



Ecological Appraisal
Land off Barton Lane
Congerstone
Leicestershire
NGR SK36996 05611

Survey by
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Non-Technical Summary

The site surveyed comprises a small parcel of open grazing land situated on the north side of Barton Lane, Congerstone, Leicestershire centred at NGR SK36996 05611. An inspection of the site was completed on 19th January 2023.

The defined site area comprises a triangular shaped field grazed by horses on the north side of Barton Lane. To the north is a small stream beyond which is open land. To the west are residential houses and gardens. To the south there are residential houses on the opposite side of Barton Lane.

The site is not a Statutory or Non-Statutory site of ecological significance. There are no Statutory sites within a 1km radius but there is one site of National Importance identified at Ashby Canal approx. 200m from the survey area. There are a number of LWS and potential LWS sites within 1km, one being a hedgerow running along the southern boundary of the survey area.

The survey has identified the following habitats within the site area:

- Good Semi-improved Grassland
- Poor Semi-improved Grassland
- Boundary Hedgerows with trees
- Boundary river (offsite)
- Blackthorn thicket and scrub
- Timber stable

An assessment of the survey area has identified the following potential for protected species to be present:

Species	Present within 1km	Suitable habitat on site / evidence of presence	Likelihood of presence on site	Further Survey / Mitigation recommended
Nesting Birds	Yes	Intensively grazed grassland unsuitable for ground nesting. Nesting along the boundary hedgerows and trees highly likely.	Low within the site interior but highly likely with hedgerows and mature boundary trees.	Measures to avoid disturbance to any nests or nesting activity will need to be considered prior to any vegetation clearance.
Reptiles	Yes	Marginal areas of the site closer to the River Sence are suitable for grass snake which are known to be in the wider area.	Low / Moderate - may be present within the boundary areas and closer to the river	Boundary areas where reptiles may be present will need to be avoided. Inspection of the construction working area immediately before work commences is recommended.
Amphibians	No	Habitat within the majority of the site interior is sub-optimal due to the intensity of grazing. There are no ponds within the survey area or close by and there are no records of GCN in the local area	Negligible potential within the site area.	No further surveys or specific mitigation measures recommended.
Bats	Yes	Some foraging along the site boundaries and adjacent river highly likely. mature trees around the field boundaries could support roosting bats.	High potential for foraging bats and for bats using boundary trees near the river for roosting purposes.	Further surveys to assess the significance of the site to roosting and foraging bats are

		Horse shelter has negligible roost potential.		likely to be required to provide information to determine suitable mitigation measures.
Badger and larger mammals	Yes	A sett with eight main entrances has been identified on the north-western boundary of the site adjacent to the river sense flood bank. There are badger trails extending east along the edge of the grazing land and west following the river bank. No field signs of badger, were found in any part of the site area assessed, including the small woodland copse at the road junction.	Badger sett and foraging activity within the survey area confirmed. A further survey to assess this may be required.	A sett is present within the survey area and further surveys may be needed to assess this and confirm mitigation requirements. Construction methods to avoid harm to badgers will be required if any development works are approved. recommended.

Constraints:

A number of significant ecological constraints have been identified during the survey and these are shown in the Constraints Plan. Whilst the open grazing land provides minimal opportunity for protected species to be present except around the margins of the field area, the presence of mature trees, boundary hedgerows and the proximity of the survey land to the River Sense provides the opportunity for wildlife to be present.

- An active badger sett has been identified on the north-western edge of the survey area and badger will be commuting and foraging across the survey area.
- The River Sense will be a wildlife corridor for many species of bird such as Kingfisher and the river flood bank, mature trees and scrub thickets adjacent to this are likely to support nesting birds in the future.
- This river bank area may also provide opportunities for reptiles such as Grass Snake which is known to be present in the surrounding area and individual snakes may be foraging around the margins of the field areas.
- The mature Oak trees along Barton Lane are of high landscape value and provide an ecological resource for wildlife including birds and invertebrates. There may be nesting birds taking advantage of these tall trees, some of which are choked by dense ivy growth.
- The river corridor is likely to be used by foraging bats and there are mature trees around the field boundaries which could provide roosting opportunities for bat species.
- There is potential for hedgehogs to be present within the site, particularly around the site boundaries.

Conclusion and Recommendations

There are no nearby Statutory sites that could potentially be impacted by proposed development within the field interior. The River Sense will need to be provided a suitable buffer zone to ensure there is no impact on this linear habitat area. The boundary hedgerow along Barton Lane will also need to be retained as this is the closest LWS to the site surveyed running along its southern boundary. The other Local Wildlife Sites are sufficiently far to potentially avoid any impact from any development within the field interior.

The survey area comprises a field of intensively grazed semi-improved grassland with a smaller field of poor semi-improved grassland to the west. It has a significant hedgerow containing mature Oak trees along the southern boundary adjacent to Barton Lane and significant tree canopy cover along the northern boundary screening the nearby River Sense. The interior of the main grazing field contains no significant ecological features and provided any proposed development is a sufficient distance from the boundary hedgerows and trees to avoid impact on

these, this area could potentially be developed with minimal impact on local biodiversity for which mitigation and compensation could be provided.

The smaller field of poor semi-improved grassland is also adjacent to the River Sence and has trees around the boundaries. No evidence of any significant locally rare plants or plant communities were found within the smaller field area but diversity was increased and the proximity of this isolated parcel of land to the river suggests it may be a more significant habitat area.

Once a conceptual development plan is provided the potential impact of this on the area surveyed and the habitat present within this can be assessed and mitigation and compensation measures considered.

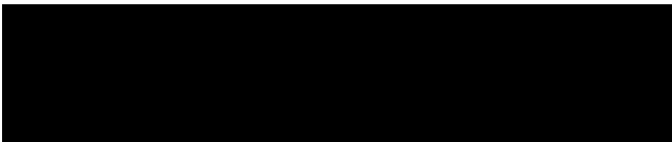
The inspection completed in January 2023 has identified the following:

- a) There is an active badger sett adjacent to the River Sence on the north-western edge of the survey area. Any proposed development should avoid this area completely and a further badger activity survey may be required to provide details of the badger population in this location to provide information for the design and implementation of any mitigation measures.
- b) There is potential for nesting birds and species such as Grass Snake to be present along the margins of the field area closer to the River Sence which will be a commuting and foraging route for these species. Further bird and reptile surveys may be required if any proposed development extends within 20m of the northern boundary.
- c) The local area is likely to be a significant foraging area for bats and there are trees around the boundaries of the site area which could also provide roosting locations. A further bat activity survey is likely to be required to provide information on the use of this area by bats and to provide information to assist with the design of any mitigation measures.

Mitigation recommendations:

Given the location of the area surveyed there is potential for significant ecological enhancements to be included within the scheme to enhance biodiversity and create new habitats.

- A landscaped buffer zone could be provided along the River Sence boundary to enhance and extend this linear habitat.
- Bat roost tubes boxes and bird nest boxes could be erected at suitable positions affixed to suitable trees around the field boundaries or incorporated within new buildings.
- Refugia suitable for hedgehogs and reptiles could be constructed in suitable positions in landscaped areas where these will be accessible from the River Sence to these species.
- Landscape planting within and around any proposed development should utilise native species to promote diversity and aim to provide good links between areas around the site boundaries which can be exploited by local wildlife.



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Part 1: Site Details

1. Introduction

1.1 Site Description and Location

The site surveyed comprises a small parcel of open grazing land situated on the north side of Barton Lane, Congerstone, Leicestershire centred at NGR SK36996 05611. The location of the site is shown on the plan within **Figure 1** and an aerial photograph has been provided within **Figure 2** to place the site in context.

