



SHEFFIELD ROAD, OXSPRING.

OS REF: SE 27204 01965

ECOLOGICAL IMPACT ASSESSMENT.

Ref No: 230557/EcIA.

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1. INTRODUCTION.

1.1. There are plans to develop a site off Sheffield Road, Oxspring currently occupied by the Oxspring football club changing rooms.

1.2. Whitcher Wildlife Ltd were commissioned to carry out a Preliminary Ecological Appraisal of the site to determine whether there are any ecological issues associated with the planned works.

1.3. A Preliminary Ecological Appraisal survey was carried out on 6th June 2023. That report outlined the findings of the survey and made appropriate recommendations.

1.4. All recommendations from that reported have since been carried out and landscaping has been confirmed, allowing for the Preliminary Ecological Appraisal into this Ecological Impact Assessment. This report details conclusive impacts of the proposed development.

1.5. Appendix I of this report provides additional information on specific species and is 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 UK Habitat Classification methodology to identify the broad habitat types throughout the survey area.

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

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

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

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

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

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

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

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

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

- * Holes, cracks or crevices.
- * Bat Droppings.

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

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

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

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

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

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

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

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

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

2.17. The conversion from a Preliminary Ecological Appraisal to an Ecological Impact Assessment was undertaken by Mitchel Greenhalgh, an ecological consultant with an array of experience in conducting surveys on a variety of flora and fauna in a professional capacity. Mitchel holds a level two Natural England survey licence in respect of both bats and great crested newts and a NatureScot survey licence in respect of bats. He has attended courses run by CIEEM and the FSC and also holds a BSc in

environmental science attained from the University of Leeds. He is an associate member of CIEEM is therefore committed to continuous professional development.

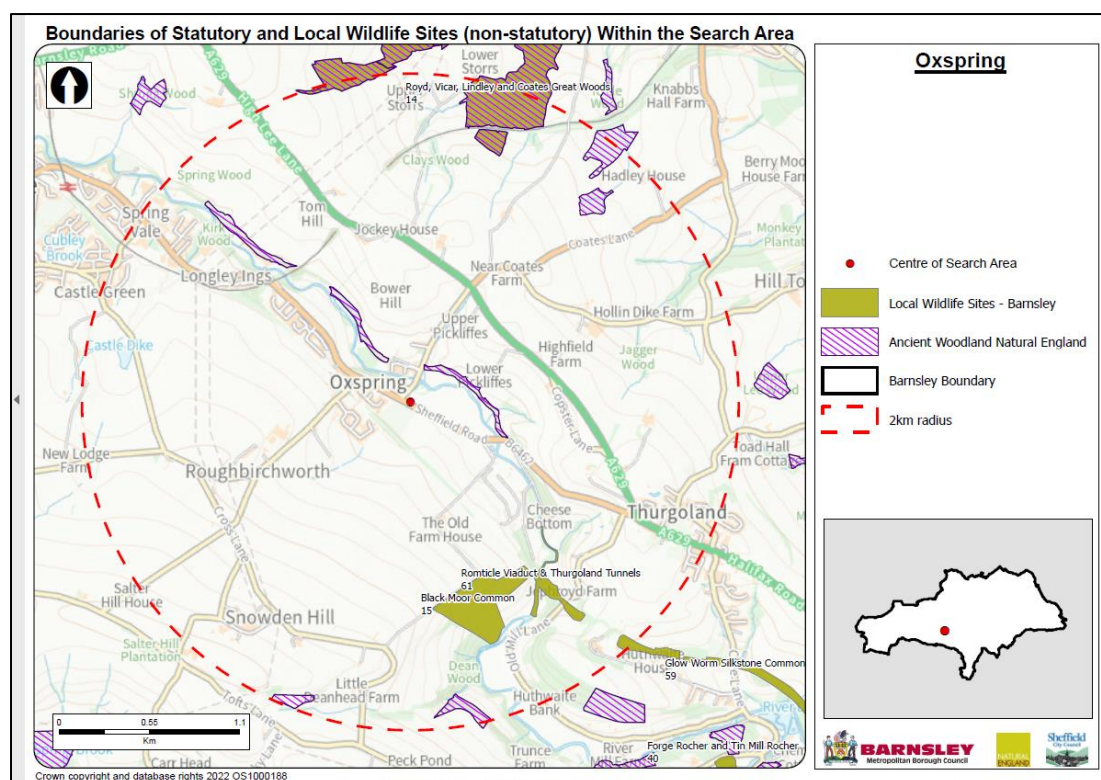
3. BASELINE ECOLOGY.

