

**PRELIMINARY ECOLOGICAL APPRAISAL  
LAND AND BUILDINGS OFF MAIN STREET, ANWICK,  
LINCOLNSHIRE**

**JUNE 2022**



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LAND AND BUILDINGS OFF MAIN STREET, ANWICK,  
LINCOLNSHIRE**

**Report to:** HPC Homes Ltd.,  
The Old Fire Station,  
Sleaford,  
NG34 7PG

**Report title:** Preliminary Ecological Appraisal,  
Land and buildings off Main Street,  
Anwick, Lincolnshire

**Revision:** Final

**Original issue date:** June 2022

**Amended:** N/A

**Issued by:** Helen Scarborough

**Date:** 29<sup>th</sup> June 2022

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**Contents**

- 1 INTRODUCTION .....1**
- 2 METHODS.....2**
  - 2.1 Data search ..... 2
  - 2.2 Bats..... 2
    - 2.2.1 Preliminary roost assessment – buildings ..... 2
    - 2.2.2 Ground level roost assessment – trees ..... 3
    - 2.2.3 Assessment of commuting and foraging habitats..... 3
  - 2.3 Badger ..... 4
  - 2.4 Common bird species ..... 4
  - 2.5 Common reptiles..... 4
  - 2.6 Habitats and plant species ..... 4
- 3 SITE ASSESSMENT .....4**
  - 3.1 Location and grid reference ..... 4
  - 3.2 Survey site ..... 5
- 4 RESULTS.....16**
  - 4.1 Data search ..... 16
  - 4.2 Bats..... 17
    - 4.2.1 Preliminary roost assessment – buildings ..... 17
    - 4.2.2 Preliminary roost assessment – trees ..... 18
    - 4.2.3 Assessment of foraging and commuting habitats..... 18
  - 4.3 Badger ..... 18

- 4.4 Common bird species ..... 19
- 4.5 Common reptiles..... 19
- 4.6 Habitats and plant species ..... 19
  
- 5 DISCUSSION AND RECOMMENDATIONS .....20**

  - 5.1 Bats..... 20
    - 5.1.1 Legal protection ..... 20
    - 5.1.2 Recommendations..... 20
  - 5.2 Badger ..... 21
    - 5.2.1 Legal protection ..... 21
    - 5.2.2 Recommendations..... 21
  - 5.3 Birds..... 21
    - 5.3.1 Legal protection ..... 21
    - 5.3.2 Recommendations for common bird species ..... 22
  - 5.4 Recommendations for ecological enhancement ..... 22

  
- 6 SUMMARY .....23**
  
- 7 REFERENCES .....24**

# PRELIMINARY ECOLOGICAL APPRAISAL LAND AND BUILDINGS OFF MAIN STREET, ANWICK, LINCOLNSHIRE

## 1 INTRODUCTION

HS Ecology has been commissioned by HPC Homes Ltd to undertake a Preliminary Ecological Appraisal of an area of land and buildings off Main Street, Anwick, Lincolnshire.

The site was surveyed on 14th June 2022 by Helen Scarborough (registered to use Natural England Class Licences WML-CL08 to survey great crested newts; registration number 2016-20412-CLS-CLS, WML-CL19 and WML-CL20 to survey bats; registration numbers 2015-12691-CLS-CLS and 2015-12692-CLS-CLS respectively) and Sarah Vinters.

During the initial appraisal of the site the protected species considered likely to occur on site were identified. These were:

- Bats
- Badger
- Common bird species
- Common reptiles

Certain protected species were scoped out of the survey; in particular it was considered that white-clawed crayfish *Austropotamobius pallipes*, water vole *Arvicola amphibius*, common dormouse *Muscardinus avellanarius* and otter *Lutra lutra* were highly unlikely to occur on the site due to lack of suitable habitat. Great crested newts *Triturus cristatus* were highly unlikely to occur on site as there are no ponds on or adjacent to the site (although it should be noted that garden ponds are not always visible on aerial photographs) and there are no records for great crested newts within 1km of the site.

