



# Preliminary Ecological Appraisal (PEA) Report

*Land off Cote Lane, Thurgoland, Sheffield*

*Client: Arena Rural and Equestrian*

*April 2022*

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## Summary

A Preliminary Ecological Appraisal (PEA) was commissioned by Arena Rural and Equestrian for Land at Cote Lane, Thurgoland. The survey was commissioned to support a planning application for an outdoor arena and a building for tack and storage with a foaling room.

The purpose of the survey and the report is to provide an ecological baseline and an initial assessment of the potential impacts of the proposals upon the nature conservation of the site.

In view of the results of the desk and field-based assessment the proposed development footprints are considered to be of relatively low ecological value in the local context and loss of biodiversity as a result of the proposed development is negligible due to the nature of the development being within areas of species poor improved grassland.

In the event of broader development and if trees or hedgerows were to be removed at the site then it is likely that further surveys and mitigation in relation to nesting birds would be required.

The site has the potential for foraging badger and foraging bats, although no active badger setts or potential roost features for bat were identified on, or directly adjacent to, the site during the survey and it is not anticipated that either of these species will be affected by the current proposals.

For the development to proceed in line with UK and EU legislation and Planning Policy relating to biodiversity, the recommendations contained within this report should be adopted as necessary.

Where appropriate measures as recommended in the report are adopted, the development will be able to proceed having considered and addressed the necessary legislation and both local and national policy relating to biodiversity conservation.

## 1. INTRODUCTION

A Preliminary Ecological Appraisal (PEA) was commissioned by Arena Equestrian and Rural for Land off Cote Lane, Thurgoland. The survey was commissioned to support a planning application for an outdoor arena and a tack building with storage and foaling room. The survey was undertaken on the 17<sup>th</sup> March 2022.

The purpose of the survey and the report is to provide an ecological baseline and an initial assessment of the potential impacts of the proposals upon the nature conservation of the site.

### 1.1. Site Description

The site is located off Cote Lane, directly north and west and adjacent to the residential area of Thurgoland, west of the A629 and south of the A616 (Grid Reference: SE 28928 00733) it consists of improved grazing pasture, hedgerows and scattered trees found at the field boundaries and a stable.



Figure 1. Site and surrounding landscape character.

### 1.2. Proposed Development

It is understood that the proposals are for an outdoor arena and a small single storey timber structure.

## **2. METHODOLOGY**

### **2.1. Personnel & Quality Assurance**

Karl Dentith BSc (Hons), has over 20 years' relevant experience as an ecologist and ornithologist. All field work and assessment was undertaken in accordance with current best practice guidelines (CIEEM, 2016). The survey was undertaken on the 17<sup>th</sup> March 2022 and the desk-based assessment was conducted on the 12<sup>th</sup> April 2022.

The report has been prepared in accordance with guidance produced by the Chartered Institute of Ecology and Environmental Management (CIEEM 2017) and the British Standard 42020:2013.

### **2.2. Scope of the Assessment**

The following ecological features / resources were considered during the assessment:

- Statutory and Non-Statutory Designated sites;
- Habitats of principal importance for conservation of biodiversity;
- Protected species;
- Species of principal importance for conservation of biodiversity;
- Other notable species.

### **2.3. Desk Study**

To inform the survey, a desk study was conducted in April 2022 using available ecological information relating to ecology for the area surrounding the site.

Online resources, including Barnsley's Local Plan for Conservation, Multi-Agency Geographic Information Centre (MAGIC), were consulted in relation to the presence of sites and habitats of importance in the wider context.

A data request to the Local Records Centre (LRC) was made as it was requested by the LPA although no habitats associated with protected species are to be impacted on by the proposals nor are any statutory or non-statutory sites of nature conservation.

It is important to note that most species are greatly under-recorded and therefore a lack of records for a location should not be taken as an absence of the species concerned.

Furthermore, a historical record for a habitat or species does not necessarily confirm its current presence.

## **2.4. Field Survey**

### *Phase 1 habitat survey*

A Phase 1 Habitat survey was conducted on 17<sup>th</sup> March 2022 based on the techniques and methodologies described in the Handbook for Phase 1 Habitat Survey (JNCC 2010) and using standard nomenclature (Stace 2010).

The habitats present were recorded on to a field map which was then transferred in to a digital Phase 1 Habitat Plan (Appendix 4), along with digital photographs (Appendix 2), providing supplementary information on, for example, species composition structure and management where relevant.