3.1. Data Search Results.

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

3.1.2. BBRC hold no records of Internationally Designated Sites or Nationally Designated Sites within 2km of the site.

3.1.3. BBRC hold records of three Local Wildlife Sites within 2km, all in excess of 1.5km from the site. The sites are shown on the map below where the site is shown as a red dot.



3.1.4. None of the sites are close enough to the survey area to be an issue.

3.1.5. There are records of numerous birds and flowering plants in the data search results. There are also records of badger, water vole, brown hare and mole in the surrounding area but none are specific to the survey area.

3.1.6. There are a variety of bat records in the surrounding area but none of direct relevance to the survey area.

3.1.7. A copy of the data search is available on request.

3.1.8. The South Yorkshire Badger Group have records of badger setts in the surrounding area but none close to the survey area.

3.2. The Surveyed Area.

3.2.1. The aerial photograph below shows the location of the site marked with a red arrow and the surrounding area. The site lies to the east of the village of Oxspring with open farmland to the east leading to the river Don.



3.2.2. The site is for sale as a small development site for one property.

3.3. Description of Habitats.

Appendix II of this report contains an annotated map marked up with the varying habitats that are on the site. The habitats on to the site are: -

- h3h - Mixed Scrub.
- u1e - Built Linear Feature.
- u1b5 – Building
- g4 – Modified Grassland.

3.3.1. h3h - Bramble Scrub.

Secondary codes: 32 scattered trees.

3.3.1.1. There is an area of scrub around the changing rooms. Species present include bramble (*Rubus fruticosus*), elder (*Sambucus nigra*), cherry (*Prunus* sp.), sycamore (*Acer pseudoplatanus*), hawthorn (*Crataegus monogyna*), privet (*Ligustrum vulgare*), dog rose (*Rosa canina*), ash (*Fraxinus excelsior*), nettle (*Urtica dioica*), Himalayan balsam (*Impatiens glandulifera*), wood avens (*Geum urbanum*), jack by the hedge (*Alliaria petiolata*), cow parsley (*Anthriscus sylvestris*), cleavers (*Galium aparine*), meadow buttercup (*Ranunculus acris*), dandelion (*Taraxacum officinale*), rosebay willowherb (*Chamerion angustifolium*), thistle (*Cirsium* sp.), false oat grass (*Arrhenatherum elatius*), perennial ryegrass (*Lolium perenne*), forget me not (*Myosotis* sp.) and cut leaf cranesbill (*geranium dissectum*).





3.3.1.2. Within the scrub, there are a small number of trees. These include a multi-stemmed sycamore (*Acer pseudoplatanus*), on the northern boundary and a semi-mature ash (*Fraxinus excelsior*) on the eastern boundary. All other trees are smaller species included within the scrub.



3.3.2. u1e - Built Linear Feature.

Secondary codes: 114 dry stone wall, 612 fence.

3.3.2.1. There is a low stone wall that separates the survey area from the lawned verge at the front of the site and at the western end of the survey area.



3.3.2.2. There is a dilapidated fence line at the rear of the property.

3.3.3. u1b5 – Building.

There is one building present on the site, which is the existing football club changing rooms. This is dealt with in more detail later in the report.

3.3.4. g4 – Modified Grassland.

