

**Whitcher Wildlife Ltd.
Ecological Consultants.**



56 HILL END ROAD, MAPPLEWELL.

OS REF: SE 333 092.

ECOLOGICAL IMPACT ASSESSMENT.

Ref No: 220528/EcIA/REV1.

Date: 8th January 2023.

TABLE OF CONTENTS.

	Page Number
1. INTRODUCTION.	3
2. SURVEY METHODOLOGY.	4
3. SURVEY RESULTS.	7
4. IMPACT ASSESSMENT, MITIGATION AND RESIDUAL EFFECTS.	18
5. BIODIVERSITY ENHANCEMENT MEASURES.	23
6. REFERENCES.	25
Appendix I. NESTING BIRD INFORMATION.	26
Appendix II. BAT INFORMATION	27
Appendix III. ANNOTATED MAP OF THE SURVEY AREA	29
Appendix IV. PROPOSED SITE PLAN.	31

1. INTRODUCTION.

1.1. An application is being prepared for the full replacement of an existing dwelling at 56 Hill End Road, Mapplewell.

1.2. Whitcher Wildlife Ltd has been commissioned to carry out a Preliminary Ecological Appraisal (PEA) of the site to establish whether there are any issues that may affect the proposed works.

1.3. That survey was carried out on 24th May 2022. A subsequent bat dusk emergence survey was carried out on 21st June 2022. Upon completion of those surveys Whitcher Wildlife Ltd were commissioned to prepare this Ecological Impact Assessment (EcIA) to support the planning application, which supersedes the initial PEA.

1.4. Appendix I and II of this report provides 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.

2.3. The survey area was searched for watercourses and where found all watercourses within the survey area and for approximately 100m in each direction were thoroughly searched for evidence of water vole (*Arvicola amphibius*) activity by looking for the following signs, in line with Dean M, Strachen R, Gow D and Andres R (2016). *The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series)*. Eds Fiona Mathews and Paul Chanin. The mammal Society, London: -

- * 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 trees and structures 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.

2.7.1. All survey work was carried out in line with Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)*, with an assessment of the buildings suitability for roosting bats made in accordance with these guidelines.

2.7.2. The subsequent dusk emergence survey was also conducted in accordance with Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)*. It was conducted by a sufficient number of surveyors to cover all areas of roosting potential, in suitable weather conditions from fifteen minutes before sunset to at least an hour and half after.

2.7.3. All surveyors were equipped with Batbox Duet bat detectors, or similar. Static recording devices such as Anabat SD2s were also utilised where appropriate.

2.7.4. 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.

2.8. 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.

2.9. 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.

2.10. 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*.

2.11. 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.

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

2.13. 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.

2.14. 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.

2.15. The initial site survey was carried out by Jess Mason BSc. Since 2018 Jess has had experience in a professional capacity as an Ecologist carrying out ecology surveys and phase I habitat surveys. Jess holds Scottish Natural Heritage survey licences in respect of barn owls. She has also successfully completed a number of courses run by FSC in the relative protected species and carrying out phase I habitat surveys and is studying for a MSc in Biological Recording.

2.16. The subsequent bat dusk emergence survey was carried out by Jess Mason BSc and Ruth Georgiou BSc, MCIEEM. Since 2004 Ruth has had experience in a professional capacity as a Wildlife Consultant carrying out ecology surveys and phase I habitat surveys. As a full member of CIEEM Ruth is subject to peer review on an annual basis. Ruth holds Natural England survey licences in respect of bats, great crested newts and white clawed crayfish and has held her own or has been named ecologist on site specific licences for badgers, great crested newts and bats. She also holds a degree in Environmental Science (BSc) and has successfully completed a number of courses run by CIEEM, BCT and FSC in the relative protected species, carrying out phase I habitat surveys and BREEAM assessments.

