





Extended Phase 1 Habitat Survey  
Land off Cedar Drive  
Bourne  
Lincolnshire  
NGR TF08645 20825

Survey by  
Christopher Barker CEnv dipHort ACIEEM

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	Report ref: <b>P2085 / 0820 / 01</b>	C B E Consulting Highbank, 5 Grantham Road, Navenby Lincoln. LN5 0JJ. Telephone (01522) 810086. www.cbeconsulting.co.uk

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## Non-Technical Summary

The site surveyed comprises part of a field of improved grassland which is accessed via a small plot of land from Cedar Drive, Bourne, Lincolnshire, centred at NGR TF08645 20825. 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 17<sup>th</sup> June 2020.

The defined site area comprises the eastern half of a field of improved grassland cut seasonally for hay / forage. It lies to the west of the Bourne with houses to three boundaries on the western edge of the village of Bourne. There is a public footpath defining the northern and southern boundaries of the site area. To the west is the remainder of the field of improved grassland beyond which is an extensive area of broadleaved woodland. 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 2km radius. There are a number of LWS within 2km and nearest is Bourne Wood LWS 200m to the west of the area surveyed.

The survey has identified the following habitats within or adjacent to the proposed development:

- Access with unimproved grassland
- Improved grassland
- Field boundary hedgerows and trees
- Drainage Channels (off-site)

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

Species	Suitable habitat on site / evidence of presence	Likelihood of presence on site	Further Survey / Mitigation recommended
<b>Nesting Birds</b>	The uniform improved grassland provides few features and is cut / cropped in summer. Nesting along the boundary hedgerows and in scrub adjacent to the south boundary of the field quite likely.	Low within the site interior but 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
<b>Reptiles</b>	Marginal areas of the site are suitable for grass snake through the year but the highly managed and cropped grassland is unlikely to have attracted reptiles in this location.	Low - may be present within the boundary drainage ditches.	Boundary areas where reptiles may be present will be avoided. Inspection of the construction working area immediately before work commences is recommended.
<b>Amphibians</b>	Marginal areas adjacent to the field may be suitable for some amphibians during the wet seasons but the terrestrial habitat is not highly suitable and unlikely to support significant amphibian populations.	Very low for GCN and generally low for other amphibians.	No further surveys or mitigation measures recommended.
<b>Bats</b>	No trees or structures are present within the survey area to offer potential roost locations. Some foraging around the gardens and field boundaries likely.	Negligible roosting opportunities. Minor foraging likely around boundary areas.	No additional surveys required. The development layout should be designed to avoid increase in light levels around the boundaries of the area surveyed.

<b>Badger and larger mammals</b>	No field signs of badger, were found in any part of the site area assessed. No tracks of trails noted in the grassland in the survey area.	No evidence of any setts found. Foraging considered likely around the margins of the field and possibly into the area being proposed for development.	Badger safe construction methodology required.
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### Constraints:

No significant ecological constraints have been identified during the survey. However, the following measures are recommended as a precaution:

- There is potential for nesting birds to be present associated with the boundary hedgerows and scrub area to the north of the fallow field.
- There is potential for badger to forage within the field from the extensive woodland areas to the west and south west of the field.
- There is potential for hedgehogs to be present within the site, particularly around the site boundaries.

### Conclusion and Recommendations

Bourne Wood Local Wildlife Site is only 200m to the west of the proposed development area and separated from this by an extension of the improved grassland field that has been surveyed. This woodland can be accessed via footpaths adjacent to the north and south boundaries of the development area which will presumably have links into the new residential housing area. Whilst direct impact from the development is unlikely due to distance, indirect impact resulting from population increase is likely. The woodland area has an extensive and managed network of paths and trails running through it to manage public access.

The survey area comprises a field of intensively managed high-quality improved grassland with limited biodiversity. The area where the development is being proposed contains no significant ecological features and is still being cropped. No evidence of any significant locally rare plants or plant communities within or around the site area surveyed was identified during the survey.

It is assumed that the development will occupy the interior of the field area and that sufficient space will be left around the margins of the development to ensure that existing mature trees and hedgerows in adjacent gardens can be retained and fully protected. There is potential for some significant ecological enhancement and habitat creation around the margins of any new development and if this can be achieved it is considered likely that development of the site area surveyed could be carried out in a manner that does not have any significant impact on local biodiversity.

