Extended Phase 1 Habitat Survey
Land at Blacksmith End
Stathern
Leicestershire
NGR SK77285 31406

Survey by
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Contents

Part 1: Site Details
1. Introduction
    1.1 Site Description and Location
    1.2 Objective of the report

Part 2: Methodology and Survey Results
2. Appraisal Methodology
    2.1 Baseline Study
    2.2 Habitats present on the site
    2.3 Protected Species Appraisal
    2.4 Consultations

3. Survey Findings
    3.1 Habitat Classifications and Target Notes with Photographs
    3.2 Evidence of Protected Species
    3.3 Ecological Constraints and Opportunities

Part 3: Initial Ecological Appraisal
4. Impact of any development of the site
    4.1 Potential Impact on nearby LWS sites
    4.2 Potential impact on biodiversity at the site
    4.3 Potential Impact on Protected Species

Appendices
Appendix 1 – Indicative Species List
Appendix 2 – Records from Leicestershire Records Centre.
Appendix 3 – Habitat Suitability Index Assessment

Figures
Figure 1 – Site Location Plan
Figure 2 – Contextual Aerial Photograph
Figure 3 – MAGIC Ecological Sites Plan
Figure 4 – Approximate locations of Protected Species records
Figure 5 – Site Habitat Plan
Figure 6 – Conceptual Development Plan

Non-Technical Summary
The site surveyed is a roughly rectangular parcel of improved grassland used for grazing purposes located off Blacksmith End, Stathern, Leicestershire centred at NGR SK77285 31406. The grassland is part of a larger parcel of improved grassland and is situated on the northern edge of the village of Stathern, Leicestershire. The site was inspected on the 09th October 2018.

The survey area comprises the southern part of a larger field of improved grassland through which a driveway extends westwards from Blacksmith End. There is also a separate access track to a gated entrance extending south west. Residential houses lie to the south and south west, Open improved grazing land lies to the north, west and east with Blacksmith end defining the eastern boundary and extending along the northern edge of the field. Two ponds have been excavated in the field to the north of the small area being considered for development. An aerial photograph has been provided below to place the site in context.

A review of the available data obtained from the Leicestershire Records Centre confirms that the site is not a Statutory or Non-Statutory of ecological significance. There are no Statutory sites within a 1km radius of the area surveyed. There are a number of Local Wildlife Sites within 1km, the nearest being Moor Lane Pond located approximately 75m away from the edge of the boundary of the area being considered for development.

Habitats identified within the proposed development area during the survey are:

- Improved Grassland – likely to have previously been grazed or cut but no becoming rank
- Boundary hedgerows with mature trees
- Scrub and juvenile plantation

In addition, two ponds have been identified within the field outside the proposed development area to the north east.

The grassland is dense and highly fertile with no indication that it is species rich. It is dominated by common agricultural grasses. There is very little diversity within the dense sward which indicates it is intensively managed and probably treated with selective herbicides. This grassland comprises the entire area being considered for development. The boundary hedgerows are not species rich but do have significant landscape value in terms of screening and provision of connectivity and there are scattered mature hedgerow trees along these boundaries.

Conclusions
There are no Statutory or Non-statutory sites within the survey area or nearby with links which could be impacted by the proposed development of this parcel of improved grassland. There is a Local Wildlife Site identified as ‘pond at Moor Lane’ within the records and it is assumed this relates to the ponds adjacent to Moor Lane just to the north of the survey area but within the same field of improved grassland.

The survey area being considered for development is a field of improved grassland lying adjacent to housing along the northern edge of the village of Stathern. This is intensively managed and the grass sward is rich, fertile and highly productive containing very limited biodiversity. No evidence of any rare of unusual plant species or plant communities was noted during the inspection.

If the boundary hedgerows are retained and protected and any development is restricted to the land under improved grassland, 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 October 2018 has not identified any physical evidence of activity by any protected species within the grassland area being proposed for development. There is

potential for commuting bats associated with roosts within the village of Stathern to be present and also nesting birds may take advantage of suitable locations within the boundary hedgerows. A survey to identify the level of bat commuting activity has been recommended to assist with the design of mitigation for these species. In addition, measures to protect against disturbance of nests within the boundary hedgerows will be required.

There is a low likelihood of reptiles being present around the boundary hedgerows and given the proximity of ponds to the north, there is also potential for amphibians to be commuting within the same boundary hedgerows. The improved grassland offers little potential for reptiles of amphibians but precautionary working practices such as inspection by an ecologist ahead of work are recommended if any section of hedgerow or taller vegetation around the margin of the field is to be removed.