A note was made of any species which are local or national Biodiversity Action Plan (BAP) species/species of principal importance.

This report details the methods used, describes the species found on the site, discusses the results and makes recommendations for further work. English names of higher plants are used throughout the text and are those used by Stace (2010).

## 2 METHODS

### 2.1 Data search

Lincolnshire Environmental Records Centre (LERC) was consulted and commissioned to search for sites with statutory and non-statutory designation and records of protected species within 1km of the survey site. Records of protected species more than 20 years old are not referred to in this report but are included within the relevant appendix.

### 2.2 Bats

#### 2.2.1 Preliminary roost assessment – buildings

In accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines 3<sup>rd</sup> Edition (Collins J, 2016), a preliminary roost assessment was carried out on the buildings to determine whether any features were present that bats could use for entry/exit points and roosting, and to search for signs of bat presence. High-powered torches and binoculars were used to search for internal and external features including but not limited to;

- Gaps around windowsills, door frames and lintels
- Lifted rendering, paintwork, shiplap boarding
- Soffit boxes, weatherboarding and fascias
- Lead flashing, hanging tiles and lifted or missing tiles/slate
- Gaps >15mm in brickwork and stonework
- Bat specimens (live or dead)
- Bat droppings and urine staining
- Feeding remains (e.g. moth wings)
- Cobweb-free sections of ridge beam

The buildings were then assigned a measure of potential suitability to determine the extent of future survey work needed. The categories of potential suitability and further survey effort required are as follows;

- Negligible – Negligible features on site likely to be used by roosting bats – no further survey work
- Low – A structure with one or more potential roost sites that could be used by individual bats opportunistically – one survey visit (dusk or dawn)
- Moderate – A structure with one or more potential roost sites that could be used by bats on a regular basis – two separate survey visits (one dusk and one dawn)
- High – A structure with one or more potential roost sites that are obviously suitable for

use by larger numbers of bats on a regular basis and for longer periods of time – three separate survey visits (one dusk, one dawn and one dusk or dawn).

### **2.2.2 Ground level roost assessment – trees**

A preliminary ground level roost assessment was carried out on all trees on the site, in accordance with Collins (2016). The trees were visually checked with the assistance of binoculars for potential roost features such as:

- Woodpecker holes
- Broken limbs, snag ends, cracks and splits in branches and rot holes
- Cankers with cavities
- Gaps between overlapping stems or branches
- Dense ivy, with stem diameters in excess of 50mm
- Flaking bark

Any trees with roost potential were then assigned a measure of potential suitability to determine the extent of future survey work needed. The categories of potential suitability and further survey effort required are as follows:

- Negligible – Negligible potential roosting features on the tree – no further survey work
- Low – A tree of sufficient size and age to contain potential roost features but with none seen from the ground, or features seen with only very limited roosting potential – no further surveys necessary
- Moderate – One or more potential roost features that could be used by bats on a regular basis – further survey work required (roost feature inspections or emergence/ re-entry surveys)
- High – One or more potential roost features that are obviously suitable for use by larger numbers of bats on a regular basis and for longer periods of time – further survey work required (roost feature inspections or emergence/ re-entry surveys)

### **2.2.3 Assessment of commuting and foraging habitats**

In accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines 3<sup>rd</sup> Edition (Collins J, 2016), the site and adjacent areas were assessed for their potential suitability for commuting and foraging bats and categorised as follows:

- Negligible – Negligible habitat features on site or in surrounding area likely to be used by commuting or foraging bats
- Low – Habitat features that could be used by small numbers of commuting bats such as a gappy hedgerow or small numbers of foraging bats such as a patch of scrub, but

that are isolated from other habitat features

- Moderate – Continuous habitat connected to the wider landscape such as lines of trees that could be used by commuting bats or trees, grassland or water features that could be used by foraging bats
- High – Continuous, high-quality habitat that is well connected to the wider landscape for use by commuting and foraging bats such as river valleys, woodland, grassland and parkland

### **2.3 Badger**

The site was searched for signs of use by badger *Meles meles* including setts, latrines, dung pits, pathways, hairs, footprints, snuffle holes and scratch marks on trees/shrubs.

