

# **Weddle Landscape Design**

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## **LAND OFF WORSBOROUGH ROAD, BARNSELY**

### **Preliminary Ecological Appraisal (PEA)**

February 2020

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## APPENDICES

Appendix A: Natural England's Magic Map, February 2020

Appendix B: Sheffield Biological Records Centre (SBRC) Data Search, January 2020

## DRAWING

1054-WLD-LWR 03 PHASE 1 HABITAT SURVEY

# **1 INTRODUCTION**

## **1.1 Background**

A retrospective planning application for the development of land off Worsborough Road, Barnsley is being prepared for a single pitch Gypsy caravan site.

Heine Planning has asked Weddle Landscape Design to carry out a Preliminary Ecological Appraisal (PEA) of the site.

This Preliminary Ecological Appraisal aims to:

- Identify any likely ecological constraints or impacts
- Propose any necessary design changes
- Propose any ecological enhancements or mitigation to reduce impacts

This PEA includes a desk study and extended Phase 1 Habitat Survey undertaken in November 2019.

This report has been prepared by Neil Northrop BA DipLD MCIHort MARborA CMLI with over 12 years ecological field surveying, scoping, protected species surveys and report writing experience. This report has been prepared in line with BS 42020:2013 Biodiversity: Code of practice for planning and development and the CIEEM Guidance for Preliminary Ecological Appraisal, Ecological Report Writing and Ecological Impact Assessment.

## **1.1 Site Description**

The Planning Application site is approximately 0.55 hectares. The site is located near Worsborough Hall approximately 3.5km to the south of Barnsley city centre at Ordnance Survey at grid reference SE351 028.

The site is a slightly sloping parcel of bare ground which has previously been cleared and levelled. The boundaries are formed by post and rail fences with young Cherry Laurel hedges.

To the south is Worsborough Road and beyond is Worsborough Park with a mix of shelterbelt woodland and arable farmland. To the north and east is an area of woodland currently being grazed by sheep.

To the north is a hardstanding yard used for storage. To the west is a small parcel of woodland, beyond which is the buildings, roads and gardens associated with Worsborough Hall.

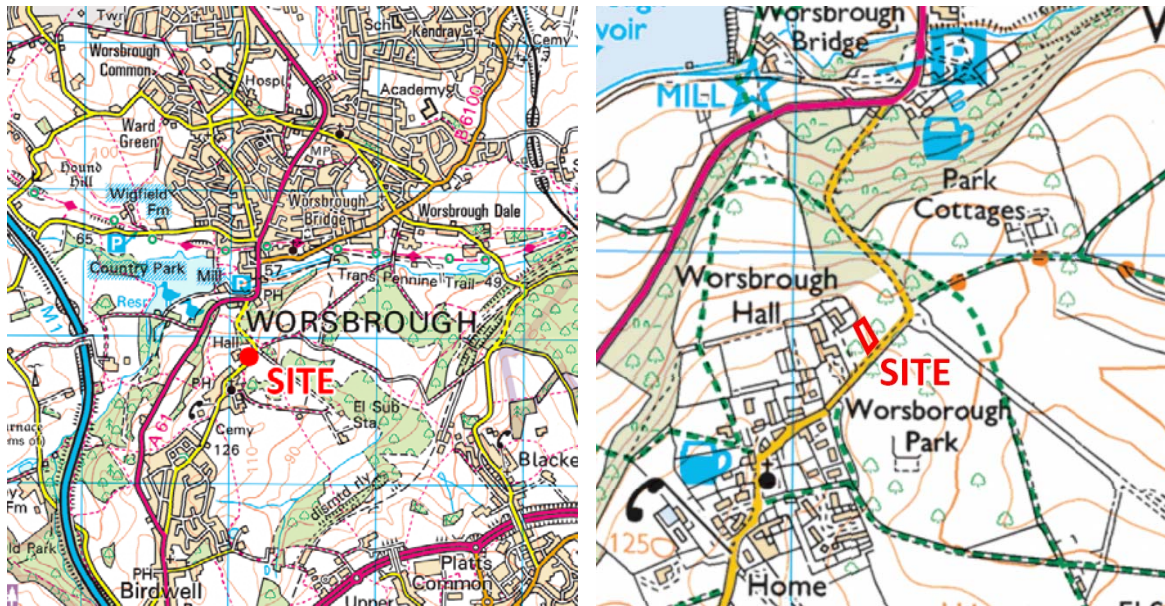


Figure 1 - Site Location



Figure 2 – Aerial Photograph with Site Boundaries

## 1.2 The Proposals

A retrospective planning application is being proposed for a single pitch Gypsy caravan site.

