 5 of the Wildlife and Countryside Act 1981 and are afforded protection under Section 9 of this Act. In addition, all British bat species are listed on Schedule 2 of The Conservation of Habitats and Species Regulations and are protected under Regulation 39 of these Regulations. The Act and Regulations makes it an offence to:

- Intentionally kill, injure, take (handle) or capture a bat;
- Intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not) – under the Habitats Regulations it is an offence to damage or destroy a breeding site or resting place of any bat; or
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection – under the Habitats Regulations it is an offence to deliberately disturb a bat (this applies anywhere, not just at its roost) in such a way as to be likely to affect its ability to survive, breed, reproduce, rear or nurture its young, or hibernate.

Further details of the above legislation, and of the roles and responsibilities of developers and planners in relation to bats, can be found in Natural England's (formerly English Nature) Bat Mitigation Guidelines (Mitchell-Jones, 2004), and further details on the legislation protecting other species of British wildlife relevant to this assessment can be found in section 8.1 of this report.

3 METHODOLOGY

3.1 Overview

The assessment comprised two parts: a desktop study and a survey visit. All survey and assessment work has been completed in line with official guidelines produced by Natural England and the Chartered Institute for Ecology and Environmental Management, and British Standard document BS 42020: 2013 *'Biodiversity – Code of practice for planning and development.'*

The desktop study collated available public information regarding the biodiversity of the area, including the habitat structure of the site and surrounding area and the presence of any statutory or non-statutory designated sites, and any records of previously granted European Protected Species (EPS) mitigation licences in relation to certain species, using the Multi-Agency Geographic Information for the Countryside (MAGIC) resource. In addition, biological records within 1 km of the site were requested from the Environmental Records Information Centre North East (ERICNE), which included records of protected and notable species and any nearby non-statutory designated sites (Local Wildlife Sites, Sites of Importance for Nature Conservation, etc.) not available through MAGIC.

The objective of the survey was to determine the suitability of the site for roosting bats and check for any evidence of their presence. In accordance with good practice, the assessment would also ascertain if any other protected species may be using the site, document the habitats present and determine any potential ecological impacts during and following the completion of the works. The findings of the assessment would identify the need for any additional survey effort, mitigation measures and/or compensation to be incorporated into the proposed works. All survey work would be completed under suitable weather conditions and by an experienced ecologist.

The survey work and the preparation of this report has been conducted by ecologist Tom Richardson BSc Hons who is experienced in carrying out ecological assessments.

3.2 Survey Area

The application site is located at Grid Reference NZ41161172 and can be accessed via Worsall Road. The assessment focused on the application site, as well as all habitats in the immediate surrounding area (where access was available).

Figure 2. Location of the surveyed area. Site boundary is shown by the red line.

(Image taken from Google Earth Pro: ©2020 Google)

3.3 Survey Constraints

There were no constraints with regards to site access or completion of the survey objectives across the site.

3.4 Site Assessment

The survey was carried out on Friday 4th February 2022 and consisted of an assessment of the habitats on site to determine their suitability for roosting bats. An assessment of the on-site building was carried out in order to identify the presence of any potential roost features (PRFs) for bats, and/or evidence of roosting bats, in accordance with the current Bat Conservation Trust (BCT) survey guidelines (Collins, 2016). An external inspection of the building was carried out, focussing on features that may provide roosting opportunities or access points to roosting features internally, such as the roof and gable ends. An internal inspection was also carried out, with any roof spaces present checked for any evidence of bats. The building was then categorised based on its assessed value for roosting bats, in accordance with the BCT guidelines, detailed in Table 1.

Table 1. Guidelines for assessing bat roosting potential of structures and trees.

Suitability	Habitat description	Further action required?
Negligible	Negligible habitat features on site likely to be used by roosting bats.	No further bat risk assessment effort or bat activity surveys are required.