3. SURVEY RESULTS.

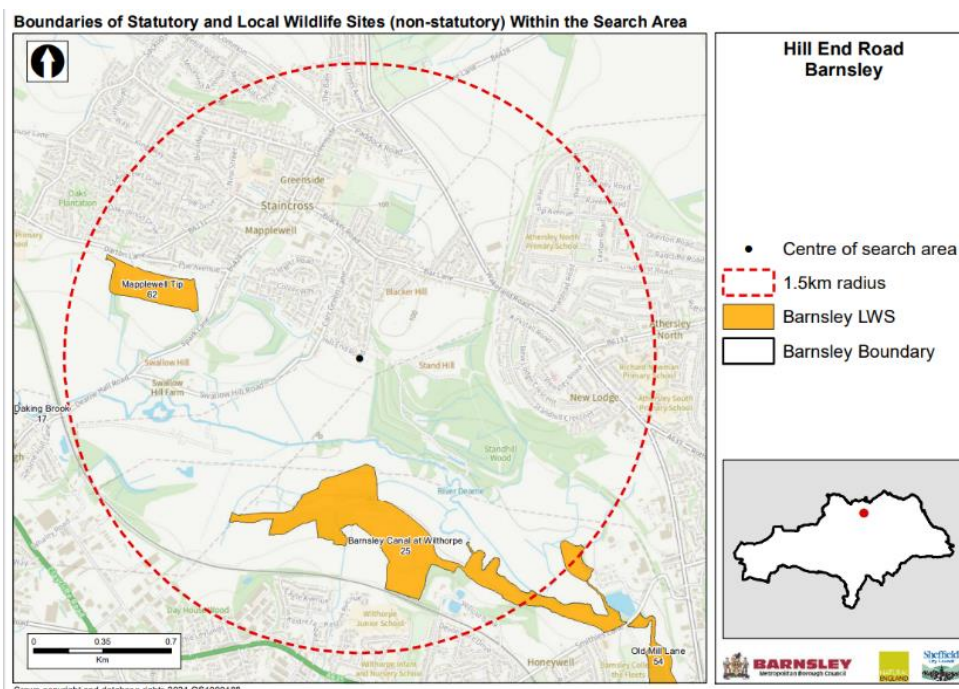
3.1. Data Search Results.

3.1.1. A data search was submitted to Barnsley Biological Records Centre for records of protected species and designated sites within 2km of the survey area.

3.1.2. The results show that there are no records of bat roosts or badgers within 1km of the survey area. There are also some occasional bird and plant species records in the area, and there are records of great crested newts, otters and water voles further afield.

3.1.3. None of these records are relevant to the survey area. To provide further context, the great crested newt records are within the disused Barnsley Canal and associated ponds located in excess of 550m south of the survey area. The River Dearne acts as a barrier to the movement of newts between the Barnsley Canal and any habitats within 500m of the survey area.

3.1.4. Details of two Local Wildlife Sites were returned from the data search. Both sites lie more than 500m from the survey area. The site also lies approximately 2km from the Notton Wood Local Nature Reserve. No other statutory designations or ancient woodland was found within 1km of the site.



3.1.5. A copy of the data search results can be provided to the client upon request but must not be placed in the public domain.

3.2. The Surveyed Area.

3.2.1. The survey area is located in the village of Mapplewell near Barnsley, South Yorkshire. The small, enclosed site is surrounded by residential properties to the north, and arable fields in all other directions.

3.2.2. The aerial map below shows the location of the survey area, in red, and the surrounding area.



3.2.3. The survey area comprises a residential building which is built with masonry blocks on the two rendered elevations and is stone-built facing south and west. The building is surrounded by gardens. The survey area is separated from the surrounding arable fields by hedgerows and fencing. The adjacent building, Hill End Farm, is also being planned for development, but this is not included within the scope of this preliminary ecological appraisal.

