



**LAND AT JUNCTION OF BARNSELY ROAD
AND HAIGH LANE, HOYLANDSWAINE.**

OS REF: SE 26318 04749.

PRELIMINARY ECOLOGICAL APPRAISAL.

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TABLE OF CONTENTS.

	Page Number
1. INTRODUCTION.	3
2. SURVEY METHODOLOGY.	4
3. SURVEY RESULTS.	8
4. EVALUATION OF FINDINGS.	24
5. RECOMMENDATIONS.	27
6. REFERENCES.	29
Appendix I. BAT INFORMATION.	30
Appendix II. NESTING BIRD INFORMATION.	32
Appendix III. REPTILE INFORMATION.	33
Appendix IV. ANNOTATED MAP OF THE SURVEY AREA.	35
Appendix V. TARGET NOTES.	36

1. INTRODUCTION.

1.1. There are plans to develop an area of land at the junction of Barnsley Road and Haigh Lane at Hoylandswaine. The site is currently two houses and gardens, and the plans are to demolish the existing houses and replace with five new houses.

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

1.3. The site survey was carried out on 12th April 2021. A bat dusk emergence survey was recommended, and this was carried out on the 3rd June 2021. This report outlines the findings of the surveys and makes appropriate recommendations.

1.4. Appendices I to III 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 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: - (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 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. 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.

2.7.2. All surveyors were equipped with Batbox Duet bat detectors, or similar. The use of static recording devices such as Anabat SD2's and video cameras with infrared lights were also utilised were appropriate.

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. The survey area was searched for all alien invasive plant species as listed on Schedule 9 of the Wildlife and Countryside Act 1981. The location of all plants identified were recorded and listed within the survey report along with appropriate recommendations to avoid causing the plants to spread in the wild. All species were searched for, but the main species generally found under this category are Japanese knotweed, Giant hogweed, Himalayan balsam, Cotoneaster, Rhododendron and Japanese Rose.

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

2.15. 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.

2.16. 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.

2.17. This survey was carried out by Jenny Whitcher Roebuck MCIEEM. Since 2001 Jenny has had experience in a professional capacity as a Wildlife Consultant carrying out Ecology Surveys and Phase 1 Habitat surveys. Jenny holds Natural England Survey Licences in respect of bats, great crested newts, crayfish and barn owls, NRW and SNH Survey Licences in respect of bats and great crested newts. She has also successfully completed several courses run by the Chartered Institute of Ecology and Environmental Management (CIEEM), the Bat Conservation Trust (BCT) and the Field Studies Council (FSC) in the relative protected species, plant species and in carrying out Phase 1 Habitat Surveys. As a full member of CIEEM she is committed to continuous professional development, a continual process of learning and career development, a condition of CIEEM membership.

3. SURVEY RESULTS.

3.1. Data Search Results.

Desktop data searches were requested from Barnsley Biological Records Centre, South Yorkshire Bat Group and South Yorkshire Badger Group for records of protected species and designated sites within 2km of the survey area.

3.1.2. Barnsley Biological Records Centre.

3.1.2.1. The data search holds no records of protected species within or adjacent to the survey area. There are records of badger, hedgehog and various species of bat within 2km, although none of the records are relevant to the survey area.

3.1.2.2. There are no records of designated sites within or adjacent to the survey area. There are a number of Barnsley local wildlife sites within 2km, although the nearest site lies 775m to the southeast.

3.1.3. South Yorkshire Bat Group.

3.1.3.1. There are numerous records of bats and bat roosts within 2km of the survey area, although there are no records specific to the site. The nearest records lie 230m to the west. One is of a droppings in the classroom of a school in 2008 and two records of a bat care callout at the same location in 2016.

3.1.3.2. All other records lie over 550m from the survey area.

3.1.4. South Yorkshire Badger Group.

There is a healthy population of badgers within the area around Hoylandswaine, but no setts close to this site. The closest sett is approximately 450m from the site.

3.1.5. The full data searches are available to the client on request but must not be placed in the public domain.

3.2. The Surveyed Area.

3.2.1. The survey area is two houses and gardens on the northeast corner of the junction of Barnsley Road and Haigh Lane in Hoylandswaine. The aerial photograph below shows the survey area.