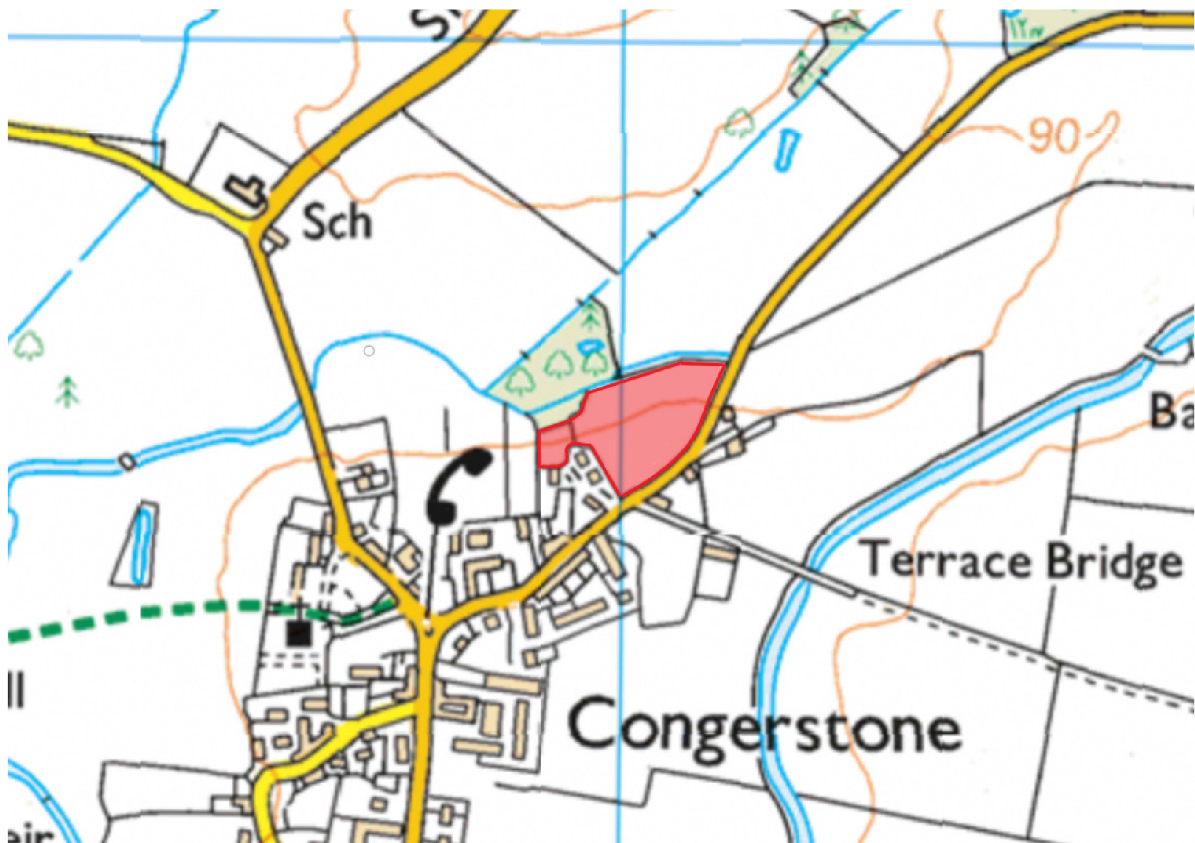


Figure 1: Site location.

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The Client has requested an ecological survey of the land to determine whether there is anything of ecological value or any evidence of protected species present. An inspection of the site was completed on 19th January 2023 and details of the survey are provided in the table below. A photographic record of key areas is included alongside target notes within the report and a list of plant species identified in the site during the survey is included within **Appendix 1**.

Date	Time	Location	Weather
19 January 2023	14.45	Land off Barton Lane Congerstone Leicestershire CV13 6NT	Clear with occasional cloud. Wind 9mph from the west. Temperature 4 degrees C and rising. Humidity 79% at 1006hPa.

The defined site area comprises a triangular shaped field grazed by horses on the north side of Barton Lane. To the north is a tributary of the River Sence beyond which is open land. To the west are residential houses and gardens. To the south there are residential

houses on the opposite side of Barton Lane. A contextual aerial photograph is provided below.



Figure 2: Site Contextual Aerial Photograph

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1.2 Objective of the Report

This report is an extended Phase 1 Habitat Survey and ecological appraisal of the area identified in yellow within the aerial photograph above. The objective of the ecological appraisal is to identify the habitat(s) present on, and surrounding, the site area being assessed. Development of the site for the purpose of constructing new residential houses will require planning approval and this report has been prepared to provide information as part of any future planning application process. To this end the report is required to comply with the recommendations and principles set out in the National Planning Policy Framework 2019 as amended (NPPF). The report contains Biological Records and has been prepared to meet the standard required by BS42020 (British Standard for Biodiversity and Development).

Chapter 11 of the National Planning Policy Framework (NPPF) describes the Government's national policies on promoting 'an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment.' NPPF is accompanied by Planning Practice Guidance on 'Biodiversity, ecosystems and green infrastructure' (2014) and ODPM Circular 06/2005.

The National Planning Policy Framework 2019 Chapter 15 sets out the Government's objectives for planning in regard to the protection of habitats and biodiversity. The planning objectives in relation to biodiversity and the natural environment are stated within paragraph 170 of the NPPF 2019 and are as follows:

"Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan).

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland.

c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate.

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

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.”

Within the NPPF the planning policy context requires that Planning policies and decisions should be based on up to date information about the natural environment and other characteristics of the area including an assessment of existing and potential components of ecological networks (NPPF paragraph 43).

The above approach encapsulates the ‘mitigation hierarchy’ described in British Standard BS 42020:2013 which involves the following stepwise process:

- **Avoidance** – avoiding adverse effects through good design,
- **Mitigation** – where it is unavoidable, mitigation measures should be employed to minimise adverse effects,
- **Compensation** – where residual effects remain after mitigation it may be necessary to provide compensation to offset any harm,
- **Enhancement** – planning decisions often present the opportunity to deliver benefits for biodiversity, which can also be explored alongside the above measures to resolve potential adverse effects.

The measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development (BS 42020:2013, section 5.5).

This ecological appraisal provides information on the existing ecological and biodiversity value of the land on the site and also reports any evidence of protected species or significant habitats present. It has been provided to provide information to the Planning Authority in order to help meet the requirements of the NPPF and enable the Authority to assess the site area in accordance with the Code of Practice within BS42020 and guidelines issued by CIEEM in 2012. The report also identifies any habitats or species present that require more detailed surveys prior to any improvements being undertaken.

Part 2: Survey Methodology and Results

2. Appraisal Methodology

2.1 Baseline Study

Within NPPF it states that there are three dimensions to sustainable development: “economic, social and environmental.” The environmental role includes “contributing to protecting and enhancing our natural, built and historic environment” and, as part of this, helping to improve biodiversity.

Within the NPPF 2019 it states that: “Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight....” Paragraph 172

Within paragraphs 174 and 175 of NPPF 2019 the principles by which the protection and enhancement of biodiversity and geodiversity within the context of proposed development are described. These principles state in Paragraph 174 that any development proposal 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; wildlife corridors and steppingstones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; 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**.

Paragraph 175: When determining planning applications, local planning authorities should apply the following principles:

- a) *if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.*
- b) *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest.*
- c) *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
- d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.*

The biodiversity of a site area and the potential presence of protected species are factors relevant to all developments irrespective of the size scale and will apply to any development on the site being assessed. Available information on the baseline ecology of the site and the presence of protected species within the locality has been obtained from the local biological records centre and reviewed (**Appendix 2**) and the records obtained are provided as separate appendices.

These data sources have been reviewed and the character and nature conservation value of habitats and species assessed. The aims of this appraisal of information are:

- To characterize all the existing available information regarding habitats and species that may be present at the site and provide up to date information about the environmental characteristics of the site area.
- To identify any habitats potentially present of nature conservation value in terms of local, regional and national context and within the context of local, regional and national policy; and,
- To identify any areas of ecological interest in order to either a) make recommendations to minimize the potential impact of any site works, or b) identify the need for a further survey work.

Following the appraisal of the available information, a site inspection has taken place to obtain specific site data at the site.

