



Preliminary Ecological Appraisal
Land at Thorpe Lane
South Hykeham
Lincolnshire
NGR SK92356 65767

Survey by
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Report ref: P2821 /1123/01	

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Non-Technical Summary

The site surveyed comprises a residential house and garden area within which there are numerous outbuildings and small stable blocks, situated at 12 Thorpe Lane, South Hykeham, Lincolnshire centred at NGR SK92356 65767. An inspection of the site was completed on 06th September 2023.

The defined site area comprises a house and garden area which has been used for stabling ponies, goats and also chickens. To the west and west are residential houses also situated along Thorpe Lane. To the south is a relatively new residential development on the opposite side of Thorpe Lane. To the north are residential houses but there are lakes (Apex Lake and Whisby Park Lakes) situated a short distance to the north. A review of the available data confirms that the site is not a Statutory or Non-Statutory site of ecological significance. However there are a number of lakes within the Whisby Pits Complex situated to the north of the survey area.

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

- Garage
- Stables, Goat and Poultry buildings
- Residential garden
- Modified grassland used for light grazing purposes
- Mature trees

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	Ground nesting within the site interior unlikely due to lack of cover. No nesting identified associated with the buildings. Nesting in the boundary trees likely in the future.	Negligible within the site interior and two buildings. Likely within the boundary trees and dense ruderal / scrub vegetation	Measures to avoid disturbance to any nests or nesting activity will need to be considered prior to any vegetation clearance
Reptiles	Yes	The site area surveyed is suboptimal for reptile species and rather isolated. No evidence of reptiles was found during the inspection.	Low - some individual reptiles may be foraging along the site margins but significant populations are very unlikely.	Inspection carried out before any work to remove dense vegetation commences is recommended.
Amphibians	Yes	The site area surveyed is suboptimal for amphibians as there are no ponds or wetland areas on or immediately adjacent to the survey area. No evidence of amphibians was found during the inspection.	Low - some individual common amphibians may be foraging along the site margins but significant populations are very unlikely.	Inspection carried out before any work to remove dense vegetation commences is recommended.
Bats	Yes	No evidence of any roosting was found within the building structures. One mature Oak does have low roost potential. Foraging across the site area by bats is considered likely.	Further surveys for roosting bats not recommended. Restriction of external artificial lighting is recommended within any proposed development.	One tree with low roost potential identified which must be surveyed if works are proposed to this. Restriction in external lighting is recommended.

Badger / other mammals		No field signs of badger were found in any part of the site area assessed. The survey area is considered sub-optimal for badger.	No setts are present and foraging by badger considered unlikely in the future.	No further surveys recommended. Inspection carried out for hedgehog before any work to remove dense vegetation commences is recommended.
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Constraints:

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

- The presence of significant numbers of reptiles or common amphibians is unlikely but precautions should be taken in regard to the clearance of any dense vegetation within the survey area and lifting of timber shed bases.
- There is potential for nesting birds to be present associated with the boundary trees.
- There is potential for hedgehogs to be present within the site, particularly around the site boundaries.
- One tree with low roost potential has been identified at the northern end of the area surveyed and foraging by bats is very likely in this location.

Assessment and Recommendations

The LWS / LNR sites within the Whisby Gravel Pits complex to the north of the survey area are sufficiently distant from the proposed development area that the small scale of the development being proposed will have no impact on this. These sites are separated from the survey area by houses and roads which will provide an effective barrier.

The survey area comprises a stable building and timber outbuildings used for goats, chickens and storage with an area of modified grassland within which there are a number of mature and semi-mature trees providing partial canopy cover.

Due to the use and location of the property the site surveyed has limited biodiversity at the present time although the mature Oak trees are of landscape value. Based on the development plan provided the construction will only require one tree to be removed adjacent to the eastern boundary which lies very close to the position of Plot 2. No evidence of any significant locally rare plants or plant communities within or around the site area surveyed was identified during the survey. In addition to the development area there is an area to the north in the same ownership which is to be enhanced by habitat creation, specifically a pond is to be constructed and native tree and shrub planting adjacent to this.

The assessment of the development proposed for this site, based on the assumptions made above results in a net gain in calculated biodiversity units across this site area from 1.52 units to 1.70 units which is a gain of 18% starting from a low baseline due to the small size of the development area and utilising the off-site area under the same ownership for pond creation and tree planting.

The inspection completed in September 2023 did not identify any physical evidence or field signs of protected species within the survey area. After inspection of the site, assessment of its landscape contact and a review of the biological records for this area, the following precautionary measures are advised:

Birds: There is negligible potential for ground nesting birds to be present within the survey area and there is no evidence of birds nesting within the building structures. Nesting within the boundary trees is quite likely in the future and if it is necessary to remove any trees this should

be completed outside of the nesting season or only after an inspection carried out by an experienced ecologist.

Reptiles and Amphibians: There is negligible potential for significant populations of reptiles or common amphibians to be present but if any areas of dense vegetation needs to be cleared, an inspection by an ecologist will be required to complete a precautionary search

Bats: If the proposed development requires any work to be completed to the Oak at the northern end of the survey area which has features present placing it within the low roost potential category, a further bat activity survey is required to confirm the presence / absence of roosting bats. This should be completed during the optimum bat activity season. The design of any external lighting associated with the new houses should ensure that there is minimal light spill which could impact bat foraging around this area.