Christopher Barker ACIEEM CEnv

Part 1: Site Details

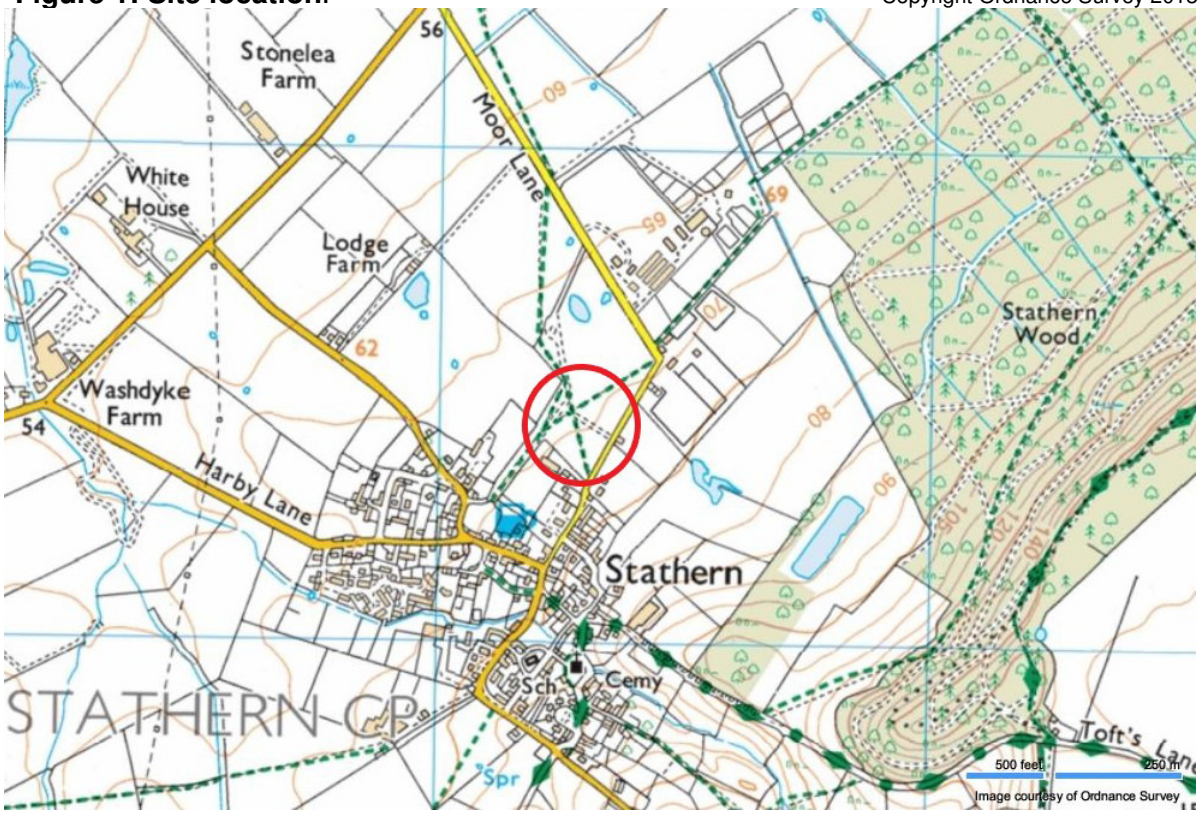
1. Introduction

1.1 Site Description and Location

The site surveyed is a roughly rectangular parcel of improved grassland used for grazing purposes located off Blacksmith End, Stathern, Leicestershire centred at NGR SK77285 31406. The grassland is part of a larger parcel of improved grassland and is situated on the northern edge of the village of Stathern, Leicestershire.

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. The site was inspected on the 09th October 2018. A photographic record of the site and any key locations is provided in Section 3.

Figure 1: Site location.



The Applicant 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 09th October 2018. A photographic record of key areas is included alongside target notes within the report and an indicative species list is included within **Appendix 1.**

The survey area comprises the southern part of a larger field of improved grassland through which a driveway extends westwards from Blacksmith End. There is also a separate access track to a gated entrance extending south west. Residential houses lie to the south and south west, Open improved grazing land lies to the north, west and east with Blacksmith end defining the eastern boundary and extending along the northern edge of the field. Two ponds have been excavated in the field to the north of the small area being considered for development. An aerial photograph has been provided below to place the site in context.

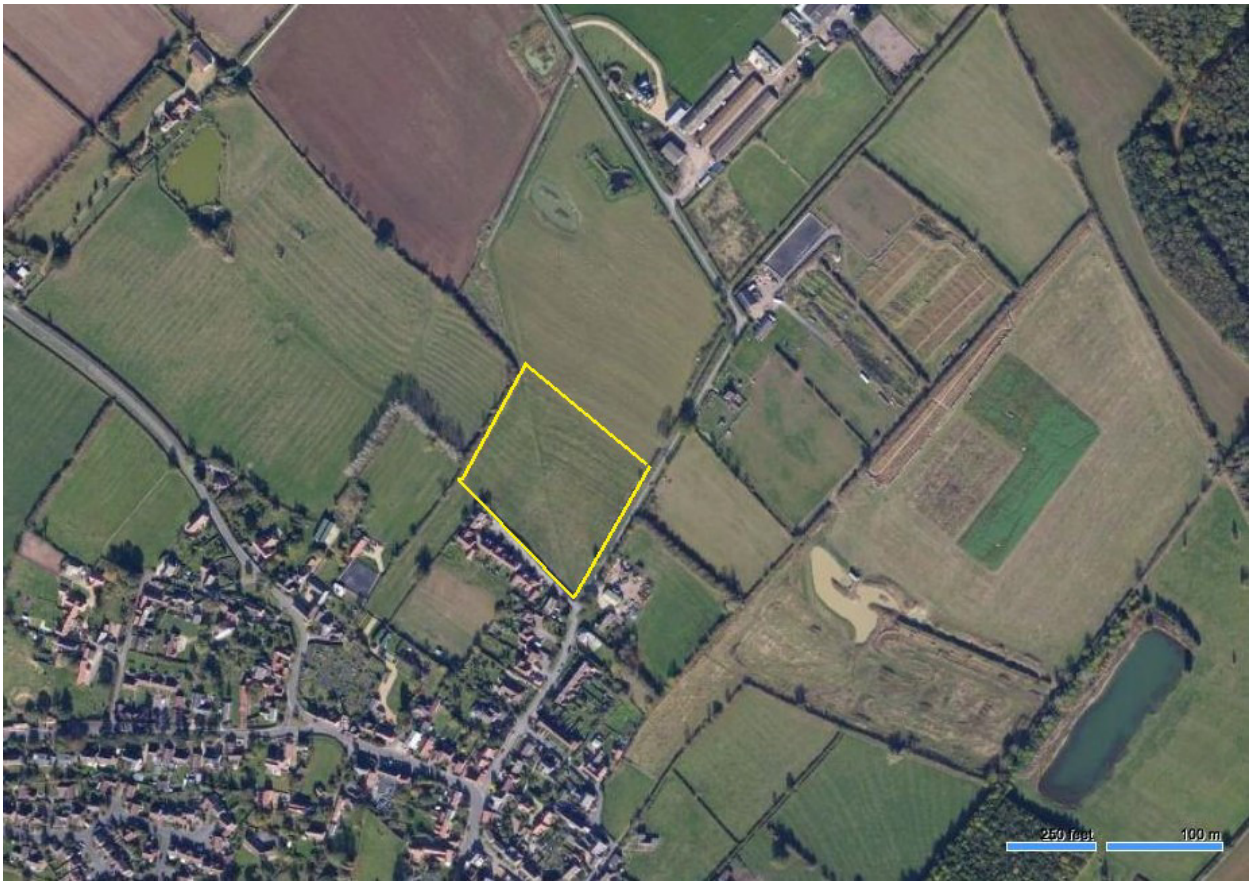


Figure 2: Contextual Aerial Photograph. Copyright 2018 Microsoft Corporation

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 residential housing 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, March 2012 (NPPF). The report contains Biological Records and has been prepared to meet the standard required by BS42020 (British Standard for Biodiversity and Development).