## 1.3 Planning Status

The site is under the development control Barnsley Metropolitan Borough Council.

## **2 METHODOLOGY**

### **2.1 Desk Study**

A desk study was undertaken for a 1km radius from the approximate centre of the site (OS grid reference SE351 028) in order to collate any existing ecological data for the site and its immediate surroundings.

As part of the desk study process, other sources of record information (including both statutory and non-statutory organisations) have been considered as follows:

- Natural England Magic website for geographic information on key environmental schemes and designations. [www.magic.gov.uk](http://www.magic.gov.uk), February 2020 (see Appendix A).
- Sheffield Biological Records Centre (SBRC) data at OS grid reference SE351 028. Received 3<sup>rd</sup> February 2020 (see Appendix B for map – full data set available on request).

### **2.2 Field Survey**

Field surveys were carried out in accordance with the Joint Nature Conservation Committee's 'Handbook for Phase 1 Habitat Survey'. The Phase 1 Habitat survey was undertaken on 24<sup>th</sup> January 2020 (a cool and sunny day). This is considered to be outside the optimum period for Habitat Field Surveys, between March and October.

This survey was 'extended' to include the following:

- Description of each habitat including list of species and assessment of general management and condition.
- Consideration of Priority Habitats under S41 of NERC Act and Habitats Directive Annex I habitat types.
- Identification of evidence, or potential for the presence of species.

The results of the Phase 1 Habitat Survey are presented below, and a Phase 1 Habitat Plan has been prepared and habitat locations are detailed on drawing number 1054-WLD-LWR 03.

### **3 BASELINE ECOLOGICAL CONDITION**

#### **3.1 Designations**

Worsborough Country Park Local Nature Reserve (LNR) is located approximately 75m to the north east of the site.

There are two non-statutory Local Wildlife Sites (LWS) within 1km of the site. The closest is the former Barrow Colliery Site LWS (1158), which is located 250m to the east of the site. Worsborough Reservoir LWS (661) is located approximately 430m to the north of the site.

Natural England Magic website indicates that the site is located within a Deciduous Woodland Priority Habitat Inventory (PHI) allocation. There are a number of these within a 1km radius of the site, predominantly to the north east and north west where the steepens and drops down into the valley around the Worsborough Reservoir.

Some areas of woodland are also noted to be Ancient and Semi-Natural Woodland with the closest being approximately 180m to the north of the site.

An expansive area of Good quality semi-improved grassland (Non-priority) PHI are found to the east of the site on the former Barrow Colliery Site.

#### **3.2 Habitats and Flora**

##### **Flora Records**

Sheffield Biological Records Centre (SBRC) provided no flora records for any notable plant species for the site or within the 1km search area.

##### **Invasive Species**

There are no invasive species records for the site or within the 1km search area. No invasive species were noted during the site walk over.

##### **Hardstanding/Bare Ground**

The majority of the site is covered with hardstanding of compacted hardcore. Based on historical aerial imagery this appears to have been placed in 2018. At the time of the survey the bare ground showed no signs of grass or ruderal vegetation. The bare ground provides no habitat value.



*Bare Ground, Young Cherry Laurel hedgerow and grazed land beyond.*

## **Trees and Woodland**

There is only one tree within the site boundary, an over-mature Oak (*Quercus robur*) adjacent to the entrance from Worsborough Road. Immediately surrounding the site are a number of trees of varying ages of Oak (*Quercus robur*), Sycamore (*Acer pseudoplatanus*) and Lime (*Tilia x europaea*).

