# Whitcher Wildlife Ltd.
# Ecological Consultants.

# BRIERLEY HALL BARN.

## OS REF: SE 41190 10841.

# PRELIMINARY ECOLOGICAL APPRAISAL.

**Ref No:** **191052.**

**Date:** **28th October 2019.**

Cliff Edge, Cliff Road, Darfield, Barnsley, S73 9HR.
Tel. 01226 753271. Fax. 01226 270993.
info@whitcher-wildlife.co.uk www.whitcher-wildlife.co.uk
Company No. 4401613.

# TABLE OF CONTENTS.


| | Page Number |
|---|---|
| **1. INTRODUCTION.** | **3** |
| **2. SURVEY METHODOLOGY.** | **4** |
| **3. SURVEY RESULTS.** | **7** |
| **4. EVALUATION OF FINDINGS.** | **16** |
| **5. RECOMMENDATIONS.** | **18** |
| **6. REFERENCES.** | **20** |
| **Appendix I. NESTING BIRD INFORMATION.** | **21** |
| **Appendix II. BAT INFORMATION.** | **22** |
| **Appendix III ANNOTATED MAP OF THE SURVEY AREA.** | **24** |
| **Appendix IV. TARGET NOTES.** | **25** |

# 1. INTRODUCTION.

1.1. There are plans to convert the barn at Brierley Hall into a dwelling.

1.2. Whitcher Wildlife Ltd has been commissioned to carry out a Preliminary Ecological Appraisal of the site in support of the planning application.

1.3. The site survey was carried out on 24th October 2019. This report outlines the findings of that survey and makes appropriate recommendations.

1.4. Appendices I and II of this report provide additional information on specific species and are designed to assist the reader in understanding the contents of this report.

**********

# 2. SURVEY METHODOLOGY.

2.1. Prior to visiting the site, the survey area was cross referenced to maps and aerial photographs to give a general idea of the habitats and potential issues within the area and to identify potential access and walking routes.

2.2. The survey area was walked where access was agreed and public rights of way were used where no access was agreed. All habitats within and immediately around the survey area were documented and the dominant species within that habitat listed in line with the JNCC Handbook for Phase 1 Habitat surveys.

2.3. The survey area and immediate surrounding area was thoroughly searched for evidence of badger (*Meles meles*) activity by looking for the following signs in line with Harris S, Cresswell P and Jefferies D (1989). *Surveying Badgers*. Mammal Society: -

* Badger setts.
* Badger latrines or dung pits.
* Badger snuffle holes and evidence of foraging.
* Badger paths.
* Badger prints in areas of soft mud.
* Badger hairs caught on fencing.

2.4. The survey area was searched for watercourses and where found all watercourses within the survey area and for approximately 50m in each direction were thoroughly searched for evidence of water vole (*Arvicola amphibius*) activity by looking for the following signs, in line with Rob Strachan, Tom Moorhouse and Merryl Gelling (2011). *Water Vole Handbook: Third Edition*: -

* Water vole burrows.
* Water vole faeces and latrines.
* Water vole feeding stations.
* Water vole runs.
* Water vole prints in areas of soft mud.
* Water vole lawns.
* Predator field signs.

2.5. The survey area was searched for watercourses and where found all watercourses within the survey area and for approximately 50m in each direction were thoroughly searched for evidence of otter (*Lutra lutra*) activity by looking for the following signs

in line with the P Chanin (2003). *Monitoring the Otter* and *Conserving Natura 2000 Rivers: Monitoring Series No10 Guidelines: -*

* Otter prints in soft mud.
* Otter spraints.
* Otter Holts.

2.6. The survey area was searched for watercourses and waterbodies. Where found, and where safe to enter the water, all were thoroughly searched for the presence of crayfish, for approximately 50m in each direction of the site, by searching under rocks and logs. Where stated, crayfish traps were also deployed into the watercourse. All survey work was carried out in accordance with the *Conserving Natural 2000 Rivers Monitoring Series No 1, Protocol for Monitoring the White Clawed Crayfish*.