2.2 Habitat Assessment Methodology

The site was inspected on the afternoon of 19th January 2023. The inspection used the extended Phase 1 Habitat Assessment methodology as adopted by Natural England (Joint Nature Conservation Committee 1993) and in accordance with the Guidelines for Preliminary Ecological Appraisal (2012) issued by the Institute of Ecology and Environmental Management (IEEM) and BS42020 (British Standard for Biodiversity and Development).

The survey required a systematic walkover of the site to classify the habitat types present and was completed using standard Phase 1 Habitat Survey methodology whereby the habitat types present are identified and mapped, together with an assessment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified can then be examined in more detail through Phase 2 surveys. This method was extended, in line with the Guidelines for Preliminary Ecological Appraisal to record details on the actual or potential presence of any notable or protected species or habitats.

Using the above method, the site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified summarised within **Appendix 1**. A habitat base map and target notes have been prepared and included as **Figure 3** within section 3 of this report.

2.3 Protected Species Assessment Methodology

A methodical inspection was carried out to look for any evidence of protected species using the site and to identify any habitats with potential to provide significant shelter or foraging opportunities for these. The survey was carried out by Christopher Barker, an experienced ecological consultant and Chartered Environmentalist holding Class Licenses issued by Natural England.

The Conservation of Habitats and Species Regulations 2010 consolidates the various amendments that have been made to the Regulations. The original (1994) Regulations

transposed the EC Habitats Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Council Directive 92/43/EEC) into national law.

“European protected species” are those which are present on Schedule 2 of the Conservation of Habitats and Species Regulations 2010. They are subject to the provisions of Regulation 41 of those Regulations. All European Protected Species are also protected under the Wildlife and Countryside Act 1981 (as amended). Taken together, these pieces of legislation make it an offence to:

- a. Intentionally or deliberately capture, injure or kill any wild animal included amongst these species
- b. Possess or control any live or dead specimens or any part of, or anything derived from these species
- c. deliberately disturb wild animals of any such species
- d. deliberately take or destroy the eggs of such an animal, or
- e. intentionally, deliberately or recklessly damage or destroy a breeding site or resting place of such an animal, or obstruct access to such a place

For the purposes of paragraph (c), disturbance of animals includes in particular any disturbance which is likely—

- a. to impair their ability—
 - i. to survive, to breed or reproduce, or to rear or nurture their young, or
 - ii. in the case of animals of a hibernating or migratory species, to hibernate or migrate;or,
- b. to affect significantly the local distribution or abundance of the species to which they belong.

Although the law provides strict protection to these species, it also allows this protection to be set aside (derogation) through the issuing of licences. The licences in England are currently determined by Natural England (NE) for development works. In accordance with the requirements of the Regulations (2010), a licence can only be issued where the following requirements are satisfied:

- i) The proposal is necessary ‘to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment’
- ii) ‘There is no satisfactory alternative’
- iii) The proposals ‘will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.’

General faunal activity, such as mammals or birds observed visually or by call during the course of the surveys was recorded. Specific attention was also paid to the potential presence of any protected, rare or notable species, and specific consideration was given to bats, birds, badgers, amphibians and reptiles as described below.

Breeding Birds: All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. The inspection of the site included a search of hedgerows, ground vegetation and tree canopies looking for evidence of active or former nests.

Bats: All species of Bat within the UK are protected under the Conservation of Habitat and Species Regulations 2010 (Habitat Regulations) that amended and incorporated the Wildlife and Countryside Act 1981. These regulations make it an offence to:

- Intentionally kill, injure or take a bat [WCA section 9(1)]
- Possess or control any live or dead specimen or anything derived from a bat [WCA section 9(2)]
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a bat [WCA section 9(4)(a)]
- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for that purpose [WCA section 9(4)(a)]

Any building or significant trees present within the survey area have been assessed for their suitability to support roosting bats based on the presence of features such as holes, crevices, cracks, splits or loose bark. Potential bat roost locations in relation to buildings are described within this report (taken from Bat Survey Guidelines 2016) as:

Confirmed Roost – a structure with physical evidence confirming the presence of bats or bats visibly seen.

High – a structure with one or more potential roost features that are obviously suitable for use by a large number of bats on a regular basis and which is situated in an area of continuous high-quality foraging habitat suitable for bats.

Moderate – a structure with one or more potential roost features that could be used by bats, but which is unlikely to support a roost of high conservation status and which is in an area of connected habitat suitable for foraging by bats.

Low – a structure with one or more potential roost features that could be used by individual bats opportunistically. However, these potential roost features do not provide sufficient potential to be used by a larger number of bats or on a regular basis and the surrounding habitat is not of high value to foraging bats.

Negligible – a structure with negligible habitat features which is in a poor location making it highly unlikely roosting bats will be present.

Tree assessments were undertaken from ground level, with the aid of a torch and binoculars where required. During the survey features considered to provide suitable roost sites for bats such as the following were sought:

- Trunk / branch cavities – significant holes in the trunk caused by rot or injury.
- Trunk / branch split – split / fissure in trunk caused by rot or injury.
- Branch socket cavity – Where a fallen branch has resulted in the formation of an access point into a cavity.
- Woodpecker hole – created by nesting birds suitable for use by roosting bats.
- Lifted bark – bark which has rotted / lifted to form suitable access point/roost site for bats.
- Trunk hollows – decay in heartwood leading to internal cavity in trunk.
- Ivy cover – dense / mature ivy cover where the woody stems could create small cavities / crevices.

Common Reptiles: All species of British reptile are protected by the Wildlife and Countryside Act 1981 (as amended). The common species (adder, grass snake, slow worm and common lizard) are only protected against intentional killing and injuring (but not taking).

The survey included a search of all areas where suitable habitat for reptiles to shelter under or bask may be present, lifting logs and other suitable features to search underneath. The surveyor also maintained a careful watch whilst moving across the site to look for signs of reptiles moving to cover.

Great crested newts are afforded legal protection under European and UK law under the auspices of The Conservation (Natural Habitats &c.) (Amendment) Regulations which came into force on 21 August 2007, superseding the Habitat Regulations 1994. The 2007 amendments have increased the protection afforded to European Protected Species.

The law provides protection to adults, juveniles, efts (immature GCN) and eggs and it is an offence to intentionally or recklessly or as an incidental result of actions:

- Intentionally or deliberately capture, kill, or injure Great Crested Newts
- Intentionally or recklessly damage, destroy or obstruct access to any place used for shelter or protection (including resting or breeding places) whether occupied or not
- Deliberately, intentionally or recklessly disturb Great Crested Newts when in a place of shelter
- Possess a Great Crested Newt, or any part of it, unless acquired lawfully
- Sell, barter, exchange or transport or offer for sale Great Crested Newts or any part of them.

The survey included a search of any ponds and wetland areas within the site or immediate surrounding area nearby (where these features were accessible) and an assessment of ponds in the local area using Ordnance Survey Maps and aerial photographs to consider the potential for these species to access the site area.

Badger: Badgers are protected under the Protection of Badgers Act 1992. This makes it an offence to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so; or to intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it. A badger sett is defined in the legislation as “*a structure or place, which displays signs indicating current use by a badger*”.

The survey searching for evidence of badger activity comprised two main elements. The first element involved searching for evidence of Badger setts. For any setts that were encountered, each sett entrance was noted and mapped. The following information was recorded:

- Number and location of well used / active entrances; these are clear from any debris or vegetation and are obviously in regular use and may, or may not, have been excavated recently.
- Number and location of inactive entrances; these are not in regular use and have debris such as leaves and twigs in the entrance or have plants growing in or around the edge of the entrance.
- Number of disused entrances; these have not been in use for some time, are partly or completely blocked and cannot be used without considerable clearance. If the
- entrance has been disused for some time all that may be visible is a depression in the ground where the hole used to be and the remains of the spoil heap.

The second element of the survey involved searching for signs of Badger activity such as well-worn paths and push-throughs, snagged hair, footprints, latrines and foraging signs, so as to build up a picture of any use of the site by Badger.

Invasive Species: Attention was paid to the presence of any invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). However, the detectability of such species varies due to a number of factors, e.g. time of year, site management, etc., and hence the absence of invasive species should not be assumed even if no such species were detected during the Phase 1 survey.