3.2.2. The aerial photograph below shows the survey area and wider surrounding area.



3.3. Description of Habitats.

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

- Amenity Grassland
- Scattered Trees
- Hedgerow, defunct, species poor
- Bare Ground
- Wall
- Building

3.3.2. Amenity Grassland

The majority of the site is lawn which contains perennial rye grass (*Lolium perenne*), annual meadow grass (*Poa annua*), dandelion (*Taraxacum officinale*), creeping buttercup (*Ranunculus Repens*), broad leaved willowherb (*Epilobium montanum*), dock (*Rumex sp.*), nettle (*Urtica dioica*), ivy (*Hedera helix*) with some bluebells (*Hyacinthoides non-scripta*) in the northeast corner, some raspberry (*Rubus idaeus*) in the northwest corner and clumps of daffodils (*Narcissus pseudonarcissus*) growing throughout the lawn.



3.3.3. Scattered Trees

There are a number of trees growing on the site, mainly around the site boundaries but some are growing within the site. All trees are semi-mature and are mainly silver

birch (*Betula pendula*) with some sycamore (*Acer pseudoplatanus*) and some small fruit trees that could not be identified.



3.3.4. Hedgerow, defunct, species poor

On the southern boundary to the east of the buildings is a well-managed hedgerow growing site side of the boundary wall, which is mainly laurel (*Prunus laurocerasus*) with some Leyland cypress (*Cupressocyparis leylandii*).



3.3.5. Bare Ground

There is a small area of bare ground at the rear of the buildings, although this is becoming overgrown with species from the amenity grassland habitat.

3.3.6. Wall

There is a stone wall boundary all around the site and there are small sections of stone wall within the gardens.



3.3.7. Building

There are several buildings on the site. These have been split into four, each given a number, and each described separately in section 3.4.4. below.



3.4. Description of Fauna.

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

3.4.2. No watercourses were identified within the survey area. Therefore, there is no habitat for water voles, otters or white clawed crayfish within the survey area.

3.4.3. Two ponds were identified within 500m of the survey area on an Ordnance Survey Map of the area.

3.4.3.1. One pond lies 250m to the southwest and is located in the grounds of a farm. Between this pond and the survey area is a large area of residential properties and roads.

3.4.3.2. The second pond lies 475m to the southeast and is a small pond in a small area of woodland. Between this road and the survey area is a large area of grazing land and the busy A628 main road, which will form a barrier to the movement of amphibians.

3.4.3.3. There are no records of great crested newts within the surrounding area and the terrestrial habitat between the ponds and the survey area has roads which are barriers to movement. Therefore, it is assessed that there will be no great crested newts within the survey area.

3.4.4. There are several buildings on the site. These have been split into four, each given a number, and each described separately below.



3.4.4.1. Building 1.

3.4.4.1.1. This is two semidetached houses in one building, which is two storey with a double pitched slate covered roof and stone walls. There is a small single storey porch on the eastern end and another on the northern side.

3.4.4.1.2. The section of the building at the southwest corner is occupied and the rest is empty and disused.



3.4.4.1.3. There are three loft spaces in the disused section of the building that could be accessed during this survey. In all loft spaces the roof has no lining and small gaps could be seen in the slates with small points of daylight shining through. The eaves in the loft spaces were well sealed with no daylight seen. An example of the lofts is shown below.



3.4.4.1.4. In the section of the building that is currently occupied there is no loft access.

3.4.4.1.5. The roof of the building is generally in good condition with only very small gaps present that could only be seen from small points of daylight internally. The ridge is well sealed.

3.4.4.1.6. The walls of the building are generally in good condition. However, at the southern side towards the eastern end there is a crack in the stonework. This appeared to be narrow for most of its length but was wider at the top by the window sill. No staining was seen but the crack could not be thoroughly inspected.

3.4.4.1.7. At the western end of the southern elevation there was a gap between the coping stones and gutter. No staining was seen but the crack could not be thoroughly inspected.



3.4.4.1.8. Therefore, due to these few features this building is assessed as providing **low** potential for roosting bats.

3.4.4.2. Building 2.

3.4.4.2.1. This is a small outbuilding constructed with brick walls with the northern wall rendered. The building has a sloping slate roof with stone coping stones at the ridge. There is a window on the front, which was boarded up and a door on the front that was locked. There was no access inside this building. On the rear was what appeared to have been a lean to greenhouse with low brick walls, a wooded frame and a sloping clear plastic corrugated roof but there were no windows in this frame.