2.7. The survey area was searched for mature trees and derelict buildings and where found these were checked for potential bat roosting sites in line with Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)* by looking for the following signs: -

* Holes, cracks or crevices.
* Bat Droppings.

2.8. The land immediately adjacent to the survey area was assessed for bat roosting potential and bat foraging potential. Connective routes and flight lines were also assessed whilst on site and using maps of the area.

2.9. The area within 500m of the survey site was cross referenced to maps to highlight all ponds close to the site. Where possible, all ponds identified were accessed using agreed access or public rights of way to assess the potential for great crested newts (*Triturus cristatus*) to be present.

2.10. The survey area was assessed for the potential for reptiles and suitable reptile habitats. Where applicable the area was also searched for the presence of reptiles.

2.11. Where appropriate, the habitat within and surrounding the survey area was searched for species such as hazel, oak, honeysuckle, bramble and other species which may provide potential habitat for hazel dormice (*Muscardinus avellanarius*). Field signs such as feeding remains and nests were also searched for where possible, in line with P Bright, P Morris and T Mitchell-Jones *the Dormouse Conservation Handbook 2nd Edition*.

2.12. Where appropriate, the area within and surrounding the survey area was assessed for its potential to house habitat for red squirrels. Field signs of red squirrels were searched for at least every 50m, looking for any dreys, feeding signs or sightings of red squirrels.

2.13. All surveys were carried out in line with the Chartered Institute of Ecological and Environmental Management (CIEEM) survey standards and advice.

2.14. This document is prepared in line with The National Planning Policy Framework (NPPF). This sets out the government policy on biodiversity and nature conservation and places a duty on Planning Authorities to give material consideration to the effect of a development on legally protected species when considering planning applications. The NPPF and the Planning Practice Guidance on "Natural Environment" also promote sustainable development by ensuring that developments take account of the role and value of biodiversity and that it is conserved and enhanced within the development.

2.15. This report is prepared in line with the Natural Environment and Rural Communities (NERC) Act that came into force on 1st Oct 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England.

2.16. The survey was undertaken by Derek Whitcher who has over twenty years' experience of surveying for wildlife and has run his own wildlife consultancy since 1998. He has extensive experience of a wide variety of survey techniques for a variety of species of protected wildlife supplemented by attendance on a wide range of training courses through CIEEM, FSC and BCT. As a member of CIEEM he is committed to continuous professional development, a continual process of learning and career development, a condition of CIEEM membership. He holds current Natural England survey licences for barn owl, bat, great crested newt and white clawed crayfish.

**********

# 3. SURVEY RESULTS.

## 3.1. Data Search Results.

### 3.1.1. Barnsley Biological Records Centre Results.

3.1.1.1. A desktop data search for existing records of protected species or designated sites within 2km of the surveyed area was submitted to Barnsley Biological Records Centre (BBRC).

3.1.1.2. No records of designated sites were returned.

3.1.1.3. Abundant bird, flowering plant and insect records were returned. There were only three bat records and these were all Pipistrelle records away from the site, here were no reptile records and five records of common toad and common frog, all prior to 2013 and mostly from the Grimethorpe area. There were no species records relevant to the survey area.

3.1.1.4. The data search results cannot be placed in the public domain but are available to the client on request.

### 3.1.2. South Yorkshire Bat Group Data Search Results.

A separate bat survey and report was carried out by others. Therefore, no data search was carried out with the bat group in connection with this survey.

### 3.1.3. South Yorkshire Badger Group Data Search Results.

South Yorkshire Bat Group hold no records of badger setts close to the site. The closest record lies 3km southeast of the site. The data search results cannot be placed in the public domain but are available to the client on request.

### 3.2. The Surveyed Area.

3.2.1. The aerial photograph below shows the location of the site shown by the red arrow, and the surrounding area. The site is located to the south of Brierley village with a large area of farmland to the southeast.



3.2.2. The site itself consists of the Brierley Hall and gardens with the barn at the western side of the site. The barn is shown marked with the red arrow.



3.2.3. The actual survey area comprised the barn and the surrounding area that will be the curtilage of the converted barn. The photograph below looks across the site from the southeast corner of the site.