The National Planning Policy Framework 2018 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 2018 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).

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: Methodology and Survey 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 2018 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 2018 the principles by which the protection and enhancement of biodiversity and geodiversity within the context of proposed development are described. These principle require that any development proposal should:

Paragraph 174 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 stepping*

stones 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 Leicestershire and Rutland Environmental Records Centre and reviewed. A species list of plants found on the site is provided in **Appendix 1** 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 Habitats

The site was inspected on the morning of 09th October 2018. 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. 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

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.

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.
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)]

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).

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.

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*".

Invasive Species: A range of invasive non-native plant species, including New Zealand stonecrop, 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.

The survey area comprises an area of improved grassland on the southern edge of a larger area of improved grassland lying adjacent to the northern edge of the village of Stathern. 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.

2.4 Consultations

A review of the available data obtained from the Leicestershire Records Centre confirms that the site is not a Statutory or Non-Statutory of ecological significance. There are no Statutory sites within a 1km radius of the area surveyed. There are a number of Local Wildlife Sites within 1km, the nearest being Moor Lane Pond located approximately 75m away from the edge of the boundary of the area being considered for development. The table below summarises the LWS sites within 1km and the distance of these from the area being surveyed. A plan obtained from the Multi Agency Government Information Centre (MGIC) showing Statutory and Non-statutory sites of ecological significance in the locality is provided below.

Site Type	Site Code	Site Name	Distance
LWS - Notified/Candidate/Potential/ASNW	90473	Wood Lane Willows	595
LWS - Notified/Candidate/Potential/ASNW	28199	Mill Hill Grassland	763
LWS - Notified/Candidate/Potential/ASNW	90467	Toft's Hill Ash, North Side	683
LWS - Notified/Candidate/Potential/ASNW	90471	Rundle Beck Willow	667
LWS - Notified/Candidate/Potential/ASNW	90531	Moor Lane Pond	388
LWS - Notified/Candidate/Potential/ASNW	66668	Mature Ash Trees - Tofts Hill	543
LWS - Notified/Candidate/Potential/ASNW	90465	Mill Hill Grasslands	613
LWS - Notified/Candidate/Potential/ASNW	90477	Stathern Wood	588
LWS - Notified/Candidate/Potential/ASNW	80008	Mill Hill Roadside Verge Nature Reserve	840
LWS - Notified/Candidate/Potential/ASNW	91043	Stathern Wood	841
LWS - Notified/Candidate/Potential/ASNW	90472	Rundle Beck Willows	642
LWS - Potential / Historic	11683	Mill Hill Verge	754
LWS - Potential / Historic	11684	Stathern Grassland	673
LWS - Potential / Historic	11687	Pond	731

It is clear from the table that there is potential for the Moor Lane Pond to be impacted as whilst this is shown in the Table above as being 388m distance, it is actually only 75m from the north edge of the area being considered for development. This is a pair of landscaped ponds which have naturalised within the improved grassland field close to Moor Lane. Whilst these ponds are sufficiently distant from the proposed development area to avoid any direct impact, indirect impact from noise, light and disturbance of adjacent habitat could possibly still occur.

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	Earliest Year	Latest Year	Total Records
Falco peregrinus	Peregrine	2014	2014	1
Falco subbuteo	Hobby	2010	2016	9
Milvus milvus	Red Kite	1998	2017	16
Pandion haliaetus	Osprey	2009	2013	2
Turdus iliacus	Redwing	2006	2015	4
Turdus pilaris	Fieldfare	2006	2016	12
Tyto alba	Barn Owl	1996	2014	15

Vipera berus	Adder	2013	2013	1
Chiroptera	Bat	1993	2016	4
Meles meles	Badger	1993	2011	7
Myotis	Myotis Bat species	2013	2016	5
Myotis nattererii	Natterer's Bat	1995	1995	1
Nyctalus noctula	Noctule Bat	2018	2018	1
Pipistrellus	Pipistrelle Bat species	1995	2015	7
Pipistrellus nathusii	Nathusius's Pipistrelle	2013	2013	1
Pipistrellus Pipistrellus	Pipistrelle	2008	2016	23
Pipistrellus pipistrellus	Common Pipistrelle	2018	2018	2
Pipistrellus pygmaeus	Soprano Pipistrelle	2013	2016	6
Plecotus	Long-eared Bat species	2006	2006	1
Plecotus auritus	Brown Long-eared Bat	2009	2016	3

There are no records of Great Crested Newt (GCN) within 1km of the site even though the local area around the margin of Stathern contains a number of ponds and the nearest of these is close to the northern boundary of the improved grassland area being considered for development. The improved grassland habitat is far from ideal for amphibians offering negligible cover and foraging potential. However, there may be potential for amphibians to be present within the boundary hedgerows and margins of the field so the potential presence of GCN and other amphibians cannot be entirely ruled out.

There is one record of an Adder in land south of the village from 2013 but no other reptile records or sightings are recorded within 1km. The improved grassland habitat is far from ideal for reptiles offering negligible cover and foraging potential. However, there may be potential for reptiles to be present within the boundary hedgerows, ponds to the north and margins of the field so the potential presence of reptiles such as Adder. Grass Snake and Slow Worm cannot be entirely ruled out.

The site is an intensively managed area of short improved grassland adjacent to residential housing. There are ponds to the north and some individual large mature hedgerow trees along the field boundaries. However. The open grassland would provide limited foraging to the majority of bird species being highly exposed. The presence of housing to the south with the predatory cat population this will provide, combined with the use of the site for regular dog-walking, makes the presence of ground nesting birds within the field highly unlikely. However, the boundary hedgerows and the trees and also the scrub and taller vegetation around the margins of the ponds in the field to the north will have greater attraction and potentially provide nesting locations. A number of significant species such as Peregrine, Red Kite Osprey, Redwing, Fieldfare and Barn Owl are noted within the local records.

