Whitcher Wildlife Ltd.
Ecological Consultants.

LAND ADJACENT TO ST. JOHN'S CHURCH, CARLTON ROAD.

OS REF: SE 36550 10125.

PRELIMINARY ECOLOGICAL APPRAISAL.

Ref No: **250160.**

Date: **31st January 2025.**

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1. INTRODUCTION.

1.1. There are plans to develop an area of land off Carlton Road in Carlton. The development will be for residential properties although no plans have yet been provided.

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 24th January 2025. This report outlines the findings of that survey and makes appropriate recommendations.

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

1.5. This report will be accompanied by a statutory metric and condition assessment sheets.

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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 UK Habitat Classification methodology to identify the primary habitat types throughout the survey area. All primary habitats are accompanied by secondary codes which are used to add further specific details where necessary. Each primary habitat and unique set off secondary codes will be shown individually in the appended annotated map.

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: -

* 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.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th 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. All surveys were carried out in line with the Chartered Institute of Ecological and Environmental Management (CIEEM) survey standards and advice.

2.12. 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.

2.13. 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.

2.14. The survey conducted from track level was carried out by Alexandrea White BSc (Hons) MSc ACIEEM MIEnvSc CEnv. Alex has worked as a consultant since 2013 carrying out array of different habitat and species surveys. Alex holds Natural England Survey Licences for Great Crested Newts, Bats, Hazel Dormice, White Clawed Crayfish and Barn Owls. She also holds Scottish Natural Heritage Licences for bats and great crested newts and Natural Resources Wales Licence for Great Crested Newts, Bats and Hazel Dormice. She holds an undergraduate honours degree in Zoology and a Masters degree in Environmental Management (Landscape and Wildlife Conservation). She has successfully completed courses run by the Chartered Institute of Ecology and Environmental Management (CIEEM), Field Studies Council and the Mammal Society to further her knowledge of protected species and plant identification. Alex is an Associate member of CIEEM, a full member of IES and a Chartered Environmentalist.

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3. SURVEY RESULTS.