### 3.3. Description of Habitats.

Appendix III of this report contains an annotated map marked up with the varying habitats that are cross referenced to target notes in Appendix IV of this report. The habitats on and adjacent to the site are: -

- Amenity Grassland.
- Semi-Improved Grassland.
- Scattered Trees.
- Species Poor Hedgerow.
- Wall.
- Fence
- Bare Ground
- Building

#### 3.3.1. Amenity Grassland

3.3.1.1. There is a small rectangular area of lawn to the southeast of the barn. This is closely mown and therefore it was difficult to identify the grass species. The dominant species are typical lawn species such as perennial ryegrass *(Lolium perenne)*, annual meadow grass *(Poa annua)*, Yorkshire fog *(Holcus lanatus)*, fescue *(Festuca sp)*, and common bent *(Agrostis capillaris)*, while other species include all the normal lawn weeds including Meadow Buttercup *(Ranunculus acris)*, Common Daisy *(Bellis perennis)*, White Clover *(Trifolium repens)*, with nettle and thistle against the barn wall.



### 3.3.2. Semi- Improved Grassland.

Much of the southern end of the site comprises a mixture of coarse grass, ruderals and stored materials. This has been categorised as semi- mature grassland as grass is the dominant species. Species present include perennial ryegrass *(Lolium perenne)*, annual meadow grass *(Poa annua)* and Yorkshire fog *(Holcus lanatus)*, while other species include Meadow Buttercup *(Ranunculus acris)*, nettles (*Urtica dioica*), rosebay willowherb (*Chamerion angustifolium*), herb Robert (*Geranium robertianum*), dandelion (*Taraxacum officinale)*, dock (*Rumex sp.)* and thistle (*Cirsium sp(p))* along with sapling buddleia (*Buddleia davidii*), ash (*Fraxinus excelsior*), and sycamore (*Acer pseudoplantus*).

### 3.3.3. Scattered Trees.

3.3.3.1. There is one large and mature tree in the corner of the amenity grassland. This is a lime (*Tilia vulgaris*) tree with some sparse ivy (*Hedera helix*) cover.





3.3.3.2. In addition, there are two trees just outside the southern site boundary fence. One of these is a mature poplar (*Populus sp.)* tree and the other a mature sycamore (*Acer pseudoplantus*).



### 3.3.4. Species Poor Hedgerow.

There is one hedgerow between the site and the adjacent Brierley Hall garden. This is a planted yew (*Taxus baccata*) hedge.



### 3.3.5. Wall.

There are various stone walls around the site, some marking the site boundary and others around the lawn.



### 3.3.6. Fence.

There is a boarded timber fence around the southern end site boundary.



### 3.3.7. Bare Ground.

There is a hard-standing track running north to south across the site. There is grass and weeds growing through this but it has been classed as bare ground for the purpose of this survey.

### 3.3.8. Building.

3.3.8.1. There are two buildings on the site, the barn and an outside store.

3.3.8.2. The barn is a two-storey stone barn with a pitched roof covered with stone slates. The southern end is open to the underside of the roof while the majority of the barn is two storeys with rooms on the ground floor.



3.3.8.3. A visual inspection of the barn was carried out. No bat field signs were found but there are opportunities for roosting bats and therefore the barn was assessed to have a low potential for roosting bats. No further surveys have been carried out as a separate bat survey was undertaken by others during 2019.

3.3.8.4. The second building is a free-standing stone store on one side and with an open log store on the other side, both under a pitched roof covered with interlocking cement tiles.



3.3.8.5. This store will be demolished as part of the development.

**3.4. Description of Fauna.**

3.4.1. No badger setts or badger field signs were found in the survey area. The nearest know badger sett is approximately 3km from the site.

3.4.2. There are no watercourses present on the site and there is therefore no habitat for water voles, otters or white clawed crayfish present on the site.

3.4.3. There are two buildings present on the site, the barn to be converted and a free-standing store that is to be demolished. No bat field signs were found during a brief internal and external inspection although the barn was assessed to have a low potential for roosting bats and the store was assessed to have negligible potential for roosting bats. Bat surveys of the barn were undertaken by others during 2019.