This was extended to include notes on fauna and habitats which could potentially support protected species, an approach commonly referred to as an Extended Phase 1 Habitat Survey. The presence of, or potential for, protected species was assessed during the survey.

Any trees on site with potential suitability for supporting bat roosts and likely to be affected by proposals were assessed from ground level.

## **2.5. Assessment and Evaluation**

The importance of the habitat features on site were assessed and defined in a geographical context (see Appendix 3). The frame of reference for the habitat features in terms of their geographical importance is in line with guidance set out in CIEEM, 2018.

Species are assessed, where appropriate, against best practice guidelines. As part of the evaluation, further surveys may be recommended based on the suitability of habitats to support protected species, the habitats themselves and potential impacts posed by the proposed development, and the legal protection afforded to both habitats and species.

## **2.6. Zone of Influence**

The assessment conducted for this report has considered the area in which ecological features could be subject to significant effects from the proposed development. The area of the potential effects is often wider than the actual perimeter of the development site and is known as the Zone of Influence (Zol).

The Zone of Influence varies for different ecological features and each designated site, habitat and species has been considered in relation to their sensitivity to the proposed development.

- Special Areas of Conservation (SAC), Special Protection Areas (SPA), Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) – site level only
- Local Nature Reserves (LNR), Local Wildlife Sites (LWS) - site level only
- Great Crested Newt (GCN) ponds - 500m
- Badger – 50m
- Other notable species/habitats – site level only

### **3. CONSTRAINTS**

The protected species assessment provides a preliminary view of the likelihood of protected species occurring on the site. It should not be taken as providing a full and definitive survey of any protected species group.

Even where data for a particular species groups are provided in the desk study, a lack of records of a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may simply be under recorded.

The Phase 1 Habitat Survey does not constitute a full botanical survey or provide accurate mapping of invasive plant species and the survey was undertaken outside of the optimal period for botanical survey.

Despite these limitations, it is considered that this report reflects accurately the habitats present, their biodiversity importance, and the potential for the site to support protected and notable species.

## 4. BASELINE ECOLOGICAL CONDITIONS

### 4.1. Designated Sites

#### **Statutory Designated Sites**

According to the Natural England online mapping resource MAGIC there are no statutory designated sites within 2km of the site:

#### **Non-statutory sites**

There are a number none-statutory sites within 2km which are listed as Biodiversity or Geological Importance Sites. The nearest being approximately 380m to the south and named as Thurgoland Tunnel Cutting and Thurgoland Glow Worm Site. Beyond that lies Huthwaite Wood and Huthwaite Quarry both at approximately 500m of the site and identified on the interactive mapping service of the local authority.

Given the scale and location of the development, it is not anticipated that the development will impact on any land outside of the site boundary, designated or otherwise and it was therefore not considered necessary to list all none-statutory sites within 2km of the development area.

### 4.2. Habitats

The habitats identified during the Extended Phase 1 Habitat Survey are listed and described below. Each habitat type is illustrated with a photograph in Appendix 2.

The site is situated directly adjacent to the north and east to the in the urban conurbation of Thurgoland, which comprises primarily of commercial and residential properties. The wider area incorporates areas of enclosed grassland, with associated hedgerows, trees and woodland, although the nearest woodlands are approximately 500m from the site.

The overall character of the site can be described as two small enclosed grazing pastures.

#### Desk Study

According to MAGIC there are no areas of mapped priority habitat within or in close proximity to the site boundary.

All mapped priority or notable habitats are remote from the site boundary.

## Field Survey

### **Grassland (Improved species poor)**

The majority of the site is comprising two enclosed fields of improved grassland currently utilised as grazing pasture with occasional small patches tall ruderals, and scrub but this is negligible in terms of area at site level.

The grassland is species poor with species limited to those typical of improved grazing pasture with perennial rye-grass (*Lolium perenne*), timothy grass (*Phleum* sp.) and white clover (*Trifolium repens*) dominant.

Other species found occasionally to the field margins are common a vigorous species including bramble (*Rubus fruticosus* agg.), teasel (*Dipsacus fullonum*), rosebay willowherb (*Chamaenerion angustifolium*).

### **Hedgerows (native species poor)**

The site is bounded and by species poor hedgerows containing hawthorn (*Crataegus monogyna*) and blackthorn (*Prunus spinosa*) with tall ruderal and limited scrub at the base comprising species such as bramble and rosebay willowherb although.