3.1. Data Search Results.

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

3.1.2. The following recent relevant records were returned:

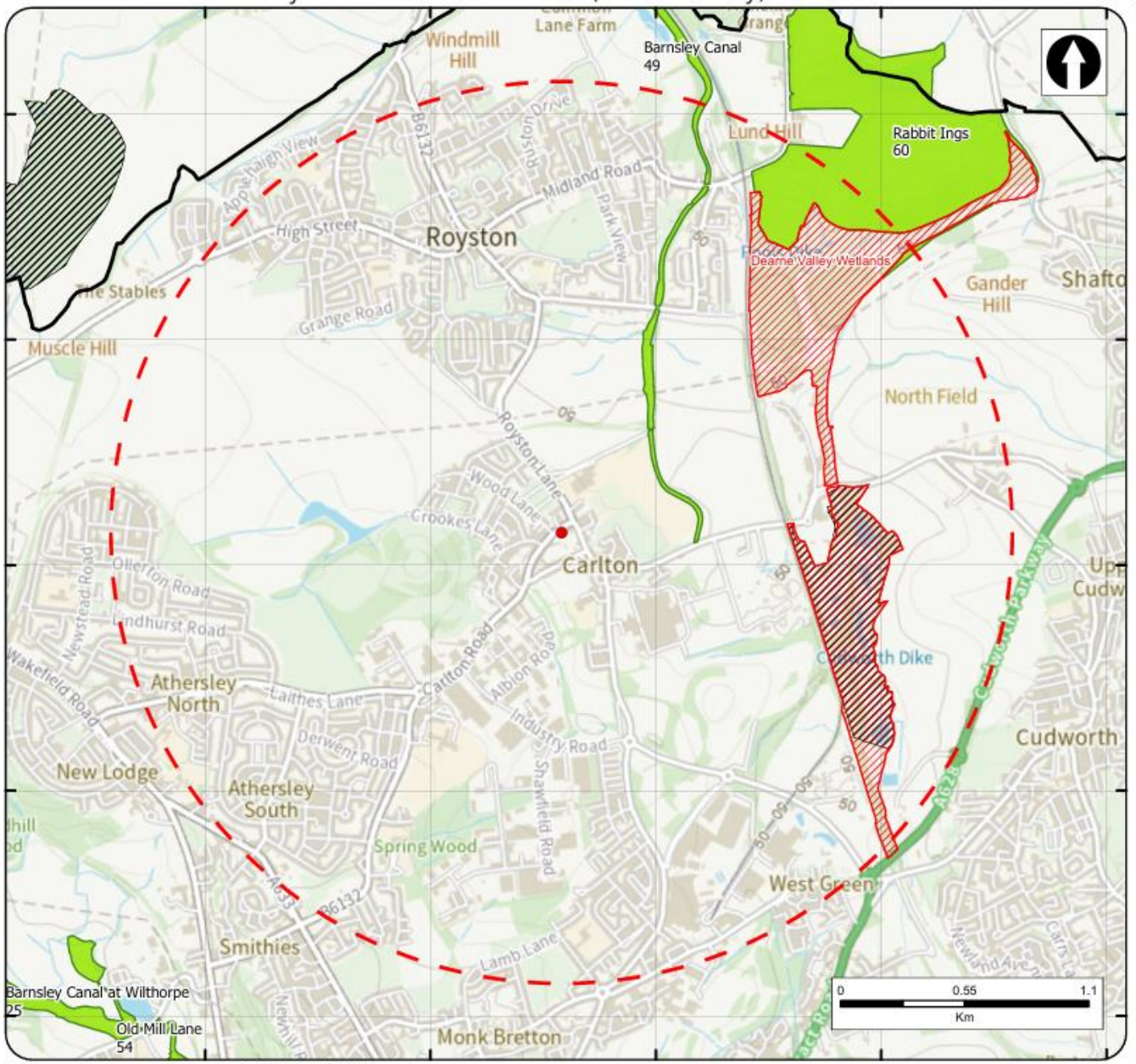
- Seven records of grass snake, the closest record was approximately 1.2km southeast of the survey area
- Two records of badger within 2km of the survey area; neither of which were within or adjacent to the survey area. Given the sensitive nature of these records, no further information will be provided.
- Fifteen records of hedgehog within 2km of the survey area; the closest was 0.4km southeast of the survey area and was recorded in 2021.
- Four records of water vole, the closest was approximately 0.4km southeast of the survey area and was recorded in 2015.
- Twenty-five records of bats within 2km of the survey area although none were relevant to the site or immediate surroundings. The species recorded included common pipistrelle, noctule and Daubentons bats.
- Extensive bird records, including schedule 1 species, although none of these related to the site or immediate surrounding area. The majority of the records were from Carlton Marsh.

3.1.3. There were historic records of various protected species although given the age of these records they are not thought to accurately represent the current species distribution.

3.1.4. There was one Sites of Special Scientific Interest, one Local Nature Reserves and two Local Wildlife Sites within 2km of the survey area. None of the sites were within, or adjacent to, the survey area. The closest designated site was Barnsley Canal LWS approximately 0.4km east of the survey area.

3.1.5. The map below highlights the survey area with 2km buffer and the distribution of designated sites.

Boundaries of Statutory and Local Wildlife Sites (non-statutory) Within the Search Area



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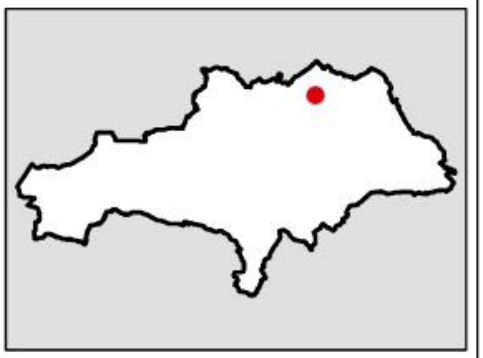
Land Adjacent to St John's Church Carlton Road

- Centre of Search Area
- SSSI (England) © Natural England
- Local Wildlife Sites - Barnsley
- LNR NEngland
- Barnsley Boundary
- 2km radius



BARNSLEY Metropolitan Borough Council

3.1.6. The survey area was situated within the Impact Risk Zones for Sites of Special Scientific Interest associated with the Dearne Valley Wetlands. The development does not fall under a category likely to cause harm and require further consideration.