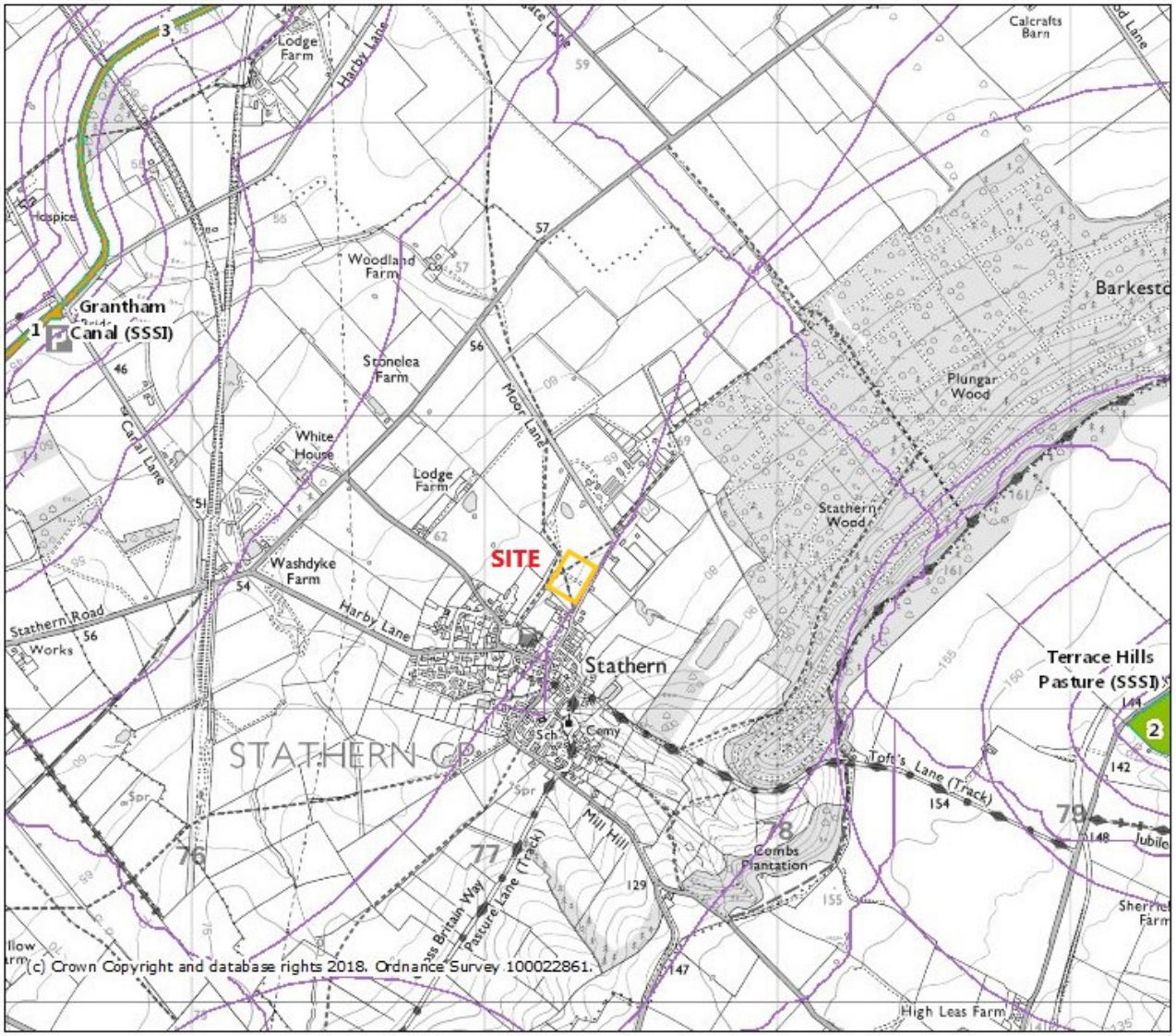
There are numerous records of foraging bats in this area with up to 7 species noted within 1knm of the survey area. There are known to be roosts of Pipistrelle, Natterers and Brown Long-eared bats within suitable properties within the village of Stathern. These are species that would find the hedgerows suitable for foraging and it is highly likely that the local ponds and also the large expanse of broadleaved woodland (Stathern Wood) to the north east will be of high significance to foraging bats. Whilst there are no trees or structures within the site area that could be used for roosting purposes, foraging and commuting is considered to be highly likely around the margins of the area surveyed.

There are many records of badger within Stathern Wood with setts recorded in this area. Whilst the land within and immediately surrounding the site area is fenced improved grassland, it is possible that badger may be able to access this grassland parcel for foraging purposes.

MAGiC

Stathern Ecological Sites

Figure 3 – Ecological Sites



Legend

- Local Nature Reserves (England)
- National Nature Reserves (England)

Sites of Special Scientific Interest Units (England)

- Favourable Condition
- Unfavourable Recovering
- Unfavourable no change
- Unfavourable Declining
- Part Destroyed
- Destroyed
- Not Assessed
- Sites of Special Scientific Interest (England)
- SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)
- Special Areas of Conservation (England)
- Community Forests (England)
- RSPB Reserves (GB)

Projection = OSGB36
xmin = 474000
ymin = 330000
xmax = 480700
ymax = 333300

0 0.35 0.7
km

Map produced by MAGIC on 12 November, 2018.
Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.