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).	**Structures:** One bat activity survey is required to determine whether the structure is being utilised by roosting bats; this may be a dusk or dawn survey. This survey must occur between May and August. The discovery of a roosting bat during this single bat activity survey will require further survey effort.
	A tree of sufficient size and age to contain PRFs, but with none seen from the ground or features seen with only very limited roosting potential.	**Trees:** No further bat risk assessment effort or bat activity surveys are required.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection conditions and surrounding habitat, but unlikely to support a roost of high conservation status.	Two bat activity surveys are required to determine whether the structure or tree is being utilised by roosting bats; this should be comprised of one dusk and one dawn survey. One survey must occur between May and August.
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.	Three bat activity surveys are required to determine whether the structure or tree is being utilised by roosting bats; this should be comprised of one dusk and one dawn survey, with an additional survey (either dusk or dawn). Two surveys must occur between May and August.

Evidence of roosting bats includes: bat droppings in, around or below an entrance hole; staining around an entrance hole; audible squeaking at dusk or in warm weather; smoothening of surfaces around cavity or an entrance hole; distinctive smell of bats.

The assessment was completed using binoculars and a powerful torch. An endoscope was also available to check any small gaps/cracks for evidence of bats.

3.6 Other Wildlife

In accordance with good practice, the site and surrounding areas were assessed for their potential to support other protected and notable species and for the presence of any evidence of such. Based on the habitats present, the assessment was carried out with regard to badgers (*Meles meles*), great crested newts (GCNs) (*Triturus cristatus*), reptiles and nesting birds, as well as the presence of any invasive, non-native flora or fauna.

4 RESULTS

4.1 Desktop Study

4.1.1 Designated Sites

Statutory Designated Sites: Prior to the site survey being conducted, a desktop study was carried out to determine the presence of any statutory or non-statutory ecological designations on or near to the site, using the Multi-Agency Geographic Information for the Countryside (MAGIC) resource. There are no statutory designated sites within 1km of the site. The nearest statutory designated site is located 3.7km NE which is identified as a Local Nature reserve Barwick Pond (Ref: 1082942, 0.44ha).