The inspection completed in June 2020 did not identify any physical evidence or field signs of protected species within the survey area. Assessment of records and interpretation of the local landscape has identified that there is potential for some protected species to be present which will require mitigation:

**Birds:** There is low potential for nesting birds to be present within the field interior where the new residential development is being proposed or the small access area. However, the boundary hedgerows and trees/ scrub around the field margins have potential to support nesting birds. If the grassland areas needs to be cleared this should be completed outside of the nesting season or be preceded by an inspection by an Ecologist to ensure no nesting birds are present or determine what mitigation measures to protect nesting birds are required.

**Bats:** There is a likelihood of bats foraging along the boundaries of the field and commuting towards or from the woodland area to the west which is excellent habitat for bats. The design of any external lighting associated with the new housing development

should ensure that there is no light spill of the direction of the boundary areas which could impact bat foraging around this area.

**Badger and Hedgehog:** There is a likelihood of these species being present in and around Bourne Wood to the west so foraging around the margins of the development area is possible. A construction methodology is recommended as a precaution.

Given the location of the area surveyed in agricultural land reasonable close to an extensive woodland area there is potential for ecological enhancements to be included within the scheme to enhance biodiversity and create new habitats.

- Landscape planting should be incorporated into any development which strengthens canopy cover across this area, in particular along the western and southern boundaries of the area surveyed. Any new tree and shrub planting should utilise native species to promote diversity.
- If a swale or wetland could be created to support surface water drainage in this location this should be positioned where it will be accessible from one or both drainage channels along the boundaries of the field and sympathetically landscaped with native species to create a wetland / scrub habitat.
- Bat boxes and bird boxes should be erected at suitable positions affixed to new houses in suitable positions close to the southern and western boundary areas of the site.
- Refugia suitable for hedgehogs and reptiles should be constructed in suitable positions in landscaped areas where these will be accessible to these species, particularly the northern and southern boundaries.