3.1.7. The South Yorkshire Bat Group provided five recent records of pipistrelle, Daubentons and whiskered bats; none of these were relevant to the survey area.

3.1.8. The data searches can be made available to the client upon request but must not be distributed into the public domain.

3.1.9. It should be noted that the Magic Maps website did not hold any additional relevant records, nor were there any European Protected Species (EPS) Mitigation Licences within close proximity to the survey area.

3.2. The Survey Area.

3.2.1. The survey area included a small parcel of land adjacent to St John's Church off Carlton Road in Carlton. The aerial photograph below highlights the survey area in red.

3.2.2. The area of land is predominantly scrubland with a mature tree and tree lines. The photograph below highlights the current status of the site.

3.2.3. The survey area was situated within an urban location with residential properties to the north and west, a residential development is present to the south and to the east there is a church with residential properties beyond this. The aerial photograph below highlights the location of the survey area within the wider landscape.

3.3. Survey Limitations.

This survey was undertaken at a sub-optimal time of year for botanical surveys and as such plant species are likely to have been missed.

3.4. Description of Habitats.

3.4.1. Appendix V of this report contains an annotated map marked up with the varying primary habitats across the site. Target notes relating to these habitats can be found in Appendix VI. The habitats on site are listed below, followed by descriptions of each habitat.

- h3 Dense Scrub
- w1g Other Broadleaved Woodland

  33 Line of Trees

3.4.2. h3 Dense Scrub
Secondary Code: 32 Scattered Trees, 524 Invasive non-native species, 853 Mortared Wall, 612 Fence.

3.4.2.1. A large majority of the site was scrub, which was dominated by bramble *Rubus fruticosus*, dog rose *Rosa canina*, ash *Fraxinus excelsior*, ivy *Hedera helix*, elder *Sambucus nigra*, cherry *Prunus avium*, common hogweed *Heracleum sphondylium*, common nettle *Urtica dioica*, rhododendron *Rhododendron ponticum*, and great willowherb *Epilobium hirsutum*.

3.4.2.2. Anecdotal evidence suggests that the site has been cleared since Jan 2020 so it has been categorised as dense scrub based on the remaining species on site and aerial / street view images. It is likely this was more species rich that what is currently shown on site. Shrubby species such as ash *Fraxinus excelsior* and elder *Sambucus nigra* were starting to recolonise suggesting these would have been present previously. Aerial imagery do not help in determining the most recent site clearance although extensive scrub can be seen in northern extent of the site in the 2023 imagery which includes more mature shrubs against the wall and these have been cut back.

3.4.2.3. A full species list can be found in Appendix VI.

3.4.2.4. This habitat was assessed as having a moderate condition. It should be noted there has been previous clearance although the scrub appears to have regrowth with a similar species composition, maturity and density as to what has been there previously.

3.4.2.5. There was one large mature horse chestnut on site. This was assessed as being irreplaceable habitat due to its age (over 30 years) and in good condition.

3.4.2.6. There are mortared stone walls on the northern and eastern boundaries.

3.4.2.7. There was a timber fence on the southern boundary, adjacent to the current development.

3.4.4. w1g – Other Broadleaved Woodland
Secondary Code: 33 Line of Trees

3.4.4.1. There was a line of trees on the southern and western site boundaries. The species dominant included sycamore *Acer pseudoplatanus*, ash *Fraxinus excelsior*, elder *Sambucus nigra* and hawthorn *Crataegus monogyna* with ivy *Hedera helix* and bramble *Rubus fruticosus*.