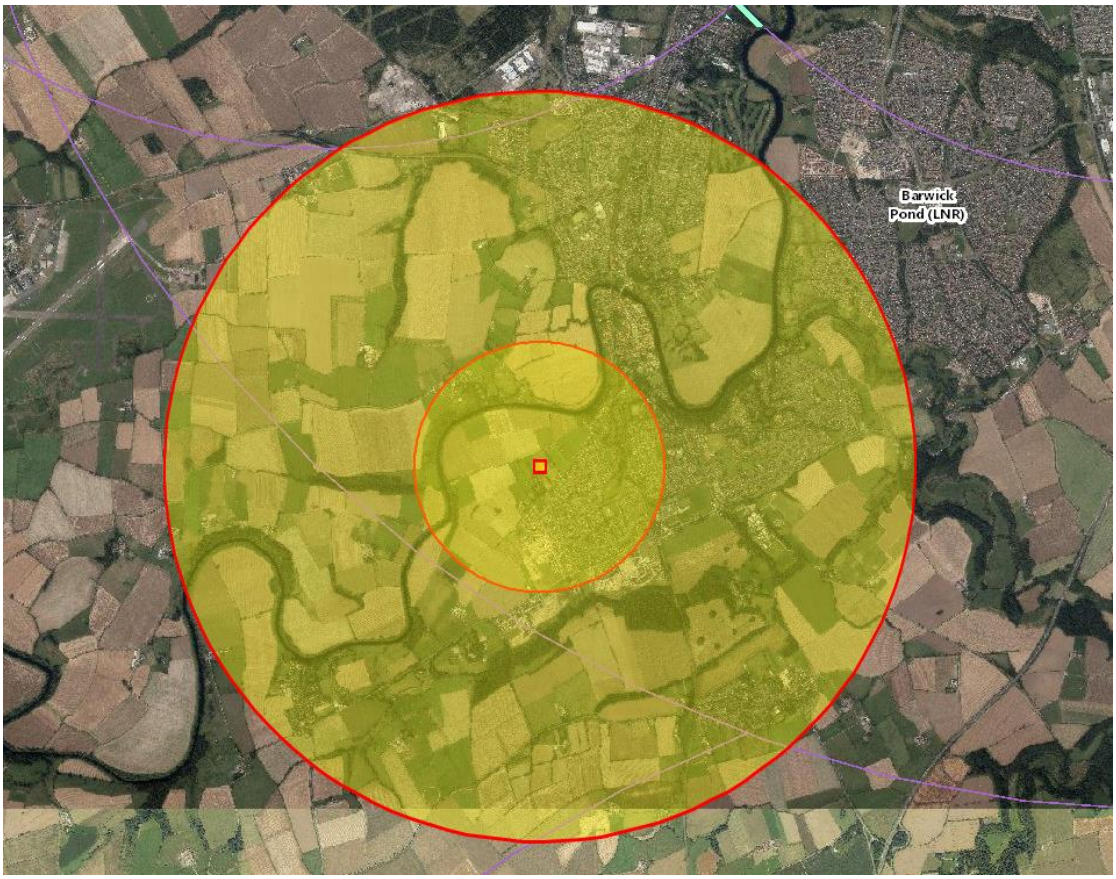

Figure 3. Location of the surveyed site in relation to the surrounding designated sites.

(© Crown Copyright and MAGIC database rights 2020. Ordnance Survey 100022861).

Due to the location of the statutory sites in relation to the works, which are limited to a small footprint, there will be no direct or indirect impact towards the sites.

Non-statutory Designated Sites: Within 1km of the site there is one non-statutory designated site which consists of a Community Forest (Groundwork North east). Due to the location of the non-statutory sites in relation to the works, which are limited to a small footprint, there will be no direct or indirect impact towards the sites.

Notable Habitats: Within 1km there are four notable habitats (Figure 4). Those habitats were: Intertidal Substrate Foreshore, Ancient Woodland, Deciduous Woodland and Traditional Orchards. Due to the location of the notable habitats in relation to the works, which are limited to a small footprint, there will be no direct or indirect impact towards the sites.

