



**envirotech**

**Ecological Consultants  
Environmental and Rural Chartered Surveyors**

## **Preliminary Ecological Appraisal**

**Upper Hoyland Road, Barnsley**



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## ACCURACY OF REPORT

This report has been compiled based on the methodology as detailed and the professional experience of the surveyor. Whilst the report reflects the situation found as accurately as possible, all of the protected species this survey covers are wild and can move freely from site to site. Their presence or absence detailed in this report does not entirely preclude the possibility of a different past, current or future use of the site surveyed.

We would ask all clients acting upon the contents of this report to show due diligence when undertaking work on their site and/or in their interaction with protected species. If protected species are found during a work programme, and continuing the work programme could result in their disturbance, injury or death, either directly or indirectly an offence may be committed.

If in doubt, stop work and seek further professional advice.

## Quality and Environmental Assurance

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## **1. EXECUTIVE SUMMARY**

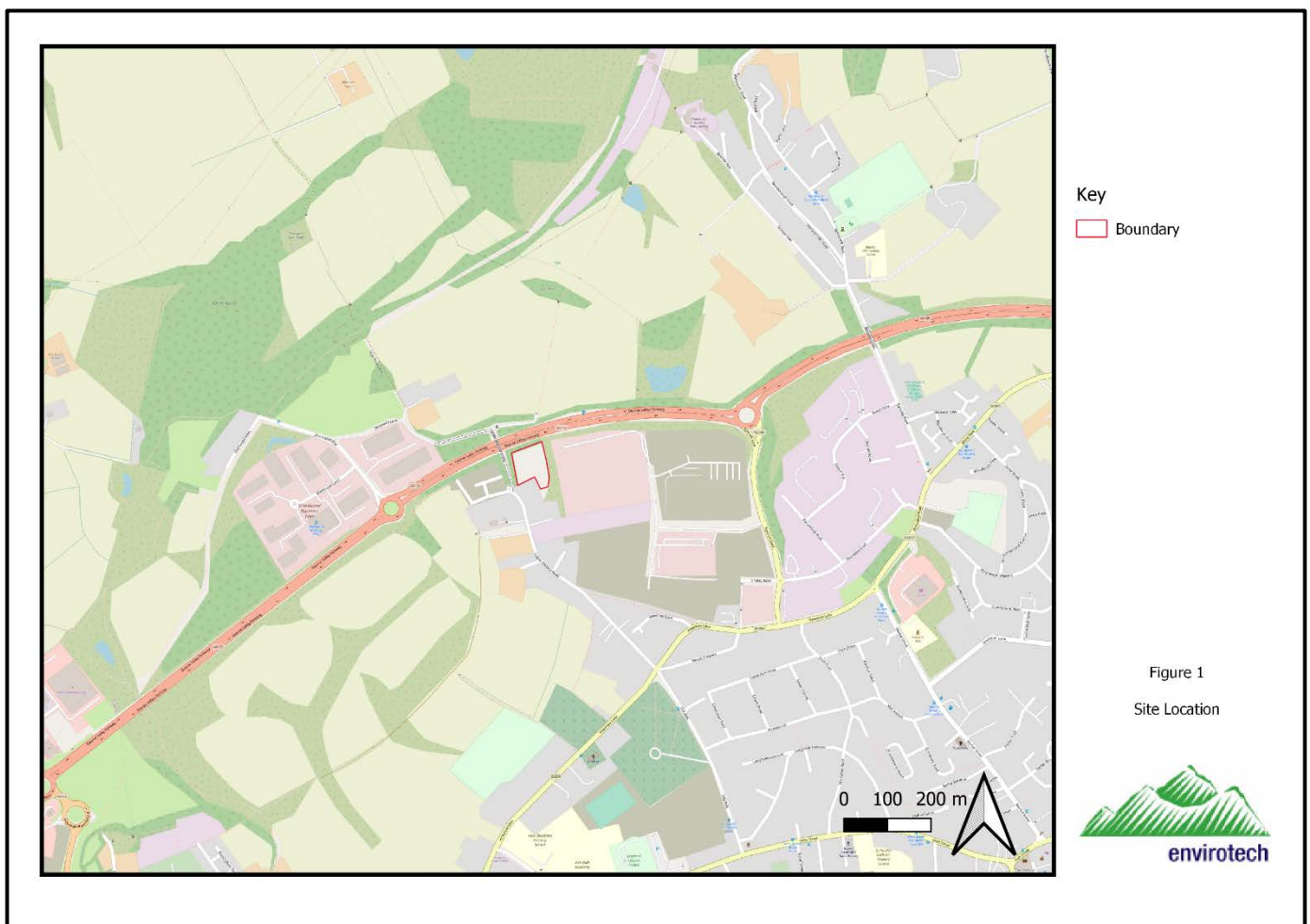
- 1.1.1 Envirotech NW Ltd were commissioned in August 2021 by AAA Property Group Ltd to carry out a Preliminary Ecological Appraisal of land off Upper Hoyland Road in Barnsley. It is proposed that residential dwellings are constructed on the site.
- 1.1.2 A data search and desk study of the site and an area within 2km of the site were undertaken to establish the presence of protected species and notable habitats.
- 1.1.3 The site was then visited by an ecologist from Envirotech NW Ltd on the 26<sup>th</sup> August 2021. A full botanical survey of the site was initially undertaken and this was followed by surveys to establish the presence or absence of notable species at the site or in proximity such that they may be affected by the proposed development.
- 1.1.4 The proposed development falls within a SSSI Impact Risk Zone, therefore Natural England must be consulted prior to the commencement of work on the site.
- 1.1.5 The plant species assemblages recorded within the core development area are all common in the local area and are considered to be of low ecological value. Domestic gardens and sympathetically landscaped open space is considered to offer habitat of equal or greater ecological value.
- 1.1.6 However, the woodland surrounding the survey area should be retained and protected within the proposed scheme.
- 1.1.7 None of the hedgerows around the site perimeter were considered important under the Hedgerow Regulations (1997).
- 1.1.8 The Badger Survey report should be referred to for further information.
- 1.1.9 There should be no increase in illumination of the vegetation along the peripheries of the site.
- 1.1.10 Birds are likely to utilise vegetation on site for nesting between March and September. Any vegetation clearance should therefore be undertaken outside of this period.
- 1.1.11 No other notable or protected species were recorded on the site.