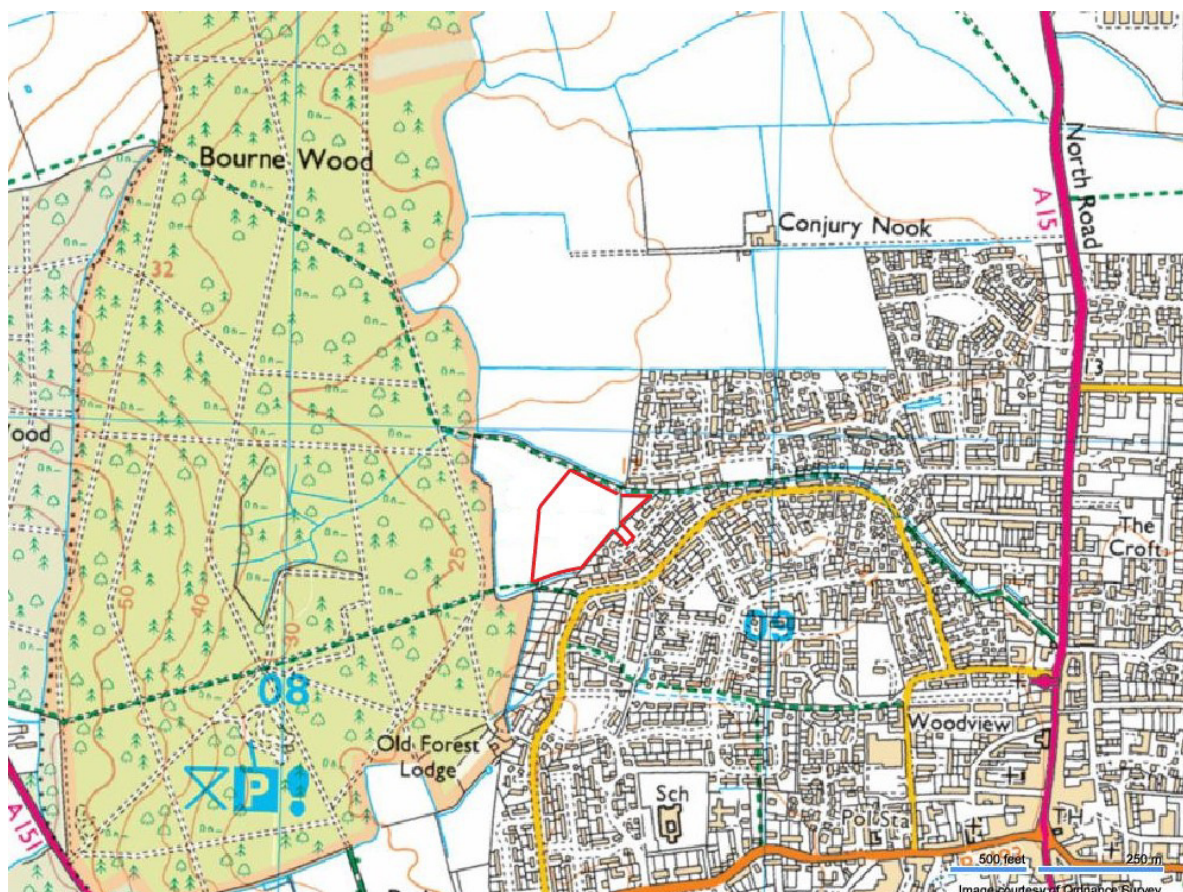
Christopher Barker ACIEEM CEnv

## Part 1: Site Details

### 1. Introduction

#### 1.1 Site Description and Location

The site surveyed comprises part of a field of improved grassland which is accessed via a small plot of land from Cedar Drive, Bourne, Lincolnshire, centred at NGR TF08645 20825. 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 17<sup>th</sup> June 2020 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
17 June 2020	12.00am	Land west of Cedar Drive, Bourne Lincolnshire	Bright sunshine with occasional cloud. Wind 7mph from the north east. Temperature 19 degrees C humidity 79% at 1013hPa. Warm with good visibility.
<b>Accessibility</b>	All areas of the site accessible to search for evidence of protected species.		



The defined site area comprises the eastern half of a field of improved grassland cut seasonally for hay / forage. It lies to the west of the Bourne with houses to three boundaries on the western edge of the village of Bourne. There is a public footpath defining the northern and southern boundaries of the site area. To the west is the remainder of the field of improved grassland beyond which is an extensive area of broadleaved woodland. An aerial photograph of the survey area 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 at midday on 17 June 2020. The stage 1 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 2km radius. There are a number of LWS within 2km and nearest and most significant of these are summarised within the table below.

Site Name	Designation	Distance	Potential Links
Auster Wood	LWS	1.2km SW	Via Bourne Wood to the edge of the field of improved grassland on the western edge of the area to be developed.
Bourne Wood	LWS	0.2km W	Lies on the edge of the field of improved grassland.
Toft Tunnel	LWS	1.9km S	No links to the area surveyed.

**Auster Wood** is an area of 32ha of ancient replanted woodland with some small compartments of coniferous plantations. The compartments are of varying ages and are dominated by pedunculate oak and ash. Self-established sycamore, willow species and birch, largely downy birch, are also frequent.

**Bourne Wood** is an area of 263ha is an area of mixed woodland within an ancient woodland site comprising native pedunculate oak with areas of coniferous trees.

**Toft tunnel** is an abandoned railway tunnel used by hibernating bats and a small area of 3ha surrounding this supporting a mixed habitat area of woodland, scrub, grassland and marsh.

A review of the data for protected species has identified a 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
Bufo bufo	Common Toad	2014	4
Lissotriton vulgaris	Smooth Newt	1979	2
Rana temporaria	Common Frog	2007	2
Zootoca vivipara	Common Lizard	1977	1
Natrix natrix	Grass snake	1979	2
Anguis fragilis	Slow Worm	1977	1
Cygnus cygnus	Whooper Swan,	2008	2
Fringilla montifringilla	Brambling	2009	8
Loxia curvirostra	Common Crossbill	2011	5
Accipiter gentilis	Goshawk,	2010	1
Anser anser	Greylag Goose	1979	1
Alcedo atthis	Kingfisher	2011	5
Circus cyaneus	Hen Harrier,	1979	1
Jynx torquilla	Wryneck,	1979	1
Falco subbuteo	Hobby	2015	6
Milvus milvus	Red Kite	2015	2
Turdus iliacus	Redwing	2015	16
Turdus pilaris	Fieldfare	2014	6
Tyto alba	Barn Owl	2012	12
Meles meles	Badger	2018	42
Lutra lutra	Otter	2018	2
Arvicola amphibius	Water Vole	2009	4
Chiroptera	Bats – non species specific	2017	177
Pipistrellus pipistrellus	Common Pipistrelle	2017	45
Pipistrellus pygmaeus	Soprano pipistrelle	2012	4
Myotis daubentonii	Daubentons Bat	2008	2
Nyctalus noctula	Noctule	2011	16
Nyctalus leisleri	Lesser Noctule	2004	4
Myotis nattereri	Natterer's	2017	5
Myotis mystacinus	Whiskered	2012	1
Barbastella barbastellus	Western Barbastelle	2017	8
Plecotus auritus	Brown Long-eared Bat	2017	15

There are no records of **Great Crested Newt (GCN)** within 2km of the survey area and the site supports no ponds or wetland area. The sparse records of amphibians in the surrounding area date from 2007 – 2014 and these are linked to ponds on the outskirts of Bourne >500m from the survey area. There is a drainage ditch extending along the northern boundary on the opposite side of the footpath and another running along the southern boundary and **there may be potential for amphibians to utilise these drainage ditches as a route for commuting purposes and be present around the margins of the survey area.**