### **Scattered Trees**

There are a small number of semi-mature and early mature trees amongst the hedgerows and at the site boundary including oak (*Quercus* sp.) and ash (*Fraxinus excelsior*). The trees were generally in good condition and no features commonly associated with roosting bats, such as rot hollows, cracks and fissures were observed.

### **Waterbodies**

There are two ponds within 500m the nearest located approximately 60m east of the eastern boundary (beyond a large property). The pond appears to be a fishing pond (fishing pegs evident) and fish rises observed with obvious wildfowl presence including resident domestic ducks and mallards, it is landscaped with walled steep sides and has no draw down zone or marginal aquatic vegetation associated with egg laying for newts. It is bounded by a road to the east, access road to the south, car park and building to the west. The area in which the pond is located is itself walled and is lacking key features associated with GCN. There is a second pond at 408m to the south west although it has no connectivity to the site and anthropogenic

barriers to prevent migration. Furthermore, GCN seldom travel more than 250m from their breeding pond and due to the absence of biological records for all three native species of newts within 1.5km of the site. We do not consider that the development poses any risk to (GCN) populations.

### 4.3. Species

#### **Amphibians**

According to MAGIC website there are no records of granted European Protected Species Licences for great crested newt (*Triturus cristatus*) (GCN) within 500m of the site. Barnsley Biological Records Centre holds no records of GCN within 1.5km of the site. A HSI assessment of the pond adjacent to the site returned a score of 0.37 classifying the pond suitability for GCN as poor (See Appendix 6 HSI Score).

There are two ponds recorded with 500m of the site 408m to the south west and is single pond within 250m approximately 60m east of the eastern boundary (beyond a large property). The pond within 250m is landscaped and clearly ornamental and has no natural marginal aquatic vegetation required for egg laying by GCN. The water is eutrophic which can be seen in the photographs in appendix B and rising fish were also observed. The pond is frequented not only by water fowl but also has resident population domestic ducks. It is also used as a fishing pond (fishing pegs evident) It walled steep sided banks and is devoid of draw down slopes and is bounded by a road to the east and access road to the south, car park and building to the west. The area in which the pond is located is itself walled which poses a serious anthropogenic for migration to and from the site. These limiting listed above factors above indicate that the pond is unsuitable for GCN and it is highly unlikely they are utilising it. This is also corroborated by Barnsley Biological Records Centre which hold no records of GCN within 1.5km of the site and the HSI score.

All of the above indicates the pond is sub-optimal for supporting GCN and in-combination with an absence of records and other ponds within 408m (with uninterrupted terrestrial connectivity) and relatively poor terrestrial habitat (area is urban fringe with improved grassland pastures in the wider context and the site itself). There are no other waterbodies within the site or within 410m with uninterrupted terrestrial connectivity to the site.

In view of the above, it is considered highly unlikely that the site is of value or likely to be utilized by great crested newt. This is further corroborated by the absence of any biological records not only for GCN but for all three species of native newts which rarely travel beyond 250m from breeding ponds and that GCN ponds rarely exist in isolation. Taking this into consideration and the and the unsuitable adjacent habitat which are clearly unsuitable for breeding GCN due numerous limiting factors which do not that the current proposals will result in negative impacts to GCN.

## **Badgers**

Habitats within the site are suitable for supporting foraging badgers (*Meles Meles*) although have limited potential for breeding badgers as the hedgerows are sparse and with gaps.

No evidence of the presence of badgers, including established badger setts or field signs within the site (or within 30m of the area proposed for development), was recorded during the field survey.

In view of the results of the field survey, it is considered that badgers could potentially use the site for foraging (though no field signs to support this were recorded during the survey) but are not present (in terms of setts) within or in close proximity to the site.

In view of the above it is considered that the site is not of importance for this species.

However, as a precautionary approach to construction works, is it recommended that if at any stage badger sett creation is suspected in the vicinity of the site, works within 30m of the excavation should cease and an ecologist should be consulted.

Furthermore, to prevent potential entrapment, any deep excavations associated with the development should provide a suitable egress point to allow badgers (or other wildlife) to escape should they become entrapped.

## **Bats**

There is one small timber stable at the site with a single skin unlined corrugated roof (see photographs at Appendix 2.). The structure has no roof void or features associated with roosting bats and is considered generally unsuitable due to the lack of suitable features associated with roosting bats.