3.4.4.2.2. No bats or bat field signs were identified around the exterior of the building and the building is very well sealed. This building is assessed as having **negligible** potential for roosting bats.

3.4.4.3. Building 3.

3.4.4.3.1. This is a single storey garage building with three wooden double doors on the front. The building has stone walls with a sloping, corrugated cement sheet roof. Internally the building is one room with wooden roof beams and no lining below the corrugated sheets.



3.4.4.3.2. Internally there are numerous holes in the stone walls. Some had cobwebs present, some had old bird's nests or were blocked and some showed daylight. The gaps that could be accessed were inspected and no bats or bat field signs were found. However, some holes could not be thoroughly inspected and there were gaps around the garage doors to allow bats and birds access inside.



3.4.4.3.3. No bats or bat field signs were identified. However, due to the holes inside that could not be thoroughly inspected it is assessed that this building provides **low** potential for roosting bats.

3.4.4.4. Building 4.

3.4.4.4.1. This is a single storey building between Building 1 on the north and Building 3 on the south side. The building has a brick wall at the front and a stone wall at the rear with a sloping slate covered roof and a small brick chimney. The building has a boarded window at the front and the door is sealed. There was no access inside during this survey. At the rear is a small door leading to a small coal shed, separate from the rest of the building.



3.4.4.4.2. The building is generally well sealed, however, there is a gap in the northern gable end where there are some lifted slates and a small gap in the ridge. This building is assessed as having **low** potential for roosting bats.

3.4.4.5. Numerous scattered trees were present on the site but there were no features present in these trees to provide bat roost potential.

3.4.5. The survey area appears to provide moderate potential for foraging and commuting bats along the trees around the site boundaries. However, a thorough evaluation of bat activity could not be made during a daytime survey of the site.

3.4.5.1. Dusk Emergence Survey Results.

3.4.5.1.1. The dusk emergence survey was carried out by four surveyors on the evening of 2nd June 2021. Two surveyors hold a current Natural England class licence for surveying bats and the other two are experienced assistants.

3.4.5.1.2. The four surveyors were positioned around the building in order to be able to view all aspects of the buildings 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 (A) were as shown below.



3.4.5.1.3. The evening was fine, clear and still. There was a temperature of 19.5°C at 21:15, which dropped to 14°C at the end of the survey. The survey continued until 22:45 and sunset was at 21:26.

3.4.5.1.4. The following are the observations of the surveyors and the recordings of the Anabat detectors: -

3.4.5.1.4.1. Surveyor 1.

- 21:15 – Common Pipistrelle heard pass to the north.
- 21:16 – Common Pipistrelle flew from north, foraged briefly, then flew west.
- 21:28 – Common Pipistrelle flew from west to east.
- 21:35 – Two Common Pipistrelle flew from the west, foraged over the site then flew back west.
- 21:40 – Common Pipistrelle flew from the west, foraged briefly then flew east.
- 21:44 – Common Pipistrelle flew from northwest, foraged briefly, flew west.
- 21:44 – Common Pipistrelle flew from east, foraged briefly, flew west.
- 21:46 – Common Pipistrelle flew from east to west,
- 21:48 – Common Pipistrelle flew from west to north.
- 21:49 – Common Pipistrelle flew from west to east.
- 21:51 – Common Pipistrelle heard not seen to the north.
- 21:55 – Common Pipistrelle heard not seen to the north.
- 21:57 – Common Pipistrelle heard not seen to the north.
- 21:58 – Common Pipistrelle flew from west to east.
- 22:00 – Common Pipistrelle flew from east to west,
- 22:02 – Common Pipistrelle flew from west to east.
- 22:05 – Common Pipistrelle flew from north to south.
- 22:06 – Common Pipistrelle flew from northwest, foraged then flew west.
- 22:09 – Common Pipistrelle heard pass to the north, not seen.
- 22:11 – Common Pipistrelle flew from west to east.
- 22:16 – Common Pipistrelle heard foraging to the north, not seen.
- 22:18 – Two Common Pipistrelle flew from west to east.

Anabat 8 with Surveyor 1 recorded forty-seven Common Pipistrelle calls between 21:15 and 22:18.