Within the adjacent site to the east there is very little understorey vegetation due to sheep grazing. Historical aerial imagery suggests that the adjacent site has been grazed since 2018.

There a number of mature and over-mature trees at regular intervals along Worsborough Road and these are remnants of the historical open parkland of Worsborough Hall. Younger trees are likely to have colonised the open land.

Adjacent to the site to the west is a less disturbed area of woodland. The understorey is predominantly covered by ruderal Nettle (*Urtica dioica*) with some small patches of Bramble (*Rubus fruticosus*).



Adjacent woodland to the west

### Hedgerow

A recently planted hedgerow of Cherry Laurel (*Prunus laurocerasus*) has been planted around the boundaries of the site for screening. While the hedgerow may provide some cover for birds on maturity it currently provides very little value as a habitat.

## 3.3 Fauna

### Terrestrial Mammals

No on-site records of Badger (*Meles meles*) or other terrestrial mammals were provided by the SBRC data search.

Within the 1km search area there are two records of Badger located approximately 500m from the site. During the walkover the site was searched for evidence of terrestrial mammals. This included searching for signs of Badgers including sett, badger paths or spoor. No field signs were found.

Badgers and their setts are protected under the Protection of Badgers Act 1992.

There are also a number of Brown Hare (*Lepus europaeus*), Harvest Mouse (*Micromys minutus*) and Hedgehog (*Erinaceus europaeus*) records within the 1km area of search which are generally located within Worsborough Reservoir LWS, Worsborough Country Park or the former Barrow Colliery.

One record of Water Vole (*Arvicola terrestris*) was provided, located in Worsborough Country Park. The site does not provide any suitable habitat for Water Vole.

### Bats

SBRC provided three roost records for Brown Long-eared Bat (*Plecotus auritus*) and Common Pipistrelle (*Pipistrellus pipistrellus*) at Worsborough Hall approximately 40m to the west of the site.

SBRC provided a number of records from within the 1km area of search for a range of bat species including, Brown Long-eared Bat (*Plecotus auritus*), Noctule (*Nyctalus noctule*), Common Pipistrelle (*Pipistrellus pipistrellus*), Daubenton's Bat (*Myotis daubentoni*), Leisler's Bat (*Nyctalus leisleri*). The majority were foraging or commuting records with two other roost records located at Button Mill Inn 380m north east and Mill House 575m north of the site.

The site provides potential foraging habitat amongst the trees, and the surrounding area clearly has foraging and roosting potential with a mosaic of open parkland, woodlands, shelterbelts and grassland habitats.

The trees located on and within close proximity of the site were checked for the potential to support roosting bats. On site Oak (*Quercus robur*) T3 is considered to be of moderate risk of supporting bat roosts with one large cavity and a small number of other potential roost features. Off site Sycamore (*Acer pseudoplatanus*) T13 is considered to be of moderate risk of supporting bat roosts as it is of sufficient age to have potential roost features and its stem is covered in Ivy.



Cavity of T3 facing in a west direction

The remaining trees were considered to fall within the low or negligible risk categories of supporting bats.

Some UK bat species are listed under S41 of the NERC Act 2006. All British bat species and their roost are protected under the Wildlife and Countryside Act 1981 (as amended by the CRow Act 2000), and by the Conservation of Habitats and Species Regulations 2010 (as amended).

## Birds

SBRC provided numerous bird records of different species within the 1km search area. The majority of records are for Worsborough Reservoir LWS, Worsborough Country Park or the former Barrow Colliery Site.

No records were returned for the site however two record for Hawfinch (*Coccothraustes Coccothraustes*) were noted in Worsborough Hall Gardens to the west.

The site itself provides very little opportunities for birds. The surrounding woodland is sparse of cover although mature trees where covered in Ivy do provide nesting opportunities, although no nests were recorded. No birds were identified during the site visit.

Breeding birds are protected under The Wildlife and Countryside Act 1981 (as amended), which includes protection against the damage or destruction of any nests whilst they are in use or being built.