General Recommendations: It is recommended that the following biodiversity enhancements should be incorporated

- At least one bat roost tube should be incorporated into the structure of one of the new houses on the south or west facing side of this in a suitable position,
- At least two nest bricks/ tubes should be incorporated into the structure of one of the new houses on the north facing side of this in a suitable position
- Hedgehog should be constructed in suitable locations close to the northern boundary where these will be accessible to wildlife, and
- A landscape planting scheme dominated by native tree and shrub species should be prepared to enhance the biodiversity and wildlife potential of the site.

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Part 1: Site Details

1. Introduction

1.1 Site Description and Location

The site surveyed comprises a residential house and garden area within which there are numerous outbuildings and small stable blocks, situated at 12 Thorpe Lane, South Hykeham, Lincolnshire centred at NGR SK92356 65767. 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 06th September 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
06 September 2023	12.00 – 13.00	12 Thorpe Lane South Hykeham Lincoln LN6 9NR	Clear and sunny. Wind 2mph from the north. Temperature 23° C humidity 70% at 1020hPa.
Accessibility	All areas of the site accessible to search for evidence of protected species.		

The defined site area comprises a house and garden area which has been used for stabling ponies, goats and also chickens. To the west and west are residential houses also situated along Thorpe Lane. To the south is a relatively new residential development on the opposite side of Thorpe Lane. To the north are residential houses but there are lakes (Apex Lake and Whisby Park Lakes) situated a short distance to the north. A contextual aerial photograph has been provided below.



Figure 2: Site Contextual Aerial Photograph

Image Copyright Microsoft Mapping 2023

1.2 Objective of the Report

This report is a Preliminary Ecological Appraisal (PEA) 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 two new residential houses within the garden area 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 2023 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 2023 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 NPPF 2023 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 revised NPPF 2023 it is now policy that ‘*permission should be refused for major development applications within National Parks, the Broads and Areas of Outstanding Natural Beauty other than in exceptional circumstances*’. 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 2023 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 NPPF 2023 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 06th September 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 Table 4.1 of the updated Bat Survey Guidelines 2023) as:

- | | |
|-------------------|--|
| None | No habitat features on site are likely to be used by any bats at any time of year (i.e. a complete absence of crevices / suitable shelter at all ground /underground levels). |
| Negligible | No obvious habitat feature on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features at times. |
| Low | A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of year. These potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be used for maternity and not a classic cool / stable hibernation site but could be used by individual hibernating bats) |
| Moderate | A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection conditions and surrounding habitat but unlikely to support a roost of high conservation status (i.e. such as maternity or hibernation irrespective of species conservation status). |
| High | A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to space, shelter, protection, appropriate conditions and/or suitable surrounding habitat. These structures have potential to support high conservation value roosts (i.e. maternity or classic cool / stable hibernation site) |

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. However there are a number of lakes within the Whisby Pits Complex situated to the north of the survey area. These are summarised in the table below.

Site Name and Reference	Designation	Distance	Description
Whisby Nature Park	LNR / LWS	990m N	Significant lake and wetland habitat with areas of broadleaved wet woodland supporting a wide range of bird and invertebrate species.
North Hykeham Gravel Pit	LWS	270m N	Large lake supporting wildfowl and a range of invertebrates

Ski World, Whisby Pits Complex	LWS	660m W	Large lake supporting wildfowl and a range of invertebrates
Teals Lake, Whisby Pits Complex	LWS	800m N	Large lake supporting wildfowl and a range of invertebrates

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
Bufo bufo	Common Toad	2021	28
Lissotriton vulgaris	Smooth Newt	2021	27
Rana temporaria	Common Frog	2016	42
Triturus cristatus	Great Crested Newt	1976	2
Natrix helvetica	Grass Snake	2021	75
Anguis fragilis	Slow Worm	2018	12
Zootoca vivipara	Common Lizard	2021	93
Anser anser	Greylag Goose	2021	1956
Alcedo atthis	Kingfisher	2021	1483
Botaurus stellaris	Bittern	2021	571
Bucephala clangula	Goldeneye	2021	2116
Calidris pugnax	Ruff	2012	63
Charadrius dubius	Little Ringed Plover,	2021	105
Circus aeruginosus	Marsh Harrier	2021	44
Falco columbarius	Merlin	2016	43
Falco peregrinus	Peregrine	2021	302
Falco subbuteo	Hobby	2021	179
Fringilla montifringilla	Brambling	2021	150
Gavia arctica	Black-throated Diver,	1996	5
Loxia curvirostra	Common Crossbill	2019	23
Lullula arborea	Woodlark	2012	3
Milvus milvus	Red Kite	2019	33
Numenius phaeopus	Whimbrel	2021	50
Pandion haliaetus	Osprey	2016	23
Phoenicurus ochruros	Black Redstart	2011	2
Recurvirostra avosetta	Avocet	2013	1
Tringa nebularia	Greenshank	2020	177
Tringa ochropus	Green Sandpiper	2021	564
Turdus iliacus	Redwing	2021	822
Turdus pilaris	Fieldfare	2021	565
Tyto alba	Barn Owl	2021	8
Upupa epops	Hoopoe	2021	1
Arvicola amphibius	European Water Vole	2018	96
Lutra lutra	Otter	2021	64
Meles meles	Badger	2022	68
Pipistrellus pipistrellus	Pipistrelle	2020	19
Pipistrellus pipistrellus	Common Pipistrelle	2017	3
Pipistrellus pygmaeus	Soprano Pipistrelle	2019	2
Plecotus auritus	Brown Long-eared Bat	2006	6
Nyctalus noctula	Noctule	2017	6
Myotis Daubentonii	Daubentons	1997	2
Myotis spp	Myotid species	2017	1