3.4.5.1.4.2. Surveyor 2.

- 21:15 – Common Pipistrelle heard pass, not seen.
- 21:16 – Common Pipistrelle flew from north, foraged briefly, then flew west.
- 21:28 – Common Pipistrelle flew from west to east.
- 21:35 – Two Common Pipistrelles flew from the west, foraged over the site then flew back west.
- 21:40 – Common Pipistrelle flew from the west, foraged briefly then flew east.
- 21:44 – Common Pipistrelle flew from northwest, foraged briefly, flew west.
- 21:44 – Common Pipistrelle flew from east, foraged briefly, flew west.
- 21:46 – Common Pipistrelle flew from east to west,
- 21:48 – Common Pipistrelle flew from west to north.
- 21:49 – Common Pipistrelle flew from west to east.
- 21:51 – Common Pipistrelle heard not seen.
- 21:55 – Common Pipistrelle heard not seen to the north.
- 21:57 – Common Pipistrelle heard not seen to the north.
- 21:58 – Common Pipistrelle flew from west to east.
- 22:00 – Common Pipistrelle flew from east to west,
- 22:02 – Common Pipistrelle flew from west to east.
- 22:05 – Common Pipistrelle flew from north to south.
- 22:06 – Common Pipistrelle flew from northwest, foraged then flew west.
- 22:09 – Common Pipistrelle heard not seen.
- 22:11 – Common Pipistrelle flew from west to east.
- 22:16 – Common Pipistrelle heard not seen.
- 22:18 – Two Common Pipistrelles flew from west to east.

Anabat 4 with Surveyor 2 recorded six Common Pipistrelle calls between 21:14 and 22:17.

3.4.5.1.4.3. Surveyor 3.

- 21:37 – Common Pipistrelle seen foraging to the north.
- 21:44 – Common Pipistrelle heard not seen.
- 21:51 – Common Pipistrelle heard not seen.
- 21:54 – Common Pipistrelle heard not seen.
- 22:00 – Common Pipistrelle flew past from east to west.
- 22:06 – Common Pipistrelle heard not seen.

- 22:11 – Common Pipistrelle flew past from west to east.
- 22:17 – Common Pipistrelle heard not seen.
- 22:18 – Common Pipistrelle heard not seen.

Anabat 3 with Surveyor 3 recorded ten Common Pipistrelle calls between 21:38 and 22:18.

3.4.5.1.4.4. Surveyor 4.

- 21:37 – Common Pipistrelle seen foraging to the north.
- 21:44 – Common Pipistrelle from south to north.
- 21:52 – Common Pipistrelle heard not seen.
- 21:58 – Common Pipistrelle heard not seen.
- 21:59 – Common Pipistrelle seen foraging to the south.
- 22:06 – Common Pipistrelle foraging to the west.
- 22:09 – Common Pipistrelle seen foraging to the north.
- 22:12 – Common Pipistrelle heard not seen.
- 22:18 – Common Pipistrelle seen foraging to the south.
- 22:24 – Common Pipistrelle heard not seen.

Anabat 7 with Surveyor 4 recorded seven Common Pipistrelle calls between 21:38 and 22:19.

3.4.5.1.5. No bats emerged from the building during the survey. Low levels of Common Pipistrelle activity were recorded with bats passing the site, mainly from the west. There was some foraging recorded over the site and to the north of the site.

3.4.5.1.6. No other species of bat was recorded during the survey.

3.4.6. The vegetation within the survey area provides opportunities for nesting birds during the nesting season, which extends from March to September each year. However, no active nests were identified during this survey. A bird box was present on a tree on the eastern boundary and old bird's nests were found in holes in the wall of Building 3. Staining was seen on the western end of the southern elevation of Building 1 and the owner stated that sparrows nest above the gutter in this area each year, although was not sure if they were present this year and no activity was seen in this area during this survey.

3.4.7. The survey area provides low potential habitat for reptiles as it is a garden consisting mainly of lawn with no areas of refuge. No reptiles were identified during this survey.

3.4.8. No suitable dormouse habitat was identified during this survey. The survey area is also outside the natural range of this species.

3.4.9. No red squirrels or red squirrel field signs were identified during this survey and there is no suitable habitat within the survey area. The survey area is also outside the natural range of this species.