3.3. Description of Habitats.

3.3.1. Appendix III of this report contains annotated maps marked up with the varying habitats and Appendix IV contains the Habitat Condition Assessment tables. The habitats on and adjacent to the site are: -

- Building.
- Bare ground.
- Cultivated/disturbed land – amenity grassland.
- Introduced shrub.
- Hedge with trees – species-poor.
- Scattered trees.

3.3.2. *Building.*



3.3.2.1. An existing residential property built from stone with full rendering on one aspect and partial rendering on other aspects.

3.3.3. *Bare ground.*

3.3.3.1. A paved courtyard to the south of the building has been mapped as bare ground and contains no semi-natural vegetation.

3.3.4. Cultivated/disturbed land – amenity grassland.



3.3.4.1. The majority of the site comprises amenity grassland. The grassland was dominated by perennial rye (*Lolium perenne*) with smaller proportions of cocksfoot (*Dactylis glomerata*) and Yorkshire fog (*Holcus lanatus*), which had been mown short at the time of survey. Some areas had not been mown so had a taller sward height, but the species composition remained the same.

Condition Assessment Criteria	Condition Achieved (Y/N)
1 – Species per m ²	N
2 – Sward height	N
3 – Scattered scrub cover	Y
4 – Physical damage	Y
5 – Bare ground	N
6 – Bracken	Y
7 – Non-native species	Y
Condition Assessment Result	Condition Assessment Score
Passes 6 or 7 of 7 criteria including passing essential criterion 1	Good (3)
Passes 4 or 5 of 7 criteria including passing essential criterion 1	Moderate (2)
Passes 0, 1, 2 or 3 of 7 criteria; OR 4, 5 or 6 of criteria but failing criterion 1	Poor (1)

3.3.5. Introduced shrub.



3.3.5.1. A line of shrub had been planted along the boundary between the amenity grassland and bare ground, comprising *Buddleia* and *Clematis* among other ornamental garden species.

3.3.6. Hedge with trees – species-poor.



3.3.6.1. A hedgerow marks the boundary of the property, comprising hawthorn (*Crataegus monogyna*), holly (*Ilex aquifolium*), sycamore (*Acer pseudoplatanus*), and oak (*Quercus robur*), with a ground layer of nettle (*Urtica dioica*), cocksfoot (*Dactylis glomerata*), perennial rye (*Lolium perenne*), Yorkshire fog (*Holcus lanatus*), creeping buttercup (*Ranunculus repens*), cow parsley (*Anthriscus sylvestris*), and bramble (*Rubus fruticosus*).

Attributes and functional groupings	Condition Achieved (Y/N)
A1 – Height	N
A2 – Width	N
B1 – Gap – hedge base	N
B2 – Gap – hedge canopy	N

C1 – Undisturbed ground and perennial vegetation	N
C2 – Undesirable perennial vegetation	N
D1 – Invasive neophyte species	Y
D2 – Current damage	Y
E1 – Tree age	N
E2 – Tree health	Y
Condition categories for hedgerows with trees	
Category	Maximum number of attributes that can fail to meet ‘favourable condition’ criteria in Table TS1-2
Good	No more than 2 failures in total; AND No more than 1 failure in any functional group.
Moderate	No more than 5 failures in total; AND <u>Does not fail both attributes</u> in more than one functional group (e.g. fails attributes A1, A2, B1, C2 & E1 = Moderate condition).
Poor	Fails a total of more than 5 attributes; OR <u>Fails both attributes</u> in more than one functional group (e.g. fails attributes A1, A2, B1 & B2 = Poor condition).

3.3.7. Scattered trees.

3.3.7.1. Apple (*Malus domestica*), cherry (*Prunus avium*), honeysuckle (*Lonicera periclymenum*) and conifer trees were scattered throughout the amenity grassland.