3.4.4.2. A full species list can be found in Appendix VI.

3.4.4.3. This habitat was assessed as having a moderate condition.

3.5. Description of Fauna.

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

3.5.2. There are no watercourses within the survey area and therefore, no suitable habitat for water vole, otter or white clawed crayfish.
3.5.3. There were no structures identified within the survey area and therefore, no potential for roosting bats within buildings.

3.5.3.1. It should be noted that the adjacent church provides ideal habitat for roosting bats.

3.5.4. There was one mature horse chestnut tree with the survey area. This tree did feature a wound in the main trunk of the tree on the southwestern aspect. Given the height of this feature it could not be inspected thoroughly but a ground level assessment assessed this tree as potentially being able to support numerous bats and therefore, it was assessed as having PRF-M in line with the current Bat Conservation Trust Good Practice Guidelines. This tree is shown in the photographs below.

3.5.5. The survey area was assessed as having moderate potential for foraging and commuting bats. No full assessment for bat activity was carried out during the daytime survey of the site.

3.5.6. There were no ponds or other water bodies identified within 500m of the survey area. There is therefore, no suitable habitat for breeding great crested newts.

3.5.7. The vegetation on site provides opportunities for nesting birds during the nesting season, which extends from March to August each year. No evidence of nesting birds was identified during the survey although no full nesting bird survey was conducted as the preliminary ecological appraisal was undertaken outside of the nesting bird season.

3.5.8. The habitat within the survey area offers limited suitability for reptiles as the vegetation is dense with no mosaic of habitats and the site is within an urban location. There are records of grass snake within the data search although not within an urban area.

3.5.9. The habitat within the survey area is unsuitable for hazel dormouse and there were no substantial areas of woodland to support this species. Furthermore, the site lies outside of their known natural home range and there are no reintroduction schemes within this county.

3.5.10. The survey area lies outside of the known UK range of red squirrel and therefore this species will not be considered further.

3.5.11. The survey area provides suitable habitat for hedgehogs and there are extensive records of hedgehogs within the data search.

3.5.12. *Rhododendron ponticum*, an invasive, non-native plant species listed on schedule 9 of the Wildlife and Countryside Act (1981) was identified within the survey area. This was extremely immature as it was regrowth from previous site clearance. This species is shown in the photograph below.

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4. BIODIVERSITY NET GAIN (BNG).

4.1. Baseline biodiversity calculations have been carried out using the Statutory Metric tool, the current metric at the time of writing this report.

4.2. Habitat Units.

4.2.1. The baseline area habitat calculations include all habitats that lie within the red line boundary of the survey area. The scores for each habitat and a total are shown below.

Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Biodiversity units
Mixed Scrub	0.11	Medium	Moderate	0.88
Urban Tree – Irreplaceable habitat	0.037	Medium	Good	Cannot be calculated as any loss is unacceptable.
Total (Excluding Trees)	**0.11**			**0.88**

4.2.2. It should be noted that there has been previous tree clearance but from aerial imagery it appears this was completed in 2016 and 2018/2019 and therefore, this has not been taken into account within this calculation.

4.3. Linear Units.

The baseline linear calculations include all habitats that lie within the red line boundary of the survey area. The scores for each habitat and a total are shown below.

Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Biodiversity units
Line of Trees	0.06	Low	Moderate	0.12
Total	**0.06**			**0.12**

4.4. Watercourse Units.

There are no watercourses within 10m of the survey area; therefore, no calculations have been made.

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5. EVALUATION OF FINDINGS.

5.1. There were no statutory or non-statutory designated sites within, or adjacent to, the survey area. Therefore, no such sites will be affected by the proposals. The survey area was situated within the Impact Risk Zones for Sites of Special Scientific Interest associated with the Dearne Valley Wetlands. The development does not fall under a category likely to cause harm and require further consideration.