3.4.4. The mature tree on the site and the two immediately south of the site may have potential for roosting bats but none are to be affected by the proposed conversion works.

3.4.5. The woodland to the south of the site provides ideal bat foraging habitat while the habitat on site is quite open and is assessed to be of low value to foraging bats. The foraging habitat will be unaffected by the proposed conversion works.

3.4.6. There are no ponds on the site or shown on a map of the surrounding area that could provide breeding habitat for amphibians. The closest ponds are 1km to the south of the site.

3.4.7. The trees within and adjacent to the site provide opportunities for nesting birds during the nesting season, which extends from March to September each year. No nests were identified during this survey although a nesting bird survey was not undertaken.

3.4.8. The site is assessed to be unsuitable habitat for reptiles as the site is well tended lawns and hard standing with no opportunities for shelter or hibernation.

3.4.9. The site is assessed to be totally unsuitable habitat for hazel dormouse as it is located outside the natural range for the species.

3.4.10. The site is assessed to be totally unsuitable habitat for red squirrels.

3.4.11. There are no alien invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981) present on the site.

**********

# 4. EVALUATION OF FINDINGS.

4.1. There are no statutory designated sites, Local Nature Reserves or Local Wildlife sites on or adjacent to the site. The proposed development will have **No Negative Impact** on such designated sites.

4.2. There is one Priority Habitat as listed under the NERC Act 2006 on the site, the hedgerow on the Hall side of the fence that will be retained. There will be **No Negative Impact** on NERC Priority Habitats.

4.3. There is one large and mature tree on the site and two adjacent to the site. None of these trees will be affected by the proposed new dwelling and there will therefore be **No Negative Impact** on mature trees.

4.4. The habitat to be affected by any proposed development is a predominantly the existing barn and a small area of bare ground. These are assessed to be of low ecological value and there will therefore be a **No Negative Impact** as a result of loss of these habitats.

4.5. No badger setts or badger field signs were found on the site and the site is unsuitable for badgers. Therefore, there will be **No Negative Impact** on the species.

4.6. There are no watercourses on the site and therefore no habitat for water voles, otters or white clawed crayfish. There will be **No Negative Impact** on these species as a result of the proposed development.

4.7. There are no ponds on or adjacent to the site to provide potential habitat for breeding amphibians. The proposed development of the site will have **No Negative Impact** on amphibians and great crested newts.

4.8. There are no buildings present on the site to provide habitat for roosting bats. The stone barn has potential for roosting bats but surveys carried out by others showed there to be no roosting bats present. The free-standing store that will be demolished has negligible potential for roosting bats. Therefore, there will be **No Negative Impact** on roosting bats.

4.9. There is one large and mature lime tree on the site that may provide opportunities for roosting bats, but this is to be retained unaffected by the proposed new dwelling. Therefore, there will be **No Negative Impact** on roosting bats in trees.

4.10. The habitat on site that will be affected by the proposed new development is assessed to be low value bat foraging habitat and therefore the development will have **No Negative Impact** on foraging and commuting bats.

4.11. The trees and hedgerow within the survey area provide nesting habitat for birds during the nesting season, which extends from March to September each year. Any vegetation clearance during the nesting season will potentially have a **Negative Impact** on any nesting birds present.

4.12. The site is assessed to be totally unsuitable for reptiles and therefore, there will be **No Negative Impact** on reptiles as a result of the proposed development.

4.13. The site is assessed to be totally unsuitable habitat for hazel dormouse, outside the natural range of the species. The proposed development will have **No Negative Impact** on the species.

4.14. The site is assessed to be totally unsuitable habitat for red squirrels, with no suitable habitat present on the site. There will be **No Negative Impact** on the species.

4.15. No alien, invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981) were found on the site. There will be **No Negative Impact** on the spread of such plants as a result of the works.

**********

# 5. RECOMMENDATIONS.

5.1. It is recommended that any vegetation clearance is carried out outside the nesting bird season, which extends from March to September each year. Any vegetation clearance during the nesting season should be preceded by a nesting bird survey and any active nests identified must remain undisturbed until the young have fledged.