A range of invasive non-native plant species are listed in Schedule 9 (Part 2) of the Wildlife and Countryside Act 1981, which makes it an offence to plant or cause these introduced

invasive plants to grow in the wild, effectively making it illegal to spread the plants during development operations.

2.4 Consultations

The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2016). In evaluating ecological features. The *Geographic Frame of Reference* is a key factor taken into account when assessing the potential ecological value of a site being surveyed. The value of an ecological feature or resource is determined within a defined geographical context using the following frame of reference:

- International.
- National.
- Regional.
- County (or Metropolitan).
- District (or Unitary Authority, City or Borough).
- Local (or Parish).
- Site level only.

Within this frame of reference, certain sites may carry a statutory ecological designation, e.g. Special Area of Conservation (SAC) for internationally important sites or Site of Special Scientific Interest (SSSI) for sites of national importance. Sites of more localised nature conservation importance do not receive statutory protection but may be designated by Local Planning Authorities or other bodies, e.g. Wildlife Trusts. Such non-statutory designations or 'Local Sites' include Local Wildlife Sites (LWSs) and Sites of Nature Conservation Interest (SNCIs), for example.

A review of the available data confirms that the site is not a Statutory or Non-Statutory site of ecological significance. There are no Statutory sites within a 1km radius but there is one site of National Importance identified at Ashby Canal approx. 200m from the survey area. There are a number of LWS and potential LWS sites within 1km, the nearest and most significant of these are summarised within the table below.

Site Name and Reference	Designation	Distance from survey site	Potential Links
Ashby Canal	National	198	Links via the River sense.
Congerstone, Poplar Terrace hedge 90666	LWS	47	Hedgerow on the opposite side of Barton Road
Horse Chestnut, Congerstone village 90290	LWS	222	None
Gibbet Lane Ash 90322	LWS	800	None
Bilstone Road hedge (east side) 90328	LWS	799	None
Gibbet Lane Oak 1 90323	LWS	956	None
Stagheaded Ash, Congerstone 90293	LWS	308	None
Bilstone Road hedge (west side) 90329	LWS	817	None
Willow, Bilstone millstream 90294	LWS	575	None
Oak, Gopsall Road junction 90291	LWS	396	None
River Sence (Gopsall Estates) 66669	LWS	0	Runs adjacent to the northern boundary of the survey area
Gopsall Road hedgerow (south) 90292	LWS	411	None
Congerstone, Barton Rd hedge 90665	LWS	0	Runs along the site boundary.
Bilstone, pond S of R Sence 11212	LWS	439	None
Long Covert 11208	LWS	987	None

A review of the data for protected species has identified a small number of significant records relating to the immediate vicinity of the site which are summarised within the table below.

Scientific Name	Common Name	Latest Record	Number of Records
Alcedo atthis	Kingfisher	2007	1
Coturnix coturnix	Quail	2010	1
Falco subbuteo	Hobby	2012	1
Phoenicurus ochruros	Black Redstart	2009	1
Upupa epops	Hoopoe	2016	1
Natrix helvetica	Grass Snake	2006	1
Arvicola amphibius	Water Vole	1998	1
Chiroptera	Bat	2019	6
Lutra lutra	Otter	2021	2
Meles meles	Badger	2020	2
Myotis nattereri	Natterer's Bat	2014	1
Pipistrellus	Pipistrelle Bat species	2017	1
Pipistrellus pipistrellus	Common Pipistrelle	2018	5
Pipistrellus pygmaeus	Soprano Pipistrelle	2019	6
Plecotus auritus	Brown Long-eared Bat	2018	5

There are no records of great crested newt (GCN) in this area within 1km of the site. The River Sence runs to the north of the site and the margins of this could support amphibians so there may be potential for common amphibians such as Frog, Toad or Smooth Newt to be present around the margins of the field area being surveyed.

There is a record of Grass Snake in land approximately 400m to the south and since this site lies adjacent to the River Sence and supports open grassland it is possible this species and other reptiles such as Slow Worm and Common Lizard could be present.

The majority of the site area surveyed is open and exposed grassland cropped quite short, providing little cover for ground nesting birds. However, there are mature broadleaved trees with dense ivy cover along the field boundaries and hedgerows present which could shelter nesting birds. The River Sence adjacent to the northern boundary of the survey area could also provide habitat for nesting and foraging wildfowl.

There are records of roosting and foraging **bats** in this area with two species of Pipistrelle, Brown Long-eared and Myotis bats being recorded within the local area. There are Pipistrelle roosts located in suitable buildings 500m to the north west and within the local church 400m to the west. The mature trees around the boundaries of the field, including at a number of mature Oak, could provide potential roosting locations. The use of the field boundaries and the adjacent River Sence for foraging and commuting purposes is highly likely.

There are records of **badger** activity in this area with sightings and sett activity to the north approximately 650m away and foraging activity to the south within 100m. The site area is accessible and the River Sence flood area could provide habitat for foraging badger and there could be setts along the river edge and within the boundary hedgerows.



Figure 3 – Habitat Plan

3. Survey Findings

3.1 Habitat Classifications and Target Notes

The survey has identified the following habitats within the proposed development:

- Good Semi-improved Grassland
- Poor Semi-improved Grassland
- Boundary Hedgerows with trees
- Boundary river (offsite)
- Blackthorn thicket and scrub
- Timber stable

Target Note: Good Semi-improved Grassland

The majority of the site comprises good quality semi-improved grassland grazed closely cropped by horses. The sward is short and of good quality, dominated by productive agricultural grasses providing a dense even sward. The sward is dominated by Perennial Ryegrass *Lolium perenne* with Fescue *Festuca sp* and Meadow Grass *Poa trivialis* present. Other grass species may be present.

There is limited forb content within the dense sward but species such as Dandelion *Taraxacum officinale*, Plantain *Plantago lanceolata*, Chickweed *Stellaria media* and Speedwell *Veronica spp* are present in limited numbers. The sward appears species poor and appears surprisingly well-managed for a horse grazing area.



View from south west corner



View of north west corner of main field



View from south east corner



North eastern corner of main field



View across centre of main field



Sward close up in main field

Species poor semi-improved grassland

In the western part of the site is a separate small field area within which there is a poor grass sward which is becoming colonised by a range of common forbs and taller ruderals / perennials around the margins.



This sward is dominated by agricultural grasses including Yorkshire Fog *Hoculus lanatus*, Perennial Ryegrass *Lolium perenne* and also contains a reasonable amount of finer grass which appears to be Fescue *Festuca rubra*. Species diversity is still quite limited but within the swards some common forbs such as Clover *Trifolium repens*, Buttercup *Ranunculus repens*, Daisy *Bellis perennis*, Medick *Medicago lupulina*, Forget me Not *Myosotis arvensis*, Dandelion *Taraxacum officinale*, Plantain *Plantago lanceolata* and Chickweed *Stellaria media* are quite widespread and along the margins taller forbs such as Nettle *Urtica dioica*, Dock *Rumex obtusifolius*, Lesser Willowherb *Epilobium hirsutum* and Cow Parsley *Anthriscus sylvestris* are colonising. There is no evidence of any rare or unusual plants or plant communities present in the small area of grassland but this does not appear to be grazed and is starting to develop tussocks.

Target Note: Boundary Hedgerows and Trees

There are boundary hedgerows around some of the field margins, in particular along Barton Lane in which there are a number of large mature Oak trees. There is also some dense Hawthorn and Blackthorn scrub growth along the northern boundary of the field.

Hedgerow Regulations

A measure of statutory protection is afforded to hedgerows under the Hedgerow Regulations 1997, where any ecological or archaeological features are defined as being 'important'. The Removal of important hedgerows requires consent from the local planning authority, except in certain prescribed circumstances. The importance of hedgerows can be assessed according to the criteria identified in Part II Schedule I of the Hedgerow

Regulations 1997. A hedgerow is identified as being 'Ecologically Important' if it has existed for 30 years or more and satisfies at least one of the criteria listed below.