## 2. INTRODUCTION

### 2.1 Background

2.1.1 In August 2021 Envirotech NW Ltd were commissioned by AAA Property Group Ltd to carry out a Preliminary Ecological Appraisal of land off Upper Hoyland Road, Barnsley, central grid reference SE362 014 (Figure 1). A site investigation was undertaken and a report compiled which includes recommendations for any future actions and or mitigation required.

2.1.2 The survey was requested in connection with the proposed construction of residential dwellings.



## **2.2 Objectives**

### **2.2.1 The main objectives of the study were:**

- The completion of a Phase 1 Habitat Survey including the preparation of a vegetation and habitat map of the site and the immediate surrounding area.
- The survey and assessment of all habitats for statutorily protected species.
- An evaluation of the ecological significance of the site.
- The identification of any potential development constraints and the specification of the scope of mitigation and enhancement required in accordance with wildlife legislation, planning policy and other relevant guidance, and;
- The identification of any further surveys or precautionary assessments that may be required prior to the commencement of any development activities.

### **3. METHODOLOGY AND SOURCES OF INFORMATION**

#### **3.1 Data Search**

- 3.1.1 The Sheffield Biological Record Centre “SBRC”, the Envirotech dataset, and the Multi-Agency Geographic Information for the Countryside (MAGIC) were searched to establish the presence of any records of statutorily protected, notable or rare species, and any designated sites of international, national, regional or local importance within a 2km radius of the site boundary.
- 3.1.2 The Envirotech dataset is compiled from extensive field surveys from the period 2004-present, as well as records obtained from third parties during this time.
- 3.1.3 Google Earth and Google Street View were consulted to establish the presence of any features of ecological importance within the local area.

#### **3.2 Vegetation and Habitats**

- 3.2.1 A vegetation and habitat map was produced for the site and the immediate surrounding area. The mapping is based on the Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC 2003).
- 3.2.2 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the Wildlife and Countryside Act (1981) and indicators of important and uncommon plant communities. All plant nomenclature follows Stace (2019).
- 3.2.3 Searches were carried out for the presence of invasive species, including those listed on Schedule 9 of the Wildlife and Countryside Act (1981), namely Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*) and giant hogweed (*Heracleum mantegazzianum*) on terrestrial habitat and aquatic species such as floating pennywort (*Hydrocotyle ranunculoides*), water hyacinth (*Eichhornia crassipes*) and New Zealand pygmyweed (*Crassula helmsii*).

#### **3.3 Timing and Personnel**

- 3.3.1 During the visit, weather conditions were suitable for the survey types undertaken.
- 3.3.2 The site and surrounding land was visited on the 26<sup>th</sup> August 2021 by
  - (SC) Ms Sian Comlay BSc (Hons)  
Natural England Great Crested Newt Licence (Level 2)  
Natural England Bat Class Licence (Level 2)

## **4. SPECIES SURVEY METHODOLOGY**

### **4.1 Amphibian**

- 4.1.1 Great crested newts (*Triturus cristatus*) are protected under Schedule 2 of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and Schedule 5 of the Wildlife & Countryside Act (1981).
- 4.1.2 Water-bodies located within or adjacent to the study area were identified and where access was possible were assessed for their potential to support great crested newts.
- 4.1.3 The criteria used in the assessment are based on those contained in the Herpetofauna Workers Manual and Oldham et al, 2000, and in applying these criteria a precautionary approach was adopted. Following the criteria developed by Oldham et al (2000), the HSI tool developed for use with great crested newts and forming part of Natural England's Licensing process was used to determine the suitability of ponds for great crested newts.

### **4.2 Badger**

- 4.2.1 Badgers (*Meles meles*) and their setts are protected under the Protection of Badgers Act (1992). This legislation arises from animal welfare issues (rather than on the basis of nature conservation grounds) and protects badgers from being killed, injured or disturbed whilst occupying a sett.
- 4.2.2 A disturbance to badgers in their setts may occur as a result of construction operations. Natural England recommends that the use of heavy machinery in proximity of a sett entrance should be avoided, with a 'disturbance free-zone' being established.
- 4.2.3 The degree of disturbance attributed to construction activity is a function of the background level of activity badgers are accustomed to and that which will be attributed to a proposed activity. The "disturbance free zone" is therefore site specific.
- 4.2.4 The survey for badgers comprised an assessment of all suitable habitat within and outside the study area boundary (where this was possible) to a distance of 30m for indications of use by badgers.
- 4.2.5 Signs of badgers which were searched for included:
  - Setts - 'D' shaped entrances at least 25cms wide and wider than they are high with large spoil mounds
  - Discarded bedding at sett entrances (this includes grass and leaves)
  - Scratching posts on shrubs and trees close to a sett entrance
  - The presence of badger hairs which are coarse, up to 100mm long with a long black section and a white tip
  - Dung pit latrines and footprints
  - Habitual runs through vegetation and beneath fences
  - Hedgehog carcasses

## **4.3 Bats**

4.3.1 All British bat species are fully protected under Schedule 5 of the Wildlife and Countryside Act (1981), and are included on Schedule 2 of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, as a Protected Species. Taken together, these pieces of legislation make it an offence to:

- Intentionally or recklessly kill, injure or capture bats;
- Deliberately or recklessly disturb bats (whether in a roost or not);
- Damage, destroy or obstruct access to bat roosts.

4.3.2 The Bat Conservation Trust (Hundt (2012) and Collins, J. (ed) (2016) issued guidelines on bat survey methodology, a key feature of their recommendation is for the undertaking of a pre-survey assessment – an initial desk-study and a walkover assessment of the survey area and its surrounding area to identify the relative value of the habitats present for bats and likely commuting routes. This is to be followed by a survey program that is appropriate to the likely level of bat activity within the survey area to be determined by and based on the experience of the surveyor.

4.3.3 The potential value of the survey area for foraging bats was assessed through consideration of two main factors: professional knowledge of bat ecology and foraging behaviour in combination with the geographical location, topography and habitats present within the survey area and surrounds. This resulted in the production of a map showing habitat quality both on and adjacent to the site.

4.3.4 Trees and structures on and within the survey area boundary were assessed for their potential to support roosting or hibernating bats. This comprised a close inspection of all trees and buildings on the site to allow an assessment of their potential to be used by bats to be made by a licensed surveyor.