### **2.4 Common bird species**

The survey site was searched for signs of use by nesting birds, typically old and active nests and concentrations of faecal deposits associated with a breeding site. All bird species recorded on site were noted. The site is not considered to provide suitable opportunities for nesting by any Schedule 1 species.

### **2.5 Common reptiles**

All habitats on site were assessed for the potential to support common reptile species based on factors such as the presence of suitable sites for basking and the presence of refugia or vegetation offering sufficient structure for shelter and hibernation.

### **2.6 Habitats and plant species**

An extended ecological assessment survey was undertaken, not only to identify the habitats present on the survey site, but also to include more detailed information on plant species on site and undertake a further appraisal of the area as habitat for legally protected species. Plant species on site were assessed against the Vascular Plant Red Data List for Great Britain, and the site was assessed against the Local Wildlife Site (LWS) criteria for Lincolnshire. Any invasive plant species, listed on Schedule 9 of the Wildlife and Countryside Act 1981, identified on site were noted.

## **3 SITE ASSESSMENT**

### **3.1 Location and grid reference**

The survey site comprises an area of land and buildings in Anwick, Lincolnshire - central grid



reference TF1162 5058.

The habitats on site are described in detail below and representative photographs are included in the text. An aerial view of the site location is provided as Figure 1.



**Figure 1: Aerial view of the survey site (red line = site boundary)**

### **3.2 Survey site**

The survey site comprises an area of grassland with boundary hedgerows, fences, stone walls and dry ditches; three buildings (a red brick structure, a corrugated asbestos/concrete and brick structure and a small timber and tin shed), and some dense scrub and trees. The component areas of the site – together with the relevant JNCC Phase 1 habitat code, are described in turn below:

**Neutral grassland (JNCC Code: B2.2)**

The majority of the survey area comprises a block of recently mown neutral grassland on the eastern side of the site. Species recorded within the rough grassland included Yorkshire-fog *Holcus lanatus*, perennial rye-grass *Lolium perenne*, white clover *Trifolium repens*, daisy *Bellis perennis*, creeping thistle *Cirsium arvense*, creeping buttercup *Ranunculus repens*, self-heal *Prunella vulgaris*, dandelion *Taraxacum* agg, ribwort plantain *Plantago lanceolata*, cock's-foot *Dactylis glomerata*, rough meadow grass *Poa trivialis* and lesser trefoil *Trifolium dubium* with lesser amounts of oxeye daisy *Leucanthemum vulgare*, common knapweed *Centaurea nigra*, crested dog's-tail *Cynosurus cristatus*, barren brome *Bromus sterilis*, forget me not *Myosotis* spp, common mouse-ear *Cerastium fontanum*, sweet vernal grass *Anthoxanthum odoratum*, creeping cinquefoil *Potentilla reptans*, bird's-foot trefoil *Lotus corniculatus* and red clover *Trifolium pratense*.



**Photograph 1: View of the grassland looking north**



**Photograph 2: View of the grassland looking south**

**Trees and scrub over tall ruderals (JNCC Codes: A2/A3 over C3.1)**

Within the grassland there are regenerated ash trees *Fraxinus excelsior* and also a scrubbed over compost area with willow species *Salix spp*, privet *Ligustrum spp*, ash *Fraxinus excelsior* and rose species *Rosa spp*.