There are a small number of trees on and adjacent to the site. These trees are generally semi-mature and early mature or lack the potential roost features (PRFs) suitable for supporting bat roosts.

The site was originally considered as having low potential although after further investigations using close inspections binoculars and thermal imaging equipment it is now considered to be of negligible potential for supporting bat roosts as the investigation found now features present for supporting roosting bats.

The site is considered potentially suitable for supporting foraging bats from dusk through until dawn, particularly in association with the hedgerows which may be used as a foraging resource for species such as common pipistrelle (*Pipistrellus pipistrellus*). There are numerous records for bats in the wider area provided by South Yorkshire Bat Group, although most of them relate to activity and there is no suitable roosting habitat at the site it is not considered that any local bat species are to be impacted on by the current proposals as it is understood there are no external lighting proposals for the development. Appendix 5 for records of bat). The nearest being in a building at Leech Row approximately 250m to the north east.

## **Birds**

Habitats within the site have potential to support nesting birds during the breeding season (March – August inclusive).

This is limited to the hedgerows and occasional scattered trees and it is understood that these features will not be affected by the current proposals. If at any stage this is to change then an ecologist will be required to supervise any vegetation clearance if undertaken during the breeding season (March – August inclusive).

No evidence of ground nesting species was recorded at the time of survey (which was early in the nesting season). The site is not considered suited to ground nesting birds due to the field being relatively small, maintained at a very low sward, and in close proximity to residential properties including a recent development to the north of the site.

## **Invertebrates**

Habitats within the site are considered to be of limited value for supporting notable invertebrate species due to the absence of a diverse flora or other habitat suitable for supporting such species.

There is a Local Wildlife Site (Thurgoland glow-worm LWS) located ~340m south of the site that supports a strong population of glow-worm. The site is comprised of improved grassland utilised as grazing pasture with boundary hedgerows. Glow-worms are generally found as larvae under rocks on chalk or limestone grassland, and feeding on slugs and snails, then as adults in gardens, hedgerows, railway embankments, woodland rides, heathlands and cliffs are all possible habitats for glow-worms. Suitable habitat for glow worm is generally absent from the site and adjacent areas.

The hedgerows on site are not affected by the proposals with only improved grazing pasture to be taken up by the footprint of the development.

In view of the above and the distance between the site and known colonies of glow worm it is considered that glow worm are highly unlikely to be affected by the proposed development.

### **Hazel Dormouse**

There are no habitats of value for hazel dormouse (*Muscardinus avellanarius*) within or in close proximity to the site. In view of the above it is considered highly unlikely that Hazel Dormice will utilise the site.

### **Otter**

There are no habitats suitable for supporting otter (*Lutra lutra*) (including holts or resting places) within the site.

### **Reptiles**

Habitat within the site is considered largely unsuitable for supporting reptiles. However, the remaining areas of scrub have limited potential to support species more likely to be present in urban areas such as slow worm (*Anguis fragilis*).

In view of the above, the likelihood of reptiles to use the site is considered to be of low suitability for reptiles.

### **Water Vole**

There are no habitats suitable for supporting water vole (*Arvicola amphibius*) within the site or adjacent to it. Given the absence of waterbodies within or adjacent to the site, the site itself is considered to be of negligible value for water vole.

### **Non-native Invasive Species**

There are no non-native invasive weeds (notifiable under Schedule 9 of the Wildlife and Countryside Act 1981) present within or in close proximity to the site.

### **Notable Flora**

No rare or particularly notable plant species were recorded during the field survey or are considered likely to occur due to the site being comprised largely of species poor improved grassland (grazing pasture).

## **5. PLANNING POLICY AND LEGISLATION**

### **5.1. National Planning Policy**

The National Planning Policy Framework (NPPF) July 2021, is an update to the previous version issued in February 2019, and is a policy framework document which provide a range of important principles. Paragraph 174 of the NPPF states that decisions should contribute to and enhance the natural local environment by:

*'Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'*

Paragraph 175 goes on to state:

*'... take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.'*

With respect to protection of habitats and biodiversity, paragraph 179 states development plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity<sup>61</sup>; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation<sup>62</sup>; and
- b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles (paragraph 180):

*'Development proposals where the primary objective is to conserve or enhance biodiversity should be supported.'* *'Opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.'*

## **5.2. Local Planning Policy**

Policies within the Barnsley which are relevant to the ecological features.