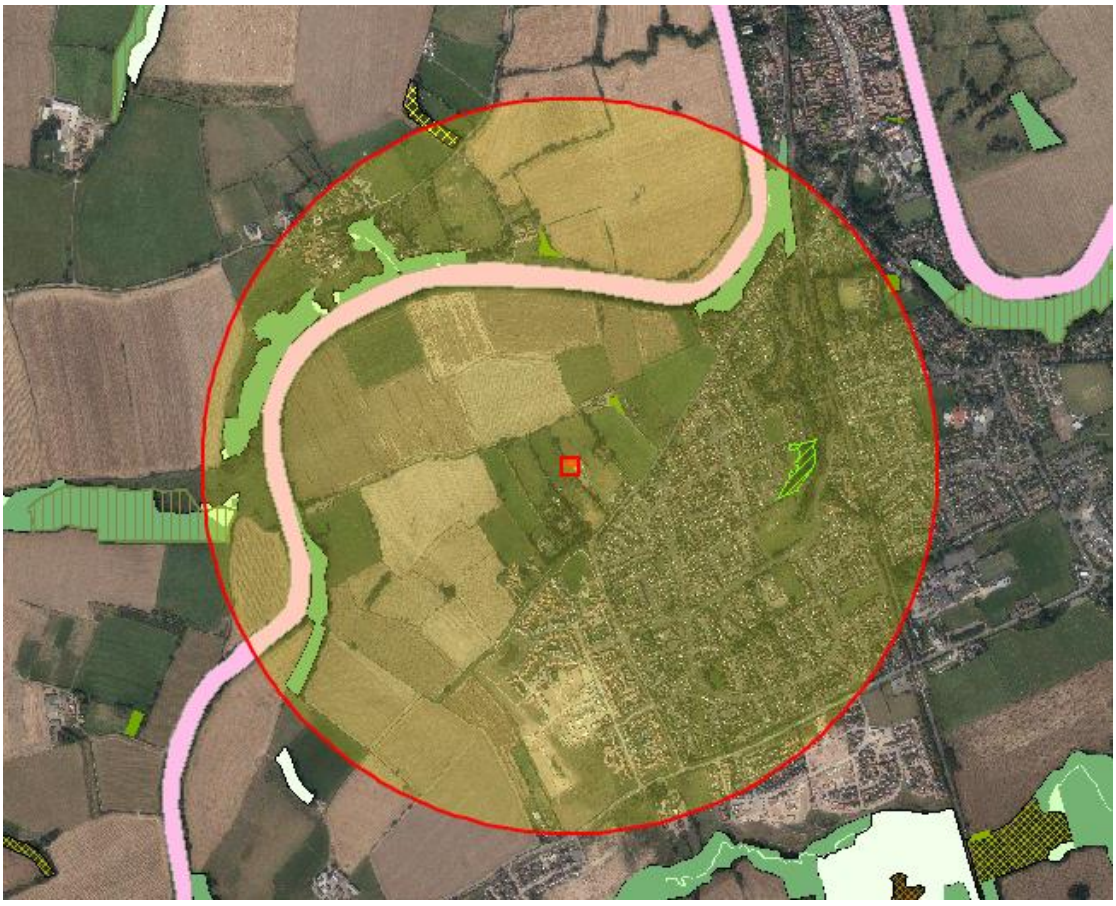

Figure 3. Location of the surveyed site in relation to the surrounding designated sites.
(© Crown Copyright and MAGIC database rights 2020. Ordnance Survey 100022861).

4.1.2 Biological Records

Naturally wild requested biological records from the Environmental Records Information Centre North East (ERICNE). Once the data has arrived, this report will be amended and any further mitigation and compensation will be amended.

4.2 Bat Risk Assessment

4.2.1 On-Site Assessment

The site comprised of a single-story barn constructed of breezeblock and red brick foundation with a wooden beam structure, clad externally in wood and a corrugated sheet roof. The value of these habitats to bats for roosting, foraging and commuting activities are discussed below.

Buildings: A total of one building was present on the site and was assessed for its value to support roosting bats. The results of this assessment are summarised in Table 2.

Table 2. Building descriptions and assessment of bat roosting suitability.

Building Ref.	Description	Assessment	Roosting suitability
B1	Breezeblock and red brick outbuilding with a pitched, corrugated sheet roof. Building was not rendered internally and roof was unlined. The building was cladded with wooden panels and had a wooden beam structure.	In relatively good structural condition. There were some access points in the wooden cladding and at doorways. However, it was cold and draughty internally, no gaps in brickwork. The barn due to the skylights and general openness, allowed significant light internally. In addition, there was no evidence of bats.	Negligible

4.2.2 Off-Site Assessment

Offsite habitat included residential dwellings towards the south of the site and arable/improved grassland to the north and west.

Improved grassland and arable fields are typically of low ecological value due to the management cycle they undergo, preventing a suitably mature assemblage of vegetation from developing, which in turn provides sub-optimal conditions for a range of UK wildlife. The associated hedgerows and trees can provide suitable shelter, commuting, and foraging habitat for birds and bats, as well as commuting and sheltering habitat for small mammals and amphibians. The trees present within hedgerows or as standard trees in the surrounding area can provide suitable roosting opportunities depending on their life stage and condition.

Notwithstanding this, these habitats fall outside the red line boundary. As the proposed works will be restricted to the current site footprint, surrounding habitats will not be impacted either directly or indirectly by the proposed development plans.