5.2. It is recommended that the remaining mature trees on the site are retained as planned. If this changes, further bat assessments of the trees are recommended to determine whether there are bat roosts present. This could be by a tree climbing survey at any time of year or by a dusk emergence survey between May and August when bats are active.

5.3. No bats or bat field signs were identified in the store and the building was assessed to have negligible potential for roosting bats. Nevertheless, individual crevice dwelling bats can seek temporary shelter almost anywhere so it is recommended that this building is demolished with sue care and in the very unlikely event a bat is found, the bat should be protected from harm, work should cease and the undersigned contacted for further advice.

5.4. In line with the National Planning Policy Framework, it is recommended that biodiversity enhancements are provided on the site.

5.4.1. It is recommended that locally sourced native species are used in any landscape planting on the site.

5.4.2. It is recommended that one integrated bat brick is installed in the walls of the new dwelling to provide additional bat roosting opportunities.

5.4.3. It is recommended that a selection of nest boxes be provided on the walls and trees around the site to provide additional nesting opportunities.

**********

| Prepared by: | |
|---|---|
| Derek Whitcher, BSc, MCIEEM, MCMI | Date: 28th October 2019. |

| Checked by: | |
|---|---|
| Jenny Roebuck, MCIEEM. | Date: 31st October 2019. |

# 6. REFERENCES.


Chartered Institute of Ecology and Environmental Management. 2017. ***Guidelines for Preliminary Ecological Appraisal, Second Edition.*** CIEEM, Hampshire.

Chartered Institute of Ecology and Environmental Management. 2017. ***Guidelines for Ecological Report Writing, Second Edition.*** CIEEM, Hampshire.

1981. ***Wildlife and Countryside Act.*** *http://www.legislation.gov.uk/ukpga/1981/69* (accessed 18/02/16)

2000. ***Countryside and Rights of Way Act.*** *http://www.legislation.gov.uk/ukpga/2000/37/contents.*

2017. ***The Conservation of Habitats and Species Regulations.*** *http://www.legislation.gov.uk/uksi/2010/490/contents/made.*

2012. ***National Planning Policy Statement.*** *https://www.gov.uk/government/publications/national-planning-policy-framework--2*

Anon. 1995. ***Biodiversity: the UK Steering Group report. Vol 2: Action Plans.*** HMSO, London.

Joint Nature Conservation Committee. 2004 (ed.). ***Handbook for Phase 1 habitat survey: A technique for environmental audit.*** JNCC, Peterborough.

1992. ***Protection of Badgers Act.*** *https://www.legislation.gov.uk/ukpga/1992/51/contents.*

Harris S, Cresswell P and Jefferies D. 1989. ***Surveying Badgers.*** Mammal Society. London.

Strachan R, Moorhouse T, Gelling M. 2011. ***Water Vole Handbook***. 3rd edition. WILDCRU (Wildlife Conservation Research Unit), Oxford.

Chanin P. 2003(a). ***Ecology of the European Otter.*** Conserving Natura 2000, Ecology Series No.10. English Nature, Peterborough.

Chanin P. 2003(b) ***Monitoring the Otter Lutra lutra.*** Conserving Natura 2000 Rivers Monitoring Series No. 10. English Nature, Peterborough.

Peay S. 2003. ***Monitoring the White-Clawed Crayfish Austropotamobius pallipes.*** Conserving Natura 2000 Rivers Monitoring Series No. 1. English Nature, Peterborough.

English Nature. 2001. ***Great Crested Newt Mitigation Guidelines.***

Langton T, Beckett C, Foster J. 2001. ***Great Crested Newt: Conservation Handbook.*** Froglife, Suffolk.

Oldham et al. 2000. ***Great Crested Newt Habitat Suitability Assessment. ARG UK Advice Note 5, May 2010.***

Collins J. (ed.) 2016. ***Bat Surveys for Professional Ecologist: Good Practice Guidelines.*** 3rd ed. The Bat Conservation Trust, London.

English Nature. 2004. ***Bat Mitigation Guidelines.*** English Nature, Peterborough, UK.