### ***Summary of relevant local planning policy***

## Policy BIO1 Biodiversity and Geodiversity

### 6.2.10 Policy BIO1 States:

Development will be expected to conserve and enhance the biodiversity and geological features of the borough by:

#### ENVIRONMENTAL STATEMENT

##### Ecology

### 6.5

- Protecting and improving habitats, species, sites of ecological value and sites of geological value with particular regard to designated wildlife and geological sites of international, national and local significance, ancient woodland and species and habitats of principal importance identified via Section 41 of the Natural Environment & Rural Communities Act 2006 (for list of the species and habitats of principal importance) and in the Barnsley Biodiversity Action Plan.
- Maximising biodiversity and geodiversity opportunities in and around new developments.
- Conserving and enhancing the form, local character and distinctiveness of the boroughs natural assets such as the river corridors of the Don, the Dearne and Dove as natural flood plains and important strategic wildlife corridors.
- Proposals will be expected to have followed the national mitigation hierarchy (avoid, mitigate, compensate) which is used to evaluate the impacts of a development on biodiversity interest.
- Protecting ancient and veteran trees where identified.
- Encouraging provision of biodiversity enhancements.

Development which may harm a biodiversity or geological feature or habitat, including ancient woodland and aged or veteran trees found outside ancient woodland, will not be permitted unless effective mitigation and/or compensatory measures can be ensured.

Development which adversely effects a European Site will not be permitted unless there is no alternative option and there are imperative reasons of overriding public interest (IROPI).

## 5.3. Relevant Legislation

### National Legislation

### The Wildlife and Countryside Act 1981

The Wildlife and Countryside Act 1981 (as amended) consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain.

### Natural Environment & Rural Communities Act 2006

Section 40 of the NERC Act 2006 places a duty upon all local authorities in England to promote and enhance biodiversity in all of their functions. Section 41 lists habitats and species of principal importance to the conservation of biodiversity. Fifty-six habitats and 943 species of Principal Importance for Conservation are included on the Section 41 list and draws upon the UK BAP List of Priority Species and Habitats.

### The Conservation of Habitats and Species (Amendment) Regulations 2017

The Conservation of Habitats and Species Regulations 2017 transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law and transpose elements of the EU Wild Birds Directive in England and Wales. The Regulations provide for the designation and protection of 'European sites' (Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)), the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European sites.

### The Environment Act 2021

The Environment Bill has now been entered into legislation becoming The Environment Act 2021, and provides a tool to implement changes in England across environmental sectors including air quality, biodiversity, water, and waste reduction and resource efficiency. The Act includes a target to halt the decline of nature by 2030, and mandates [Biodiversity Net Gain](#) for developments.

## **6. ECOLOGICAL EVALUATION, AND RECOMMENDATIONS FOR MITIGATION, AND FURTHER SURVEY**

### **6.1. Designated Sites**

In view of the above and the small-scale nature of the development it is not considered that the proposals will impact on any statutory designated sites or local wildlife sites and that no habitats of principle importance or with the potential to support protected wildlife will be disturbed by the intended development.

### **6.2. Habitats**

Habitats present on within the redline boundary include the following:

- Improved grassland
- Hedgerows (with marginal scrub and tall ruderal)
- Scattered broadleaved trees
- One semi-permanent building (Timber shed)

### **6.3. Species and Species Groups**

#### **Nesting Birds**

The site contains habitats that are likely to support nesting birds (hedgerows and trees) during the breeding season.

The above habitats may support nesting birds during the breeding season (March – August). It is recommended that any works likely to affect the hedgerows and any scattered trees are scheduled for outside of the breeding period (ideally September – February) to avoid any potential conflicts with nesting birds (which are protected under the Wildlife and Countryside Act 1981). Where this is not possible, these features should be subject to a check for nesting birds by a suitably experienced ecologist prior to works commencing.

The site is not considered to be of any value to ground nesting species.

#### **Reptiles**

The site contains limited habitat that has low potential to support common reptiles (scrub and tall ruderal areas). Although reptiles associated with this habitat such as slow worm have not been recorded within 1.5km of the site.