To the north west of the site, around the buildings, there is abundant bramble scrub *Rubus fruticosus agg*, along with semi-mature trees and scrub dominated by elder *Sambucus nigra*, ash *Fraxinus excelsior*, sycamore *Acer pseudoplatanus*, rose species *Rosa spp*, apple trees *Malus domestica* over a rough grassland/tall ruderal ground flora including common nettle *Urtica dioica*, cleavers *Galium aparine*, creeping thistle *Cirsium arvense*, fox-and cubs *Pilosella aurantiaca*, common ragwort *Senecio jacobaea*, colt's-foot *Tussilago farfara*, willowherb species *Epilobium spp*, ground elder *Aegopodium podagraria*, herb Robert *Geranium robertianum*, dock species *Rumex spp*, hedge bindweed *Calystegia sepium* and teasel *Dipsacus fullonum*.



**Photograph 3: Resprouted ash tree within the grassland**



**Photograph 4: Dense scrub and trees on the west of the site**

### **The buildings (JNCC Code: J3.6)**

In the south-west corner of the survey site are three buildings.

Building 1 is constructed of a brick and corrugated fibre sheeting with steel trusses. The pantile roof has been removed from the building.

Building 2 a two-storey brick building. It also has no roof, only the timber trusses remain. It has dense ivy and scrub covering it.

Building 3 is a small timber shed with a corrugated tin roof – it is virtually shrouded by climbing vegetation.

It was impossible enter building 3, and parts of building 2 during the daylight survey due to dense scrub and climbing vegetation.



**Photograph 5: Building 1 eastern elevation**



**Photograph 6: Building 1 southern elevation**



**Photograph 7: Internal view of building 1**



**Photograph 8: Timber trusses and dense vegetation - building 2**



**Photograph 9: Building 2 eastern elevation**



**Photograph 10: Building 3 – covered with bramble scrub**

**Boundary features: hedgerows, fences, walls and a dry ditch (JNCC Codes: J2.1.2, J2.4, J2.5 and J2.6)**

A dry ditch forms the north boundary of the site – it is associated with a line of fruit trees dominated by damson trees *Prunus domestica*. The dry ditch supports bramble *Rubus fruticosus* agg, ivy *Hedera helix*, great willowherb *Epilobium hirsutum*, common nettle *Urtica dioica*, hogweed *Heracleum sphondylium*, cleavers *Galium aparine*, field bindweed *Convolvulus arvensis* and hedge bindweed *Calystegia sepium*.

The east boundary is an intact hedgerow dominated by hawthorn *Crateagus monogyna* with some bramble *Rubus fruticosus* agg and elder *Sambucus nigra*. A dry ditch forms the eastern end of the southern boundary – it supports false oat grass *Arrhenatherum elatius*, Yorkshire-fog *Holcus lanatus*, dock species *Rumex* spp, hogweed *Heracleum sphondylium*, common nettle *Urtica dioica* and cow parsley *Anthriscus sylvestris*.

A stone wall, dense with ivy *Hedera helix* makes the western end – this feature may be the remnants of a building. Elder *Sambucus nigra*, butterfly bush *Buddleia davidii*, dog-rose *Rosa canina* and bramble *Rubus fruticosus* agg were also associated with this feature.



The west boundary is mainly the western elevation of the buildings, scrub and timber fencing separating the site from neighbouring gardens.

There is also some security fencing around the buildings separating them from neighboring land and the grassland area of the site.

To the west and south of the survey site are residential dwellings and arable fields surround the site on the north and east.

Further south are large areas of woodland and the River Slea.



**Photograph 11: Fruit trees which form the northern boundary, arable land beyond**



**Photograph 12: Hawthorn hedgerow on the eastern boundary**



**Photograph 13: Brick wall and ivy which forms the western end of the south boundary**



**Photograph 14: Dry ditch which forms the eastern end of the south boundary**



**Photograph 15: Timber fencing which forms the northern end of the west boundary**



**Photograph 16: Southern part of the west boundary**

## **4 RESULTS**

### **4.1 Data search**

The LERC data search did not identify any statutory or non-statutory sites within 1km.