- *Criteria 6:* Contain certain categories of species of birds, animals or plants listed in the Wildlife and Countryside Act 1981 or the British Red Data Books
- *Criteria 7:* The hedgerows include:
 - a) At least 7 schedule III woody species, on average in a 30m length;
 - b) At least 6 schedule III woody species, on average in a 30m length and has at least 3 associated features;
 - c) At least 6 schedule III woody species, on average in a 30m length, including a black poplar tree, or large-leaved lime, or small-leaved lime or wild service tree;
 - d) At least 5 schedule III woody species, on average in a 30m length and has at least 4 associated features.

The associated features are:

- i. a bank or wall which supports the hedgerow along at least one half of its length;
 - ii. gaps which do not exceed 10% of the length of the hedgerow;
 - iii. on average, at least one tree per 50 metres;
 - iv. at least 3 schedule 2 woodland species within one metre, in any direction, of the outermost edges of the hedgerow;
 - v. a ditch along at least one half of the length of the hedgerow;
 - vi. connections with other hedgerows, woods or ponds scoring 4 points or more (where a connection to another hedgerow scores 1 and a connection to a broad-leaved wood or pond scores 2); or
 - vii. a parallel hedgerow within 15 metres of the hedgerow.
- *Criteria 8:* Run alongside a bridleway, footpath, road used as a public path, or a byway open to all traffic and includes at least 4 woody species, on average, in a 30m length and has at least 2 associated features as listed above.

In accordance with these regulations, regular 30m sections of the hedgerow at the site were sampled i.e. woody species were recorded for 30m out of every 100m in order to sample the hedgerow in a systematic way. The average number of species for each hedgerow was derived by totaling the number of species recorded and dividing by the number of sections. This gives an average to compare with the Hedgerow Regulations Criteria. Only when the average number of species is 5 or more are associated features taken into account. An average of 5 woody species and 4 associated features are needed for a hedgerow to be defined as important hedgerow in accordance with the regulations. The exception to this is when a hedgerow runs alongside a footpath or bridleway. In this case only 4 woody species and 2 associated features are needed.

Each hedgerow is given a grade using HEGS with the suffixes '+' and '-', representing the upper and lower limits of each grade respectively. These grades represent a continuum on a scale from 1+ (the highest score and denoting hedges of the greatest nature conservation priority) to 4- (representing the lowest score and hedges of the least nature conservation priority) as follows:

- Grade 1 – High to very high value
- Grade 2 – Moderately high to high value
- Grade 3 – Moderate value
- Grade 4 – Low value

Hedgerows graded 1 or 2 are considered to be a priority for nature conservation.

The hedgerows were also assessed against the wildlife and landscape criteria contained within Statutory Instrument No: 1160 – The Hedgerow Regulations 19973 to determine

whether they qualified as 'Important Hedgerows' under the Regulations. This was achieved using a methodology in accordance with the Regulations.

Hedge	Height	Width	Management	Woody Species	Ground Flora	HEGS Cat.
H1	3-5m	3-5m	Untrimmed hedgerow along Barton Lane with a number of large mature Oak trees present.	Hawthorn Blackthorn Elder Dog Rose Oak Ash	Lords and Ladies Nettle Garlic Mustard Bramble	2
H2	1m	1m	Box-trimmed. No trees	Hawthorn	Negligible	4
H3	1m	1m	Box-trimmed. No trees	Hawthorn	Negligible	4



H1 along Barton Lane



H1 along Barton Lane



Hedgerow H2



Hedgerow H3

Along the southern boundary within Hedgerow H1 are six mature Oak *Quercus petraea* of significant stature and high landscape and ecological value. These trees dominate the hedgerow and extend canopy cover across the field edge and across Barton Lane. In addition there are a number of smaller Ash *Fraxinus excelsior* at the western end of the hedgerow.

Along the north-eastern boundary is a dense thicket of mature Crack Willow *Salix fragilis* occupying land between the field boundary and the River Sence which runs to the rear of these trees. These trees are dropping significant dead wood across the field boundary.

Also along the northern boundary of the field there are a number of mature Oak, Ash and occasional semi-mature Sycamore *Acer pseudoplatanus* providing canopy cover along the majority of the field margin and effectively screening the River Sence which runs to the rear of these. There are also thickets of suckering Blackthorn *Prunus spinosa* Holly *Ilex*

aquifolium and Hawthorn *Crataegus monogyna* along the northern boundary extending from under the tree canopy cover into the field margins.



Oak along Barton Lane



Oak along Barton Lane



Willow along north-eastern field edge



Trees along western field edge



Trees along the northern boundary



Trees along the northern boundary



Trees along northern field edge



Suckering scrub along field edge

Target Note: River Sence (off-site)

The River Sence runs a short distance to the north of the area surveyed. It has a wide flood bank on the southern side at the edge of which there are mature trees which define the edge of the river area and the start of the grazing land. This is a river of good quality identified as Local Wildlife Site



River Sence



Flood bank of River Sence

Target Note: Timber Horse Shelter

Within the field adjacent to the southern boundary and sheltered by Hedgerow H1 is a small timber horse shelter. This has a pitched corrugated steel sheet roof and is open fronted as shown in the photograph below.



Horse shelter



Interior of Horse Shelter

3.2 Evidence of Protected Species

During the inspection of the site notes were made on the suitability of habitats for protected species and any sightings or signs of protected species were recorded:

- The suitability of habitats for badger (*Meles meles*) was recorded and any evidence of badgers including setts, dung pits, badger paths, hairs, bedding, footprints and scratching trees was noted.
- A search for evidence of otter and water vole such as tracks, burrows, latrines and feeding debris was completed along the bank of the River Sence.
- Trees with features suitable for roosting bats were noted, such as hollows (e.g. old woodpecker holes), cracks and cavities within trunks and branches, crevices behind loose bark and ivy growth on trunks.
- The suitability of habitats was assessed for reptiles such as Grass snake (*Natrix natrix*) and amphibians (including great crested newts - *Triturus cristatus*).
- The suitability of site was assessed for nesting birds.

Surveying in January is a sub-optimal time for many protected species as they will not be active. An experienced surveyor can make reliable judgements about the quality and composition of habitats and their potential suitability for protected species. Only an initial assessment of the site was made and no stage 2 surveys were carried out. As such, a lack of evidence of a protected species does not necessarily indicate an absence of these species. The table below provides a summary of the potential for protected species to be present within the site.

Species	Present within 1km	Connectivity	Suitable habitat on site / evidence of presence	Likelihood of presence on site
Nesting Birds	Yes	Good via hedgerows and surrounding agricultural land adjacent to the River Sence.	Intensively grazed grassland unsuitable for ground nesting. Nesting along the boundary hedgerows and trees highly likely.	Low within the site interior but highly likely with hedgerows and mature boundary trees.
Reptiles	Yes	Good via hedgerows and surrounding agricultural land adjacent to the River Sence.	Marginal areas of the site closer to the River Sence are suitable for grass snake which are known to be in the wider area.	Low / Moderate - may be present within the boundary areas and closer to the river
Amphibians	No	Limited due to management of use of surrounding agricultural land, Barton Lane and lack of records in this area.	Habitat within the majority of the site interior is sub-optimal due to the intensity of grazing. There are no ponds within the survey area or close by and there are no records of GCN in the local area	Negligible potential within the site area.
Bats	Yes	Reasonable due to the presence of woodland copses and mature trees in field boundary hedgerows and along the River Sence.	Some foraging along the site boundaries and adjacent river highly likely. mature trees around the field boundaries could support roosting bats. Horse shelter has negligible roost potential.	High potential for foraging bats and for bats using boundary trees near the river for roosting purposes.
Badger and larger mammals	Yes	Good via hedgerows and surrounding agricultural land	A sett with eight main entrances has been identified on the north-	Badger sett and foraging activity within the survey

		adjacent to the River Sence. There are records of badger present in this area.	western boundary of the site adjacent to the river sense flood bank. There are badger trails extending east along the edge of the grazing land and west following the river bank. No field signs of badger, were found in any part of the site area assessed, including the small woodland copse at the road junction.	area confirmed. A further survey to assess this may be required.
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Birds: The local area supports a range of bird species which includes some Schedule 1 species such as Kingfisher which is likely to be foraging along the River Sence. During the inspection of the open grassland areas within the site these did not appear to be particularly rich in bird species but this may have been due to the season. The mature trees and dense scrub thickets along the field boundaries will provide significant canopy cover that would be of interest to nesting birds and the hedgerows around the field are sufficiently dense to provide some potential nesting locations. The River Sence is also likely to be of high attraction to a range of foraging bird species.