## **Bats**

The site is of potential value for foraging bats however the small number of trees present to the site boundaries lack the potential roost features (PRFs) suitable for supporting bat roosts. As such the trees are assessed as being of 'negligible potential' for supporting bat roosts (Collins, J (ed) 2016). It is not anticipated that any trees will be affected by the intended site works. As such, no impact upon bat roosts is anticipated as a result of the proposed development.

There is no external artificial lighting proposed for either construction or operational stages of development as part of the planning application. As such, the existing ambient lighting levels should not be affected by the proposals at any stage.

In the event this changes and any artificial lighting is to be installed, then a lighting scheme sensitive to bats and other nocturnal wildlife should be considered. Any proposed artificial lighting should therefore avoid illumination of trees and shrubs. Directional, motion sensor or timer-based lighting should be incorporated, avoiding upward light-spill that may deter bats from the area and could include low-level lighting or similar solutions to prevent artificial light levels from deterring bats from the site and surrounding area

When considering lighting, reference should be made to the following guidance:

- Artificial lighting and wildlife. Interim guidance: Recommendations to help minimise the impact of artificial lighting (Bat Conservation Trust, 2014); and
- Bats and lighting: overview of current evidence and mitigation guidance (Stone, 2014).
- Bats and artificial lighting guidance note (ILP, 2018)

## **Otter & Water Vole**

There is no habitat for otter or water vole within the site boundary and it is not anticipated that the proposed development has any potential to affect these species.

## **7. CONCLUSIONS**

In view of the results of the desk and field-based assessment of the site, the site is considered to be of relatively low ecological value in the local context and loss of biodiversity as a result of the proposed development is negligible due to the nature of the proposed works. It is not

anticipated that any statutory or none statutory designated sites or habitats of principle importance will be impacted upon by the proposed development.

For the development to proceed in line with UK and EU legislation and Planning Policy relating to biodiversity, the recommendations contained within this report should be adopted as necessary.

Where appropriate measures as recommended in the report are adopted, the development will be able to proceed having considered and addressed the necessary legislation and both local and national policy relating to biodiversity conservation.

To offset the loss of a small patch of semi-improved grassland we recommend 2x Schwegler bat boxes to be attached to trees at the site and be positioned by a qualified ecologist and 2x open fronted and 2x closed fronted multi purposed bird boxes to be positioned by a qualified ecologist at the site which will be annotated on a plan to be provided if planning permission is granted.

## 8. REFERENCES

Bat Conservation Trust website: <http://www.bats.org.uk/>

BS 42020:2013 Biodiversity - Code of Practice for Planning and Development.

Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. Technical Guidance Series. [www.cieem.net](http://www.cieem.net).

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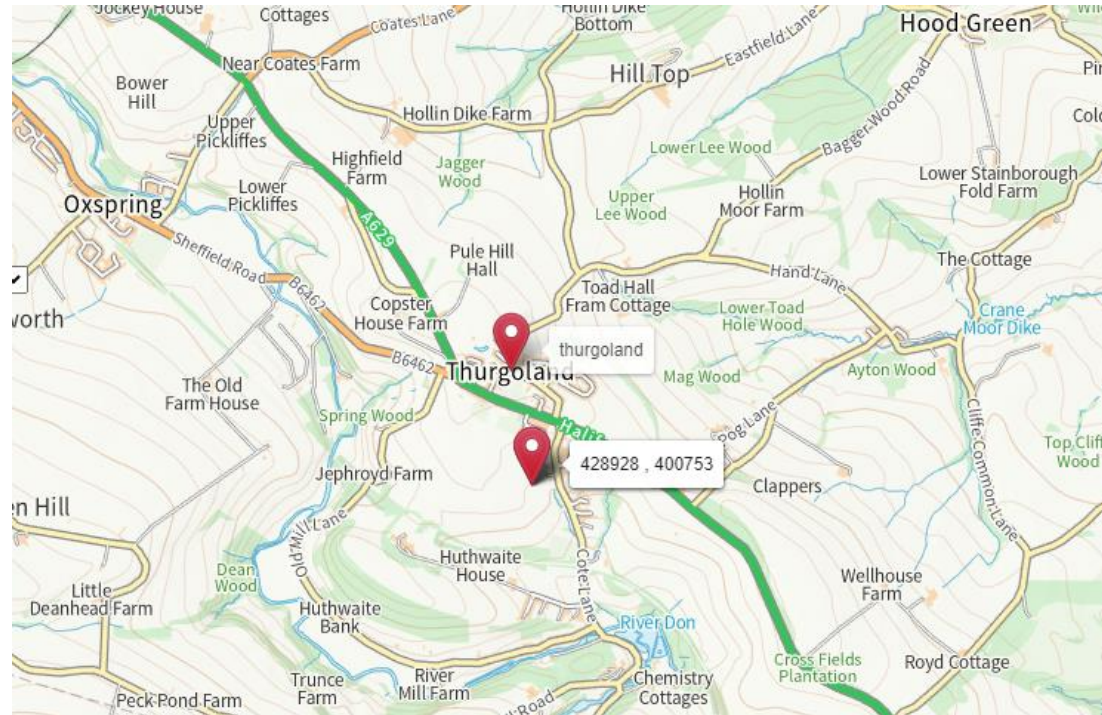
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## APPENDIX 1: SITE LOCATION PLAN