## **Amphibians**

The SBRC data search returned 21 amphibian records for Common Toad (*Bufo bufo*), Smooth Newt (*Triturus vulgaris*), Common Frog (*Rana temporaria*), Palmate Newt (*Triturus helveticus*) within the 1km search area. The majority of records are located within Worsborough Reservoir LWS and not accurately located beyond the 1km grid square. It is assumed that these are likely to be located in and around the watercourses.

A breeding colony of Common Toads was noted at Barrow Colliery but again it was not accurately located. The only ponds within the Barrow Colliery are at least 1km from the site.

Two records for Great Crested Newt (GCN) (*Triturus cristatus*) from 2002 and 2011 are located within Worsborough Reservoir LWS and also not accurately located beyond the 1km grid square.

Great Crested Newt is a S41 species and are afforded protection under the Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2010.

No EPS licences relating to GCN were identified within 3km of the site using the Magic website.

There are no ponds on the site and the pond scoping exercise found no ponds within 500m of the site. The walkover found no evidence of the presence of amphibians and no features suitable for amphibian foraging or hibernation on site or within the adjacent woodland. Therefore GCN are not considered further within this report.

## **Reptiles**

The SBRC data search returned 13 records of Grass Snake (*Natrix natrix*) within the 1km search area. The majority of records were located within Worsborough Reservoir LWS or Barrow Colliery and half are not accurately located beyond the 1km grid square. The closest record is 675m to the east within the mosaic of grassland, trees and scrub of Barrow Colliery.

The site inspection revealed no evidence of the presence of reptiles, a lack of mosaic habitats, lack of suitable refugia or hibernacula both onsite and within the adjacent woodland. It is considered very unlikely that reptiles are present on site or within the adjacent woodland and are not considered further within this report.

## **Invertebrates**

The SBRC data search returned 48 records for White Letter Hairstreak (*Satyrrium w-album*), Small Heath (*Coenonympha pamphilus*), Grey Dagger (*Acronicta psi*), Ghost Moth (*Hepialus humuli*), Dingy Skipper (*Erynnis tages*), Latticed Heath (*Chiasmia clathrate*), Shaded Broad-

Bar (*Scotopteryx chenopodiata*) and Cinnabar (*Tyria jacobaeae*). The majority are located on the Barrow Colliery Site LWS.

No records were provided by SBRC for the site. The habitats on-site provide very little opportunity for invertebrate species, and it is unlikely that the site supports a notable or important invertebrate species.

## **4 ECOLOGICAL CONSTRAINTS AND OPPORTUNITIES**

### **4.1 Confirmed Constraints and Mitigation Proposals**

Avoidance, mitigation and/or compensation measures are required for the following constraints:

#### **Trees**

No tree removals are required for the development however retained trees should be protected in line with BS5837:2012 '*Trees in relation to Design, Construction and Demolition - recommendations*' during the construction of the utility building.

The proposed utility building is to be located outside of the root protection area of retained trees.

#### **Birds**

Trees can provide bird nesting habitat. In compliance with Wildlife and Countryside Act 1981, no construction work which will disturb nesting birds should take place during the breeding season (March – August).

New hedgerow and tree planting should incorporate species which will offer foraging and nesting opportunities for birds.

#### **Bats**

No tree removals are required for the development and therefore impacts on potential bat roost are avoided. However, if the proposal changes and either trees T3 and T13 are required to be removed then these trees should be subject to further aerial or activity surveys.

Any proposed new external lighting for the development should be designed to ensure that trees T3 and T13 are not illuminated, any lights are angled downward and that night time light levels remain relatively low.

### **4.2 Potential Constraints and Avoidance Measures**

No further potential constraints requiring avoidance, mitigation and/or compensation measures have been identified.