Condition Assessment Criteria	Condition Achieved (Y/N)
1 – Native species	Y
2 – Tree canopy	N
3 – Mature/veteran trees	N
4 – Anthropogenic activities	N
5 – Micro-habitats	N
6 – Ground vegetation	Y
Condition Assessment Result	Condition Assessment Score
Passes 5 or 6 of 6 criteria	Good (3)
Passes 3 or 4 of 6 criteria	Moderate (2)
Passes 0, 1 or 2 of 6 criteria	Poor (1)

3.3.7.2. There was also a short coniferous tree line within the survey area.

Condition Assessment Criteria	Condition Achieved (Y/N)
1 – Native species	N
2 – Tree canopy	Y
3 – Mature/veteran trees	N
4 – Adjacent vegetation	N
5 – Tree health	Y
Condition Assessment Result	Condition Assessment Score
Passes 5 of 5 criteria	Good (3)
Passes 3 or 4 of 5 criteria	Moderate (2)
Passes 0, 1 or 2 of 5 criteria	Poor (1)

3.4. Description of Fauna.

3.4.1. No badger setts or badger field signs were identified within the survey area.

3.4.2. There are no watercourses within the survey area therefore there are no habitats present suitable for water voles, otters or crayfish.

3.4.3. There are no ponds within the survey area. Maps of the local area show that there are two ponds located within 500m of the survey area. The first is a pond approximately 300m to the west of the survey area. This pond was constructed as a part of the drainage system for the adjacent housing development during 2016. The pond has taken some time to establish and there is very little open water in the pond as vegetation has taken over much of the pond. In addition, the habitats around the pond have comprised bare ground for some time with a well-used cycle and foot path along the north side. It is therefore not ideal habitat for great crested newts and it is highly unlikely that great crested newts will have become established in this pond since it was constructed. In addition, this pond is separated from the survey area by roads, extensive arable fields and residential properties, which provide ecological barriers to great crested newts.

3.4.4. The second pond is a small pond located approximately 235m east of the survey area. This pond was visited during an unrelated site survey carried out by Whitcher Wildlife Ltd during 2022. This is a small pond contains some open water with a wide margin of peripheral vegetation, however it is located adjacent to a busy stable block and is completely enclosed by a track regularly used by vehicles and horses. The further surrounding habitats comprise mostly heavily grazed paddocks and regularly

disturbed bare ground/tracks. The pond has a Habitat Suitability Assessment score of 0.59, which is 'Below Average' suitability for great crested newts.

3.4.5. The habitats on the site could potentially provide some terrestrial value for great crested newts, however, with the lack of any suitable aquatic habitat within 500m it is assessed that great crested newts are absent from the site.

3.4.6. The building was inspected internally and externally for evidence of bats and potential roost features. The roof was in fairly good condition with no missing or cracked tiles. However, there were several small gaps within the mortar which could provide potential roost features for bats, as well as small gaps behind fascias. Internally, the roof was lined and appeared to be in good condition, so it is unlikely that bats are able to access the roof space. No evidence of bat roosts or activity was found within the roof space.



3.4.7. The building provides a small number of suitable opportunities for roosting bats, and therefore is assessed as providing **low** potential for roosting bats.

3.4.8. There are a number of trees within the survey area, but none of these display any potential bat roosting features and all are assessed as **negligible** potential for roosting bats.

3.4.9. The surrounding gardens, hedgerows and fields provided good foraging opportunities for bats. The tree lines and hedgerows lining the road to the north of the site and hedgerows bordering the fields provided suitable foraging habitat and commuting routes for bats. However, these will remain unaffected by the development.

3.4.10. The building itself did not provide suitable habitat for nesting birds due to the lack of access into the building. However, the hedgerows and trees within the survey

area provides ideal habitat for nesting birds during the breeding season. The amenity grassland appears to be regularly mown and is therefore unlikely to offer any suitable habitat for ground-nesting species.

3.4.11. The survey area is assessed to provide negligible potential for reptiles due to the grassland being regularly mown. There is no connectivity with potentially suitable habitats nearby.

3.4.12. There are no habitats suitable for hazel dormouse or red squirrel within the survey area, and the site lies outside the natural range for both these species.