4.3.5 Trees were all assessed in accordance with Collins, J. (ed) (2016).

## **4.4 Birds**

4.4.1 All breeding birds, other than pest species, are protected under the Wildlife and Countryside Act of 1981 when building a nest, rearing young or sitting on eggs. Some bird species, such as barn owl (*Tyto alba*), are protected when near an active nest site. Several birds are listed as UK and or County BAP species.

4.4.2 Bird species and behaviour was noted during the other field surveys. All areas are covered equally, in order to avoid the subjective survey of better quality 'bird habitat'.

## **4.5 Brown Hare**

4.5.1 The brown hare (*Lepus europaeus*) is a UK BAP species.

4.5.2 The survey method involved walking boundaries and surveying with binoculars. The survey was conducted at a suitable distance to ensure that the hares were not disturbed.

Generally, surveys were undertaken throughout the early afternoon and evening when hares are thought to be most active and feeding.

- 4.5.3 Where present the number of brown hares in each field or hedgerow was recorded, together with the nature and use of the field, climatic conditions and time of day. The presence of forms and faeces where present were also recorded.

## **4.6 *Invertebrates***

- 4.6.1 A general assessment was made of the study area's suitability for supporting invertebrates during the phase 1 survey. The study area's lack of habitat diversity, species-poor composition and uniformity of vegetation structure (i.e., lack of variation in height and microtopography) resulted in our belief that a low diversity of invertebrates would be likely to occur across the site.
- 4.6.2 The presence of invertebrates was noted during the other surveys which were undertaken. The extent of sampling was limited in that it could be confirmed that no priority or BAP species would be likely to be affected by the proposal.

## **4.7 *Reptiles***

- 4.7.1 All native reptiles are protected in Britain under the Wildlife and Countryside Act of 1981. It is an offence to intentionally kill, injure, sell or advertise to sell any of the six native species.
- 4.7.2 The survey for these species was based on assessing the habitat type and suitability of the site. This comprised an assessment of satellite imagery for the site and surrounding area as well as comparison of the results from the records searches with habitat types. The general habitat at the site was evaluated in terms of its suitability to reptiles for foraging or breeding.
- 4.7.3 Reptile surveys comprising visual encounter surveys were undertaken. Habitat at the site was not considered sufficiently suitable for a full presence/ absence survey to be warranted.

## **4.8 *Survey limitations***

- 4.8.1 Due to the habitats present on site there were no significant constraints in respect of identifying the botanical interest of the site.
- 4.8.2 The duration, extent and scope of the surveys were considered sufficient to plan appropriate mitigation and recommend additional precautionary survey work required prior to the commencement of work.

## **5. RESULTS**

### **5.1 Data Search**

- 5.1.1 Envirotech and SBRC hold no records of protected or notable species for the site. There are however records of protected or notable species within 2km (Figure 2). These are discussed in the relevant sections below.
- 5.1.2 The nearest non-statutory protected site is Short Wood and Hay Green Local Wildlife Site (LWS) located approximately 425m to the north west. This is isolated from the site by the A6195, agricultural land, industrial and commercial buildings and woodland.
- 5.1.3 The nearest statutory protected site is Dearne Valley Wetlands which is designated as a Site of Special Scientific Interest (SSSI) and is located approximately 395m to the north (Figure 4). This isolated from the site by The A6195 and agricultural fields.
- 5.1.4 The survey area falls within the SSSI Impact Risk Zone for the Dearne Valley Wetlands SSSI. The proposed development falls within the SSSI Impact Risk Zone for a Rural Residential development of 10 or more houses, therefore Natural England must be consulted prior to commencement of works on the site.