There are 5 records of West European Hedgehog *Erinaceus europaeus* as recently as 2009: including recent records very close to the survey site. This species is likely to use the survey site; there are many large, interconnected gardens in this area.

Where applicable, the records of protected species are included within the relevant section of this report.

## 4.2 Bats

### 4.2.1 Preliminary roost assessment – buildings

No signs of use by bats were recorded within building 1. Buildings 2 & 3 were difficult to access during the daylight survey.

There are only 5 records of bats within 1km of the survey site (species not recorded). These were recorded within 1km of the survey area and they date from 1989 to 2018. The most recent been approximately 800m south east of the survey site and dated from 2004.

The buildings were assessed in accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines 3<sup>rd</sup> Edition (Collins J, 2016) Table 4.1 page 35. The results of the assessment appear in tabular form below:

**Table 1: Assessment of survey site to support roosting bats**

Building 1	Brick and corrugated fibre building– single skin  No roof, light and draughty  Very limited opportunities for long term roosting  No loft void area  No signs of bat recorded	Negligible potential for use by roosting bats
Building 2	2 storey brick building  Exposed and draughty with no roof  Very limited opportunities for long term roosting  High ambient light levels  Difficult access to the building	Negligible potential for use by roosting bats

Building 3	<p>Timber and corrugated tin</p> <p>Surrounded by dense scrub</p> <p>No access or roosting opportunities for bats</p>	Negligible potential for use by roosting bats
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No further survey work in relation to bats using the buildings is required.

#### 4.2.2 Preliminary roost assessment – trees

There are no trees within the survey area which were assessed as having potential to support roosting bats. No further work is required.

#### 4.2.3 Assessment of foraging and commuting habitats

The habitats on site have potential for use by foraging and commuting bats. The mature trees, hedgerows and grassland would make good feeding habitats for local bat populations.

The results of the assessment of the surrounding habitats appear in tabular form below:

**Table 2: Assessment of surrounding habitats to support commuting and foraging bats**

Feature	Description	Site value for bats
Immediate area (<500m)	Residential dwellings with mature gardens and trees Grassland Boundary hedgerows	Good for foraging and commuting bats
Wider surroundings (500m-3km)	Arable fields with drains and hedgerows River Slea Large wooded area	Good for foraging and commuting bats

The site is likely to be used by foraging and commuting bats.

#### 4.3 Badger

There were no signs of badger noted during the daylight survey. However, there are 3 records for badger within the area.

To safeguard ground mammals, including badgers and hedgehogs during the development phase, it is essential that no trenches or pipes are left uncovered overnight.

#### 4.4 Common bird species

A number of common birds were seen on or flying over the site during the survey. These are listed below along with their current status as priority species (Section 41 species) or Birds of Conservation Concern 5 (Eaton et al, 2021):

**Table 3: Common birds seen on site**

English name	Scientific name	BAP/S41	BoCC
woodpigeon	<i>Columba palumbus</i>		Green
goldfinch	<i>Carduelis carduelis</i>		Green
blue tit	<i>Cyanistes caeruleus</i>		Green
great tit	<i>Parus major</i>		Green
blackbird	<i>Turdus merula</i>		Green
chaffinch	<i>Fringilla coelebs</i>		Green
house sparrow	<i>Passer domesticus</i>	Y	Red
maggie	<i>Pica pica</i>		Green
swallow	<i>Hirundo rustica</i>		Green
wren	<i>Troglodytes troglodytes</i>		Amber

The site has habitats with the potential to be used by nesting birds in the appropriate season. The trees, buildings with dense vegetation cover, hedgerows and scrub would have high potential for such use. The grassland could also be used by ground nesting species.

#### 4.5 Common reptiles

No reptiles were observed during the walkover survey and there are no records for reptiles within the search area. The site is considered to have very low potential for use by common reptile species. No further work is required.