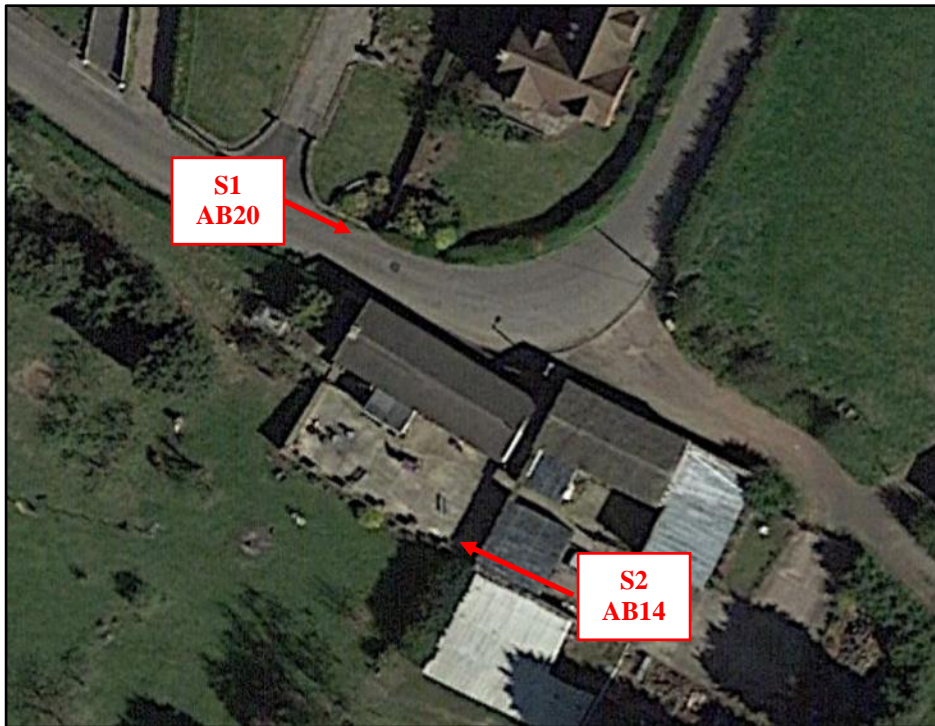
3.4.13. No invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981) were identified within the survey area.

3.4.14. The garden habitats within the survey area provide suitable habitat for commuting and foraging hedgehogs, although no hedgehogs or field signs have been identified during any of the site surveys.

3.4. Dusk Emergence Survey Results.

3.4.1. The dusk emergence survey was carried out by two surveyors on the evening of 21st June 2022. One surveyor holds a current Natural England class licence for surveying bats, licence number 2015-11823-CLS-CLS, and the other was an experienced assistant.

3.4.2. The surveyors were positioned around the building in order to be able to view all aspects of the building simultaneously. Each surveyor was equipped with a Batbox Duet detector and a two-way radio for communications. In addition, two static Anabat recorders were deployed to record bat activity for subsequent computer analysis using Analook software. The positions of the surveyors (S) and the Anabat recorders (AB) were as shown below.



3.4.3. The evening was fine, clear and still. There was a temperature of 18.5°C at 21:45, which dropped to 17.1°C at the end of the survey. The survey started at 22:25 and continued until 23:15 and sunset was at 21:39.

3.4.4. Surveyor 1 recorded three Common Pipistrelle bats throughout the whole survey. The first was seen to pass over at 22:55 from north to south. The other two were heard but not seen passing over at 22:12 and 22:17.

3.4.5. Surveyor 2 identified one Common Pipistrelle bat foraging over the garden to the south at 22:17.

3.4.7. The Anabat placed next to Surveyor 1 recorded one Common Pipistrelle bat call at 22:12. No other bat calls were recorded on either Anabats.