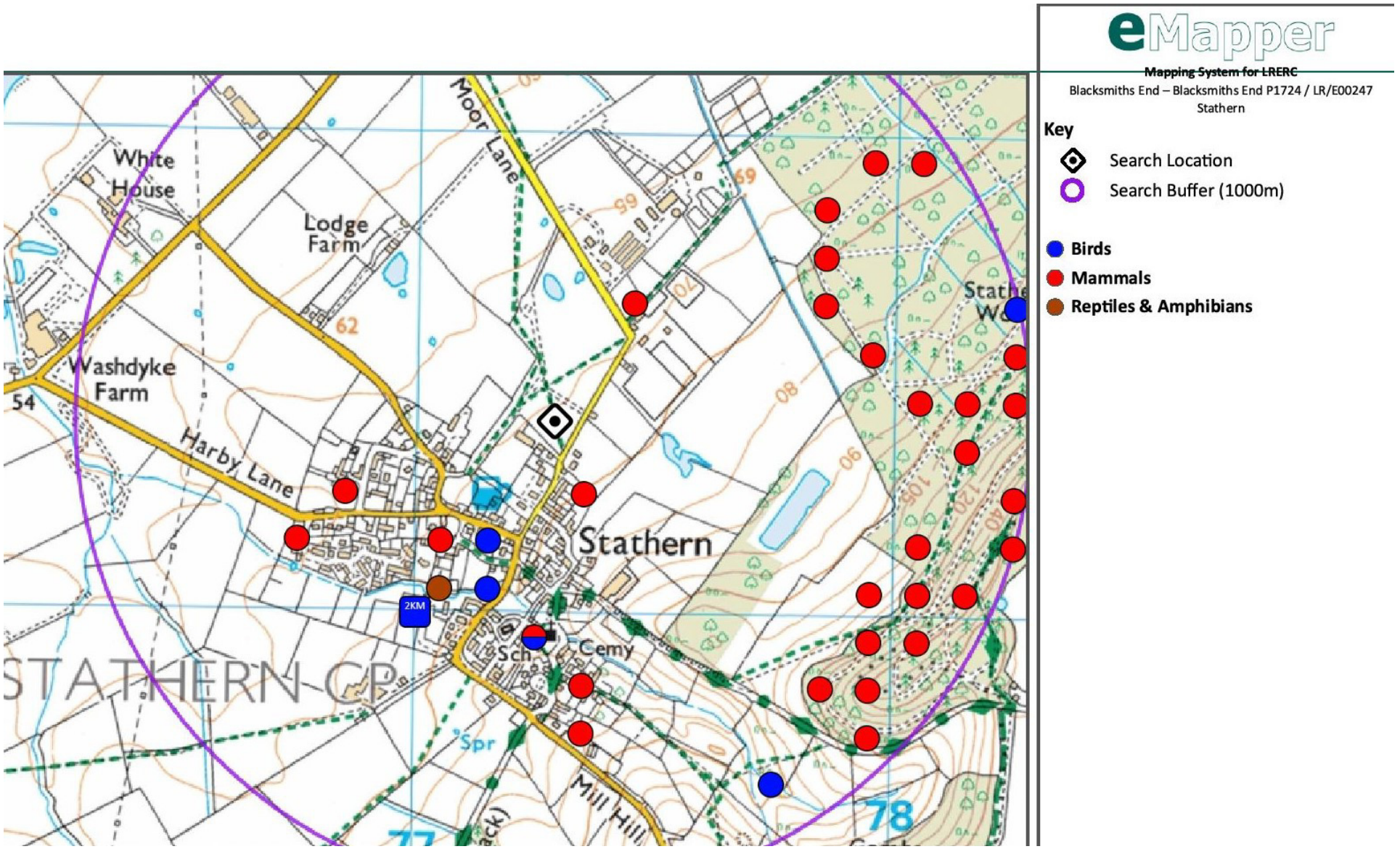


Figure 4 – General Location of Protected Species records.

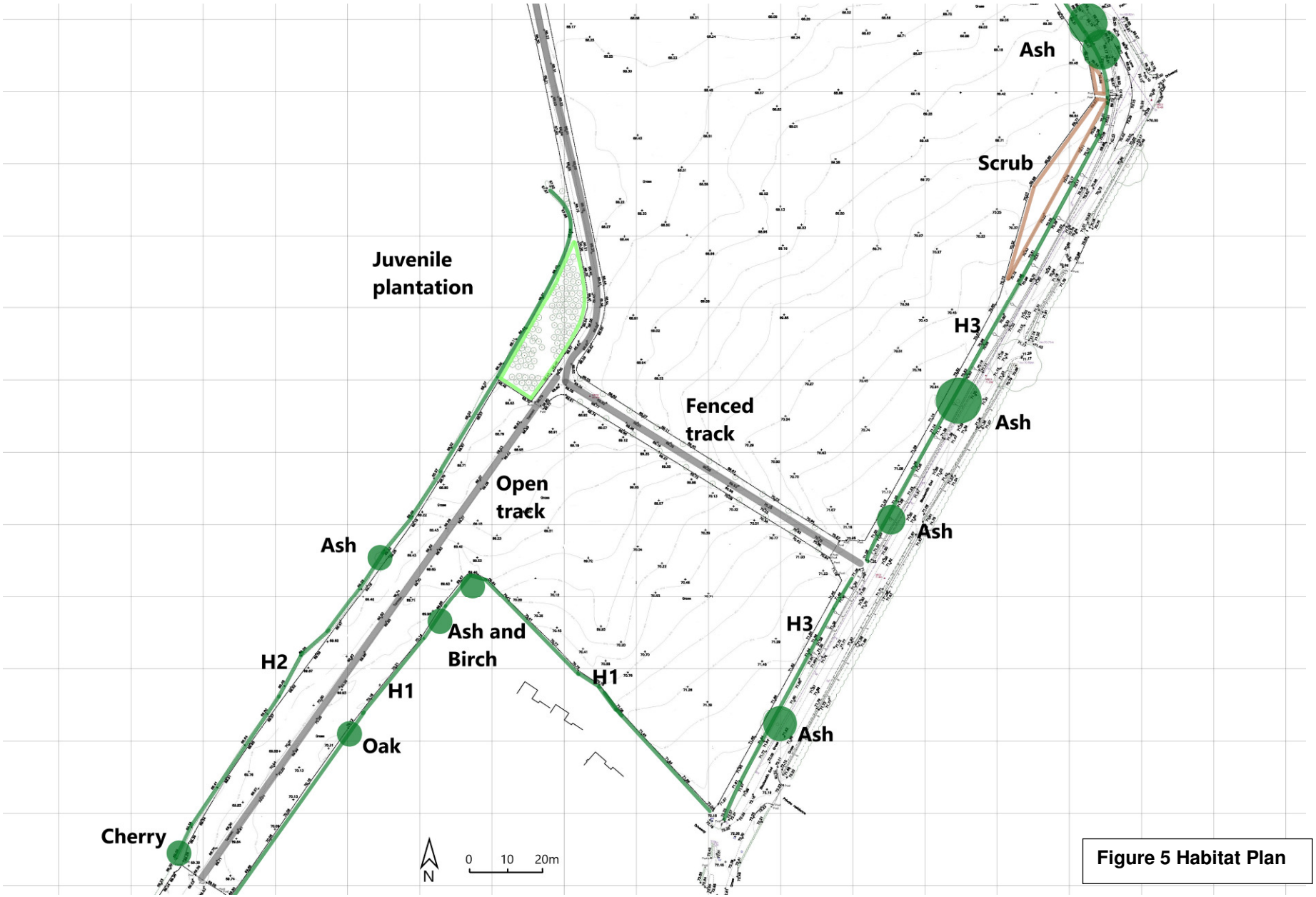


Figure 5 Habitat Plan

3. Survey Findings

3.1 Habitat Classifications and Target Notes

The 2018 inspection of the site has identified the following habitats and evidence / potential for protected species:

Habitats:

- Improved Grassland – likely to have previously been grazed or cut but no becoming rank
- Boundary hedgerows with mature trees
- Scrub and juvenile plantation
- Nearby ponds

Target Note: Improved Grassland
The grassland is dense and highly fertile with no indication that it is species rich. It is dominated by common agricultural grasses such as Perennial Ryegrass (*Lolium perenne*) and Fescue (*Festuca rubra*) with occasional Cocksfoot *(Dactylis glomerata*) in some areas. The sward has been intensively grazed and remains quite short. There is very little diversity within the dense sward which indicates it is intensively managed and probably treated with selective herbicides. This grassland, which comprises the entire area being considered for development, is placed within JNCC B1 (Improved Grassland).