4.3 Other Wildlife

The site was considered to be of negligible value for badgers and reptiles due to a lack of suitable sheltering habitat and potential for sett creation for badgers. Adjacent habitats were also considered to be of low to negligible value for these taxa for the same reasons. The surrounding grassland could provide suitable foraging habitat for badgers, but again was considered to be of limited value for sett creation. The works are expected to have a negligible impact on any of these species.

In terms of GCN, there are three small waterbodies within 500m from the site (figure 4). Unfortunately, due to access limitations a HSI score was therefore not undertaken. The site was considered to be of negligible value for GCN due to a lack of suitable sheltering habitat. Adjacent habitats were also considered to be of low to negligible value for this taxon for the same reasons. The nearest EPSL license for GCN is 2km and although hedgerows can be used for distribution, with the lack of surrounding habitat and with managed arable fields, it is highly unlikely that GCN will be in contact. Therefore, the works are expected to have a negligible impact on any of this species.

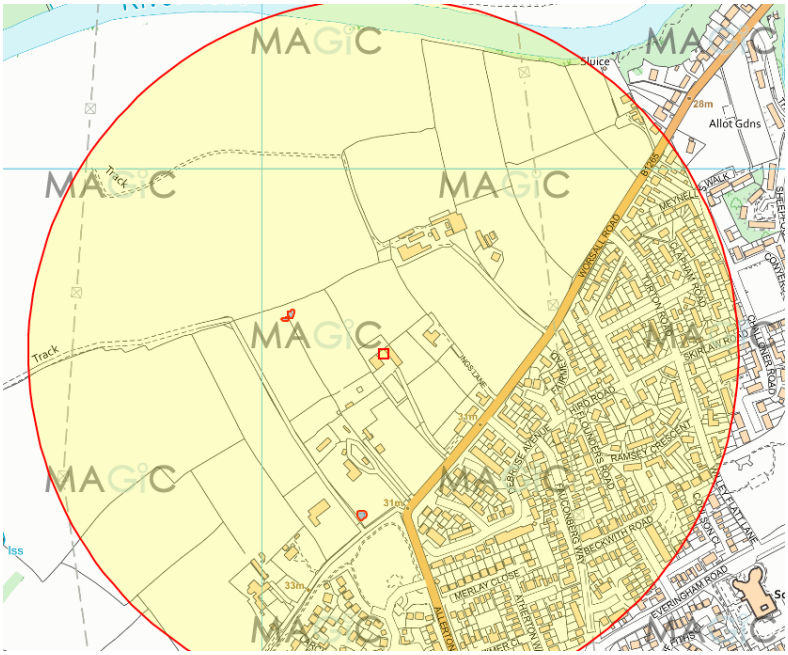

Figure 4. location of waterbodies 500m from site

(© Crown Copyright and MAGIC database rights 2020. Ordnance Survey 100022861).

However, the building was considered to have value for nesting birds. With the structural beams offering refuge for nesting birds, and in addition, multiple bird boxes around the outside of the building and an owl box withinside the main section of the barn. On the other hand, majority of the bird boxes outside were damaged which meant that the outside environmental elements would affect them. The owl box showed no signs of use, however this does not confirm absence.

Without appropriate mitigation and compensation, the works are expected to have a moderate to high impact on nesting birds at a site level, but a low impact at a wider level.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

Overall, the site was assessed as being of negligible value for roosting bats, however, it was considered to be low ecological value overall. The site offers suitable commuting and foraging habitat for bats in the form of semi-mature trees adjacent to the building adjoining the field to the north of the site. In addition, the site offers suitable foraging, commuting and nesting habitat for birds who would use the main structure as shelter. Following the site assessment and in review of the findings, Naturally Wild would recommend the following:

5.2 Mitigation Measures

- Due to the suitability of the building to support nesting birds, demolition/construction works should be carried out outside of the nesting season, which is defined as running from March to August, inclusive. If this is not feasible for any reason, a nesting bird survey must be carried out by a suitably qualified ecologist shortly prior to the start of works to ensure no active nests are present. In the event that any active nests are found during this survey or at any point during the works, a suitable exclusion zone should be put around the nest, with no work taking place in this area until such time as the nest can be confirmed as no longer active.