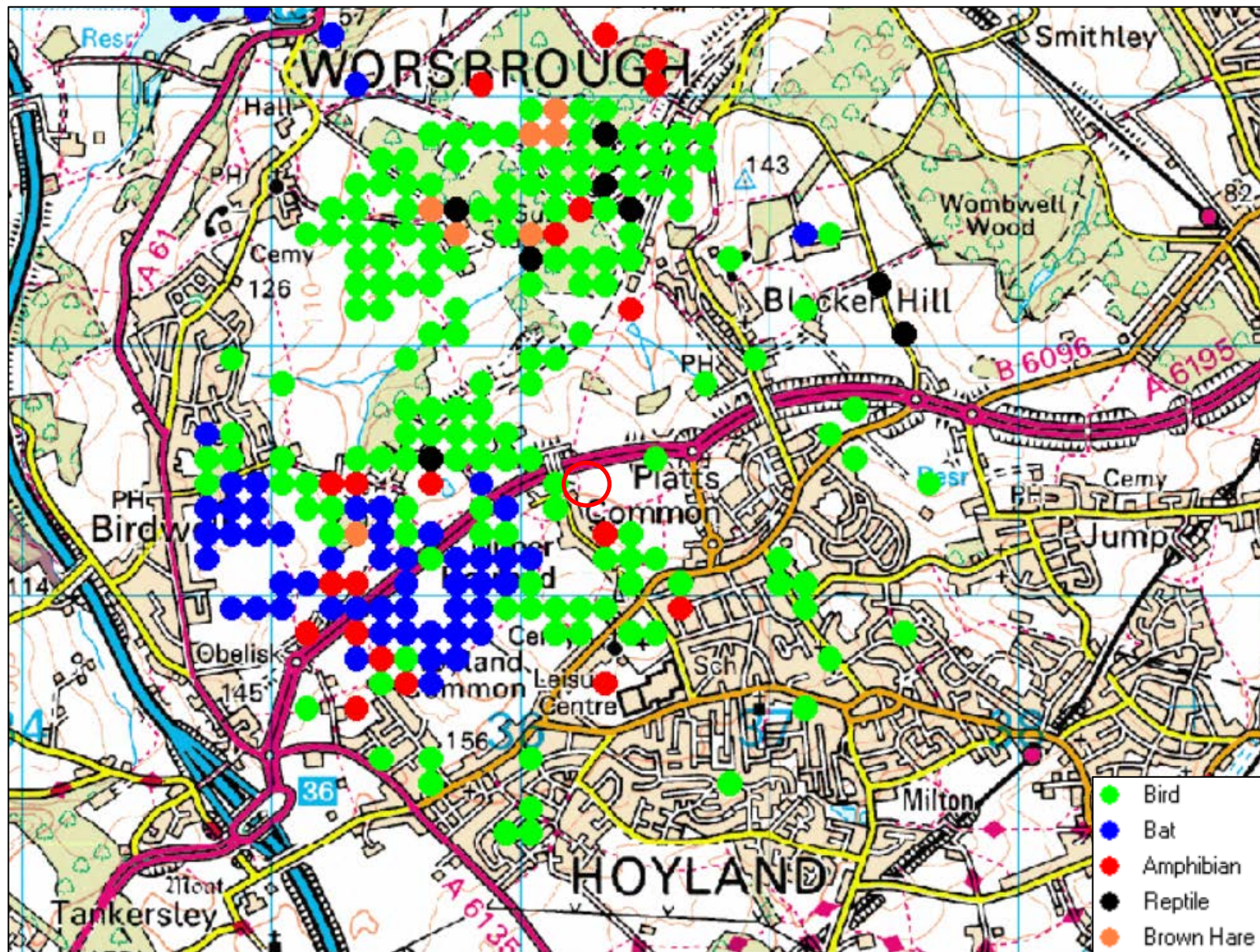
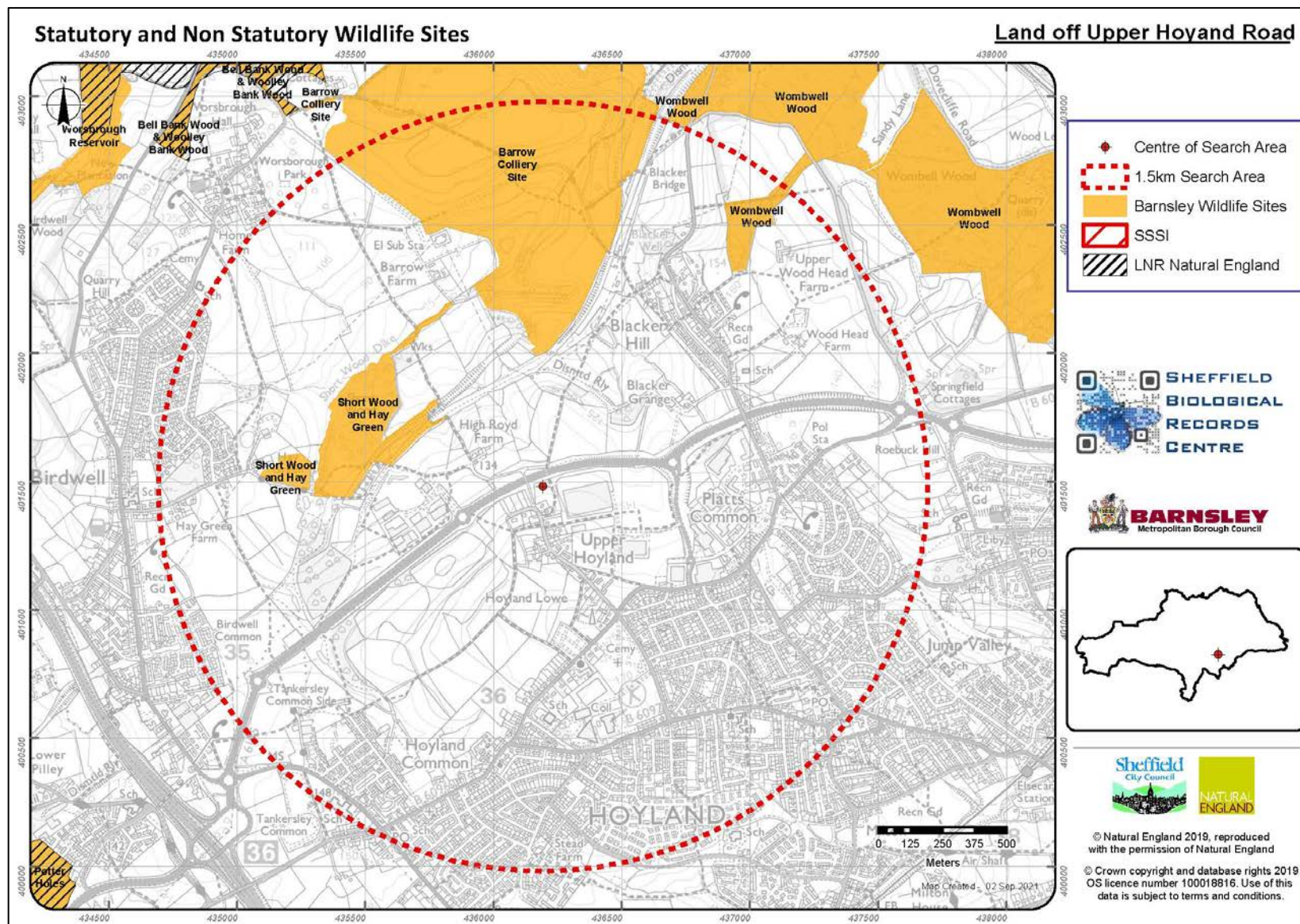


Figure 2 Notable species records, site location is circled red.



**Figure 3** Non-statutory sites 1.5km buffer.



Figure 4 Statutory designated sites 2km buffer.

## **6. PHASE 1 SURVEY RESULTS**

### **6.1 *Habitat Results***

6.1.1 The site is dominated by improved grassland and tall ruderal vegetation, with woodland and hedgerows along the site peripheries. The site is bound by woodland and the A6195 to the north, woodland and an industrial building to the west, residential dwellings to the south and woodland and a bridleway to the west. The wider landscape is dominated by commercial and industrial buildings, residential dwellings agricultural fields and pockets of woodland.