The presence of nests within the boundary trees, scrub and hedgerows is considered highly likely in the future. ***Measures to avoid disturbance to any nests or nesting activity will need to be considered within any development.***

Reptiles: The walkover survey of the field grazed by horses was completed on a grid pattern (as far as was possible) looking for evidence or indication of reptiles. No sightings or physical evidence of reptiles was seen during the inspection completed in January which is not within the optimum survey period for these species. The small field area to the west was a better habitat for reptiles as the grass is longer and not grazed. None were seen in this parcel of land but it is moderate habitat for species such as Grass Snake and easily accessible from the River Sence.

The presence of grass snake within the small field of semi-improved grassland to the west and along the northern margin of the intensively grazed grassland in the larger field where development is presumably being proposed is likely but a large population would not be expected. If the small parcel of grassland in the western side of the site is being considered for development a reptile survey should be completed in accordance with the guidelines within the Herpetofauna Workers Handbook. ***Measures to protect reptiles will be required as part of any ground preparation work associated with the northern edge of the larger field area where this lies close to the River Sence.*** This will take to the form of inspection by an ecologist prior to ground clearance and directional working practices to encourage reptiles to move away from the working area.

Amphibians: There are no records of GCN within 1km of the survey area and the site contains no ponds or wetlands and is sub-optimal habitat for amphibian species. No further surveys or mitigation measures are recommended.

Chiroptera: There are no building structures within the site that could offer potential roost locations. However, a number of boundary trees have been identified that have features with roost potential. The trees were classified into general bat roost potential groups based on the presence of features listed above. Table 1 below classifies the potential categories as accurately as possible. This table is based upon Table 8.4 in Bat Surveys- Good Practice Guidelines

Tree category	Survey / mitigation requirements	Trees within this category.
Category 1 Confirmed bat roost with field evidence such as live / dead bats, droppings, scratches, grease marks and / or urine staining.	Further assessment e.g. dusk / dawn surveys should be undertaken to provide information on the roost type, numbers and species of bat present. Avoid disturbance where possible. Felling or other works that would affect the roost would require an EPS licence with like for like roost replacement as a minimum. Works may also be subject to timing constraints.	None
Category 2a Trees that have a moderate / high potential to support bat roosts such as significant suitable cavities but no actual field evidence to confirm the presence of bats.	Further assessment e.g. dusk / dawn surveys should be undertaken to confirm the presence / absence of roosting bats. If no bats are found avoid disturbance if possible or resurvey immediately prior to felling. Use soft felling techniques and avoid direct disturbance of cavities during felling.	Yes Three oak trees were identified with features such as cavities which could be of interest to bats
Category 2b Trees with a low potential to support bat roosts showing only minor features such as shallow cavities, peeling bark etc. with no actual field evidence to confirm the presence of bats	Surveys only likely to be required immediately prior to felling as a precaution e.g. dusk or dawn survey. If such trees are to be felled reasonable avoidance measures should be taken such as soft felling and removal of ivy cover by hand.	Yes A number of trees with dense ivy cover or minor cavities were noted around the field boundaries.
Category 3 Trees with negligible potential to support bat roosts.	No further survey work of assessment likely.	

Invertebrates: The area assessed is a field of intensively grazed grassland and does not appear to support a diverse range of flora. It is not in a location where a high density of nectar producing plants is present in the surrounding landscape that will support a significant range of invertebrates but it is close to the River Sence and a number of large mature Oak trees which will support invertebrate populations. The potential for a significant assemblage of invertebrates to be present within the open field areas is quite low and further invertebrate surveys are not recommended.

Mammals: During the inspection of the survey area a thorough search for evidence of badger was completed. An active badger sett with a minimum of eight active sett entrances has been identified on the north-western edge of the area surveyed on the edge of the River Sence flood bank. There are established tracks and trails indicative of badger activity running from the sett location along the northern edge of the field and also to the west following the River Sence.



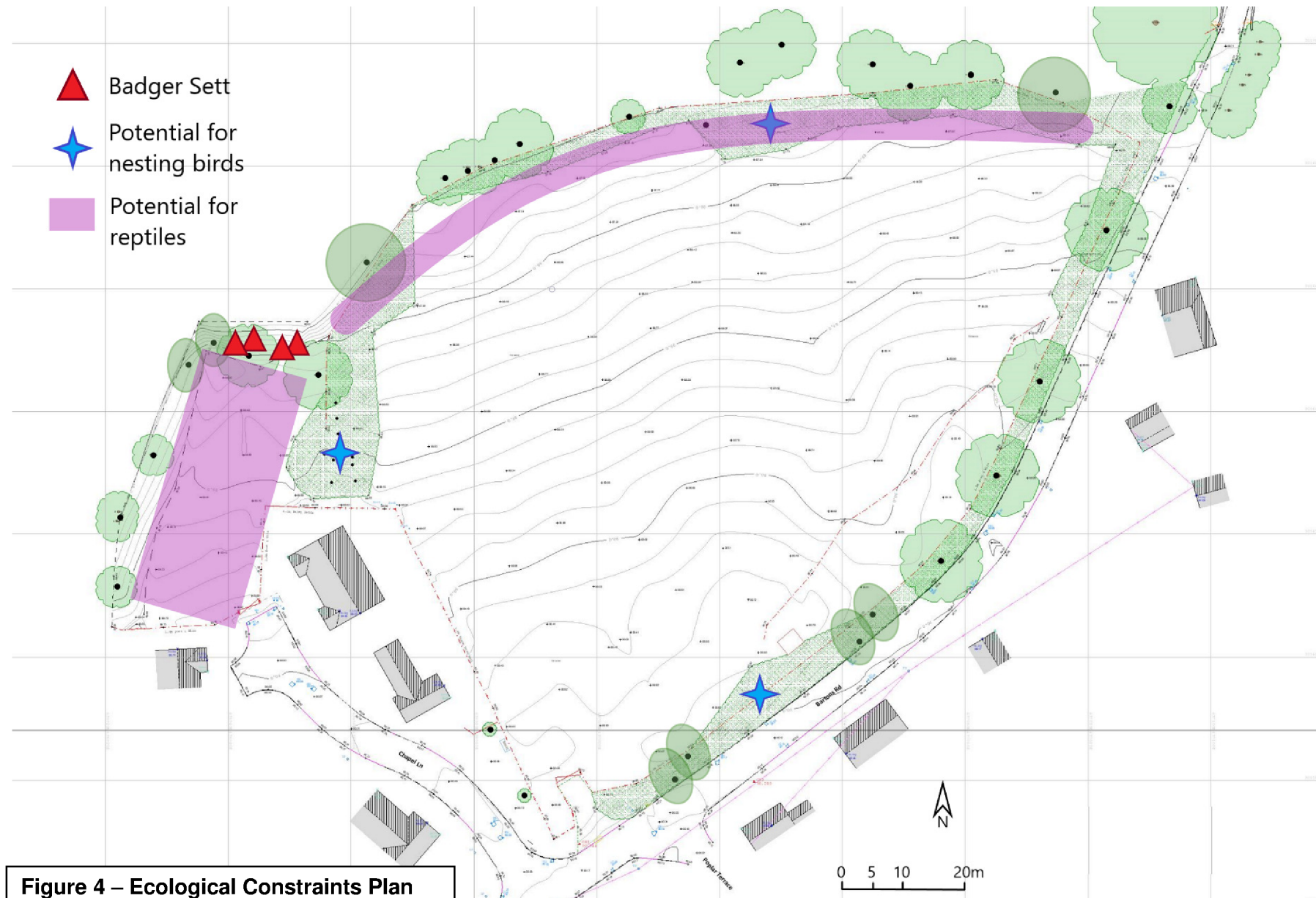


A further survey for badger is recommended as there is evidence of a sett being present in order to determine the significance of this and identify how many badgers are in the population in this location. As a minimum it will be necessary to provide a minimum stand-off distance of 30m from the nearest sett entrance. It will also be necessary to implement a construction methodology to protect badgers from accidental harm within any construction works which may subsequently be approved. The methodology should incorporate the following measures:

- The covering of excavations overnight to prevent animals falling in, or the provision of an escape ramp (e.g. secured scaffold boards) allowing animals to climb out.
- Secure storage of all materials, fuels, wire fencing etc, that may harm badgers and other animals.
- Restricting access by site personnel to any adjoining buffer zones of trees and scrub to the west of the development area.
- The eastern boundary hedge should be fenced with heras fencing on the side of the construction zone.
- Keeping works at night-time to a minimum will minimise disturbance to commuting and foraging badgers at the site. Where works after dark are necessary, lighting should be as low as possible and directed away from boundary features such as hedgerows and trees.
- A toolbox talk from a suitably experienced ecologist to all site workers will be given prior to construction works detailing the procedures to be followed if a badger is found within the construction zone during works.
- If a badger is found within the construction zone during works, all works must stop and a suitably experienced ecologist be contacted immediately. Their advice should be followed precisely.

The potential presence of Hedgehog (*Erinaceus europaeus*) is considered quite likely as there are local records of this species being seen within the surrounding 1km area. Measures to protect hedgehogs should be taken and this should include an inspection of any vegetation by an ecologist ahead of clearance work being carried out. Any found should be moved to a temporary refugia located in a suitable position within hedgerow on the western boundary outside of the area of disturbance. Measures to protect badger will also be effective in protecting hedgehog.

The inspection of the river bank area which is off-site did not identify any habitat optimal for Water Vole but there are records of this species within 1km of the site and the River Sence will provide foraging and commuting habitat for Water Vole. The bank areas were also searched for field evidence of Otter such as tracks, spraints, holts etc but no evidence of this species was identified. There are records of Otter within 1km of the site and the River Sence will provide foraging and commuting habitat for this species



3.3 Ecological Constraints and Opportunities

Constraints:

A number of significant ecological constraints have been identified during the survey and these are shown in the Constraints Plan provided as **Figure 4** below.

Whilst the open grazing land provides minimal opportunity for protected species to be present except around the margins of the field area, the presence of mature trees, boundary hedgerows and the proximity of the survey land to the River Sence provides the opportunity for wildlife to be present.

- An active badger sett has been identified on the north-western edge of the survey area and badger will be commuting and foraging across the survey area.
- The River Sence will be a wildlife corridor for many species of bird such as Kingfisher and the river flood bank, mature trees and scrub thickets adjacent to this are likely to support nesting birds in the future.
- This river bank area may also provide opportunities for reptiles such as Grass Snake which is known to be present in the surrounding area and individual snakes may be foraging around the margins of the field areas.
- The mature Oak trees along Barton Lane are of high landscape value and provide an ecological resource for wildlife including birds and invertebrates. There may be nesting birds taking advantage of these tall trees, some of which are choked by dense ivy growth.
- The river corridor is likely to be used by foraging bats and there are mature trees around the field boundaries which could provide roosting opportunities for bat species.
- There is potential for hedgehogs to be present within the site, particularly around the site boundaries.

Part 3: Initial Ecological Appraisal

4. Impact of Proposed Site Development

Within the NPPF 2019, guidance on the provision or retention of biodiversity within any proposed areas for development and measures to ensure the safeguarding of protected species are provided. Development should seek to contribute a net gain in biodiversity with an emphasis on improving ecological networks and linkages where possible. At the present time a development plan has not been prepared so completion of a Biodiversity Net Gain calculation using either DEFRA 3.1 or Warwickshire 19.0 methodologies is not possible.

The NPPF para 170 stresses that planning policies and decisions should contribute to and enhance the natural and local environment by a variety of measures including minimising impacts on and providing net gains for biodiversity. This is reinforced by Planning Practice Guidance (PPG) which identifies that 'a key purpose of this duty is to embed consideration of biodiversity as an integral part of policy and decision making throughout the public sector, which should be seeking to make a significant contribution to the achievement of the commitments made by government in its 25 Year Environment Plan' (PPG natural environment Paragraph: 009 Reference ID: 8- 009-20190721).

This report is not intended to be a suitable alternative to an Ecological Impact Assessment (EclA) in accordance with the CIEEM Guidelines on Ecological Impact Assessment, 2016.

As noted within this report, the 'mitigation hierarchy' described in British Standard BS 42020:2013 should be applied in regard to biodiversity within sites being considered for development which is a stepwise process:

- **Avoidance** – avoiding adverse effects through good design.
- **Mitigation** – where it is unavoidable, mitigation measures should be employed to minimise adverse effects.
- **Compensation** – where residual effects remain after mitigation it may be necessary to provide compensation to offset any harm.
- **Enhancement** – planning decisions often present the opportunity to deliver benefits for biodiversity, which can also be explored alongside the above measures to resolve potential adverse effects.

The measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development (BS 42020:2013, section 5.5).

The table below considers the features present on the site in the context of the hierarchy.

Feature	Ecological Significance	Hierarchy application	Impact of proposed development
Good semi-Improved grassland	Low	Mitigation	It is assumed some of the grassland will be proposed for development and therefore the loss of biodiversity will need to be offset by habitat creation and landscaping.
Poor semi-improved grassland	Low	Mitigation	It is assumed some of the grassland may be proposed for development and therefore the loss of biodiversity will need to be offset by habitat creation and landscaping.
Boundary hedgerows	High	Avoidance	Any proposed development should retain the hedgerows and provide space to protect these.
Boundary Trees and Scrub	High	Avoidance	Any proposed development should retain the significant mature trees and provide sufficient space to protect these.
Timber stall	Negligible	None	None required
River Sence (off site)	High	Avoidance	Any proposed development within the field area should not directly impact the River Sence. However, measures to avoid any increase in light pollution will need to be taken into consideration in any development plan and a Construction Environmental Management Plan (CEMP) will need to be prepared.

4.1 Potential Impact on nearby Statutory and Non-statutory sites

There are no nearby Statutory sites that could potentially be impacted by proposed development within the field interior. The River Sence will need to be provided a suitable buffer zone to ensure there is no impact on this linear habitat area. The boundary hedgerow along Barton Lane will also need to be retained as this is the closest LWS to the site surveyed running along its southern boundary. Space will be needed to protect and retain this hedgerow. The other Local Wildlife Sites are sufficiently far to potentially avoid any impact from any development within the field interior.

4.2 Impact of the Proposals on Site Biodiversity

The level of biodiversity within the site being assessed must be a consideration in determining the impact on biodiversity that may arise from any development on the site. Within the NPPF 2019 it states that any development proposal should seek to “*contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change.....*”

Within the Guidance it specifically states that “*Planning.... decisions should contribute to and enhance the natural and local environment by.....protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils.....recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland.*”

The survey area comprises a field of intensively grazed semi-improved grassland with a smaller field of poor semi-improved grassland to the west. It has a significant hedgerow containing mature Oak trees along the southern boundary adjacent to Barton Lane and significant tree canopy cover along the northern boundary screening the nearby River Sence. The interior of the main grazing field contains no significant ecological features and provided any proposed development is a sufficient distance from the boundary hedgerows and trees to avoid impact on these, this area could potentially be developed with minimal impact on local biodiversity for which mitigation and compensation could be provided.

The smaller field of poor semi-improved grassland is also adjacent to the River Sence and has trees around the boundaries. No evidence of any significant locally rare plants or plant communities were found within the smaller field area but diversity was increased and the proximity of this isolated parcel of land to the river suggests it may be a more significant habitat area.

Once a conceptual development plan is provided the potential impact of this on the area surveyed and the habitat present within this can be assessed and mitigation and compensation measures considered.