- Prior to demolition/construction works, the owl box will need to be examined by a licensed ecologist to check the presence of barn owls. Barn owls have the opportunity to utilise the box for breeding and are a schedule 1 species which means their breeding sites are protected. Should the box be found to be in use for breeding barn owls, then works will have to be delayed until the breeding season is over which is defined to March to august, inclusive.

- Any trenches or excavations created during construction works should be covered overnight or provide a means of escape for any nocturnal wildlife (such as badgers and hedgehogs) that may fall in and become trapped. A suitable means of escape would comprise a ramp with adequate grip, at least 30 cm wide and set at an angle of no greater than 45°

- Although GCN are considered highly unlikely to be encountered during the works, in the event any are found on site at any point, it is a legal requirement to stop work until such time as adequate further survey effort has been completed and an EPS mitigation licence has been obtained from Natural England to permit the remaining works.

- A sensitive lighting scheme should be implemented during and after construction to avoid indirect disturbance to foraging and commuting bats, birds and small mammals that may be using the mature and semi-mature trees and dry-stone wall and should include the following elements:

- Sensitive positioning of lighting to avoid unnecessary spill onto mature and semi-mature trees and any habitat enhancement features to be incorporated into the development (see below);

- Angle of lighting: avoidance of direct lighting and light spill onto areas of habitat that are of importance as commuting pathways and/or foraging areas;

- Type of lighting: studies have shown that light sources emitting higher amounts of UV light have a greater impact to wildlife. Use of narrow-spectrum bulbs that avoid white and blue wavelengths are likely to reduce the number of species impacted by the lighting;

- Reduce the height of lighting columns to avoid unnecessary light spill.

5.3 Enhancement Measures

- Any landscape planting should use native plant species that will enhance the ecological value of the site for local populations of invertebrates, birds, bats and small mammals.

Providing the recommendations of this report are implemented in full, Naturally Wild would conclude that there will not be a significant impact to bats or any other protected species as a result of the proposed works.

6 SITE IMAGES

Image 1.

Image 2.

Image 3.

Image 4.

Image 5.

Image 6.

Image 7.

Image 8.

Image 9.

Image 10.