6.1.2 See Figure 5 for the Phase 1 Habitat Plan and Table 1 for the descriptive Target Notes.

| Target Note | Description                   | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TN1         | Improved grassland            | The survey area is dominated by improved grassland which has previously been horse grazed. Evidence of poaching was identified in the north of the site. Species recorded within the grassland include Perennial Ryegrass ( <i>Lolium perenne</i> ), Common bent ( <i>Agrostis capillaris</i> ), Yorkshire Fog ( <i>Holcus lanatus</i> ), Cocksfoot ( <i>Dactylis glomerata</i> ), Greater Plantain ( <i>Plantago major</i> ), White clover ( <i>Trifolium repens</i> ), Creeping buttercup ( <i>Ranunculus repens</i> ), Curled dock ( <i>Rumex crispus</i> ), Pineapple Mayweed ( <i>Matricaria matricarioides</i> ), Nettle ( <i>Urtica dioica</i> ), Dandelion ( <i>Taraxacum officinale</i> ), Common mouse ear chickweed ( <i>Cerastium fontanum</i> ), Ragwort ( <i>Senecio jacobaea</i> ) and Broadleaved dock ( <i>Rumex obtusifolius</i> ). |
| TN2         | Tall ruderal vegetation       | Tall ruderal vegetation has colonised areas of the grassland, predominantly in the south of the site. Species recorded within these areas include Nettle, Broadleaved dock, Ragwort, Cleavers ( <i>Galium aparine</i> ), Creeping thistle ( <i>Cirsium arvense</i> ) and occasional Bramble ( <i>Rubus fruticosus</i> agg).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| TN3         | Species poor defunct hedgerow | An over grown unmanaged hedgerow is present along the southern boundary of the site. As the hedgerow is unmanaged it is now resembling more of a row of trees than a hedgerow. Species recorded within the hedgerow include Hawthorn ( <i>Crataegus monogyna</i> ), Sycamore ( <i>Acer pseudoplatanus</i> ), Elderberry ( <i>Sambucus nigra</i> ), Holly ( <i>Ilex aquifolium</i> ), Birch ( <i>Betula</i> sp.), Willow ( <i>Salix</i> sp.), Buddleia ( <i>Buddleia</i> Sp.) and Rhododendron ( <i>Rhododendron</i> sp.). A section of Leylandii ( <i>Leylandii</i> x <i>Cupressocyparis leylandii</i> ) is present within the hedgerow. The ground flora was dominated by Nettle, Bramble, Creeping buttercup, Herb-Robert ( <i>Geranium robertianum</i> ), Broadleaved dock and Ivy ( <i>Hedera helix</i> ).                                        |
| TN4         | Species poor intact hedgerow  | A section of species poor intact hedgerow is present in the south west of the site. This hedgerow has not recently been managed. The hedgerow is dominated by Leylandii, with Elderberry and Rose ( <i>Rosa canina</i> ) also present. There is no significant ground flora below this hedgerow.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| TN5         | Wall                          | A small section of stone wall is present in the south west of the site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| TN6         | Fence                         | The site is bound by a combination of post and wire fences, post and barbed wire fences and wooden post and rail with chainlink fences.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

|                                         |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TN7                                     | Plantation woodland | <p>The areas of woodland are located outside of the red line boundary. From a review of historical aerial imagery, it appears that the woodland around the site was planted as part of the road and industrial development to the east of the survey area. Tree tubes were still present around some trees within the woodland. Some areas of the woodland were impenetrable as a result of the dense scrub. The woodland is dominated by broadleaved species.</p> <p>There is slightly different composition of species within the woodland depending which area of the site they border.</p> <p>The woodland to the south east and east comprises Cherry (<i>Prunus avium</i>), Hazel (<i>Corylus avellana</i>), Blackthorn (<i>Prunus spinosa</i>), Ash (<i>Fraxinus excelsior</i>), Oak (<i>Quercus</i> sp.), Birch, Pine (<i>Pinus</i> sp.), Willow, Field maple (<i>Acer campestre</i>) and Hawthorn. The ground within the woodland is either bare or dominated by dense scrub including Bramble, Rose, Gorse (<i>Ulex europaeus</i>), Nettle and Bindweed (<i>Convolvulus</i> spp.).</p> <p>Species recorded within the woodland adjacent to the northern boundary are dominated by Alder (<i>Alnus glutinosa</i>), Rowan (<i>Sorbus aucuparia</i>), Birch, Willow and Ash, with the ground flora dominated by Bramble, Blackthorn, Nettle and Hawthorn.</p> <p>The woodland in the west of the site is more scrubby than the other areas of woodland, species recorded within this area include Willow, Alder, Hawthorn, Birch, Elderberry, Sycamore, Blackthorn, Acer species (<i>Acer</i> sp.), Lilac (<i>Syringa</i> sp.),. The ground flora was predominantly bare with patches of Bramble and Nettle present.</p> |
| TN8                                     | Dense scrub         | An area of dense scrub dominated by Bramble with Hawthorn and Sycamore saplings is present adjacent to the entrance of the site in the south west.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| TN9                                     | Bats                | The core development area does not provide suitable foraging opportunities for bats, however, the surrounding woodland does provide suitable foraging and commuting potential.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| TN10                                    | Birds               | The woodland and scrub surrounding the core development area have potential to support foraging and nesting birds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Table 1 Details of Target Notes.</b> |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |



# Key

Boundary

## Habitat

Scrub - Dense/continuous

Woodland - Broad-leaved  
Plantation

Improved Grassland

Tall Herb and Fern -  
Other Tall Ruderal

Intact Hedge -  
Species-poor

Defunct Hedge -  
Species-poor

Fence

Target Note

Figure 5

Phase 1 Habitat Survey





Survey area dominated by grazed grassland



Area in the south east of the site colonised by tall ruderal vegetation



Intact hedgerow in the south west



Some areas of woodland have no understorey whereas other areas comprise dense scrub vegetation

**Table 2** *Photographs*

## **6.2 Vegetation**

- 6.2.1 Details of the plant species found on site are included in the target notes. Species recorded are all commonly occurring and undoubtedly occur elsewhere in similar habitats in the local area.
- 6.2.2 The improved grassland has a very low species diversity and ecological value. The species are all indicative of regular grazing and disturbance, this habitat does not constitute a BAP habitat.
- 6.2.3 The intact hedgerow in the south west of the site is species poor and contains a low diversity of woody plant species but all hedgerows are a UK BAP habitat. The hedgerow should be retained in any proposed scheme and where lengths need to be lost, they should be transplanted or new hedges planted as compensation.
- 6.2.4 The defunct species poor hedgerow in the south of the site also has a low ecological value. Should this hedgerow need to be lost, transplanting is unlikely to be of ecological benefit. New shrub/ scrub planting would be suitable compensation for their loss.
- 6.2.5 None of the hedgerows are classified as important under the Hedgerow Regulations (1997) (See Appendix 1).
- 6.2.6 The areas of woodland are outside of the proposed development area and it is considered that they will be retained and protected within the proposed scheme.
- 6.2.7 There is no evidence of Japanese knotweed, giant hogweed or Himalayan balsam on the site. No other invasive or notable weed species listed on Schedule 9 (Section 14) of the Wildlife and Countryside Act (1981) (as amended) was identified within the site or adjacent land.