4.3 Impact of the Proposals on Protected Species

The requirements of Part IV of ODPM / Defra Circular 06/2005 in regard to the protection of certain species are still applicable under NPPF. The presence of protected species at the site must be taken into consideration. Under the requirements of the NPPF provision in relation to the presence of protected species on, or making use of, a site proposed for any development must be taken into account. The presumption in favour of sustainable development does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined or where the impact on protected species is considered to outweigh the benefit of development.

The inspection completed in January 2023 has identified the following:

- d) There is an active badger sett adjacent to the River Sence on the north-western edge of the survey area. Any proposed development should avoid this area completely and a further badger activity survey may be required to provide details of the badger population in this location to provide information for the design and implementation of any mitigation measures.
- e) There is potential for nesting birds and species such as Grass Snake to be present along the margins of the field area closer to the River Sence which will be a commuting

and foraging route for these species. Further bird and reptile surveys may be required if any proposed development extends within 20m of the northern boundary.

- f) The local area is likely to be a significant foraging area for bats and there are trees around the boundaries of the site area which could also provide roosting locations. A further bat activity survey is likely to be required to provide information on the use of this area by bats and to provide information to assist with the design of any mitigation measures.

Mitigation recommendations:

Given the location of the area surveyed there is potential for significant ecological enhancements to be included within the scheme to enhance biodiversity and create new habitats.

- A landscaped buffer zone could be provided along the River Sence boundary to enhance and extend this linear habitat.
- Bat roost tubes boxes and bird nest boxes could be erected at suitable positions affixed to suitable trees around the field boundaries or incorporated within new buildings.
- Refugia suitable for hedgehogs and reptiles could be constructed in suitable positions in landscaped areas where these will be accessible from the River Sence to these species.
- Landscape planting within and around any proposed development should utilise native species to promote diversity and aim to provide good links between areas around the site boundaries which can be exploited by local wildlife.



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REFERENCES

National Planning Policy Framework 2019 as amended. Department for Communities and Local Government. HMSO

JNCC (2010). *Handbook for Phase 1 habitat survey: a technique for environmental audit (revised reprint)*. JNCC: Peterborough.

British Standard 42020 – British Standard for Biodiversity: Code of Practice for planning and development. British Standards Institute 2013.

The Conservation (Natural Habitats &c.) Regulations 1994: Statutory Instrument 1994 No 2716. OPSI. HMSO.

English Nature (2004). *Guidelines for Developers*. English Nature, Peterborough

Stace, C (2005) *Field Flora of the British Isles*. Cambridge University Press.

Trees of Britain and Northern Europe. A Mitchell. Collins 1998

Trees and Bushes of Britain and Europe. O Polunin. Paladin Press 1998.

Grasses, Sedges, Rushes and Ferns of Britain and Northern Europe. Field Guide. Collins 1987.

Wildflowers of Britain. R Phillips. Pan Books. 1990.

Cheffings, C.M. & Farrell, L. (Eds), Dines, T.D., Jones, R.A., Leach, S.J., McKean, D.R., Pearman, D.A., Preston, C.D., Rumsey, F.J., Taylor, I. 2005. *The Vascular Plant Red Data List for Great Britain. Species Status 7*: 1-116. Joint Nature Conservation Committee, Peterborough.

Bat Surveys for Professional Ecologists: Good Practice Guidelines (2016). Collins - Bat Conservation Trust.

Froglife. 1999. Reptile Survey. *An Introduction to Planning, Conduction and Interpreting Surveys for Snake and Lizard Conservation*. Froglife Advice Sheet 10. Froglife.

Gent, A.H. and Gibson, S.D., eds. 1998 *Herpetofauna Workers' Manual*. Peterborough, Joint Nature Conservation Committee.

Guidelines for Preliminary Ecological Appraisal, 2nd Edition (2017). Institute of Ecology and Environmental Management (CIEEM)

Guidelines for Ecological Impact Assessment (EcIA) in the UK and Ireland (2018). Institute of Ecology and Environmental Management (CIEEM)

Web references

MAGIC: Designated area data downloaded from URL <http://www.magic.gov.uk.html>

National Biodiversity Network: Protected species data downloaded from URL <http://data.nbn.org/interactive/map>

Appendix 1 – Plant Species List

Tree and Shrub Species	Ground Flora and Perennial Species
Ash <i>Fraxinus excelsior</i>	Bindweed <i>Calystegia sepium</i>
Blackthorn <i>Prunus spinosa</i>	Black Medick <i>Medicago lupulina</i>
Cherry <i>Prunus avium</i>	Bramble <i>Rubus fruticosus</i>
Crack Willow <i>Salix caprea</i>	Chickweed <i>Stellaria media</i>
Dog Rose <i>Rosa canina</i>	Cleaver <i>Galium aparine</i>
Elder <i>Sambucus nigra</i>	Clover <i>Trifolium repens</i>
Hawthorn <i>Crataegus monogyna</i>	<i>Cerastium fontanum</i> Common Mouse-ear
Holly <i>Ilex aquifolium</i>	Cow Parsley <i>Anthriscus sylvestris</i>
Oak <i>Quercus petraea</i>	Creeping Buttercup <i>Ranunculus repens</i>
Sycamore <i>Acer pseudoplatanus</i>	Daisy <i>Bellis perennis</i>
	Dandelion <i>Taraxacum</i> sp
	Dock <i>Rumex obtusifolius</i>
	Dove's-foot Crane's-bill <i>Geranium molle</i>
	Early Dog Violet <i>Viola reichenbachiana</i>
	Fescue <i>Festuca rubra</i>
	Field Forget-me-not <i>Myosotis arvensis</i>
	Foxglove <i>Digitalis purpurea</i>
	Hedge Woundwort <i>Stachys sylvatica</i>
	Hogweed <i>Heracleum sphondylium</i>
	Lesser Celandine <i>Ranunculus ficaria</i>
	Lesser Willowherb <i>Epilobium hirsutum</i>
	Mayweed <i>Chamomilla suaveolens</i>
	Meadow Grass <i>Poa trivialis</i>
	Mugwort <i>Artemisia vulgaris</i>
	Nettle <i>Urtica dioica</i>
	Perennial Ryegrass <i>Lolium perenne</i>
	Plantain <i>Plantago lanceolata</i>
	Ragwort <i>Senecio jacobaea</i>
	Red-dead Nettle <i>Lamium purpureum</i>
	Spear Thistle <i>Cirsium vulgare</i> ,
	White Clover <i>Trifolium repens</i>
	Yorkshire Fog <i>Holcus lanatus</i>

This species list records the species seen during the site inspection and is not presented as a detailed botanical survey of the site.

Appendix 2 – Biological Records from Leicestershire and Rutland Biological Records Centre

Separate Appendix

KEY

Species

	GCN		GCN 500m buffer		White-clawed Crayfish		Otter
	Water Vole		Reptile		Bat Roost		Bat Sighting
	Badger Sett		Badger Sighting		BAP Bird		Schedule 1 Bird
	Swift		BAP Mammal		BAP Toad		Toad Crossing
	BAP Fish		Black Poplar		Veteran Tree		BAP Invertebrate
	Derbyshire Red Data List Plant		Invasive Species				

Habitats

	Traditional Orchard
	Open Mosaic
	Purple Moor Grass and Rush Pasture
	Lowland Heath
	Lowland Fen
	Semi-natural Grassland
	Reedbed
	Lakes
	Historical Wood Pasture and Parkland
	Ponds
	Notable Invertebrate Ponds
	Ancient & Semi-natural Woodland
	Ancient Replanted Woodland

Non-statutory Designations

	Regionally Important and Geological and Geomorphological Sites (RIGS)
	Derbyshire Wildlife Trust Reserves
	Local Wildlife Sites (LWS)
	Potential Local Wildlife Sites (pLWS)
	Grade 3 Sites

Statutory Designations

	Sites of Special Scientific Interest (SSSI)
	Special Protection Area (SPA)
	Special Area of Conservation (SAC)
	National Nature Reserve (NNR)
	Local Nature Reserve (LNR)