## APPENDIX 2: SITE PHOTOS

Habitats within the Site



Typical example of the hedgerows found at the site



Improved grazing pasture with scattered trees



Duck/fishing pond 60m east of site within a walled area.



Pasture bounded by residential properties.

|                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |
| <p>Small timber stable at the site</p>                                             | <p>Stable interior with an unlined corrugated roof</p>                              |

### APPENDIX 3: FRAME OF REFERENCE FOR GEOGRAPHICAL VALUE

|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>International and European value</b></p> | <p>Ramsar Sites, Special Protection Areas, Biosphere Reserves, Special Areas of Conservation. Sites supporting populations of internationally important species.</p> <p>Any regularly occurring population of an internationally important species, which is threatened or rare in the UK. i.e. it is a UK Red Data Book species or listed as occurring in 15 or fewer 10km squares in the UK (categories 1 and 2 in the UK BAP) or of uncertain conservation status or of global conservation concern in the UK BAP.</p> |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              | A regularly occurring, nationally significant population/number of any internationally important species.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>National value</b>        | <p>SSSIs or non-designated Sites meeting SSSI selection criteria, NNRs, Marine Nature Reserves, NCR Grade 1 Sites. Sites containing viable areas of key habitats identified in the UK Biodiversity Action Plan.</p> <p>Any regularly occurring population of a nationally important species which is threatened or rare in the region or county (see local BAP).</p> <p>A regularly occurring, regionally or county significant population/number of any nationally important species.</p>                                                   |
| <b>Regional value</b>        | <p>Sites containing viable areas of threatened habitats listed in a Regional BAP (or some Natural Areas), comfortably exceeding SINC criteria, but not exceeding SSSI criteria.</p> <p>Any regularly occurring, locally significant population of a species listed as being nationally scarce which occurs in 16-100 10km squares in the UK or in a Regional BAP or relevant Natural Area on account of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a regionally important species.</p> |
| <b>County / Metropolitan</b> | <p>Sites meeting the criteria for county or metropolitan designation (SINC, CWS, etc.). Ancient semi-natural woodland, LNRs or viable areas of key habitat types listed in county BAPs/Natural Areas.</p> <p>Any regularly occurring, locally significant population of a species which is listed in a County/Metropolitan “red data book” or BAP on account of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a County/Metropolitan important species.</p>                                |

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Local</b> | <p>Undesignated Sites or features considered to appreciably enrich the habitat resource in the District or Borough or within a zone of influence.</p> <p>A population of a species that is listed in a District/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a District / Borough important species during a critical phase of its life cycle.</p> |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### APPENDIX 4: PHASE 1 HABITAT PLAN

See next page



## Appendix 5: Bat Records

## Appendix 6: HSI Score

| Habitat Suitability Index |    | S11      | S12       | S13         | S14           | S15   | S16  | S17   | S18   | S19            | S110        | HSI Score | Pond Suitability |
|---------------------------|----|----------|-----------|-------------|---------------|-------|------|-------|-------|----------------|-------------|-----------|------------------|
| Suitability Indices:      |    | Location | Pond area | Pond drying | Water quality | Shade | Fowl | Fish  | Ponds | Terr'l habitat | Macrophytes |           |                  |
| Pond reference:           | P1 | Result:  | Zone B    | 450m2       | Never         | Poor  | 0.8  | Major | Minor | 5              | Moderate    | None      |                  |
|                           |    | Score:   | 0.5       | 0.90        | 0.9           | 0.33  | 0.6  | 0.01  | 0.33  | 0.8            | 0.67        | 0.3       | Poor             |