Whilst there are two records of **great crested newt (GCN)** within 1km of the site these are associated with Whisby Gravel Pits over 500m from the survey area and date from 1976. There are no recent records of this species near to the survey area. The wetland areas associated with the lakes and woodland areas to the north will support amphibians and it is possible some common amphibians could be present within the area surveyed.

There are records of reptiles within suitable habitat associated with the Whisby Gravel Pits area to the north. The land surveyed is a residential garden partly isolated by roads and other residential properties. The likelihood of a significant reptile population being present is considered to be low as the site will be sub-optimal habitat.

The majority of the site area surveyed is open and exposed grassland grazed by ponies and goats with negligible potential for ground nesting birds being so close to predatory cats. There are significant populations of wildfowl associated with the Whisby Gravel Pits but it is unlikely these species will have any significant interest in the survey area. However, other bird species could use the building structures and mature trees within the survey area for nesting purposes.

There are records of roosting and foraging **bats** in this area with two species of Pipistrelle, Myotis, Nyctalus and Plecotus species recorded in the area, roosting within suitable buildings. The Whisby Gravel Pits will be a significant foraging area for local bats providing optimal foraging habitat. Considering the proximity of the survey area to the lakes and woodland habitat, it is possible that bats could use the building structures and mature trees within the survey area for roosting purposes.

There are records of **badger** activity in this area but associated with the woodland habitat around and within the Whisby Pits area to the north. The garden area, partly isolated as it is by roads, fencing and houses, is unlikely to be of significant attraction to this species and the presence of badger is considered to be unlikely. There are no water features on or sufficiently close to the survey area to encourage European Water Vole or Otter to be present within the site.