Within the sward there are a small number of common grass sward weed species such as dandelion (*Taraxacum officinalis*), plantain (*Plantago lanceolata*) and some clover (*Trifolium repens*) but these are very infrequent. Around the hedgerow margins some taller forbs have established including nettle (*Urtica dioica*), creeping thistle (*Cirsium arvense*), chickweed (*Stellaria media*) with occasional dock (*Rumex obtusifolius*), cut-leaved cranesbill (*Geranium dissectum*) and fat hen (*Chenopodium album*). The species present and dense growth indicate fertile ground conditions.

Target Note: Hedgerows
The eastern and northern boundaries of the field are defined by a trimmed hedgerow. There are also similar trimmed hedgerows along the majority of the western boundary of the field and also either side of the strip of access land extending to the south west towards the centre of the village.

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 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 popular 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.

Hedgerows H1 and H2 along the access track to the south west
These trimmed hedgerows are dominated by Hawthorn (*Crataegus monogyna*) with occasional Blackthorn (*Prunus spinosa*), Dog Rose (*Rosa canina*) with sections of dense Ivy (Hedera helix) and quite dense bramble (*Rubus fruiticosa*). This is a dense hedgerow with no significant gaps. There are a small number of mature trees within the hedgerow including Oak (*Quercus petraea*), Ash (*Fraxinus excelsior*), Birch (*Betula pendula*) and Cherry (*Prunus avium*).


Hedgerow H1


Hedgerow H1


Hedgerow H2


Hedgerow H2

These hedgerows are supported by post and rail fencing and some sections have sheep net fencing. Individually each separate section of this hedgerow is not highly diverse and overall there is an average of 4 woody species per 30m length. The mature trees and connections to the nearby hedgerows are associated features but overall it is not considered to be important under the Hedgerow Regulations criteria. However it does provide significant screening along these boundary areas and provides connectivity within the local landscape.

Hedgerow H3 along the eastern and northern field boundary
This box-trimmed trimmed hedgerow extends along the field boundary dividing this from the road verge and Blacksmith End. These trimmed hedgerows are dominated by Hawthorn (*Crataegus monogyna*) with significant dense sections of Blackthorn (*Prunus spinosa*). Within the hedge are occasional Elder (*Sambucus nigra*) and Dog Rose (*Rosa canina*). This is a dense hedgerow with no significant gaps which is supported by sheep net fencing. There are a small number of mature Ash (*Fraxinus excelsior*) within the hedgerow.


Hedgerow H3


Hedgerow H3


Hedgerow H3


Hedgerow H3

Individually each separate section of this hedgerow is not highly diverse and overall there is an average of 4 woody species per 30m length. The mature trees, shallow drainage ditch along the road edge and connections to the nearby hedgerows are associated features which add to the landscape value of this hedge but overall it is not considered to be important under the Hedgerow Regulations criteria. However it does provide significant screening along these boundary areas and provides connectivity within the local landscape.

Target Note: Access Tracks
There is a linear strip of improved grassland with a hard-surfaced tarmacadam track in the centre extending south west from the field where development is being considered. There are no significant features within this land which is level and has a uniform species poor sward. This strip of land is bounded by trimmed hedgerows described above within which there are a small number of mature and over-mature trees.

There is also a fairly recently constructed access track bounded by post and rail fencing cross the centre of the grassland area being considered for development. This is not shown in the aerial photograph (Figure 2) and has a line of young specimen Horse Chestnut (*Aesculus hippocastenum)* planted on either side.

South western access track

Central access track from Blacksmith's End

Target Note: Scrub and Juvenile Plantation
Along the western edge of the field, separated from the improved grassland by the access track running north west along the field edge is a small area planted with a mix of juvenile native broad-leaved trees and also a small area of tall ruderals and perennials, predominantly Willowherb (*Epilobium hirsutum* and *angustifolium*), nettle (*Urtica dioica*) and creeping thistle (*Cirsium arvense*) with occasional Mugwort (*Artemisia vulgaris*).

Lines of young trees have been planted within a small area along the western edge of the field separated from the grassland by the access track. Species planted here include Field Maple (*Acer campestre*), Birch (*Betula pendula*), Oak (*Quercus petraea*), Guelder Rose (*Viburnum opulus*) and Rowan (*Sorbus acuparia*).

Small plantation of young trees

Tall forbs along boundary

Target Note: Ponds within the same field to the north.
There are two ponds which appear to have been constructed within the interior of the field of improved grassland close to Moor Lane. These ponds are close to each other and the nearest is only 75m from the proposed development area. The pond margins have naturalised and some scrub and tree growth has established, particularly associated with the pond to the north closer to Moor Lane. There is a raised wooden walkway into the southern pond. These are quite large ponds with wildfowl present and there is surface disturbance suggesting the presence of a piscine population.






3.2 Evidence of Protected Species

Reptiles – No physical evidence of reptiles was found within the site area inspected and the uniform improved grassland across the area being proposed for development is very short and exposed with little to attract reptiles. However, the field margin and hedgerows along the western and northern parts of the wider field and land around the two ponds to the north would provide reasonable if limited foraging and commuting habitat for reptiles. The immediate surrounding landscape does not have significant area of habitat suitable for reptiles with housing to the south and open grazing land of high quality to the north, east and west. Stathern Wood to the north east and scrub land along the margins of this would provide better habitat for reptiles.

Taking into consideration to low potential for reptiles within the habitat inside the proposed development land and immediately surrounding land and the lack of local records of reptiles, it is concluded that it is highly unlikely that a significant population of reptiles will be present in the area surveyed. However, there is always potential for individual reptiles to be present within hedgerows and small field boundary areas so it is recommended that precautionary measures should be taken during vegetation clearance.