5.2. No badger setts or their field signs were identified within the survey area. Therefore, the works will have no impact on badger.

5.3. There are no watercourses on, or near to, the site to offer habitat to otter, water vole or white-clawed crayfish. Therefore, the works will have no impact on these species.

5.4. The horse chestnut tree on site (T1) was assessed for its bat roost potential and due to a wound and rot within the main trunk this tree was assessed as having PRF-M as it could potentially support multiple roosting bats. Therefore, any works to this tree, could have a high impact on roosting bats, if they are present.

5.5. There were no structures within the survey area that would support roosting bats, therefore, no roosting bats within buildings will be affected by the proposed works. The adjacent church could support roosting bat and increased lighting, from the development, could potentially impact upon any roosts.

5.6. The vegetation and boundary hedgerow does provide suitable habitat for foraging and commuting bats. The site was assessed as having moderate suitability and the garden habitats will provide replacement habitat as these will also be assessed as having moderate suitably. Additional lighting, both during the works and after, could have a long-term impact on foraging and commuting bats.

5.7. There were no ponds within 500m of the survey area which could provide suitable habitat for great crested newts. Therefore, no great crested newts will be affected by the proposed works.

5.8. The vegetation within the survey area was assessed as suitable for nesting birds. Any de-vegetation works carried out during the nesting bird season could have a high impact on nesting birds.

5.9. The survey area offers very limited suitability for reptiles due to lack of habitat mosaic and it is situated in an urban location. It is therefore assessed that the works will have no impact on reptiles.
5.10. The survey area is outside of the known UK range of hazel dormouse and red squirrel. Therefore, neither species will be affected by the proposals.

5.11. The survey area is suitable for hedgehogs and the boundary vegetation is suitable to support hibernating or sheltering individuals. Therefore, hedgehogs could be affected by the proposals both in the initial site clearance, long-term loss of habitat and fragmentation.

5.12. *Rhododendron ponticum*, an invasive, non-native plant species listed on schedule 9 of the Wildlife and Countryside Act (1981), was identified within the survey area. This species is spread through lateral layering. Site clearance works have the potential to spread this species beyond the site boundaries.

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6. RECOMMENDATIONS.

6.1. 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.

6.2. Once the development plans have been finalised, the report must be converted into an Ecological Impact Assessment (EcIA) where details of mitigation and ecological enhancements are included, to arrive at an assessment of the residual impact of the proposed development. This format will be suitable to submit to the Local Authority.

6.3. It is recommended that works are undertaken outside of the nesting bird season, which extends from March to August each year.

6.4. If any work commences between March and August, these should be immediately preceded by a thorough nesting bird survey carried out by a suitably experienced person. Any nests identified must remain undisturbed until the young have fledged from the nest.

6.5. It is strongly recommended that the chestnut tree is retained as part of the proposals. If this cannot be achieved, then an aerial inspection should be undertaken. Further surveys maybe necessary dependent on the results of this inspection. Any further surveys can only be carried out between May and August (inclusive).

6.6. Any additional lighting should be downlit and directed away from any boundary vegetation to prevent disturbance for foraging and commuting bats.

6.7. Due to the potential presence of hedgehogs within the survey area, any site clearance should be undertaken with care and the clearance should be done in a two-stage strip with the first cut being down to 200mm. This should be left for a period of 24 hours before ground level clearance can be undertaken.

6.8. A method of working must be in place to prevent the spread of invasive, non-native species listed on Schedule 9 of the Wildlife and Countryside Act 1981. Rhododendron spreads through lateral layering and as such, if cut, the plant and any offcuts must be treated as controlled waste, bagged and disposed of appropriately. It is recommended that the plant is eradicated from the survey area.

6.9. To comply with the NPPF, it is recommended that biodiversity enhancements are incorporated into the buildings.

6.10. It is therefore recommended that 50% of the buildings includes an integrated bat box as shown below, or equivalent. This can be ordered to match the outer skin of the new building and should be incorporated high in a gable end wall (if possible) where it is not over a door or window.