7 BIBLIOGRAPHY & REFERENCES

- Amphibian and Reptile Groups of the UK (2010) *ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index.* Available: http://www.arguk.org/download-document/9-great-crested-newt-habitat-suitability-index-arg-advice-note-5
- British Standards Institution (2013) *BS 42020:2013. Biodiversity – Code of practice for planning and development*. British Standards Institution, London.
- CIEEM (2016) *Guidelines for Accessing and Using Biodiversity Data.* CIEEM, Winchester.
- CIEEM (2017a) *Guidelines for Preliminary Ecological Appraisal (2nd ed.)*. CIEEM, Winchester.
- CIEEM (2017b) *Guidelines for Ecological Report Writing (2nd ed.)*. CIEEM, Winchester.
- CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine,* version 1.1, CIEEM, Winchester.
- Collins, J. (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edn*. Bat Conservation Trust, London.
- The Conservation of Habitats and Species Regulations 2017 (as amended). https://www.legislation.gov.uk/uksi/2019/579/contents/made
- Cresswell, W. and Whitworth, R. (2004) *An assessment of the efficiency of capture techniques and the value of different habitats for great crested newts.* English Nature Research Reports 576. English Nature, Peterborough.
- European Commission (no date, a). Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. https://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm
- European Commission (no date, b) Council Directive 2009/147/EC on the conservation of wild birds. https://ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm
- Harris, S., Cresswell, P, and Jeffries, D. (1989) *Surveying Badgers*. Occasional Publication No. 9. The Mammal Society, London.
- The Hedgerows Regulations 1997 https://www.legislation.gov.uk/uksi/1997/1160/contents/made
- Joint Nature Conservation Committee (JNCC) (2010) *Handbook for Phase 1 Habitat Survey – a technique for environmental audit.* JNCC, Peterborough.
- Ministry of Housing, Communities and Local Government (2021) *National Policy Planning Framework*. Crown Copyright 2021. https://www.gov.uk/government/publications/national-planning-policy-framework--2
- Mitchell-Jones, A.J. (2004) *Bat Mitigation Guidelines.* English Nature, Peterborough.
- Multi-Agency Geographical Information for the Countryside (MAGIC). Crown Copyright and database rights [2021]. Ordnance Survey 100022861. Available at: http://www.magic.gov.uk/
- Natural Environment and Rural Communities (NERC) Act 2006 https://www.legislation.gov.uk/ukpga/2006/16/contents
- Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000) Evaluating the suitability of habitat for the Great Crested Newts (*Triturus cristatus*), *Herpetological Journal*, 10: 143-155.
- ODPM Circular 06/2005*. Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact Within the Planning System.* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf
- The Protection of Badgers Act (1992).
- Rose, F. and O'Reilly, C. (2006) *The Wild Flower Key*, Revised Edition. Penguin Books, London.
- The UK Biodiversity Action Plan. Available: http://jncc.defra.gov.uk/page-5155

- Wildlife and Countryside Act 1981 (as amended).
  https://www.legislation.gov.uk/ukpga/1981/69

8 APPENDICES

8.1 Additional Information for the Legislation of Other Protected Species

Badgers: The badger is geographically widespread across the UK; however, they are still vulnerable to baiting, hunting and detrimental impacts of development to their habitat. Both the badger and its habitat are protected under The Protection of Badgers Act 1992, Schedule 6 of the Wildlife and Countryside Act 1981 (as amended) an Appendix Three of the Bern Convention; therefore, badgers have legal protection against deliberate harm or injury and it is an offence to:

- Interfere with a badger sett by damaging or destroying it
- Kill, injure, take or possess a badger
- Cruelly ill-treat a badger
- Obstruct access to a badger sett
- Disturb a badger whilst it is in a badger sett

Nesting Birds: Birds receive protection under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally or recklessly kill, injure or take any wild bird; take, damage or destroy a nest of a wild bird whilst it is in use or being built; or to take, damage or destroy an egg of a wild bird. The bird-nesting season is defined as being from 1st March until 31st August with exceptions and alterations for some species.

Great Crested Newts: Great crested newts are protected under Schedule 2 of The Conservation of Habitats and Species Regulations. This species is also afforded full protection under the Schedule 5 of the Wildlife and Countryside Act 1981. Under such legislation it is an offence to:

- Intentionally or recklessly* kill, injure or capture a great crested newt;
- Possess or control any live or dead specimen or anything derived from a great crested newt;
- Intentionally or recklessly* damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt; and
- Intentionally or recklessly* disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.
- Damage or destroy a breeding site or resting place.
- Sell, barter, exchange or transport or offer for sale great crested newts or parts of them.

**Reckless offences were added by the Countryside and Rights of Way Act 2000, which applies only to England and Wales.*

To undertake surveys for great crested newts it is necessary to hold an appropriate licence issued by Natural England.

Reptiles: All native British species of reptile (of which there are 6) are listed on Schedule 5 of the Wildlife and Countryside Act 1981 and, as such, are protected from deliberate killing, injury or trade; therefore, where development is permitted and there will be a significant change in land use, a reasonable effort must be undertaken to remove reptiles off site to avoid committing an offence. The same Act makes the trading of native reptile species a criminal offence without an appropriate licence.

8.2 Development Plans