#### 4.6 Habitats and plant species

The habitats and plant species recorded on the site are common and widespread in the local area and in the country. The plant species recorded on the site are not listed on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). There are no species that are listed in the Vascular Plant Red Data List for Great Britain.

The site would not meet the required criteria to qualify as a Local Wildlife Site (LWS). Five 'scoring species' were noted in the grassland; a score of eight species is required to qualify as a LWS for neutral grassland.

The boundary hedgerows would not classify as 'Important' under the Hedgerow regulations 1997.

## **5 DISCUSSION AND RECOMMENDATIONS**

### **5.1 Bats**

#### **5.1.1 Legal protection**

In England, Scotland and Wales, all bats are strictly protected under the Wildlife and Countryside Act 1981 (and as amended); in England and Wales this legislation has been amended and strengthened by the Countryside and Rights of Way (CRoW) Act 2000. Bats are also protected by European legislation; the EC Habitats Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2017 – often referred to as 'The Habitat Regs'. Taken together, all this legislation makes it an offence to:

- Deliberately capture (or take), injure or kill a bat
- Intentionally or recklessly disturb a group of bats where the disturbance is likely to significantly affect the ability of the animals to survive, breed, or nurture their young or likely to significantly affect the local distribution or abundance of the species whether in a roost or not.
- Damage or destroy the breeding or resting place of a bat
- Possess a bat (alive or dead) or any part of a bat
- Intentionally or recklessly obstruct access to a bat roost
- Sell (or offer for sale) or exchange bats (alive or dead) or parts of bats

A roost is defined as being 'any structure or place that is used for shelter or protection', and since bats regularly move roost site throughout the year, a roost retains such designation whether or not bats are present at the time.

#### **5.1.2 Recommendations**

##### Foraging and commuting bats

Local bats will likely be using the survey area for foraging and commuting, in particular the site boundaries. Measures to mitigate potential lighting issues on site will be required. A lighting scheme to demonstrate that bats can commute and forage over the site post development will



be required. This must be reflected within the Masterplan for the site.

## 5.2 Badger

### 5.2.1 Legal protection

Badgers and their setts are fully protected under the Protection of Badgers Act 1992, which amended and incorporated previous legislation. This Act makes it an offence, inter alia, to:

- Wilfully kill, injure or take, or attempt to kill, injure or capture a badger
- Interfere with a badger sett by doing any of the following things, intending to do any of these things or be reckless as to whether one's actions would have any of these consequences:
  1. Damaging a badger sett or any part of it
  2. Destroying a badger sett
  3. Obstructing access to, or any entrance of, a badger sett
  4. Disturbing a badger when it is occupying a badger sett

A badger sett is defined in the Act as 'any structure or place which displays signs indicating current use by a badger'. A sett is therefore protected as long as such signs remain present. In practice, this could potentially be for a period of several weeks after the last actual occupation of the sett by a badger or badgers. A sett is likely to fall outside the definition of a sett in the Act if the evidence available indicates that it is not in use by badgers.

### 5.2.2 Recommendations

Vigilance should be maintained for the presence of badgers during the works and advice must be sought if any setts are found. To safeguard ground mammals, including badgers and hedgehogs *Erinaceus europaeus* during the development phase, it is essential that no trenches or pipes are left uncovered overnight unless a suitable escape ramp is provided. No pipes should be left uncapped overnight.

## 5.3 Birds

### 5.3.1 Legal protection

All common wild birds are protected under The Wildlife and Countryside Act 1981 (and as amended). Under this legislation it is an offence to:

- Kill, injure or take any wild bird
- Take, damage or destroy the nest of any wild bird while it is in use or being built

- Take or destroy the egg of any wild bird

Certain rare breeding birds are listed on Schedule 1 of The Wildlife and Countryside Act 1981 (and as amended). Under this legislation they are afforded the same protection as common wild birds and are also protected against disturbance whilst building a nest or on or near a nest containing eggs/unfledged young.