### **4.3 Ecological Enhancement Opportunities**

The following ecological enhancements should be incorporated into the proposed development:

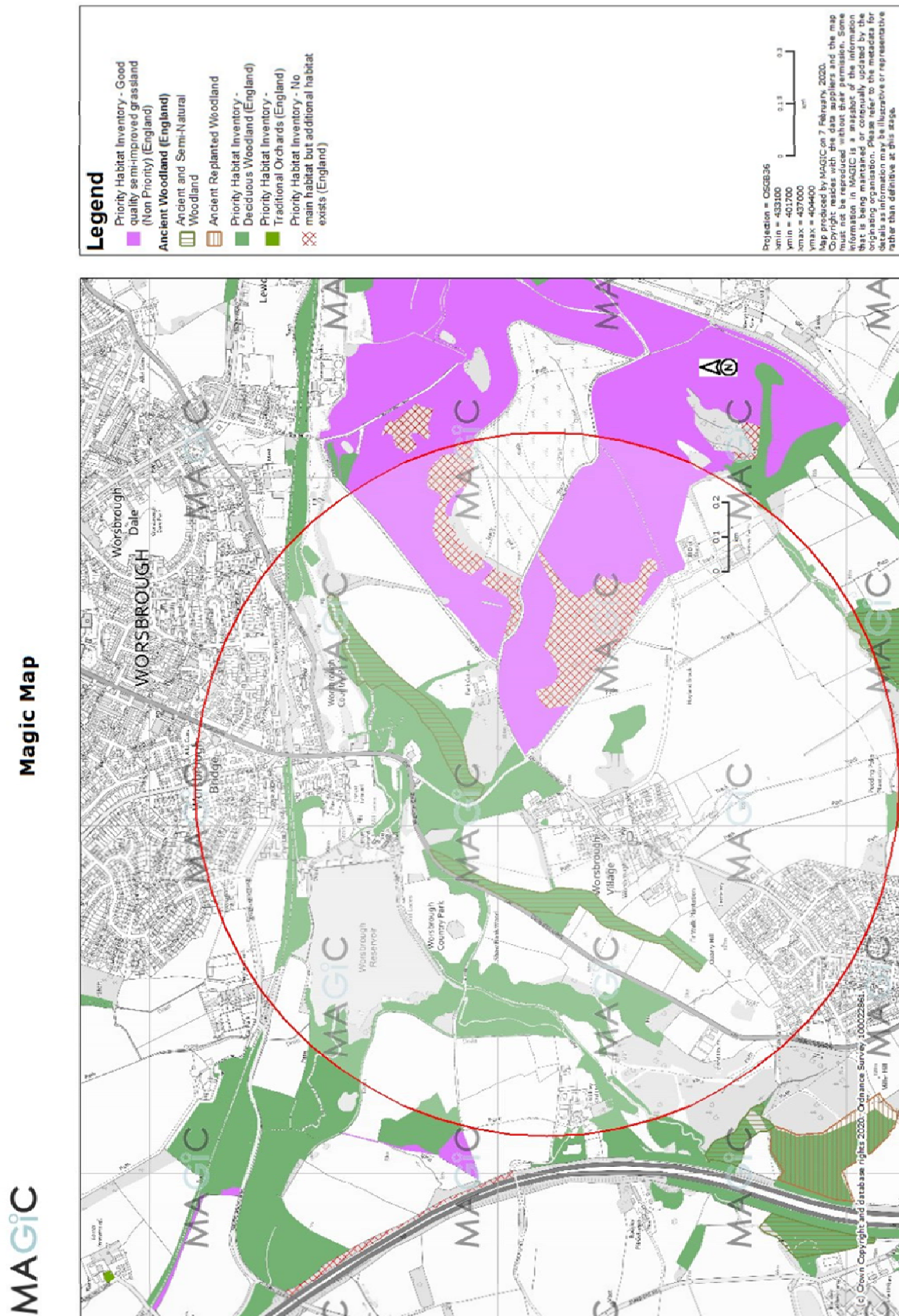
- Removal of Cherry Laurel hedgerow and planting of boundary hedgerow with native species mix.
- Planting which includes of native species trees.
- 2 No bat boxes should be secured to trees on site or within ownership
- 2 No bird boxes should be secured to trees on site or within ownership
- Any permanent boundary fencing should include holes suitable for hedgehogs
- Removal of hardstanding from approximately 15% of the site and reinstatement with species rich meadow.

These enhancements are indicated on drawing 1054-WLD-LWR02 Tree Protection Plan.