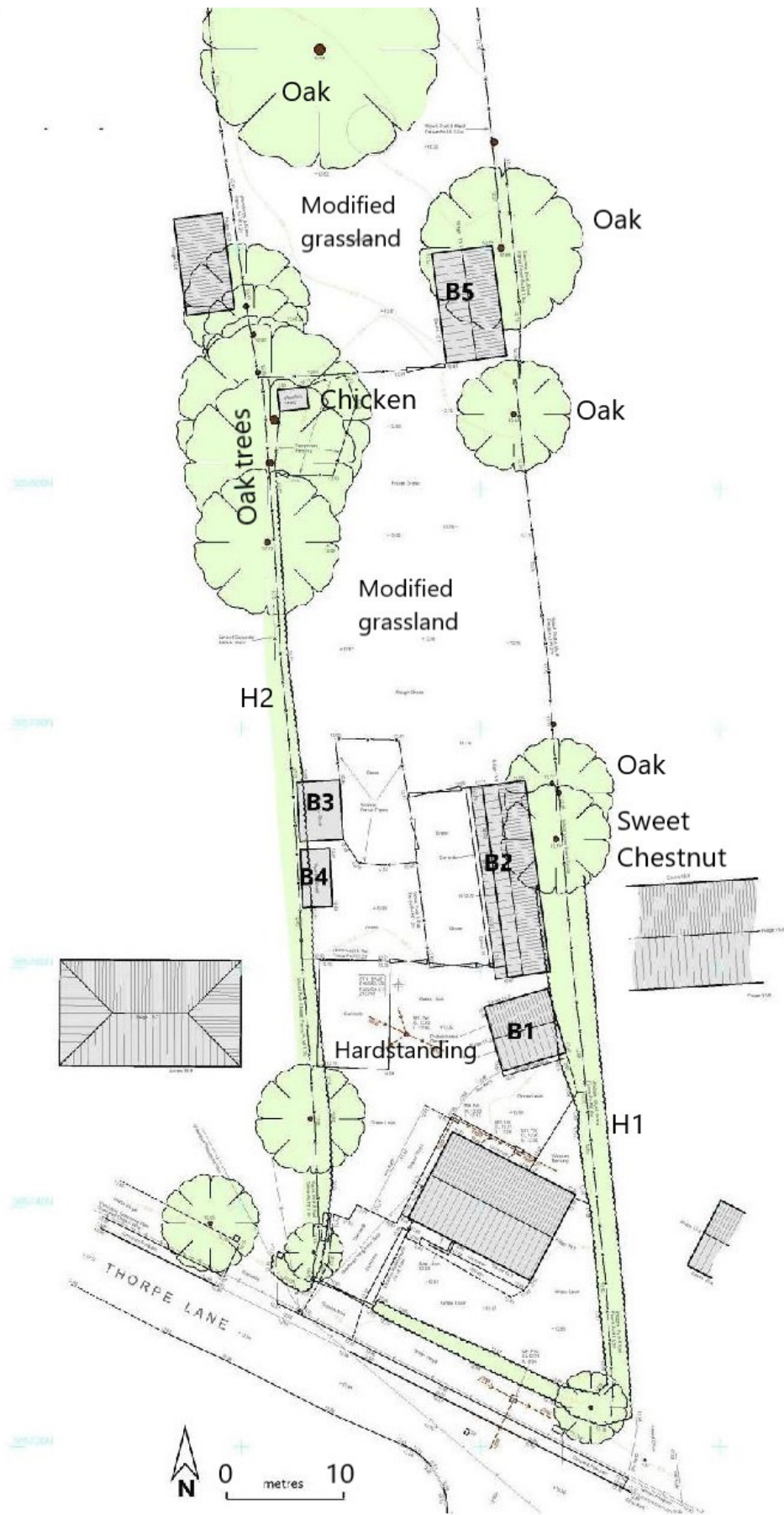


Figure 3 – Habitat Plan

3. Survey Findings

3.1 Habitat Classifications and Target Notes

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

- Garage
- Stables, Goat and Poultry buildings
- Residential garden
- Modified grassland used for light grazing purposes
- Mature trees

Target Note: Buildings

There are a number of small building structures within the survey area and these are described in the table below with photographs of the exterior and interior provided.

	Description	Potential for protected species
B1	Prefabricated double garage building. Concrete walls with pebble-dash exterior bolted together. Shallow pitch asbestos cement sheeted roof structure laid over timber beams with no lining or enclosed loft space areas. Roof edges sealed with white uPVC edging which is tightly fixed. Tightly fitting white uPVC window on the south eastern side of the building. Concrete pad flooring with no lining to the interior walls. High internal light levels.	No evidence of any nesting bird activity on the exterior of within the interior. No field signs of roosting bats found within the interior of the building with no significant external or internal structures identified. Negligible roost potential
B2	Timber framed and clad stable divided internally into four stalls. Timber cladding to the exterior is single skin with no internal lining. Cladding is tightly fixed throughout with no holes or warped boards. Pitched corrugated fibreboard roof has no internal lining and there is no enclosed loft space. The roof is open for the entire length of the building interior. Timber roof trusses are fully exposed. Timber doors and timber framed windows facing west. Doors are not tightly fitting. Concrete pad flooring. High internal light levels.	No evidence of any nesting bird activity on the exterior of within the interior. No field signs of roosting bats found within the interior of the building with no significant external or internal structures identified. Negligible roost potential
B3	Timber framed and clad Goat Shelter. Timber cladding to the exterior is single skin with no internal lining. Cladding is tightly fixed throughout with no obvious holes or warped boards. Sloping corrugated fibreboard roof faces west and has no internal lining and there is no enclosed loft space. Timber door facing east not tightly fitting. Concrete pad flooring. High internal light levels with door open.	No evidence of any nesting bird activity on the exterior of within the interior. No field signs of roosting bats found within the interior of the building with no significant external or internal structures identified. Negligible roost potential
B4	Timber framed and clad garden storage building with a pitched felted roof. Timber cladding to the exterior is single skin with no internal lining. Cladding is quite tightly fixed throughout with no obvious holes or warped boards. Felted roof is in good condition with no tears or holes and the roof edges are effectively sealed. Timber door and timber framed window facing west tightly fitting. Timber flooring. High internal light levels due to window.	No evidence of any nesting bird activity on the exterior of within the interior. No field signs of roosting bats found within the interior of the building with no significant external or internal structures identified. Negligible roost potential

B5	<p>Single storey temporary garden storage structure constructed from a timber frame to which treated chipboard panels have been affixed with no internal lining. Shallow pitched corrugated fibreboard roof has no internal lining and there is no enclosed loft space. Timber door facing south east not tightly fitting. There are no windows so interior is reasonably dark. Timber floor.</p>	<p>No evidence of any nesting bird activity on the exterior of within the interior. No field signs of roosting bats found within the interior of the building with no significant external or internal structures identified. Negligible roost potential</p>
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Garage B1



Garage B1



Timber stable B2



Rear of timber stable B2



Interior of timber stable B2



North end of B2



Goat shed B3



Timber framed outbuilding B4



Timber framed and clad store B5

Target Note: Garden and driveway

Access to the rear garden is via a driveway across the front garden and this is predominantly hardstanding with a concrete pad on which a caravan is currently stored. There is minimal vegetation present except for a few common forbs such as Plantain *Plantago lanceolata*, Medic *Medicago lupulina*, Annual Meadow Grass *Poa annua*, Buttercup *Ranunculus repens*, Pearlwort *Sagina procumbens* and Groundsel *Senecio vulgaris*.