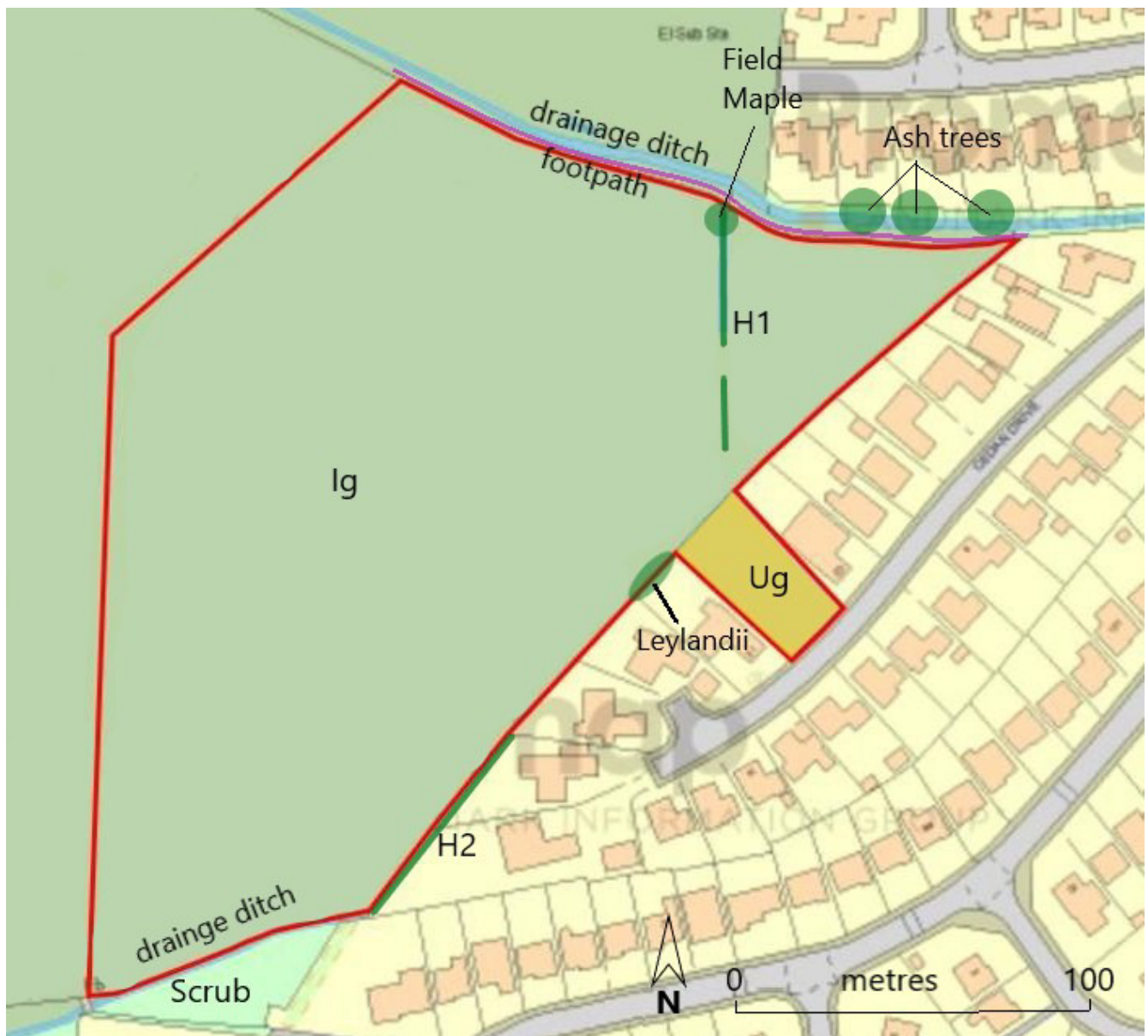
There are a small number of records for reptiles in the 2km area surrounding the site but none are later than 1979 and all are >500m from the site area surveyed. The local landscape comprising dense woodland to the west, open arable land to the north and residential housing to the east and south is not ideal for reptiles but the field boundaries and woodland margins could potentially support a small population of species such as grass snake but it is unlikely to be a large population. Considering the survey area has boundary drainage ditches to the north and south the **potential for individual reptiles such as**