Secondary codes: 801 road verge or island.

The red line boundary includes a section of the road verge along Sheffield Road, which will be removed to accommodate the new driveway. This habitat is finely mown but comprises typical amenity species such as perennial rye grass (*Lolium perenne*), daisy (*Bellis perennis*), dandelion (*Taraxacum officinale*) and self-heal (*Prunella vulgaris*). Other species are likely to be present but are difficult to identify due to the recent mowing.



3.4. Description of Fauna.

3.4.1. No badger setts or field signs were identified anywhere on the site and the site is assessed to be low value foraging habitat for badgers as it is located against the busy main road. However, the wider environment, particularly to the north, is assessed to provide higher value habitat.

3.4.2. There is a small watercourse that flows out of a culvert beneath the adjacent road and immediately back into another culvert beneath the end of the survey area. This watercourse is an unsuitable habitat for water voles, otters or white clawed crayfish as the watercourse is only above ground for a very short distance.

3.4.3. There are no ponds close to the site to provide habitat for great crested newts and other amphibians.

3.4.4. There is one building present on the site. This is the existing football club changing rooms.

3.4.4.1. The front of the building is constructed with metal clad walls and a pitched, metal sheet covered roof. The rear of the building has been extended with a section that has cavity brick walls and a flat, felt covered roof on a rotting timber frame.



3.4.4.2. Internally there are a series of different rooms open to the underside of the pitched roof.



3.4.4.3. The only gaps were under the flat roof at the rear of the building where there were rotted timbers. These could be inspected and no bat field signs were found. There were also broken windows that would allow bats to fly into the building but no droppings or field signs were found to suggest this.

3.4.4.4. The temperature inside this building will vary considerably and the building is assessed to provide negligible potential for roosting bats.

3.4.5. None of the trees on the site are of sufficient maturity to provide opportunities for roosting bats.

3.4.6. The scrub on the site and in the adjacent field will provide suitable foraging habitat for bats. However, as much of the surrounding area is open farmland, the area is assessed to be of low to moderate value for foraging bats.

3.4.7. The scrub and trees on the site provide opportunities for nesting birds during the nesting season, which extends from March to August each year. No nests were identified during this survey.

3.4.8. The site itself is assessed to have low to moderate potential for reptiles as the site is small, confined and comprises low value habitats for reptiles. However, the dry-stone wall and grassland to the north mean there is some small potential for reptiles to be present on site. There are no reptile records in the data search results.

3.4.9. The site provides suitable habitat for hedgehog and it is therefore possible that they could utilise the site.

3.4.10. Himalayan balsam, an invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981) was found growing within the survey area.



4. IMPACT ASSESSMENT, MITIGATION AND RESIDUAL EFFECTS.

4.1. Designated Sites.

4.1.1. Assessment.

4.1.1.1. The site lies a sufficient distance from any designated sites as to avoid impacting upon them. The proposed works are to replace one building for another which will not result in any indirect pressure on nearby designated sites.

4.1.1.2. The site does lie within a SSSI risk zone but is not within a distance that Natural England need to be notified.

4.1.2. Mitigation.

The works will have no impact on any designated site and therefore no mitigation is necessary.

4.1.3. Residual Impacts.

As the works will not impact upon any designated sites, it is assessed that there will be **no residual impact** on designated sites.

4.2. Habitats.

4.2.1. Assessment.

4.2.1.1. The scrub and scattered tree habitats on the site are all of moderate value but are common at both site and local level. Calculations have been carried out using the Biodiversity Small Sites Metric 4.0, as was the most up-to-date version of the metric at the time of writing this report.

Area habitats.

Habitat Type	Area in m ²	Distinctiveness	Condition Assessment	Biodiversity Units.
Mixed Scrub	332	Medium	Moderate	0.26
Modified Grassland	22	Low	Moderate	0.01
Other Developed Land	65	V.Low	N/A	0
Urban Tree*	407	Medium	Moderate	0.37
Total	409m2			0.64BU

*Urban trees excluded from area calculation.