6.11. It is also recommended that a pair of integrated swift boxes are installed 50% of the buildings. The example below or equivalent should be used.

6.12. Hedgehog access points, at least 13cm x 13cm, should also be installed at various points in any new boundary fences. This will also allow for the access and egress of the mammals already utilising the site.

6.13. It is recommended that one bee brick is built into an external wall of each of the proposed properties.

6.14. Biodiversity Net Gain (BNG).

6.14.1. There is a requirement to provide an overall biodiversity net gain on the site. There will be a statutory requirement to deliver a net gain of at least 10% biodiversity units. There will also be a requirement to meet the trading rules of the Statutory Metric.

6.14.2. To help achieve a net gain, as recommended above, in the first instance it in line with the mitigation hierarchy, is recommended that as much of the existing habitats as possible are retained. This is especially important in the case of the irreplaceable habitat on site, the horse chestnut tree, as this will require bespoke compensation if it is to be lost or the condition is degraded. Therefore it is recommended that some retained greenspace is incorporated into the development around this tree. Consideration should also be given to enhancing retained habitats where possible.

6.14.3. Where habitat is to be lost, larger areas of the same value habitats or of higher value habitats are required. This means that scrub habitats will be needed to offset the loss of the scrub. Therefore it is highly recommended that as much native scrub planting as possible is provided on the site

6.14.4. It is recommended the tree line is retained; in order to meet the 10% in linear habitats enhancement or the creation of hedgerow habitat will be required.

6.14.4. It is recommended that a copy of the draft landscaping proposals for the site is provided once they are drawn up so that the biodiversity calculations can be completed.

6.14.5. Information on what species will be planted in the landscaped areas will need to be provided. It is recommended that locally native species are planted where possible and that any grass mixes that are of benefit to wildlife are considered with a relaxed mowing regime. Particular attention should be paid to maintaining connective corridors around and through the site to maintain connectivity where possible. Any habitats within private ownership will have to be assessed as ‘vegetated gardens’ which scores extremely low on the BNG assessment.

6.14.6. If the landscaping plans provided do not provide an overall biodiversity net gain, then discussions will need to be had to try and maximise the number of biodiversity units that can feasibly be achieved on the site.

6.14.7. Once all options have been considered and the provision of BNG on the site has been maximised, offsite compensation will then need to be considered to deliver any shortfalls.

6.14.8. Any on site, or off site, habitats that are retained, enhanced or created for the purpose of the biodiversity net gain for the site, outside of private ownership, will have to be locked into the S106 legal agreement for the site which will require a thirty-year management and maintenance plan.

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Prepared by:	
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Checked by:	
Ruth Georgiou BSc MCIEEM	Date: 9th February 2025.

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Appendix I. 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 of 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. HEDGEHOG INFORMATION.

Ecology

The hedgehog was a common species once widespread throughout the country but it has suffered a major decline due to loss of habitat. They are now found distributed across the UK, but the population increases to the south and east. Hedgehogs are rare in Scotland, Wales and Northern Ireland.

The hedgehog is a small, spiny mammal around 20cm long with a long snout. The back and sides of the hedgehog are covered in 25mm (1") long spines. These are absent from the face, legs and underside, which are covered with coarse, grey-brown fur.

Hedgehogs are highly active and range widely. They need to be able to move freely through a well-connected range of habitats to find food, mates and areas to nest. Studies show that hedgehogs can travel around 2km in a night in urban areas and 3km a night in rural landscapes. A viable population of urban hedgehogs is thought to need 0.9km^2 of well-connected habitat.