3.4.10. No non-native invasive species of plant listed under Schedule 9 of The Wildlife and Countryside Act 1981 were identified within the survey area.

3.4.11. The survey area provides limited potential for hedgehogs due to the stone wall boundaries. There is some possible access under two gates in the wall but both are adjacent to busy roads, which will deter hedgehogs.

4. EVALUATION OF FINDINGS.

4.1. There are no designated sites within the survey area. Therefore, there will be no impact on designated sites.

4.2. The site is of moderate ecological value due to the trees along the site boundaries providing shelter for a variety of species. The main area of the site is a large area of lawn which is of low ecological value. The buildings are also assessed as low ecological value. The main area to be affected by the works is the areas of low ecological value. The trees along the site boundaries will remain on site with only a few trees in the center of the site to be removed.

4.2.1. The hedgerow on the southern boundary is a Priority Habitat under the NERC Act 2006. However, this hedgerow is to remain.

4.3. Biodiversity calculations were carried out using the DEFRA Metric 2.0. The baseline on the site was calculated at 1.58 Habitat Units as shown in the table below.

Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Biodiversity units
Urban – Amenity Grassland	0.102	Low	Poor	0.20
Woodland and Forest – Wood-pasture and parkland.	0.104	High	Moderate	1.37
Urban – Developed land; sealed surface	0.034	Very Low	N/A	0.00
Total	0.24			1.58

4.3.1. The baseline of the hedgerows was calculated at 0.00 Habitat Units as shown in the table below.

Hedgerow Type	Length (km)	Distinctiveness	Condition Assessment	Biodiversity units
Hedgerow, Ornamental, non-native	0.015	Very Low	Poor	0.00
Total	0.015			0.00

4.3.2. There are no finalised plans for the site at this present time and therefore it is not possible to undertake a full impact assessment and determine what areas of which habitats will be lost.

4.4. No badger setts or badger field signs were identified within the survey area. Therefore, there will be no impact on badgers during the proposed works.

4.5. No watercourses were identified within the survey area. Therefore, there will be no impact on water voles, otters or white clawed crayfish during the proposed works.

4.6. Two ponds were identified within 500m of the survey area on an Ordnance Survey Map of the area. One pond lies 250m to the southwest and is located in the grounds of a farm. The second pond lies 475m to the southeast and is a small pond in a small area of woodland. There are no records of great crested newts within the surrounding area and the terrestrial habitat between the ponds and the survey area has roads which are barriers to movement. Therefore, it is assessed that there will be no great crested newts within the survey area and there will be no impact on the species during the proposed works.

4.7. There are four buildings on the site. Buildings 1, 3 and 4 are all assessed as providing **low** potential for roosting bats due to a few features in each building, although no evidence of roosting bats was identified during this survey. Building 2 is assessed as providing **negligible** potential for roosting bats as it is well sealed.

4.7.1. During the bat dusk emergence survey no bats emerged from the buildings. Low levels of Common Pipistrelle activity were recorded with bats passing the site, mainly from the west. There was some foraging recorded over the site and to the

north of the site. Therefore, demolition of these buildings will have no impact on roosting bats.

4.7.2. No suitable trees that could provide bat roost potential were identified within the survey area. Therefore, there will be no impact on roosting bats in trees during the proposed works.

4.8. The survey area provides moderate potential for foraging and commuting bats, mainly along the trees on the boundaries. However, the trees along the boundaries of the site will remain with only a few trees in the center of the site being removed. Therefore, the development of the site will not fragment any foraging habitat. As long as a sensitive lighting scheme is put in place the development will have no impact on foraging or commuting bats.

4.9. The vegetation within the survey area and Buildings 1 and 3 provide opportunities for nesting birds during the nesting season, which extends from March to September, inclusive, each year. Vegetation clearance or demolition of these buildings within the nesting bird season will have an impact on any birds nesting within the work site.

4.10. The survey area provides low potential habitat for reptiles as it is a garden consisting mainly of lawn with no areas of refuge. The works will have a low impact on any reptiles within the area.

4.11. No suitable dormouse habitat was identified during this survey. The survey area is also outside the natural range of this species. Therefore, there will be no impact on dormice during the proposed works.

4.12. No red squirrels or red squirrel field signs were identified during this survey and there is no suitable habitat within the survey area. The survey area is also outside the natural range of this species. Therefore, there will be no impact on red squirrels during the proposed works.