4.2.2. Mitigation.

4.2.2.1. The proposed works will result in the removal of the scrub, but the retention of the larger sycamore, T5 in the Arboricultural Report. In addition to the retention of the larger tree on site, two medium sized trees will also be planted along the northern boundary, along with one small trees at the northwest of the site at the end of the driveway.

4.2.2.2. The rest of the area which is not to be developed will be replaced by a general amenity turf mix.

4.2.2.3. The Himalayan balsam will be removed from the site, by waiting for the plant to sprout to next season and then hand pulling it before it can seed. This will be repeated on an annual basis for a minimum of three years and until the plant can be confirmed as eradicated from the site.

4.2.2.4. This planting will result in the following post works biodiversity score, again calculated using the Biodiversity Metric 4.0.

Area habitats.

Habitat Type	Area in m ²	Distinctiveness	Condition Assessment	Biodiversity Units.
<i>Created habitats</i>				
Amenity Grassland	199	Low	Moderate	0.07
Developed Land, Sealed Surface	209	V.Low	N/A	0
Urban Trees*	773	Medium	Moderate	0.24
<i>Retained habitats</i>				
Urban Trees*	366	Medium	Moderate	0.34
Total	409m2			0.65BU

*Urban trees excluded from area calculation.

4.2.3. Residual Impacts.

Post works, there will be a **0.25% increase** in area biodiversity units. This will result in **no residual impact** at site level.

4.3. Species – Birds.

4.3.1. Assessment.

Suitable habitat for nesting birds is present within the site, particularly within the scrub, trees, and potentially even within the building.

4.3.2. Mitigation.

4.3.2.1. The demolition of the building and any vegetation clearance will be done outside of the nesting bird season. If it must be carried out within the nesting season, then it will be preceded by a nesting bird survey undertaken by a suitably qualified ecologist. Any active nests found will be left undisturbed until the young have fledged.

4.3.2.2. The new planted trees and retained tree, will also ensure that nesting habitat is still present post works.

4.3.3. Residual Impact.

It is assessed that there will be **no residual impact** on birds at a site level.

4.4. Species – Reptiles and Small Mammals.

4.4.1. Assessment.

The survey area and its immediate surroundings offer some suitable habitat for common reptile species and small mammals, particularly hedgehogs.

4.4.2. Mitigation.

Vegetation will be cleared via a two-stage method, whereas the vegetation will initially be cleared down to a minimum of 150mm and left for a period of forty-eight hours before then being checked over, and if clear of reptiles and small mammals, will then be cleared down to ground level.

4.4.3. Assessment.

It is assessed that there will be **no residual impact** on reptiles and small mammals at a site level.

5. COMPENSATION AND ENHANCEMENT MEASURES.

5.1. Biodiversity enhancements will be provided within the development in line with the requirements of the NPPF.

5.2. An integrated bat brick will be installed into one of the gable walls of the new dwelling. This will be a Habibat box as shown below or similar matched to the finish of the wall.



5.3. A pair of swift bricks will also be installed into the gables of the new dwelling. These will be the Ibstock swift boxes as shown below or similar.



5.4. Although not anticipated to be required, any new fencing on site will be fitted with a 130mm hole to allow for ease of access for any hedgehogs which may use the site.

5.5. Within the northeast corner of the development, a refugia pile will be created using vegetation and logs cleared during the vegetation removal process. This will create refugia for any reptiles, amphibians or small mammals which may use the site.

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Checked by:	
Ruth Georgiou, BSc, MCIEEM.	Date: 2 nd October 2023.