Hedgehogs nest year-round and produce different types of nest for daytime resting, breeding and hibernation. Daytime nests are a retreat during the active season, and are often temporary, flimsy and found in areas of rough grassland, loose leaf piles or garden vegetation. Breeding nests are made by females and are used to raise young. They tend to be more robust, like hibernation nests. Winter nests can be used for several months to hibernate through periods of cold weather and low food availability. The sturdiest nests rely on medium-sized deciduous leaves and a structure to hold the leaves in place. Bramble patches, log piles and open compost heaps are common locations for breeding and hibernation.

Hedgehogs are omnivores, but the bulk of their diet consists of macro-invertebrates such as beetles, worms, slugs, earwigs, caterpillars and millipedes. In urban areas, supplementary food in the form of cat, dog or formulated hedgehog food can make up a significant part of their diet. Access to water is also very important.

Surveys

Hedgehogs are nocturnal animals, so despite their spiny appearance they are often difficult to find.

All surveys should be conducted between May and November when hedgehogs are active.

Droppings can be found in grassland, farmland and in gardens. The droppings are crinkly, often studded with shiny fragments due to their diet of insects. They are variable in size, 15-50mm long and 8-10mm thick, blue/black in colour and sweet smelling with a hint of linseed oil.

Footprint tunnels and camera traps can also be used to survey for hedgehogs.

Further survey techniques can also be used to survey for hedgehogs, but these require a survey licence to carry out surveys involving trapping and torch or spotlight searches.

Legislation

The hedgehog is considered an endangered species, but it benefits only from general protection under the Wildlife and Countryside Act 1981. They are listed under Schedule 6 of the Act, which makes it illegal to kill, trap or capture wild hedgehogs, with certain methods listed. They are also listed under the Wild Mammals Protection Act (1996), which prohibits cruel treatment of hedgehogs and they are a species of 'principal importance' under the NERC Act, which confers a 'duty of responsibility to public bodies'.

However, none of these deal with the issues that are a threat to the hedgehog. The main threat is the increasing loss of habitat, the increasing traffic on our roads and the increasing use of herbicides, in particular those used to kill garden slugs.

Appendix IV. SPECIES LISTS.