4.13. No non-native invasive species of plant listed under Schedule 9 of The Wildlife and Countryside Act 1981 were identified within the survey area. Therefore, there will be no impact on the proposed works.

5. RECOMMENDATIONS.

5.1. This Preliminary Ecological Appraisal report is designed to advise the client of the initial survey results so that they may be considered within the site development plan.

5.2. Once any further surveys required have been completed and the development plans have been finalised, the report must be converted into an Ecological Impact Assessment (EcIA) where details of further survey results, mitigation and biological enhancements are included, to arrive at an assessment of the residual impact of the proposed development. This should include biodiversity calculation to demonstrate no net loss of biodiversity as a result of the development. The EcIA format will be suitable to submit to the Local Authority.

5.3. As Buildings 1, 3 and 4 are assessed as having **low** potential for roosting bats. No bat roost was identified in the buildings during the dusk emergence survey. Therefore, there is no requirement for any further surveys or for a Natural England licence.

5.4. Nevertheless, individual bats can seek temporary shelter almost anywhere and therefore it is recommended that conversion of the existing buildings is undertaken with due care. In the unlikely event a bat is found, the bat should be covered and protected, work should cease at that location and Whitcher Wildlife Ltd should be contacted for further advice.

5.5. A sensitive lighting scheme must be designed to prevent light shining onto the site boundaries to prevent disturbance to foraging and commuting bats and any birds that may nest in the trees and hedgerow.

5.6. Any vegetation clearance and the demolition of Buildings 1 and 3 should be carried out outside the nesting bird season, which extends from March to September each year.

5.7. If any vegetation clearance or the demolition of these buildings is to be carried out during the nesting bird season a thorough nesting bird survey must be carried out by a suitably experienced person immediately prior to works commencing. If any active nests are found during this survey, they must be left undisturbed until the young have fledged. This could put a considerable delay on proposed works.

5.8. In the unlikely event that any reptiles are found during the works they must be left to safely move away of their own accord. If large numbers of reptiles (5+) are found works must stop and Whitcher Wildlife Ltd contacted for further advice.

5.9. In order to provide biodiversity enhancements in line with the NPPF, it is recommended that at least one integrated bat brick is installed in the new buildings to enhance the habitat and provide roosting opportunities.

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Appendix I. 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 II. 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 III. REPTILE INFORMATION.

Ecology

There are five main species of reptile that reside in the UK; Common or Viviparous Lizard (*Lacerta vivipara*); Sand Lizard (*Lacerta agilis*); Slow Worm (*Anguis fragilis*); Grass Snake (*Natrix natrix*) and Adder (*Vipera berus*). The Adder is the only native species that is venomous although this is rarely harmful to humans.

Reptiles occupy a wide range of habitats including woodland, marshes, heathland, moors, sand dunes, hedgerows and bogs. Sand Lizards are confined to moorland and coastal sand dunes where they lay their eggs in the warm sand. The range of the Sand Lizard in the UK is therefore very limited. Slow Worms can be found in a wide variety of habitats throughout Britain and is the most likely reptile to be found in urban and suburban environments.

Maintaining the right body temperature is vital to reptiles' survival. In the morning, they find a warm basking site to heat up their bodies, then later they may move back into the shade because they do not sweat and have to be careful not to overheat. During hot summers, Adders will try to move to damper, cooler sites.

Over winter reptiles will hibernate in burrows or under logs where they are protected from the cold and predators, emerging from February onwards as the weather warms up.

Reptiles generally begin to mate April to May with young born in late July to September. The Common Lizard gives birth to live young, hence the term viviparous, meaning live bearing.