***grass snake to be present around the margins of the survey area cannot be discounted.***

The majority of the site area surveyed is open and exposed improved grassland seasonally cropped but there are trees within the gardens along the northern boundary beyond the footpath and a small hedgerow crossing the site interior which could provide cover for nesting birds. There is a parcel of dense scrub land adjacent to the southern boundary and dense woodland a short distance to the south west and west. Whilst the majority of the survey area is unlikely to be of high significance to nesting birds, there is ***potential for nesting and foraging within the hedgerows and boundary trees around the site margins.***

There are records of roosting and foraging ***bats*** in this area with nine species noted in the local records. There are roosts located in suitable buildings in the area but none recorded at the site and the surveyed area contains no structures or mature trees which could potentially provide roost locations. The extensive woodland area to the west of the site will provide an excellent foraging and commuting route for bat species in the local landscape and it is likely some will utilise the northern and southern boundaries of the site for foraging and commuting following the drainage ditched and hedgerows.

There are 42 records of ***badger*** activity within 2km of the survey area but none appear to fall within 250m of the survey area. Most records are associated with the woodland to the west and south west of the site. There are also a small number of records for Otter and Water Vole but these are for suitable aquatic habitat a considerable distance from the site and the survey area has no significant water features. There are drainage ditches adjacent to the southern and northern boundaries of the field of improved grassland and these could potentially provide commuting / foraging routes for these species.



**Figure 3 – Habitat Plan**



### 3. Survey Findings

#### 3.1 Habitat Classifications and Target Notes

The survey has identified the following habitats within or adjacent to the proposed development:

- Access with unimproved grassland
- Improved grassland
- Field boundary hedgerows and trees
- Drainage Channels (off-site)

##### **Target Note: Access Land with semi-improved grassland**

The small access area which is gated and runs from Cedar Drive to the field entrance supports an unimproved grass sward dominated by Yorkshire Fog (*Holcus lanatus*) and Perennial Ryegrass (*Lolium perenne*) with other grass species such as False Oat Grass (*Arrhenatherum elatius*) and Brome (*Bromus* sp) also present. The sward is becoming colonised by ruderals due to lack of management and species such as nettle (*Urtica dioica*), mayweed (*Matricaria maritima*), dock (*Rumex obtusifolius*), creeping thistle (*Cirsium arvense*), buttercup (*Ranunculus repens*), dandelion (*Taraxacum officinale*), plantain (*Plantago lanceolata*) and poppy (*Papaver rhoeas*) are becoming common with other occasional species such as mugwort (*Artemisia vulgaris*) and juvenile bramble (*Rubus fruticosus*) beginning to appear around the margins. This sward is not species rich and the underlying soil still appears to be relatively fertile if rather compacted.



Access land looking west



Access land looking north west

##### **Target Note: Improved Grassland**

The remainder and majority of the survey area comprises a field of high-quality improved grassland supporting a dense productive sward with uniform consistency of common agricultural grasses such as Perennial Ryegrass (*Lolium perenne*), Meadow Grass (*Poa pratensis*) and Timothy (*Phleum pratense*) with occasional areas where Yorkshire Fog is present (*Holcus lanatus*).

Within the sward diversity is very limited with only occasional and infrequent forbs such as Buttercup (*Ranunculus repens*), Cut-leaved Cranesbill (*Geranium dissectum*), Red Clover (*Trifolium pratense*), Marguerite (*Leucanthemum vulgare*), Medick (*Medicago lupulina*), Stichwort (*Stellaria graminea*) and Chickweed (*Stellaria media*). The inspection was completed shortly before the sward was cropped.





### **Target Note: Boundary Hedgerows and Trees**

There are two boundary hedgerows within or immediately adjacent to the site area described in the table below.

### ***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 1993 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	3-4	2-3m	Untrimmed along the edge of a shallow open drain with two significant gaps present. Semi-mature tree at the northern end.	Hawthorn Dog Rose Field Maple	Raspberry Clever, Cow Parsley Nettle	No
H2	1-1.5m	1m	Box-trimmed sections along the eastern field boundary gardens.	Hawthorn	Very limited along the field margin – mostly nettle and cleaver	No





Hedge H1 in field interior



Hedge H1 and shallow dry drain



Hedge H2 along garden boundaries



Hedge H2 along garden boundaries

There are no trees within the field interior except for a single semi-mature Field Maple (*Acer campestre*) at the northern end of hedgerow H1 close to the survey area boundary. There are three mature Ash (*Fraxinus excelsior*) on the opposite side of the footpath and drainage channel outside the northern boundary of the field which extend canopy cover at height across the field edge. There is also a tall vertical hedge of Leylandii (*XCupressocyparis leylandii*) near the site entrance screening a residential garden on note.