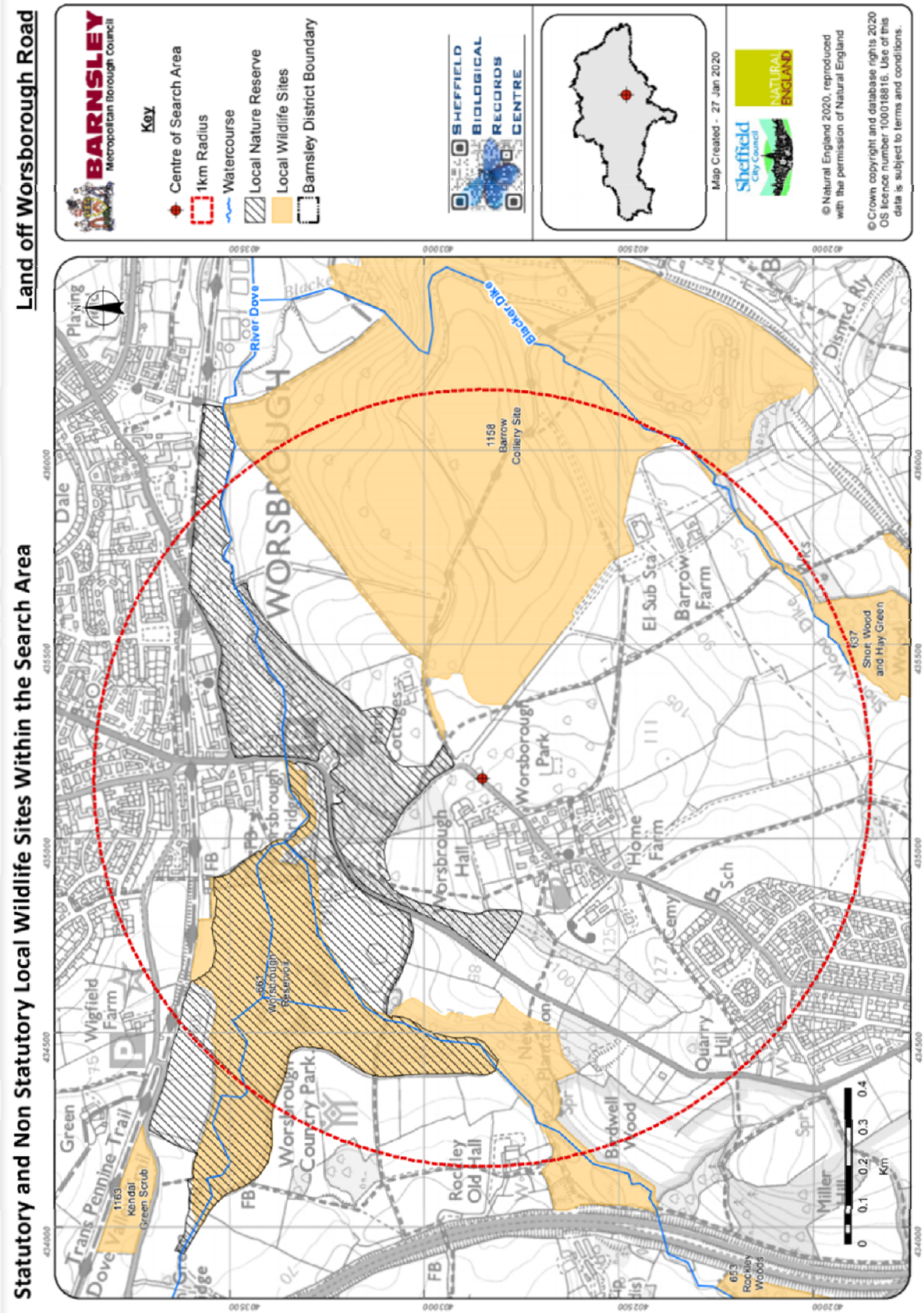
#### **4.4 Mechanism to secure Mitigation and Enhancement**

The mitigation measures and enhancement opportunities set out above can be secured through appropriately worded planning conditions as part of any planning consents granted.