Driveway



Driveway

Target Note: Modified grass used for light grazing

The land close to the building and extending to the north is used for grazing ponies. This supports a dense sward of modified grassland, generally between 2 – 7cm height but with some taller clumps around the goat shelter, dominated by Perennial Ryegrass *Lolium perenne*, Fesue *Festuca rubra* and Bent *Agrostis capillaris* with limited species diversity. It

is established of fertile soil which appears quite closely grazed. Some common forbs such as clover (*Trifolium repens*), daisy (*Bellis perennis*), medick (*Medicago lupulina*), dandelion (*Taraxacum officinale*), plantain (*Plantago lanceolata*), chickweed (*Stellaria media*) and mosses have established



Target Note: Chicken Coop

In the northern part of the survey area is a small netted and fenced chicken coop comprising a small timber framed building with a sheet affixed to keep the rain off. The bare earth within the coop is exposed due to the foraging of the chickens.



Target Note: Mature Trees

There are nine Oak *Quercus petraea* and one Sweet Chestnut *Castanea sativa* within the survey area and these have all been surveyed to BS5837:2012 with a separate report provided. Five of these trees are closely positioned along the western boundary providing a continuous canopy shading part of this boundary. There is a large mature Oak classed as Category B1 within the tree survey report at the northern end of the survey area within the

garden interior. Three Oak and one Sweet Chestnut line to the eastern boundary providing scattered canopy cover with two of the larger trees lying behind the stable block.



Two Oak close to B5 on boundary



Five merging Oak along western boundary

Target Note: Boundary Hedgerows

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.

There are two boundary hedgerows assessed in the table below. One is an untrimmed and overgrown Hawthorn hedgerow along part of the eastern boundary and the other is a sparse Leylandii and Hawthorn hedgerow along part of the western boundary.

Hedge	Height	Width	Management	Woody Species	Ground Flora	HEGS Cat.
H1	304m	2-3m	Untrimmed. Oak and Sweet Chestnut at northern end.	Hawthorn Oak Sweet Chestnut	Negligible.	3+
H2	2m	1.5m	Box-trimmed with some dense Oak at the northern end	Hawthorn Leylandii	Negligible	3

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.
- 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 early September is an optimal time for certain protected species. However, 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 the Whisby Pits complex to the north with good tree canopy cover nearby	Ground nesting within the site interior unlikely due to lack of cover. No nesting identified associated with the buildings. Nesting in the boundary trees likely in the future.	Negligible within the site interior and two buildings. Likely within the boundary trees and dense ruderal / scrub vegetation
Reptiles	Yes	Limited by the surrounding landscape with fences, houses and road.	The site area surveyed is suboptimal for reptile species and rather isolated. No evidence of reptiles was found during the inspection.	Low - some individual reptiles may be foraging along the site margins but significant populations are very unlikely.
Amphibians	Yes	Limited by the surrounding landscape with fences, houses and road.	The site area surveyed is suboptimal for amphibians as there are no ponds or wetland areas on or immediately adjacent to the survey area. No evidence of amphibians was found during the inspection.	Low - some individual common amphibians may be foraging along the site margins but significant populations are very unlikely.
Bats	Yes	Good due to the presence of woodland and lakes with high foraging potential in the surrounding landscape.	No evidence of any roosting was found within the building structures. One mature Oak does have low roost potential. Foraging across the site area by bats is considered likely.	Further surveys for roosting bats not recommended. Restriction of external artificial lighting is recommended within any proposed development.

Badger and larger mammals	Yes	There are records of badger in woodland to the north and around the Whisby Pits complex. However, the site is rather isolated by houses and roads.	No field signs of badger were found in any part of the site area assessed. The survey area is considered sub-optimal for badger.	No setts are present and foraging by badger considered unlikely in the future.
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Birds: The local area, particularly the Whisby Pits complex, supports a wide range of bird species which includes some Schedule 1 species. The Whisby Pits complex of lakes and woodland is an ideal habitat for wildfowl and wading / migratory birds and supports large populations. However, the survey area is sub-optimal for many of these species. The open ground within the survey area is unsuitable for ground nesting as it is exposed and within range of predatory cats. The buildings on the site were inspected and there is no evidence of any nesting activity associated with these.

No nests were identified within the individual Oak and Sweet Chestnut trees present in the area surveyed but these could support nesting birds in the future. ***Measures to avoid disturbance to any nests or nesting activity will need to be considered within any development.*** If any work is proposed to any of the trees or any need to be removed or cleared of ivy growth, this work should take place outside of the nesting season or be preceded by an inspection carried out by a suitably qualified and experienced ecologist.

Reptiles: The walkover survey of the site area was completed on a grid pattern looking for evidence or indication of reptiles. No sightings or physical evidence of reptiles was seen during the inspection completed in September which is within the optimum survey period for these species. ***Significant numbers of reptiles are considered highly unlikely but there may be individual reptiles such as Grass Snake present. If any dense vegetation is to be cleared or cut, this work should be supervised by an Ecologist as a precaution.***

Amphibians: The presence of significant numbers of amphibians in the area surveyed is considered unlikely and the inspection found no evidence of these species or optimal habitat to support them. Further surveys and specific mitigation measures for amphibians are not recommended. ***Significant numbers of common amphibians are considered highly unlikely but there may be individual amphibians such as Common Toad present. If any dense vegetation is to be cleared or cut, this work should be supervised by an Ecologist as a precaution.***

Chiroptera: The building structures within the survey area have been externally and internally inspected and no evidence of roosting bats has been identified. The building structures have been assessed as having negligible roost potential and further surveys are not recommended.