Along the southern boundary of the area surveyed is a drainage channel on the opposite side of which is an area of dense Hawthorn and Blackthorn scrub within which there are semi-mature Ash (*Fraxinus excelsior*) and Horse Chestnut (*Aesculus hippocastenum*) extending canopy cover to the field boundary. Within the gardens adjacent to the south eastern boundary of the field are a number of small amenity trees.



Leylandii screening east boundary



Footpath and mature Ash north boundary





Scrub woodland south boundary



Scrub woodland interior

### **Target Note: Boundary Drainage Channels**

There is a footpath running adjacent to the fence defining the northern boundary of the field and on the opposite side of this is a Hawthorn and Blackthorn hedge within which is a shallow drainage channel. This supported slow water flow at the time of the survey as pictured below. The drain appears to support no aquatic vegetation and is densely shaded for its entire length. This probably supports seasonal flow.

A similar drainage channel is situated adjacent to the south boundary of the site but this was entirely dry at the time the survey was carried out. This is also heavily shaded and supported no evidence of any aquatic flora.



## **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 drainage channels adjacent to the survey area.
- Any boundary 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 June is an optimum time for many protected species and many, such as bats, reptiles and amphibians, will be active. An experienced surveyor can make reliable judgements about the quality and composition of habitats and their potential suitability for protected species. 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 2km	Connectivity	Suitable habitat on site / evidence of presence	Likelihood of presence on site
<b>Nesting Birds</b>	Yes	Good via hedgerows and surrounding agricultural land with direct access via the extensive woodland a short distance to the west.	The uniform improved grassland provides few features and is cut / cropped in summer. Nesting along the boundary hedgerows and in scrub adjacent to the south boundary of the field quite likely.	Low within the site interior but likely with hedgerows and mature boundary trees.
<b>Reptiles</b>	Yes C Lizard and G Snake	Poor due to lack of recent records in the vicinity and the management of the improved grassland. Access via the drainage ditches along the boundaries of the survey area possible.	Marginal areas of the site are suitable for grass snake through the year but the highly managed and cropped grassland is unlikely to have attracted reptiles in this location.	Low - may be present within the boundary drainage ditches.
<b>Amphibians</b>	Yes Frog Toad S Newt	Generally poor due to management of use of the surrounding land but some access via the drainage ditch along the boundaries.	Marginal areas adjacent to the field may be suitable for some amphibians during the wet seasons but the terrestrial habitat is not highly suitable and unlikely to support significant amphibian populations.	Very low for GCN and generally low for other amphibians.
<b>Bats</b>	Yes	Reasonable due to the presence of the extensive woodlands area to the west and records of bats within the area.	No trees or structures are present within the survey area to offer potential roost locations. Some foraging around the gardens and field boundaries likely.	Negligible roosting opportunities. Minor foraging likely around boundary areas.
<b>Badger and larger mammals</b>	Yes	There are no records of Badger within 250m but the woodland to the west is a habitat with high potential for this species and good access to the field. No evidence of Otter or Water Vole within the drainage ditches.	No field signs of badger, were found in any part of the site area assessed. No tracks or trails noted in the grassland in the survey area.	No evidence of any setts found. Foraging considered likely around the margins of the field and possibly into the area being proposed for development.

**Birds:** The local area supports a range of bird species which includes some Schedule 1 and Red list species. During the inspection of the improved grassland and boundary hedgerows adjacent to this no nests were found and bird activity appeared limited. The field of improved grassland was starting to seed at the time of the survey shortly before being



harvested and is unlikely to provide significant habitat for ground nesting due to the lack of cover during the majority of the season and the presence of predatory cats nearby. Some of the boundary hedgerows and trees may support nesting activity and the small area of scrub adjacent to the south boundary of the field looks favourable from a nesting perspective.

The hedgerows around the field are sufficiently dense to provide some potential nesting locations for bird species associated with trimmed hedgerows. The presence of nests within the boundary trees and hedgerows is considered highly likely in the future but at the present time the field provides no significant opportunity for nesting. ***Measures to avoid disturbance to any nests or nesting activity will need to be considered within any development.*** No activity or evidence of Schedule 1 bird species was seen during the site inspection.

**Reptiles:** The walkover survey of the field and field margins 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 June which is within the optimum survey period for these species. The small boundary drainage ditches were also inspected although large sections of these were overgrown and shaded by dense Hawthorn and ground vegetation overhanging this. These drains do have sufficient cover to provide opportunities for commuting and foraging opportunities for reptiles such as grass snake but the local landscape is not rich in suitable habitat for this species and it is unlikely many, if any, would move away from the better habitat to the west into the area being surveyed. A further survey for the presence of reptiles is not considered necessary.