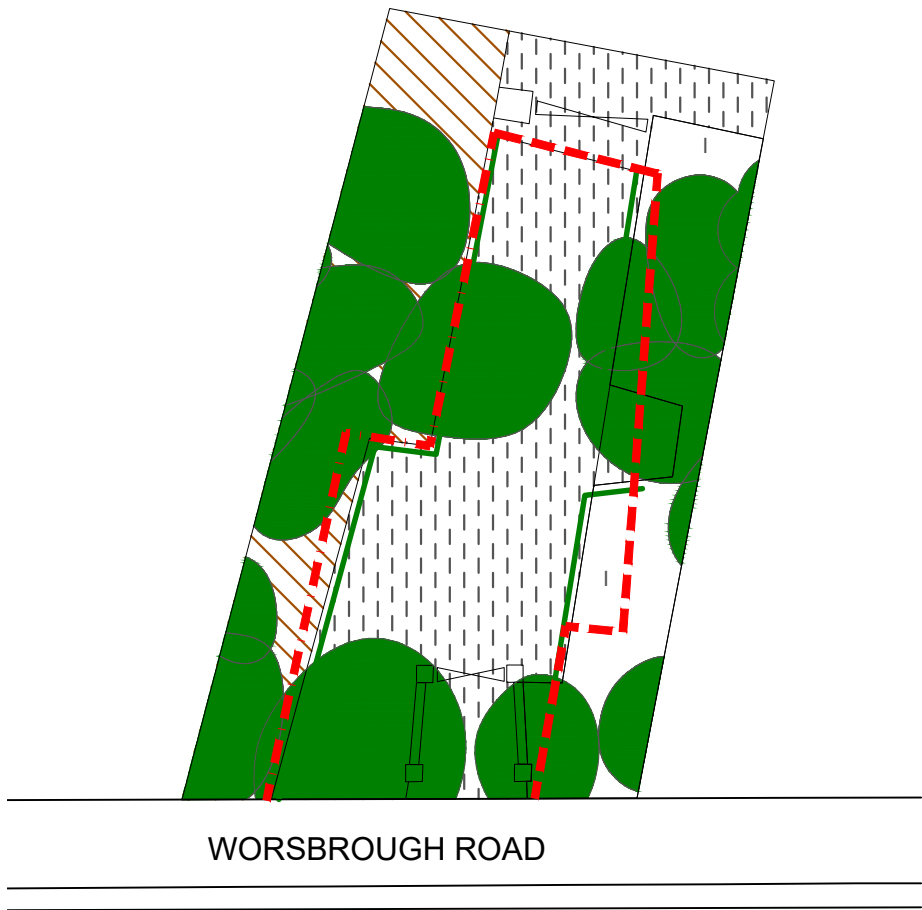
**Natural England Magic environmental schemes and designations. [www.magic.gov.uk](http://www.magic.gov.uk)  
February 2020**



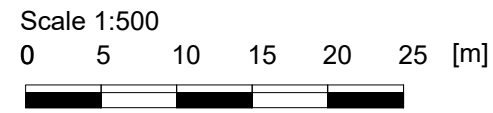
APPENDIX B  
Statutory and Non-Statutory Sites. SBRC January 2020



**DRAWING**  
**1054-WLD-LWR 03 PHASE 1 HABITAT SURVEY**



WORSBROUGH ROAD



NOTES  
Although this map has been produced with the intention of indicating and classifying the occurrence of semi-natural habitats, it is not to be regarded as a definitive representation of the conservation value or interest of any piece of land. In particular, the absence of any symbol such as a colour code or target symbol should not be taken as denoting a lack of conservation value.

- Habitat Type Key:
- J4 Bare ground
  - B4 Improved grassland
  - C3.1 Tall ruderal
  - A1.1.1 Broadleaved woodland - semi-natural
  - J2.3.2 Hedge with trees - species-poor
  - Site Boundary

Based on tree survey and tree constraints plan layout  
drawing no LWR 01

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Job: WORSBOROUGH ROAD (LAND OFF), BARNSLEY

Title: PHASE 1 HABITAT SURVEY

| scale@A3 | drawn | date   | job number | number | revision |
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