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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

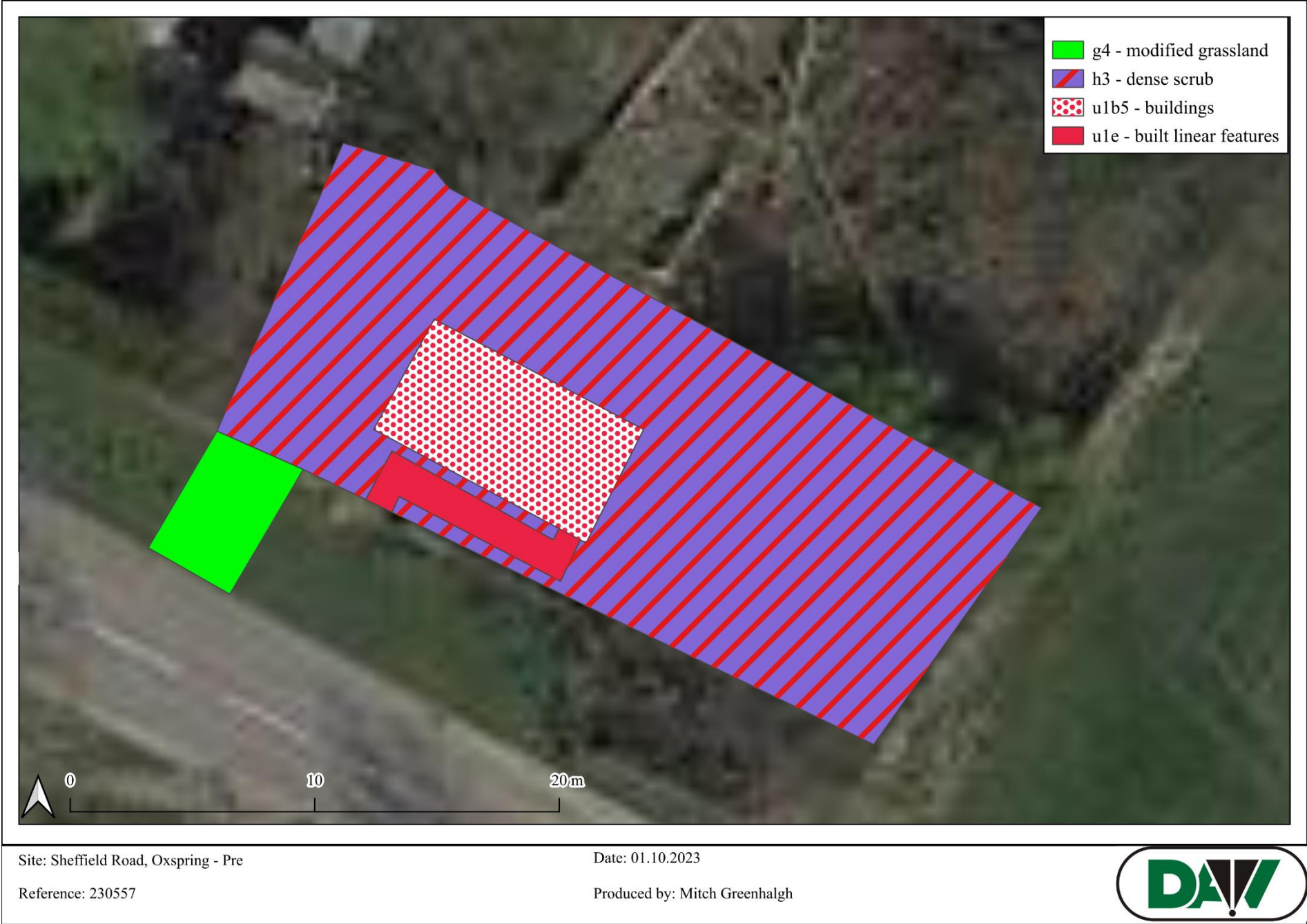
Nesting birds are protected under The Wildlife and Countryside Act 1981.

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. ANNOTATED MAP OF THE SURVEY AREA - BASELINE.



Appendix III. ANNOTATED MAP OF THE SURVEY AREA – POST WORKS.