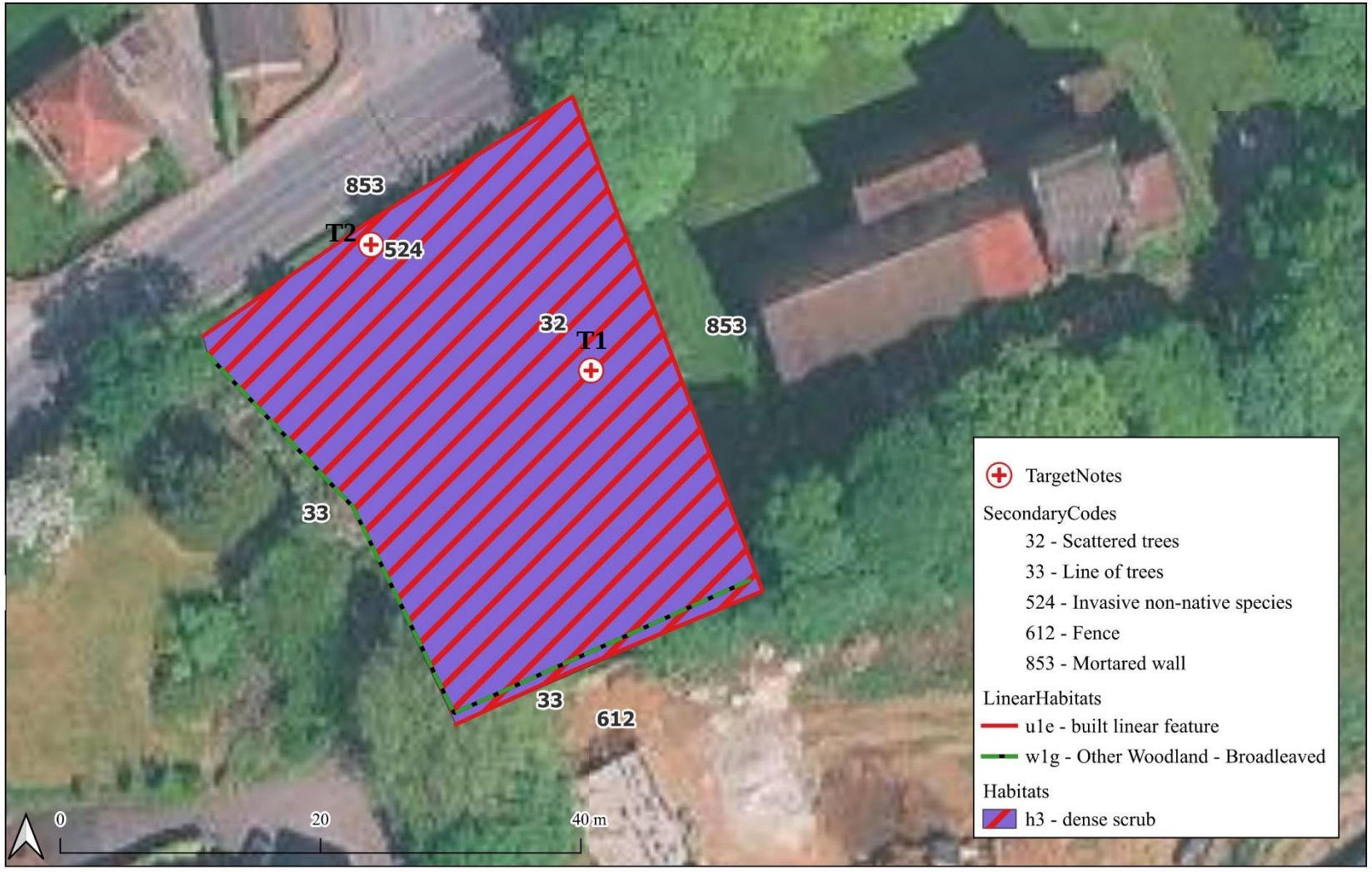
Dense Scrub	
Scientific Name	**Vernacular**
Rubus fruticosus	Bramble
Rosa canina	Dog rose
Fraxinus excelsior	Ash
Hedera helix	Ivy
Sambucus nigra	Elder
Prunus avium	Cherry
Heracleum sphondylium	Common hogweed
Urtica dioica	Common nettle
Rhododendron ponticum	Rhododendron
Epilobium hirsutum	Great willowherb
Acer pseudoplatanus	Sycamore
Rumex crispus	Curled dock
Cirsium sp	Thistle
Senecio vulgaris	Groundsel
Galium aparine	Cleavers
Anthriscus sylvestris	Cow parsley
Taraxacum officinale	Dandelion
Geranium robertianum	Herb Robert
Epilobium tetragonum	Square stalked willowherb
Ranunculus repens	Creeping buttercup
Geum urbanum	Wood avens
Stellaria media	Chickweed
Convolvulus arvensis	Field bindweed
Clematis vitalba	Travellers joy

Scattered Trees	
Scientific Name	**Vernacular**
Aesculus hippocastanum	Horse chestnut

Line of Trees	
Scientific Name	**Vernacular**
Fraxinus excelsior	Ash
Ilex aquifolium	Holly
Sambucus nigra	Elder
Acer pseudoplatanus	Sycamore
Crataegus monogyna	Hawthorn
Prunus laurocerasus	Cherry laurel
Cupressus x leylandii	Leyland cypress
Aesculus hippocastanum	Horse chestnut
Hedera helix	Ivy

Convolvulus sp.	Bindweed
Rubus fruticosus	Bramble

Appendix V. ANNOTATED MAP OF THE SURVEY AREA.



Site: Land adjacent to St. John's Church, Carlton.

Reference: 250160

Date: 11.02.2025

Produced by: Alex White

Appendix VI. TARGET NOTES.

T1. Location of horse chestnut assessed as having PRF – M.

T2. Location of *Rhododendron ponticum* regrowth.