### 5.3.2 Recommendations for common bird species

The dense scrub, trees, grassland and buildings on the site have potential to be used for nesting by species of common bird.

Any site preparation/clearance work should commence outside the active nesting season which typically runs from March through to late August. Due to the dense nature of the scrub and climbing vegetation in areas of this site, a search for nests would be impossible. Any habitat with bird nesting potential should be removed outside of the nesting period.

Consideration should also be given to the provision of nest boxes within the development, which would be a good conservation measure. This should include those suitable for sparrow species and starlings (priority species); there are many recent records for these species from within 1km of the survey site. Nesting features should be incorporated into the external fabric of the new buildings where possible. Details of nest boxes suitable for use by a range of common bird species can be obtained from Wildcare, Eastgate House, Moreton Road, Longborough, Gloucestershire GL56 0QJ (01451 833181).

### 5.4 Recommendations for ecological enhancement

In addition to the legislation which is in place to safeguard protected species, there is also legislation and policy which imposes duties to take account of statutorily protected species and also to undertake action to establish a **net gain** to biodiversity and species/habitats which have been identified as priorities in the UK. In England and Wales, the Natural Environment and Rural Communities (NERC) Act 2006, imposes a duty on all public bodies (including Local Authorities and statutory bodies) to conserve biodiversity – including restoring and enhancing a population or habitat. In addition, government planning policy guidance throughout the UK, provided in the National Planning Policy Framework and OPDM Circular 06/2005, requires local planning authorities to take account of protected species issues prior to determination of planning applications.

In order to enhance biodiversity and provide some 'ecological gain' on site and fulfil the Local Planning Authorities obligations under the NERC Act 2006, the following measures are

recommended:

- Any hedgerows/shrubs/trees planted should comprise native locally appropriate species. If possible species that provide pollen, nectar and fruit should form part of the landscaping in order to provide a food source for common birds. Species which could be considered include common hawthorn *Crataegus monogyna*, hazel *Corylus avellana*, field maple *Acer campestre*, midland hawthorn *Crataegus laevigata*, wild cherry *Prunus avium*, bird cherry *Prunus padus* and any types of orchard fruit trees.
- In order to provide suitable habitats on site for invertebrate activity, any proposed amenity grassland areas within the development could be seeded with an appropriate wildflower mix. Seeding of any lawn areas should use a flowering lawn mixture, such as Emorsgate Seeds EL1 mix ([www.wildseed.co.uk](http://www.wildseed.co.uk)), which is resistant to regular mowing.
- The majority of the grassland to the east of the survey area will be retained. This area should be managed as a traditional hay meadow. This involves a cut in late summer, then removal of the arisings a few days later. The arisings should not be left in situ.
- Hedgehogs have been recorded in the area. In order to create a net gain for this species, shelter boxes should be provided along the northern site boundary, and gaps created under the garden fences in order to allow safe passage of this species between gardens of new properties and the wider area
- Install bat roost units (integral boxes) and integral nest boxes (for sparrow species and starling) within the new builds.

Features to ensure net gain for biodiversity may form the basis of a planning condition.

## 6 SUMMARY

The site has potential for use by foraging and commuting bats. Outline recommendations for retaining unlit boundary features have been provided and these should be reflected in the Masterplan.

There are no other protected species constraints on site, and the proposed development site would not meet the Local Wildlife Site criteria. Some precautionary measures and ecological enhancements are required in order to ensure legal compliance and a **net gain** to biodiversity.

These are as follows:

- Appropriate timing with regards to nesting birds
- Provision of bird boxes
- Best practice in relation to bats – retention of boundary hedgerows, retention of as many trees as possible, appropriate lighting across the site and installation of integral roost units in the new build
- Best practice in relation to badger and hedgehog during development works
- Measures to assist local hedgehog populations (shelter boxes on northern boundary and gaps under boundary fences)
- Use of native tree/shrub species and wildflowers/appropriate seed mixes in the landscaping scheme

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