***As a precaution, measures to protect reptiles should be incorporated into any ground preparation works associated with this development and habitat creation suitable for grass snake should be included within the development proposals.*** The precautionary measures will take 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 known populations of GCN in this area and other amphibians recorded appear to be over 500m from the site area. The presence of amphibians within the improved grassland and access land is considered to be unlikely and there is no habitat of high value within the site area such as a pond or wetland to encourage amphibians into the survey area and the boundary ditches appear to be sub-optimum for amphibians. The presence of GCN and other amphibians within the area proposed for development is considered to be very unlikely and no mitigation measures are recommended.

**Chiroptera:** The survey area contains no trees or structures to present roosting opportunities to bats. The woodland area to the west offers excellent foraging opportunities to a wide range of local bat species and the presence of foraging and commuting bats along the woodland edge to the west of the field area being considered for development is highly likely. Some commuting and foraging along the northern and southern boundaries of the open field is considered to be likely. No further surveys are recommended and the only mitigation required will be the avoidance of any significant light pollution along the boundary areas of the development.

**Invertebrates:** The area assessed supports uniform improved grassland of high quality and does not appear to support a diverse range of flora at the present time. It is not a location with a high density of nectar producing plants that will support a significant range of invertebrates. The potential for a significant assemblage of invertebrates to be present within the survey area is quite low at the present time and further invertebrate surveys are not recommended.

**Mammals:** During the inspection of the survey area a thorough search for evidence of badger was completed and a search for field signs of otter and water vole commuting along the boundary drainage ditches was carried out. No established tracks or trails indicative of

badger activity were found within the field or the edges of this to the north or south. There are records of badger activity within 2km and the woodland to the west is highly likely to support badgers. The presence of badger in the woodland and the access for this species into the grassland extending to the west of the survey area up to the woodland edge suggests that mitigation measures are likely to be required during any ground preparation or construction work that may be approved.

A further survey for badger is not recommended as there is no evidence of a sett being present within the field or small access area or within 30m of the proposed development area. It is recommended that a construction methodology to protect badgers from accidental harm is applied to any development work that may be approved within this site as a precautionary measure. 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 search of the small drainage channels adjacent to the northern and southern boundaries of the field found no field signs of Otter (*Lutra lutra*) or Water Vole (*Arvicola amphibius*) and the presence of these species in or immediately adjacent to the development area is considered very unlikely.

The potential presence of Hedgehog (*Erinaceus europaeus*) is considered quite likely as there are local records of this species being seen within the surrounding 2km 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 south western boundary outside of the area of disturbance.

### 3.3 Ecological Constraints and Opportunities

#### **Constraints:**

No significant ecological constraints have been identified during the survey. However, the following measures are recommended as a precaution:

- There is potential for nesting birds to be present associated with the boundary hedgerows and scrub area to the north of the fallow field.
- There is potential for badger to forage within the field from the extensive woodland areas to the west and south west of the field.
- There is potential for hedgehogs to be present within the site, particularly around the site boundaries.

**Opportunities:**

Given the location of the area surveyed in agricultural land reasonable close to an extensive woodland area there is potential for ecological enhancements to be included within the scheme to enhance biodiversity and create new habitats.

- Landscape planting should be incorporated into any development which strengthens canopy cover across this area, in particular along the western and southern boundaries of the area surveyed. Any new tree and shrub planting should utilise native species to promote diversity.
- If a swale or wetland could be created to support surface water drainage in this location this should be positioned where it will be accessible from one or both drainage channels along the boundaries of the field and sympathetically landscaped with native species to create a wetland / scrub habitat.
- Bat boxes and bird boxes should be erected at suitable positions affixed to new houses in suitable positions close to the southern and western boundary areas of the site.
- Refugia suitable for hedgehogs and reptiles should be constructed in suitable positions in landscaped areas where these will be accessible to these species, particularly the northern and southern 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 time this report was prepared a conceptual development plan was not available. However, it is assumed that new access to the development area will be from Cedar Drive on the eastern boundary and the interior of the field will be used to construct new residential houses. It is assumed that the northern and southern boundaries of the field can remain undisturbed and the drainage channels and footpaths maintained. This report is not intended to be a suitable alternative to an Ecological Impact Assessment (EcIA) 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).