BOCC4 Eaton et al. 2015. ***Birds of Conservation Concern 4: The Population Status of Bird's in the UK, Channel Islands and Isle of Man.***

Joint Nature Conservation Committee. 2004. ***Common Standards Monitoring Guidance for Birds.*** 2004 ed. JNCC, Peterborough.

Froglife. 1999. ***Froglife Advice Sheet 10: Reptile Survey.*** Froglife, London.

Bright P, Morris P, Mitchell-Jones T. 2006. ***The Dormouse Conservation Handbook*** 2nd edition. English Nature, Peterborough.

Joint Nature Conservation Committee. 2004 (ed.). ***Common Standards Monitoring Guidance for: Reptiles and Amphibians.*** JNCC, Peterborough.

Joint Nature Conservation Committee. 1996. ***UK Strategy for Red Squirrel Conservation.*** JNCC, Peterborough.

# Appendix I. NESTING BIRD INFORMATION.

***Ecology***

The nesting season will vary according to the weather each year but generally commences in March, peaks during May and June and continues until September. It is also worth remembering that some birds nest in trees and scrub, but others are ground nesting or prefer man- made structures or buildings.

***Surveys***

Nesting bird surveys search for potential nest sites in vegetation, buildings etc. Potential nesting sites are observed over a suitable period of time for bird movements or calling male birds that would indicate the presence of a nest. The presence of a nest can be identified from the field signs without the necessity to see the nest itself, thereby avoiding any disturbance of the nests. The best way to avoid this issue is to plan for vegetation clearance to be carried out outside the bird-nesting season.

***Legislation***

Nesting birds are protected under The Wildlife and Countryside Act 1981.

Part 1. -(1) Of the Act states that: - If any person intentionally: - kills, injures or takes any wild bird; takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or takes or destroys an egg of any wild bird, he shall be guilty of an offence.

Part 1. -(5) of the Act states that: - If any person intentionally: - disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on, or near a nest containing eggs or young; or disturbs young of such a bird, he shall be guilty of an offence and liable to a special penalty.

The Countryside and Rights of Way Act 2000 amends the above by inserting after “intentionally” the words “or recklessly”.

# Appendix II. BAT INFORMATION.

***Ecology***

There are currently 18 species of bat residing in Britain, 17 of which of which are known to breed here. They are extremely difficult to identify in the hand and even more so in flight.

All appear to be diminishing in numbers, probably due to habitat change and shortage of food, caused by pesticides, as insects are their sole diet.

As their diet consists solely of insects, bats hibernate during the winter when their food source is at its most scarce. They will spend the winter in hollow trees, caves, mines and the roofs of buildings.

Certain species, particularly the pipistrelle (the commonest and most widespread British bat) can quickly adapt to man-made structures and will readily use these to roost and to rear their young.

***Surveys***

During walkover surveys, bat roosts can be identified by looking for:

- Suitable holes, cracks and crevices within any building, tree or other structure.
- Bat droppings along walls, window cills, or on the ground.
- Prey remains, such as insect wings.

Further investigations can be made using endoscopes, by carrying out aerial inspections of trees or by conducting bat activity surveys during dusk and dawn over summer months.

***Legislation***

Bats are protected under Appendix II and III of the Bern Convention (1982), Schedule 5 and 6 of the Wildlife and Countryside Act (1981), Annex IV of the Habitats Directive (some species under Annex II), Annex II of the Conservation of Habitats and Species Regulations (2010) and EUROBATS agreement. Numerous species are