Amphibians – There is no amphibian breeding habitat within the site but there are two ponds nearby to the north inside the field of improved grassland. There are no records of Great Crested Newt in this area but as can be seen within the annotated aerial photograph below the local landscape does have a large number of ponds and hedgerows provide connectivity between these. A Habitat Suitability Index assessment has been completed for the two ponds close to the field being considered for development and this is included as Appendix 3.

The ponds north of the field of improved grassland being considered for development have been the subject of Habitat Suitability Index (HSI) appraisals. HSI provides a measure of the likely suitability that a body of water will have for supporting newts (Evaluating the suitability for the Great Crested Newt, Herpetological Journal 10(4); Oldham et al). In general, ponds with a higher score are more likely to support great crested newts than those with lower score and there is a positive correlation between HSI scores and ponds with newts recorded. Ten separate attributes are assessed for each pond:

- Geographic location
- Pond area
- Pond drying
- Water quality
- Shade
- Presence of water-fowl
- Presence of fish
- Number of linked ponds
- Terrestrial habitat
- Macrophytic coverage

A score is assigned the pond / habitat being surveyed according to the most appropriate criteria level set within each attribute and a total score calculated of between 0 and 1. Pond suitability is then determined according to the following scale:

HSI score Pond Suitability

<0.5 Poor
0.5 - 0.59 Below average
0.6 - 0.69 Average
0.7 - 0.79 Good
>0.8 Excellent

The ponds within the improved grassland a short distance to the north of the area being considered for development have been assessed as having an HSI score OF 0.70 indicating 'good' potential to support GCN. The two ponds are close together and pond area has been combined for HSI assessment purposes. Whilst within the field interior which is improved grassland of negligible habitat potential for GCN, access to the northern and western field boundary hedgerows is possible and these could be used for commuting purposes to reach other ponds to the north, east and west.

It is noted that there are no known populations of GCN within this area according to the information provided within the biological records. In addition, it is recognised that the area of improved grassland being considered for development provides no significant habitat for foraging or commuting GCN and also that other ponds with links are located in land to the north, east and west so there is no need to amphibians to commute to the south towards the proposed development area. Taking these factors into consideration it is concluded that it is highly unlikely that any GCN will be present within the area surveyed being considered for development. It would be prudent to have the nearest ponds DNA tested for the presence of GCN and if the test proves positive, protection measures to ensure there is no possibility of these ponds being disturbed by any work associated with the proposed development should be taken. This would entail inspection of field boundary areas and vegetation prior to any clearance.

Nesting Birds – The short, improved grassland area offers very little potential for foraging and no opportunity for nesting birds. However, the dense trimmed hedgerows around the southern and eastern edge of the field and boundary areas around the large field and pond areas may provide nesting opportunities for birds. It should therefore be assumed nesting birds could be present within the field boundary area along the margin of the proposed development area and in land adjacent and suitable measures to protect against the disturbance of nesting should be taken. This would require avoiding vegetation clearance during nesting season, inspection of hedgerows and any tall vegetation prior to removal and limitation on vehicle movement within any proposed development area.

Badger – During the inspection no burrows, tracks, hairs, snuffle holes or latrines were identified during the inspection to indicate the presence of badgers within the field of improved grassland. There are setts within Stathern Wood to the north east but this is 700m to the north east and east of the site. The open field of improved grassland offers negligible foraging potential to badgers although the boundary hedgerows and nearby pods could be of interest if badger can access these. No further surveys for badger of specific protection measures are recommended.

Bats – There are no trees or structures within the field of improved grassland that would provide potential roosting locations for bats. There are three mature Ash trees within the eastern boundary hedgerow with minor features noted that might be of potential interest to roosting bats although no physical evidence to indicate the presence of bats was found.

There are known to be roosts within the village of Stathern and it is likely that the boundary hedgerows of this land are used by foraging and commuting bats. Commuting by bats from

Stathern toward Stathern Wood to the east and north east where there is excellent foraging habitat is highly likely, in addition the Grantham Canal SSSI lies 2km to the west and this linear water feature may also attract foraging bats.

A bat activity survey is recommended to assess the significance of the site for commuting bats and determine what, if any, mitigation measures might be appropriate within any development such as provision of roost boxes and a specification for dark corridors and directional / limited lighting. There is no risk identified to any known roost that may arise from the proposed development of the area of improved grassland adjacent to Blacksmith End.

3.3 Ecological Constraints and Opportunities

Constraints:
The following ecological constraints have been identified during the survey.

- The potential for bats to be commuting around the boundary of the field leaving roosts within Stathern to reach foraging areas at Stathern Wood to the north and east and Grantham Canal to the west.
- These potential for the woodland edge and hedgerows to be used by nesting birds.
- The potential (albeit low) presence of reptiles within the boundary hedgerows and nearby scrub and ponds to the north.
- The potential (albeit low) presence of amphibians such as GCN to be present within ponds a short distance to the north and using the field boundary hedgerows for commuting purposes.

It is concluded that some mitigation measures for the presence of protected species should be taken as a precaution. These will take the form of:

a) A bat activity survey should be carried out to provide information on the level of bat activity and species present to enable the appropriate level of mitigation to be designed into any development. This is likely to include low level and shielded lighting along boundary areas so that there is no significant increase in artificial light in these locations.
b) Avoidance of ground and vegetation clearance activity within the bird nesting season unless a prior inspection by an ecologist is completed to confirm that any activity will not impact nesting birds.
c) Measures to avoid disturbing any reptiles and amphibians that may be present along the boundary hedgerows of within adjacent habitat associated with the two ponds to the north of the area being considered for development.

Opportunities:

Given the proximity of the extensive woodland to the west and open character of the agricultural land to the north of Stathern, there is potential for any landscaping design to incorporate features which will benefit of local wildlife.

Provision of a landscaped buffer zone along the margin of any development, particularly to the north and west side, would be beneficial if established using a wide range of native tree and shrub species to enhance local diversity.

Bat boxes and bird boxes could be erected at suitable positions to promote the use of this area by bats and birds, particularly along the boundaries where access to hedgerows crossing the local landscape is assured.