Surveys

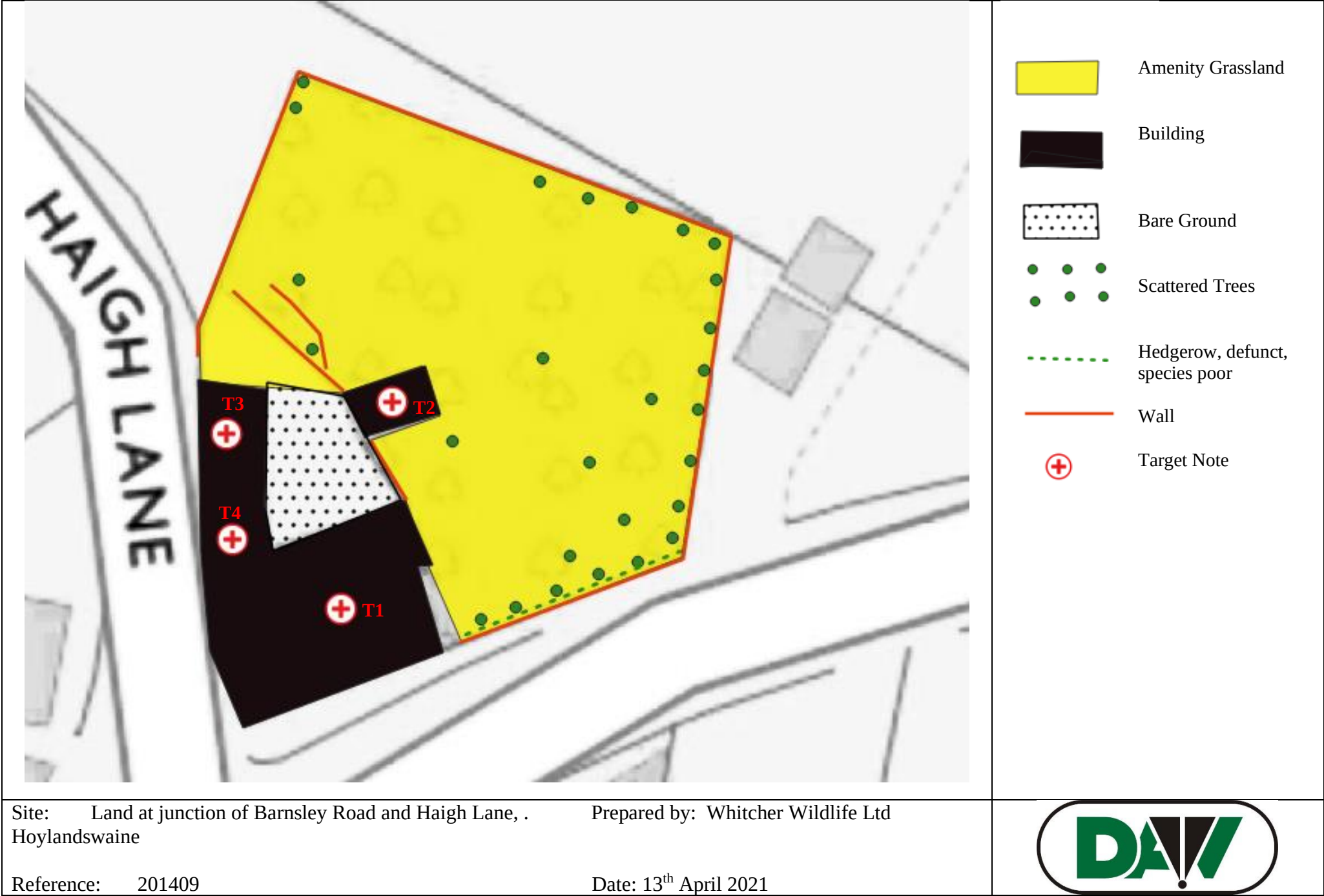
Reptile surveys involve the searching of refuge such as logs and stones for any animal sheltering below. Artificial refuge may be laid out on site for the purpose of reptile surveys.

Legislation

Reptiles are protected under Appendix II (sand lizards) and Appendix III (common lizard, slow worms, smooth snake, grass snake and adders) of the BERN Convention (1982), partially protected under Schedule 5 of the Wildlife and Countryside Act (1981), Annex IV of the Habitats Directive and are all listed under section 41 of the Natural Environment and Communities Act (2006) making them a species of principal importance.

This makes it an offence to disturb any reptile while it is occupying a structure or place it uses for shelter or protection or to obstruct access to such a place.

Appendix IV. ANNOTATED MAP OF THE SURVEY AREA.



Appendix V. TARGET NOTES.

T1 – Building 1. Low bat roost potential.

T2 – Building 2. Negligible bat roost potential.

T3 – Building 3. Low bat roost potential.

T4 – Building 4. Low bat roost potential.