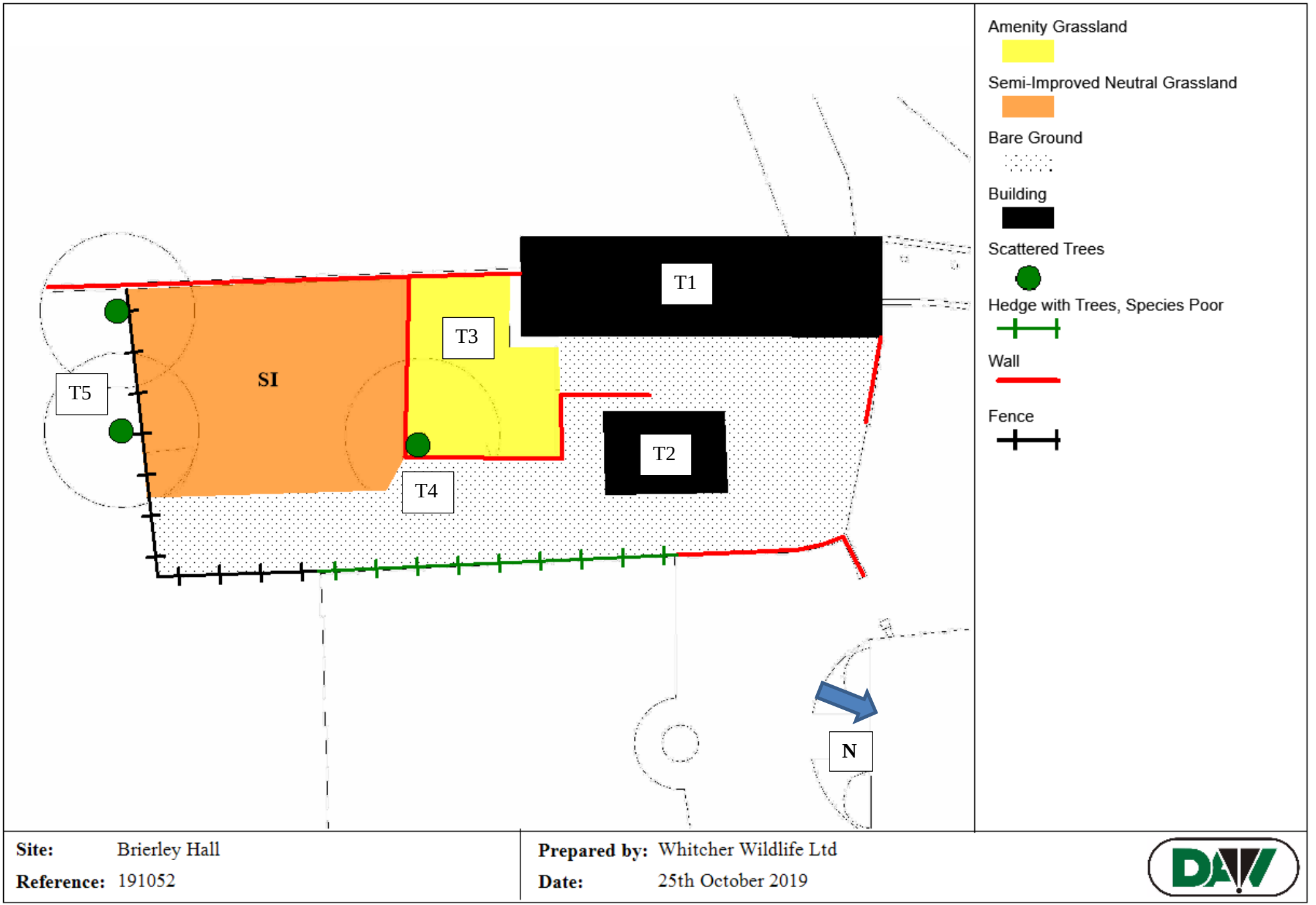
also listed under section 41 of the Natural Environment and Rural Communities Act (2006) making them species of principal importance.

All bats and their roosts are therefore protected in the UK. This makes it an offence to kill, injure or take any bat, to interfere with any place used for shelter or protection, or to intentionally disturb any animal occupying such a place.

The UK has designated maternity and hibernacula areas as Special Areas of Conservation (SAC's) under the Habitats Directive. Implementation of the UK Biodiversity Action Plan also includes action for a number bat species and the habitats which support them.

Where development proposals are likely to affect a bat roost site, a licence is required from Natural England.

# Appendix III. ANNOTATED MAP OF THE SURVEY AREA.




**Site:** Brierley Hall
**Reference:** 191052

**Prepared by:** Whitcher Wildlife Ltd
**Date:** 25th October 2019

# Appendix IV. TARGET NOTES.

T1. Barn.

T2. Store.

T3. Lawn.

T4. Lime Tree.

T5. Poplar and Sycamore Trees.