4. IMPACT ASSESSMENT, MITIGATION AND RESIDUAL EFFECTS.

4.1. Designated Sites.

4.1.1. Assessment.

The data search results show that the survey area does not lie within or have any habitat connectivity with the Local Wildlife Sites, which all lie more than 500m from the survey area. The proposed development of the site will have no impact on any designated sites.

4.1.2. Mitigation.

As the development will have no impact on any designated sites there is no requirement for any mitigation.

4.1.3. Residual Effect.

There will be no residual effects on any designated sites.

4.2. Habitats.

4.2.1. Assessment.

4.2.1.1. The survey area includes amenity grassland with an area of bare ground and a building, surrounded by hedgerows. The areas within the development plan are included in the Biodiversity Metric 3.1. below.

4.2.1.2. The baseline habitat Biodiversity Units (Bu) on the site was calculated at 1.19 Habitat Bu.

4.2.1.3. A baseline of 0.80 Hedgerow Bu was also calculated, as shown in the tables below. All hedgerows were similar in nature and all scored the same condition.

Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Biodiversity units
Developed land; sealed surface	0.046	V.Low	N/A - Other	0.00
Urban Tree	0.0163	Medium	Fairly Poor	0.10
Modified grassland	0.271	Low	Moderate	1.08
Introduced shrub	0.002	Low	Condition Assessment N/A	0.00
Total	0.34			1.19

Hedgerow type	Length (km)	Distinctiveness	Condition Assessment	Biodiversity units
Native hedgerow with trees	0.19	Medium	Poor	0.76
Line of trees	0.02	Low	Poor	0.04
Total	0.21			0.80

4.2.2. Mitigation.

4.2.2.1. The proposed development will replace the existing dwelling with another house on a different footprint on an area of amenity grassland on the site. This will require the removal of the exiting tree line and part of the existing hedgerow.

4.2.2.2. To mitigate for these losses, the lower garden areas will be enhanced, planted and managed to increase their biodiversity value. This will include the enhancing of the existing amenity grassland to create a neutral grassland that is in a 'fairly good' condition. This will be achieved by sewing of some wildflowers, managing the grassland in a way that allows the wildflowers to thrive whilst ensuring that scrub and other non-desirable species do not encroach into this grassland. The grassland will also be cut in a way that creates a varied sward height throughout.

4.2.2.3. Eighteen fruit trees will be planted to create a small orchard in the southeast corner of the site, as well as a number of native trees planted across the site.

4.2.2.4. There will be a loss of a small length of hedgerow and the line of trees will be removed, but to mitigate for this the retained hedgerow along the south and west

boundaries will be enhanced to improve the condition of the hedgerow from ‘poor’ condition to ‘moderate’ condition. This will be achieved by the planting of some additional native species to reduce the gaps at the base and canopy of the hedgerow and the hedgerow will be managed in a way that will allow it to grow to a height in excess of 1.5m.

4.2.2.5. The above measures will deliver 1.29 Habitat Bu and 0.81 Hedgerow Bu. This is a net gain of 8.71% habitat Bu and 1.34% Hedgerow Bu. This is demonstrated in the tables below that show the post-development calculations for the site.

Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Biodiversity units
Retained:				
Urban Tree	0.0163	Medium	Fairly Poor	0.10
Enhanced:				
Modified grassland	0.075	Low to Medium	Fairly Good	0.59
Created:				
Developed land; sealed surface	0.126	V.Low	N/A - Other	0.00
Modified grassland	0.07	Low	Moderate	0.24
Traditional orchards	0.045	High	Fairly Poor	0.28
Urban Tree	0.0203	Medium	Fairly Poor	0.07
Total				1.29

Hedgerow type	Length (km)	Distinctiveness	Condition Assessment	Biodiversity units
Retained:				
Native hedgerow with trees	0.04	Medium	Poor	0.16
Enhanced:				
Native hedgerow with trees	0.09	Medium	Poor to Moderate	0.65
Total	0.21			0.81

4.2.3. Residual Effect.

With the above mitigation in place, there will be an overall **positive residual impact at a site level.**

4.3. Species – Bats.

4.3.1. Assessment.

4.3.1.1. The building on the site was initially assessed as having low potential for roosting bats. A subsequent bat dusk emergence survey was carried out and no bats emerged from the building. The proposed works to the building will therefore have no impact on roosting bats.