## **6.3 Amphibian**

- 6.3.1 There are 91 records for amphibians within 2km of the site including Smooth Newt (*Lissotriton vulgaris*), Common Frog (*Rana temporaria*), Common Toad (*Bufo bufo*) and three records of Great Crested Newt (*Triturus cristatus*). The closest records of Great Crested Newt are located over 500m from the site.
- 6.3.2 A search of OS mapping data did not identify any ponds within 250m of the survey area.
- 6.3.3 The core development area has a low value to amphibians being dominated by short grazed grassland. The boundary woodland, hedgerows and scrub could be utilised as refuges and/or hibernacula but there are no breeding ponds in proximity to the site.
- 6.3.4 Structural diversity at ground level across the site is very poor. There are no areas with log, rubble piles or compost heaps which would be particularly favourable to amphibians.
- 6.3.5 Amphibians would be unlikely to attempt to cross the site as it comprises an area that is mostly open with uniform length grass. Whilst not a physical barrier to the dispersal of amphibians, the site is regarded as being a potentially hostile environment to them.

- 6.3.6 The proposed development will not result in the permanent loss of or a substantial negative effect on any waterbodies or foraging areas linked to them. Boundary areas which may provide foraging or refuge sites, are outside of the proposed development area and will be retained.

## **6.4 Badger**

- 6.4.1 The Badger Survey Report should be referred to for further information.

## **6.5 Bats**

- 6.5.1 There are 188 records of six species of bat within 2km of the site. Species provided within the data search include Unidentified bat species (*Chiroptera* sp.), Unidentified Nyctalus species (*Nyctalus* sp.), Unidentified Pipistrelle bat (*Pipistrellus* sp.), Unidentified Myotis bat (*Myotis* sp.), Leisler's Bat (*Nyctalus leisleri*), Noctule (*Nyctalus noctula*), Common Pipistrelle (*Pipistrellus pipistrellus*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), Brown Long-Eared (*Plecotus auritus*) and Whiskered/Brandts bat (*Myotis mystacinus/brandtii*).
- 6.5.2 The foraging habitat within the core development area is very poor for bat species being dominated by short grazed grassland. The improved grassland offers negligible foraging opportunities for bats. However, the surrounding woodland and hedgerows do offer suitable foraging and commuting opportunities.
- 6.5.3 As the areas of woodland and hedgerows are outside of the core development area it is understood that these features will be retained and protected within the proposed scheme. More extensive areas of medium and high quality habitat occur locally, including the areas of woodland and existing residential dwellings within the local area (Figure 6).
- 6.5.4 It is not considered there would be significant degradation of foraging habitat as a result of the proposal so long as the woodland and hedgerows are retained and protected. The peripheries of the site should also not be subject to an increase in levels of lighting.
- 6.5.5 All trees around the site perimeter were also assessed in accordance with Collins ed. (2016) and assigned a risk category. All of the trees on site were category 2 (low) or category 3 (negligible) risk, as the trees were located within the woodland areas it was not possible to plot exact locations on a map. No indications of roosting or highly suitable roost sites were located within the trees. Some of the ash trees in the woodland were found to have ash dieback. All of the trees could be adequately inspected. Risk categories from Hundt (2012) and the requirement for mitigation for each tree category are shown on Figure 7.
- 6.5.6 We consider bat species are likely to use the woodland and hedgerows on the peripheries of the site for foraging and commuting, however, bats are highly unlikely to rely on the core development area for feeding. Roosting by bats is not considered to occur within the core development area.



Key

- Boundary
- High Quality Habitat
- Moderate Quality Habitat

Figure 6

Extended Bat Habitat  
Survey



| Tree category and description                                                                                                                                                                                                                         | Stage 1<br>Initial survey requirements                                                                                                                                                                                                                           | Stage 2<br>Further measures to inform proposed mitigation                                                                                                                                                                                                                                                       | Stage 3<br>Likely mitigation                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Known or confirmed roost</b>                                                                                                                                                                                                                       | Follow SNCO guidance and these guidelines wherever possible, to establish the extent to which bats use the site. This is particularly important for roosts of high risk species and/or roosts of district or higher importance and above                         |                                                                                                                                                                                                                                                                                                                 | The tree can be felled only under EPS licence following the installation of equivalent habitats as a replacement.                                                                                                      |
| <b>Category 1*</b><br>Trees with multiple, highly suitable features capable of supporting larger roosts                                                                                                                                               | Tree identified on a map and on the ground. Further assessment to provide a best expert judgement on the likely use of the roost, numbers and species of bat, by analysis of droppings or other field evidence.<br><br><i>A consultant ecologist is required</i> | Avoid disturbance to trees, where possible.<br><br>Further dusk and pre-dawn survey to establish more accurately the presence, species, numbers of bats present and the type of roost, and to inform the requirements for mitigation if felling is required.                                                    | Felling would be undertaken taking reasonable avoidance measures <sup>3</sup> such as 'soft felling' to minimise the risk of harm to individual bats.                                                                  |
| <b>Category 1</b><br>Trees with definite bat potential, supporting fewer suitable features than category 1* trees or with potential for use by single bats                                                                                            | Tree identified on a map and on the ground. Further assessed to provide a best expert judgement on the potential use of suitable cavities, based on the habitat preferences of bats.<br><br><i>A consultant ecologist required</i>                               | Avoid disturbance to trees, where possible.<br>More detailed, off the ground visual assessment.<br><br>Further dusk and pre-dawn survey to establish the presence of bats, and if present, the species and numbers of bats and type of roost, to inform the requirements for mitigation if felling is required. | Trees with confirmed roosts following further survey are upgraded to Category 1* and felled under licence as above.<br><br>Trees with no confirmed roosts may be downgraded to Category 2 dependent on survey findings |
| <b>Category 2</b><br>Trees with no obvious potential, although the tree is of a size and age that elevated surveys may result in cracks or crevices being found; or the tree supports some features which may have limited potential to support bats. | None.<br><br><i>A consultant ecologist is unlikely to be required</i>                                                                                                                                                                                            | Avoid disturbance to trees, where possible.<br>No further surveys.                                                                                                                                                                                                                                              | Trees may be felled taking reasonable avoidance measures.<br><br>Stop works and seek advice in the event bats are found, in order to comply with relevant legislation.                                                 |
| <b>Category 3</b><br>Trees with no potential to support bats                                                                                                                                                                                          | None.<br><br><i>A consultant ecologist is not required unless new evidence is found</i>                                                                                                                                                                          | None.                                                                                                                                                                                                                                                                                                           | No mitigation for bats required.                                                                                                                                                                                       |