A mature Oak at the northern end of the survey area does display some minor features of potential interest to bats. based upon Table 8.4 in Bat Surveys, Good Practice Guidelines this individual mature Oak is assessed as being within Category 2B – a tree 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 are 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.

Invertebrates: The area assessed does not appear to support a diverse range of flora. 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.

Other Mammals: During the inspection of the survey area a thorough search for evidence of badger was completed.

No established tracks or trails indicative of badger activity were found within the survey area and no sett entrances found. Further surveys for badger are not recommended and there is no indication that badgers are activity foraging in the immediate area surrounding the site surveyed.

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 dense 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 northern boundary or another suitable location chosen by the Ecologist 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 mitigation measures are recommended as a precaution:

- The presence of significant numbers of reptiles or common amphibians is unlikely but precautions should be taken in regard to the clearance of any dense vegetation within the survey area and lifting of timber shed bases.
- There is potential for nesting birds to be present associated with the boundary trees.
- There is potential for hedgehogs to be present within the site, particularly around the site boundaries.
- One tree with low roost potential has been identified at the northern end of the area surveyed and foraging by bats is very likely in this location.

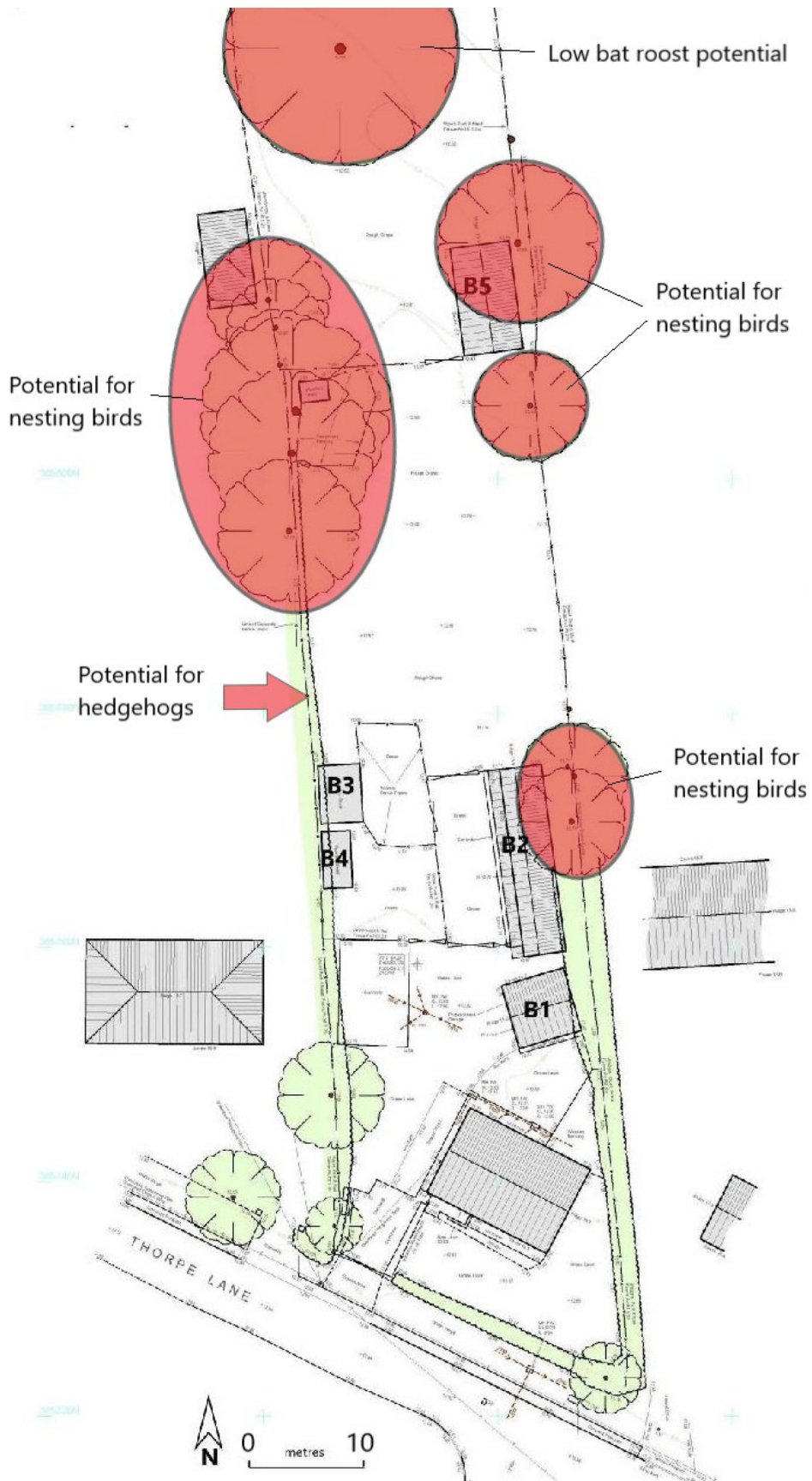


Figure 4 – Ecological Constraints Plan

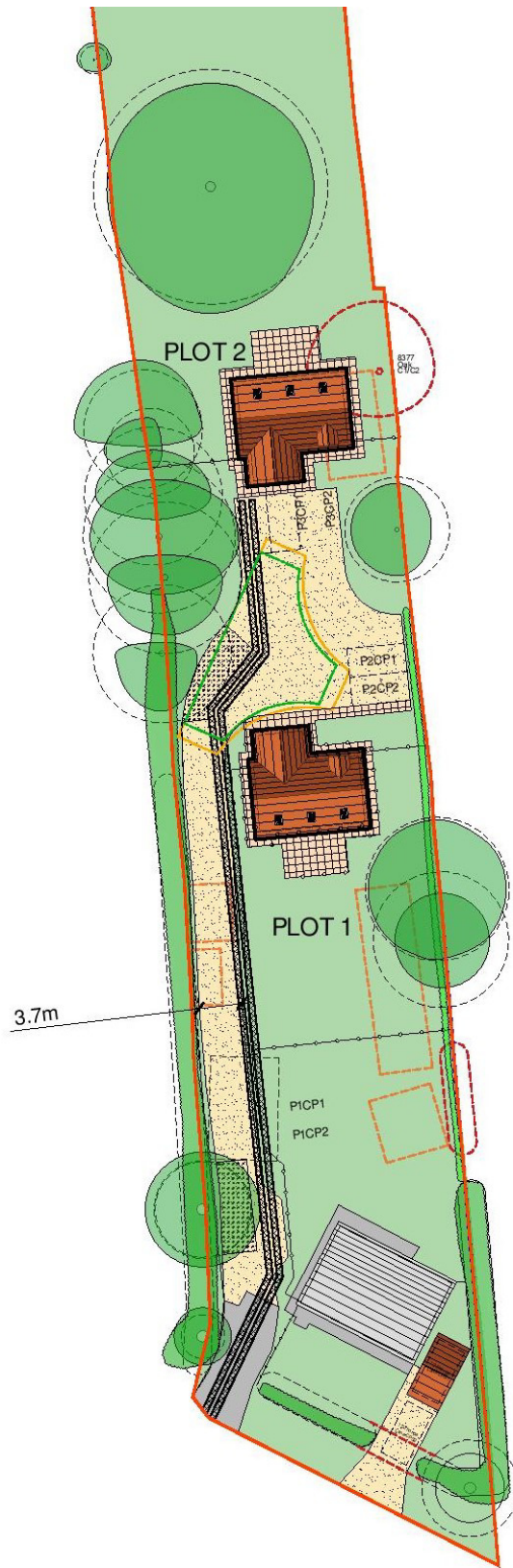


Figure 5 – Conceptual Development Plan

Part 3: Initial Ecological Appraisal

4. Impact of Proposed Site Development

Within the NPPF 2023, 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.

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).

The proposed location and footprint of the new residential houses is shown within **Figure 5**. The enhancement proposed will be the creation of a new pond and native scrub planting. 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.