4.3.1.2. There are a number of trees across the site and there is a requirement to remove a row of coniferous trees and one broadleaf tree. All these trees provide negligible potential for roosting bats therefore the felling of these trees will not impact on roosting bats.

4.3.1.3. The proposed development may result in the indirect impact on other trees on the site through noise and vibrations. All trees on the site provide negligible potential for roosting bats therefore there will be no impact on any bat roosts in trees.

4.3.1.4. The surrounding area provided good foraging habitat for bats, although very low levels of bat activity were observed during the bat dusk emergence survey carried out on the site. The surrounding habitats will not be impacted by the proposed development.

4.3.2. Mitigation.

4.3.2.1. No bat roosts were identified and therefore there is no requirement for any further surveys or a Natural England EPS licence. However, individual bats can roost almost anywhere for the occasional day therefore in the unlikely event that a bat is found during the works to the building, it will be kept safe and all works will stop until professional advice has been sought on how to proceed with the remaining works.

4.3.2.2. A sensitive external lighting scheme will be implemented, ensuring that any new lighting will be downward directional and will not be directed towards any hedgerows or trees across the site to ensure no fragmentation of bat foraging and commuting habitat.

4.3.3. Residual Effect.

With the above measures in place there will be **no negative residual impact on bats at a site level.**

4.4. Species – Nesting Birds.

4.4.1. Assessment.

There is some potential for nesting birds within the survey area, mostly in the hedgerows and scattered trees. The nesting bird season extends from March to September each year.

4.4.2. Mitigation.

Any vegetation clearance or site clearance works will be carried out outside the nesting bird season. If it is necessary to undertake these works within the nesting bird season, these works will be preceded by a nesting bird survey. Any active nests identified it will be left undisturbed until the young have fledged.

4.4.3. Residual Effect.

With the above mitigation measures in place there will be a **no negative residual impact** on nesting birds at a site level.

5. BIODIVERSITY ENHANCEMENT MEASURES.

5.1. In line with the NPPF some biodiversity enhancements for fauna species will be provided on the site.

5.2. This will be achieved by providing one integrated bat box and one pair of integrated universal swift boxes in the new house to be constructed on the site.

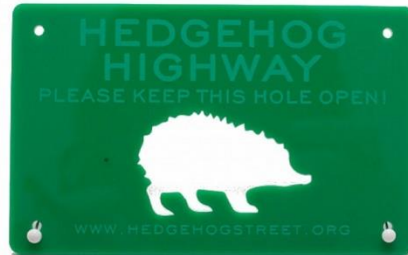
5.3. The bat box will be an integrated Habibat bat boxes with a custom facing to match the wall construction of the house, as shown below.



5.4. Two integrates universal swift nest boxes will also be in the gable end wall of the new house, similar to that shown below, but the type of box will be selected to match the wall construction of the house. Swift boxes have also been proven to be used by other small birds, including sparrows and therefore will cater for a variety of bird species.



5.5. Access for hedgehogs will either be retained or created across the garden in the form of 13x13cm (minimum) gaps along the bottom of the boundaries of the south and west of the garden habitat. These will be marketed with signs similar to the below.



5.6. A bee brick will be incorporated into the new house. This will be similar to the design shown below and will be incorporated into the south elevation wall of the new house at least 1m above ground level. This will cater for solitary bees such as red mason bees and/or leaf cutter bees, both of which are non-aggressive bee species.



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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 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.



Reference: 220528

Prepared by: Whitcher Wildlife Ltd

Site: Hill End House, Mapplewell

Date: 24th May 2022