**Figure 7** Tree risk categories from Hundt (2012).

## **6.7 Birds**

- 6.7.1 There are over 2500 records of birds within 2km of the site. Woodpigeon (*Columba palumbus*) were noted on site during the survey.
- 6.7.2 The woodland, hedgerows and scrub around the perimeter of the site offer potential habitat for feeding and nesting birds. The improved grassland has a low potential for use by nesting birds as the grassland is grazed and as such is usually short. Trampling risks are also very high within this area of the site.
- 6.7.3 There were no rot holes or cracks in the trees on the site boundary which would support tree hole nesting species such as woodpeckers.
- 6.7.4 A risk assessment of the site in respect of its future potential for and value to nesting birds could be adequately made.
- 6.7.5 Precautionary mitigation is considered appropriate. The landscaping scheme should include species such as rowan (*Sorbus aucuparia*) which are seed bearing and will provide food for birds in the winter.
- 6.7.6 The habitat on site is not considered to be of anything more than of local significance, habitats present are well represented in the local area. The impact on nesting birds is therefore considered likely to be minor.

## **6.8 Brown Hare**

- 6.8.1 Brown hare are a UK BAP priority species. There are 17 records of brown hares within 2km of the site.
- 6.8.2 No indication of brown hares was recorded on the site.
- 6.8.3 The site boundary has some potential for brown hares to create forms but use of the site is likely to be limited due to its location and regular human presence.
- 6.8.4 A risk assessment of the site in respect of its future potential for and value to brown hares could be adequately made. We consider the risk to brown hares is very low.

## **6.9 Invertebrates**

- 6.9.1 There are over 1000 records of invertebrate within 2km of the site.
- 6.9.2 No deadwood or vegetation on site was recorded within the proposed development area which would provide an important resource for invertebrates in the local area.
- 6.9.3 The woodland, scrub and hedgerows provide suitable habitat for invertebrates, it is however, understood that these areas will be retained within the proposed development.
- 6.9.4 Trees on the site boundaries contain comparatively little rotten wood in their canopies.

6.9.5 The tall ruderal vegetation has some value to species such as common butterflies but this is not considered to be locally significant.

6.9.6 The significance of the site to invertebrates is likely to be limited in the local context although the habitat on site will support invertebrate species. Mitigation can be incorporated into the design and landscaping scheme with the careful selection of plant species and substrates for the garden areas.

## **6.10 Reptiles**

6.10.1 There are three records of Adder (*Vipera berus*) and 12 records of Grass Snake (*Natrix natrix*) within 2km of the site.

6.10.2 The majority of the site has a very low value to reptiles being devoid of significant ground cover. There are no areas of the core development area which would be particularly favourable to reptiles.

6.10.3 Reptiles may occur along the boundary of the site and this provides linkage across the local landscape. It is however outside the site boundary and is unaffected by the proposal.

6.10.4 As a consequence, precautionary mitigation would be appropriate in respect of construction activities so as to ensure reasonable avoidance measures are taken to avoid the killing or injury of these species.

## **6.11 Other**

6.11.1 The boundary woodland may be used by species such as hedgehog (*Erinaceus europaeus*). However, fragmentation of habitat locally and existing land use do not provide optimal conditions for the free passage of this species across the site and slugs and snails are likely to occur only at very low numbers.

6.11.2 The site may be crossed by species such as fox (*Vulpes vulpes*) and rabbit (*Oryctolagus cuniculus*) which are known to occur locally.

6.11.3 The boundary vegetation may provide suitable habitat for small mammals such as field vole (*Microtus agrestis*) but the sites value to small mammals is limited.

## **6.12 Statutory and Non-Statutory Sites**

### Direct Impacts:

6.12.1 There are no statutory or non-statutory sites which are connected to the site such that site development would directly affect the dispersal of species between them or directly impact upon their integrity.

6.12.2 The habitats on site do not represent or are linked to those found in any of the statutory or non-statutory sites locally.

Indirect Impacts:

- 6.12.1 The proposed development falls within a SSSI Impact Risk Zone, therefore Natural England must be consulted prior to the commencement of work on the site.
- 6.12.2 However, there are no non-statutory sites which are connected to the site such that site development would indirectly affect the dispersal of species between them or indirectly impact upon their integrity.

## **7. MITIGATION/RECOMMENDATIONS**

### **7.1 *Compensatory planting and habitat enhancement***

- 7.1.1 There should be no impact on the surrounding areas of woodland.
- 7.1.2 The roots of trees on the site and its boundaries should be adequately protected during work in accordance with industry standards. All trees should as far as possible be retained in the scheme.
- 7.1.3 The landscaping scheme should utilise plants which are native and wildlife friendly. In particular night flowering species would be beneficial to bats. Wildflower seed could be used to plant verges to enhance the ecological value of the site and continuity between the site and the wider area.
- 7.1.4 Hedgerows around the site should be retained or improved where possible. Any lengths of intact hedgerow to be removed to facilitate development should be transplanted and or replanted in order that there is no net negative impact on this BAP habitat due to development. The roots of hedgerow plants/trees should be adequately protected during development from compaction/ground disturbance.
- 7.1.5 If the defunct species poor hedgerow is removed, transplantation of them is not considered to be of significant ecological benefit as there are no notable species assemblages associated with them, replanting of linear lines of trees/ shrubs would be more beneficial.

### **7.2 *Amphibians***

- 7.2.1 There is no requirement for specific mitigation for these species. There are currently no suitable breeding sites on or near the site. However, as a precautionary measure, in the unlikely event that any signs of any amphibian activity is subsequently found, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.
- 7.2.2 In order to further minimise impacts on amphibians the following points should also be followed.
  - All work must take place during daylight hours as amphibians are more likely to be commuting over night and this will ensure the risk to any amphibians commuting through the site will be minimised.
  - During the development, measures should be put in place to discourage amphibians from using the development area, the creation of any piles of earth, materials and rubble which could form potential artificial hibernacula and refuge should be avoided at all times. It is recommended that any spoil or rubble will be removed immediately to skips, or on hard standing or short grass. This will ensure that no potential amphibian hibernation or resting sites are created.