The provision of artificial refugia suitable for reptiles and amphibians would be beneficial along the boundaries of the development area, particularly facing the ponds to the north east and eastern boundary hedgerow accessible from these ponds. Artificial hedgehog refugia could also

be incorporated into any landscape scheme if suitable locations can be identified where these will not be disturbed.

Figure 6 Conceptual Development Plan

Part 3: Initial Ecological Appraisal

4. Impact of Proposed Site Development

Within the NPPF 2018, 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. It is understood that the field surveyed is being considered for change of use to facilitate residential development as indicated within a conceptual development plan provided by the Applicant and this indicates a new access from Blacksmith End. 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.

4.1 Potential Impact on nearby Statutory and Non-statutory sites

There are no Statutory or Non-statutory sites within the survey area or nearby with links which could be impacted by the proposed development of this parcel of improved grassland. There is a Local Wildlife Site identified as 'pond at Moor Lane' within the records and it is assumed this relates to the ponds adjacent to Moor Lane just to the north of the survey area but within the same field of improved grassland.

Direct impact on these ponds is unlikely as the ponds will be separated from the proposed development by 70m of open improved grassland. Indirect impact arising from access, lighting and disturbance during construction does need to be taken into consideration. There is a public footpath cross the field which is in regular use which leads north west and runs quite close to these ponds and it is assumed this will retained and linked into any new development to facilitate access. In terms of lighting, measures will be needed to avoid significant increase in lighting along the boundaries of the construction area, particularly in the direction of the ponds. Any lighting used within the site must therefore be directional and face into the working area. Noise associated with any construction is likely to be limited in duration but in any event should not take place at dawn or into the evening period.

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 2018 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 being considered for development is a field of improved grassland lying adjacent to housing along the northern edge of the village of Stathern. This is intensively managed and the grass sward is rich, fertile and highly productive containing very limited biodiversity. No evidence of any rare of unusual plant species or plant communities was noted during the inspection.

If the boundary hedgerows are retained and protected and any development is restricted to the land under improved grassland, 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 October 2018 has not identified any physical evidence of activity by any protected species within the grassland area being proposed for development. There is potential for commuting bats associated with roosts within the village of Stathern to be present and also nesting birds may take advantage of suitable locations within the boundary hedgerows. A survey to identify the level of bat commuting activity has been recommended to assist with the design of mitigation for these species. In addition, measures to protect against disturbance of nests within the boundary hedgerows will be required.

There is a low likelihood of reptiles being present around the boundary hedgerows and given the proximity of ponds to the north, there is also potential for amphibians to be commuting within the same boundary hedgerows. The improved grassland offers little potential for reptiles of amphibians but precautionary working practices such as inspection by an ecologist ahead of work are recommended if any section of hedgerow or taller vegetation around the margin of the field is to be removed.

Christopher Barker CEnv ACIEEM

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Web references

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

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

Appendix 1 – Species List

Tree and Shrub Species		***Ground Flora and Perennial Species***
Ash (*Fraxinus excelsior)* Birch *(Betula pendula)* Blackthorn (*Prunus spinosa*) Cherry (*Prunus avium Cul*) Damson (*Prunus domestica*), Field Maple (*Acer campestre)* Goat Willow (*Salix caprea*) Dog Rose (*Rosa canina)* Elder (*Sambucus nigra*) Firethorn (*Pyracantha sp)* Hawthorn (*Crataegus monogyna*) Horse Chestnut (*Aesculus hippocastenum*) Ivy (*Hedera helix)* Oak (*Quercus petraea)* Rowan (*Sorbus acuparia)* Sycamore *(Acer pseudoplatanus)*		Bindweed (*Calystegia sepium*), bramble (*Rubus fruiticosa*) chickweed (*Stellaria media*) cleaver (*Galium aparine*) clover (*Trifolium repens*), cocksfoot *(Dactylis glomerata*) cow parsley (*Anthriscus sylvestris*), cut-leaved cranesbill (*Geranium dissectum*) creeping thistle (*Cirsium arvense*), dandelion (*Taraxacum* sp), dock (*Rumex obtusifolius*), fat hen (*Chenopodium album*) lesser willowherb (*Epilobium hirsutum*) mayweed (*Chamomilla suaveolens*), meadow grass (*Poa trivialis*), milfoil (*Achillea millefolium*) nettle (*Urtica dioica*), perennial ryegrass (*Lolium perenne*) plantain (*Plantago lanceolata*) spear thistle (*Cirsium vulgare)*, Yorkshire Fog (Holcus lanatus),

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

Appendix 2 – Biological Records from Leicestershire Records Centre

THESE RECORDS ARE CONFIDENTIAL AND HAVE BEEN PROVIDED SEPERATELY.

Appendix 3: Habitat Suitability Index assessment

Great Crested Newt Survey
POND DETAILS

Project	**Pond appraisal**
Project number/reference	P1724
Site	Blacksmith End, Stathern

Pond number/reference	Ponds adjacent to Moor Lane, Stathern
OS Grid reference	SK77278 31678
Location details	Two ponds situated close together near the field boundary of an area of improved grassland.
Access instructions	Inspected during habitat survey

Landowner name	N/A
Address/email	
Telephone	

Habitat Suitability Index

				SI value
SI1.	Map location	**A/B/C**	A	1.00
SI2.	Surface area	**rectangle/ellipse/irregular**		
		length (m)	20	
		width (m)	10	
		OR estimate (m^2) if irregular		
		area (m^2) =	*200*	0.40
SI3.	Desiccation rate	**never/rarely/sometimes/frequently**	never	0.90
SI4.	Water quality	**good/moderate/poor/bad**	good	1.00
SI5.	Shade	% of margin shaded 1m from bank	30%	1.00
SI6.	Waterfowl	**absent/minor/major**	minor	0.67
SI7.	Fish population	**absent/possible/minor/major**	minor	0.33
SI8.	Pond density	number of ponds within 1km	3.18	0.95
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	Poor	0.33
SI10.	Macrophyte cover	%	20%	0.50

***Note**: Guidance in undertaking the HSI is available at www.narrs.org.uk.*
HSI calculation formulae adapted from Rob Oldham

HSI score =	**0.70**
Pond suitability =	**GOOD**

General description/notes/comments

The two ponds are close together and area has been combined for assessment purposes. Whilst within the field interior which is improved grassland of negligible habitat potential for GCN, access to the northern and western field boundary hedgerows is possible and these could be used for commuting purposes to reach other ponds to the north, east and west.