It is understood that the proposals for the site will require the removal of the garage and other buildings within the rear garden area and replace these with two detached houses and gardens. In addition to landscaping within the development area, a separate parcel of land under the ownership of the applicant located to the north is being enhanced to provide biodiversity gain. This small area, currently under modified grass with some boundary trees is shown within **Figure 6**.



Figure 6 – Off site biodiversity enhancement plan

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
Buildings	Negligible	None	The existing buildings will be removed
Hardstanding	Negligible	None	The proposed development will utilise the existing hardstanding for access
Boundary trees	Moderate	Avoidance	The proposed development appears to be sufficiently far from most of the trees but one close to Plot 2 appears to be removed based on the plan provided.
Modified Grassland	Low	Mitigation	The proposed development will use the grassland area to provide space for building and residential gardens.

4.1 Potential Impact on nearby Statutory and Non-statutory sites

The LWS / LNR sites within the Whisby Gravel Pits complex to the north of the survey area are sufficiently distant from the proposed development area that the small scale of the development being proposed will have no impact on this. These sites are separated from the survey area by houses and roads which will provide an effective barrier.

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 2023 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 stable building and timber outbuildings used for goats, chickens and storage with an area of modified grassland within which there are a number of mature and semi-mature trees providing partial canopy cover.

Due to the use and location of the property the site surveyed has limited biodiversity at the present time although the mature Oak trees are of landscape value. Based on the development plan provided the construction will only require one tree to be removed adjacent to the eastern boundary which lies very close to the position of Plot 2. No evidence of any significant locally rare plants or plant communities within or around the site area surveyed was identified during the survey. In addition to the development area there is an area to the north in the same ownership which is to be enhanced by habitat creation, specifically a pond is to be constructed and native tree and shrub planting adjacent to this.