Based on the assumptions made above about the character and scale of the proposed residential development, 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
Improved Grassland	Low	Mitigation	The field area will be utilised for residential development. Mitigation in the form of new landscape and habitat creation will be required to replace this lost habitat.
Unmanaged grassland / ruderal in access land	Low	Mitigation	This is a small parcel of land, regularly disturbed and adjacent to houses. This land will be lost to provide a new access road. Landscaping around the site boundaries and within the development area will be required to provide replacement habitat.
Boundary hedgerows and trees	High	Avoidance	The proposed development will retain the hedgerows and trees along the boundaries of the site and provide space to protect these.
Boundary drainage ditches	Moderate	Avoidance	The proposed development will retain the drainage ditches adjacent to the northern and southern boundaries outside the proposed development area.

#### 4.1 Potential Impact on Statutory and Non-statutory sites

There are no nearby Statutory sites that could potentially be impacted by the proposed use of this former cultivated field for residential development. Bourne Wood Local Wildlife Site is only 200m to the west of the proposed development area and separated from this by an extension of the improved grassland field that has been surveyed. This woodland can be accessed via footpaths adjacent to the north and south boundaries of the development area which will presumably have links into the new residential housing area. Whilst direct impact from the development is unlikely due to distance, indirect impact resulting from population increase is likely. The woodland area has an extensive and managed network of paths and trails running through it to manage public access.

#### 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 managed high-quality improved grassland with limited biodiversity. The area where the development is being proposed contains no significant ecological features and is still being cropped. No evidence of any significant locally rare plants or plant communities within or around the site area surveyed was identified during the survey.

It is assumed that the development will occupy the interior of the field area and that sufficient space will be left around the margins of the development to ensure that existing mature trees and hedgerows in adjacent gardens can be retained and fully protected. There is potential for some significant ecological enhancement and habitat creation around the margins of any new development and if this can be achieved it is considered likely that development of the site area surveyed could be carried out in a manner that does not have any significant impact on local biodiversity.

#### 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 June 2020 did not identify any physical evidence or field signs of protected species within the survey area. Assessment of records and interpretation of the local landscape has identified that there is potential for some protected species to be present which will require mitigation:

**Birds:** There is low potential for nesting birds to be present within the field interior where the new residential development is being proposed or the small access area. However, the boundary hedgerows and trees/ scrub around the field margins have potential to support nesting birds. If the grassland areas needs to be cleared this should be completed outside of the nesting season or be preceded by an inspection by an Ecologist to ensure no nesting birds are present or determine what mitigation measures to protect nesting birds are required.

**Bats:** There is a likelihood of bats foraging along the boundaries of the field and commuting towards or from the woodland area to the west which is excellent habitat for bats. The design of any external lighting associated with the new housing development should ensure that there is no light spill of the direction of the boundary areas which could impact bat foraging around this area.

**Badger and Hedgehog:** There is a likelihood of these species being present in and around Bourne Wood to the west so foraging around the margins of the development area is possible. A construction methodology as detailed above is recommended as a precaution.



Christopher Barker CEnv ACIEEM



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## Appendix 1 – Plant Species List

<b>Tree and Shrub Species</b>	<b>Ground Flora and Perennial Species</b>
<p>Ash (<i>Fraxinus excelsior</i>)  Cypress (<i>Cupressocyparis</i> sp),  Damson (<i>Prunus domestica</i>),  Dog Rose (<i>Rosa canina</i>)  Elder (<i>Sambucus nigra</i>),  Field Maple (<i>Acer campestre</i>)  Hawthorn (<i>Crataegus monogyna</i>)  Horse Chestnut (<i>Aesculus hippocastenum</i>)  Leylandii (<i>Cupressocyparis Leylandii</i>),  Sycamore (<i>Acer pseudoplatanus</i>)</p>	<p>Bindweed (<i>Calystegia sepium</i>),  Black medick (<i>Medicago lupulina</i>),  Bramble (<i>Rubus fruticosus</i>)  Chickweed (<i>Stellaria media</i>)  Cleaver (<i>Galium aparine</i>)  Clover (<i>Trifolium repens</i>),  Cow Parsley (<i>Anthriscus sylvestris</i>),  Creeping Buttercup (<i>Ranunculus repens</i>),  Cut-leaved Cranesbill (<i>Geranium dissectum</i>)  Dandelion (<i>Taraxacum</i> sp),  Dock (<i>Rumex obtusifolius</i>),  False Oat Grass (<i>Arrhenatherum elatius</i>).  Field Poppy (<i>Papaver rhoeas</i>)  Groundsel (<i>Senecio vulgaris</i>),  Mayweed (<i>Chamomilla suaveolens</i>),  Mayweed (<i>Matricaria maritima</i>)  Meadow Grass (<i>Poa agrestis</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>),  Spear Thistle (<i>Cirsium vulgare</i>),  Yorkshire Fog (<i>Holcus lanatus</i>)</p>

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 SEPARATE APPENDIX**