- The storage of all loose materials must be palletised or similar so they are off the ground whenever possible.
- Should any trenches and excavations be required, an escape route for animals that enter the trench must be provided, especially if left open overnight. Ramps should be no greater than of 45 degrees in angle. Ideally, any holes should be securely covered. This will ensure amphibians are not trapped during work.
- All excavations left open overnight or longer should be checked for animals prior to the continuation of works or infilling. Back filling should be completed immediately after any excavations, ideally back filling as an on-going process to the work in hand.

### **7.3 Badger**

7.3.1 Recommendations made within the Badger Survey Report must be adhered to.

### **7.4 Bats**

- 7.4.1 Work at night should be restricted, new planting within the site should enhance structural diversity and light spill onto the boundary should be prevented.
- 7.4.2 New roosting provision for crevice dwelling bats could be incorporated into the buildings on site or bat boxes could be erected in retained trees.
- 7.4.3 Any trees to be felled should be re-inspected for bats to confirm they remain absent.
- 7.4.4 Overall it is considered there is more than sufficient scope for mitigation and compensation at the site such that there will be no adverse impact on the favourable conservation status of bats affected by the proposal.

### **7.5 Birds**

- 7.5.1 Nesting by birds within the development area is considered unlikely to occur. Birds may nest within the woodland, hedgerows and scrub on the periphery of the site.
- 7.5.2 Any vegetation to be trimmed or cleared should be checked for nesting birds before it is removed. Ideally this should occur outside the bird nesting period March- September. If vegetation clearance is to occur in the March-September period a check for nesting birds should be conducted first by a suitably qualified individual.
- 7.5.3 New planting within the site and the retention of trees and shrubs on the site boundary will maintain the ecological functionality of the site for breeding birds.
- 7.5.4 Artificial bird nesting sites for swallow could be incorporated into the new buildings under the eaves in suitable locations.
- 7.5.5 If nesting birds are found at the site all site works shall cease and further ecological advice shall be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.

## **7.6 *Brown Hares***

- 7.6.1 There is no requirement for specific mitigation for this species. However, as a precautionary measure, in the unlikely event that any signs of any brown hare activity is subsequently found, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.
- 7.6.2 The points in respect of not working at night and leaving open trenches with means of escape detailed for badgers are also applicable to this species.

## **7.7 *Invertebrates***

- 7.7.1 Landscaping should include native or wildlife friendly species including night flowering plants.

## **7.8 *Reptiles***

- 7.8.1 There is no requirement for specific mitigation for these species. However, as a precautionary measure, in the unlikely event that any signs of any reptile activity is subsequently found, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.
- 7.8.2 Dense scrub and woodland on the edge of the development site should be retained such that it is in proximity to open areas of ground which will also be suitable for basking.
- 7.8.3 The points in respect of not leaving open trenches without means of escape detailed for badgers are also applicable to these species.



**Figure 8** Draft proposed site plan

## **8. CONCLUSION**

- 8.1.1 Ecological surveys, site appraisals and impact assessments were carried out with respect to land off Upper Hoyland Road in Barnsley. It is proposed new residential dwellings will be constructed on the site.
- 8.1.2 The proposed development falls within a SSSI Impact Risk Zone, therefore Natural England must be consulted prior to the commencement of work on the site.
- 8.1.3 Birds, Brown Hare, Reptiles, Amphibians and Invertebrates known to occur in the local area, there was however no conclusive evidence of any specifically protected species regularly occurring on the site or the surrounding areas which would be negatively affected by site development following the mitigation proposed.
- 8.1.4 The vegetation to be cleared within the core development area has a low ecological significance in the local area. The woodland surrounding the survey area should be retained and protected within the proposed scheme.
- 8.1.5 The Badger Survey report should be referred to for further information.
- 8.1.6 There should be no increase in illumination of the vegetation along the peripheries of the site.
- 8.1.7 Any trees to be felled should be re-inspected for bats to confirm they remain absent.
- 8.1.8 The protection of trees on the site boundary and landscaping will promote structural diversity in both the canopy and at ground level and will encourage a wider variety of wildlife to use the site than already occurs.
- 8.1.9 Contractors will be observant for protected species and all nesting birds. Should any species be found during construction, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.

## 9. REFERENCES

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## **10. APPENDIX**

| Hedge                                                                                                                       |     | Feature |     |     |
|-----------------------------------------------------------------------------------------------------------------------------|-----|---------|-----|-----|
| TN3                                                                                                                         | Yes | No      | Yes | Yes |
| TN4                                                                                                                         | Yes | No      | Yes | Yes |
| No = Automatic failure                                                                                                      |     |         |     |     |
| ARCHAEOLOGY AND HISTORY                                                                                                     |     |         |     |     |
| Archaeological feature which is included in the schedule of monuments                                                       |     |         |     |     |
| Situated wholly or partly within an archaeological site                                                                     |     |         |     |     |
| Boundary of a pre-1600 AD estate                                                                                            |     |         |     |     |
| Integral part of a field system                                                                                             |     |         |     |     |
| Protected species records                                                                                                   |     |         |     |     |
| FEATURES                                                                                                                    |     |         |     |     |
| Bank or wall                                                                                                                |     |         |     |     |
| Gaps less than 10%                                                                                                          |     |         |     |     |
| Standard trees                                                                                                              |     |         |     |     |
| Ditch                                                                                                                       |     |         |     |     |
| Parallel hedge                                                                                                              |     |         |     |     |
| Footpath/ Bridleway                                                                                                         |     |         |     |     |
| Connection points                                                                                                           |     |         |     |     |
| Woody species                                                                                                               |     |         |     |     |
| Average ground flora species                                                                                                |     |         |     |     |
| 7 woody species or 6 woody species + 3 features or 5 woody species + 4 features or highway + 4 woody species and 2 features |     |         |     |     |
| Yes = Automatic pass                                                                                                        |     |         |     |     |
| No = Automatic failure                                                                                                      |     |         |     |     |
| HEDGE CLASSIFIED AS IMPORTANT                                                                                               |     |         |     |     |
| No                                                                                                                          |     |         |     |     |
| No                                                                                                                          |     |         |     |     |

\* Historic and archaeological records have not been checked for this site.