The assumptions made within the biodiversity impact calculation are stated above based on the proposed layout shown within the development plan.

The assessment of the development proposed for this site, based on the assumptions made above results in a net gain in calculated biodiversity units across this site area from 1.52 units to 1.70 units which is a gain of 18% starting from a low baseline due to the small size of the development area and utilising the off-site area under the same ownership for pond creation and tree planting.

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 September 2023 did not identify any physical evidence or field signs of protected species within the survey area. After inspection of the site, assessment of its landscape contact and a review of the biological records for this area, the following precautionary measures are advised:

Birds: There is negligible potential for ground nesting birds to be present within the survey area and there is not evidence of birds nesting within the building structures. Nesting within the boundary trees is quite likely in the future and if it is necessary to remove any trees this should be completed outside of the nesting season or only after an inspection carried out by an experienced ecologist.

Reptiles and Amphibians: There is negligible potential for significant populations of reptiles or common amphibians to be present but if any areas of dense vegetation needs to be cleared, an inspection by an ecologist will be required to complete a precautionary search

Bats: If the proposed development requires any work to be completed to the Oak at the northern end of the survey area which has features present placing it within the low roost potential category, a further bat activity survey is required to confirm the presence / absence of roosting bats. This should be completed during the optimum bat activity season. The design of any external lighting associated with the new houses should ensure that there is minimal light spill which could impact bat foraging around this area.

General Recommendations: It is recommended that the following biodiversity enhancements should be incorporated

- At least one bat roost tube should be incorporated into the structure of one of the new houses on the south or west facing side of this in a suitable position,
- At least two nest bricks/ tubes should be incorporated into the structure of one of the new houses on the north facing side of this in a suitable position
- Hedgehog should be constructed in suitable locations close to the northern boundary where these will be accessible to wildlife, and
- A landscape planting scheme dominated by native tree and shrub species should be prepared to enhance the biodiversity and wildlife potential of the site.



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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
<p>Ash <i>Fraxinus excelsior</i> Hawthorn <i>Crataegus monogyna</i> Leylandii <i>Cupressocyparis leylandii</i> Oak <i>Quercus petraea</i> Sweet Chestnut <i>Castanea sativa</i> Sycamore <i>Acer pseudoplatanus</i></p>	<p>Annual Meadow Grass <i>Poa annua</i>, Bent <i>Agrostis capillaris</i> Bindweed <i>Calystegia sepium</i> Black Medick <i>Medicago lupulina</i> Bramble <i>Rubus fruticosus</i> Buttercup <i>Ranunculus repens</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> Daisy <i>Bellis perennis</i> Dandelion <i>Taraxacum</i> sp Fesue <i>Festuca rubra</i> Groundsel <i>Senecio vulgaris</i> Lesser Willowherb <i>Epilobium hirsutum</i> Medic <i>Medicago lupulina</i>, Nettle <i>Urtica dioica</i> Pearlwort <i>Sagina procumbens</i> Perennial Ryegrass <i>Lolium perenne</i> Plantain <i>Plantago lanceolata</i> Ragwort <i>Senecio jacobaea</i> St John's Wort <i>Geranium robertianum</i> Spear Thistle <i>Cirsium vulgare</i> White Dead Nettle <i>Lamium album</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 from Greater Lincolnshire Nature Partnership

Separate Appendix

Appendix 3 – Biodiversity Net Gain Assessment

Existing Habitat descriptions

Within the Habitat Survey the following habitats were identified within the 0.29-hectare area assessed:

- Total site area 2935m² = 0.29ha
- Existing buildings and hardstanding 910m² = 0.09ha
- Modified grassland 1790m² = 0.18ha
- Broadleaved trees 245m² = 0.02ha
- Hedgerow 110m = 0.11km

Assessment of the site using the habitat survey plan has identified that the different habitat cover the calculated areas stated above within the site and these values have been used for assessment purposes.

Proposed development

For the purposes of assessment, it is assumed that the land not under the footprint of the building and driveways will be modified grassland. It is also assumed that to facilitate construction access the existing grassland will be removed and new grassland will be established by seeding.

The driveways are assumed to be an artificial porous surfacing. All of the trees with no exception are shown as being retained as are both of the hedgerows.

The following area measurements have been used to help assess the habitats to be created after development of the land.

1. Total Site Area 0.29ha
2. Retained trees = 0.02ha
3. Retained hedgerow 110m = 0.11km
4. Area under buildings (sealed surface) after development = 0.04ha
5. Area under driveways (artificial unsealed surface) = 0.09ha
6. Total Site Area laid to modified grassland / residential garden = 0.14ha

Biodiversity Impact Calculation

The assumptions made within the biodiversity impact calculation are stated above based on the proposed layout shown within the development plan.

The assessment of the development proposed for this site, based on the assumptions made above results in a net gain in calculated biodiversity units across this site area from 1.52 units to 1.70 units which is a gain of 18% starting from a low baseline due to the small size of the development area and utilising the off-site area under the same ownership for pond creation and tree planting.

The full biodiversity calculation spreadsheet is provided as a separate appendix.