

**Preliminary Ecological Appraisal of an Outbuilding adjacent to
The Grange, Marriots Gate, Lutton, Spalding, Lincolnshire, PE12 9HN**

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1 INTRODUCTION

Independent Ecologist and Protected Species Consultant, Andrew Chick MPhil, was commissioned by Mr Lee Russell to undertake a preliminary ecological appraisal of an outbuilding adjacent to The Grange, Marriots Gate, Lutton, Spalding, Lincolnshire, PE12 9HN. The survey is required in connection with a planning application with South Holland District Council with reference number H12-0289-19.

This report details the methods used, describes the habitats and species found on the site, discusses the results and makes recommendations for further work. The common English names are used for all species referred to throughout the text. The Latin name is also given following the common name the first time the species is referred to.

Planning was granted on 8th May 2019 by South Holland District Council. Condition 12 of the planning states:

12. Before any work is carried out on the building an ecological survey shall be carried out to determine the presence, or otherwise, of protected species (e.g. bats and owls) upon the site and the results of such a survey shall be submitted to the Local Planning Authority. If protected species are present a working design, method and timetable to mitigate any harm to the species involved shall be submitted to and approved in writing before any works of demolition are commenced and thereafter be carried out in accordance with the approved details prior to occupation.

Reason: In the interest of nature conservation and because owls and bats are a protected species. This Condition is imposed in accordance with national guidance contained in Section 15 of the National Planning Policy Framework, 2018.

1.1 Accurate lifespan of ecological data

The majority of ecological data remains valid for only short periods of time due to the inherently transient nature of the subject. Where the species/group being surveyed for is present within the site, the data is considered to be accurate for two years. However, an update may be needed in order to obtain a European Protected Species licence, if such a licence is required. Where absent, although the data is considered accurate for two years, an update may be required if the habitats surrounding the site are of a quality that are likely to encourage the species to move into the site in the interim.

1.2 Planning Policy

The National Planning Policy Framework (NPPF 2019 paras 170 and 171) states:

Para 170. 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.

Para 171 states that plans should distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

2 SITE DESCRIPTION

2.1 Site communities and habitats

The survey building is located on land adjacent to The Grange and is situated off Marriots Gate within the village of Lutton in southern Lincolnshire. The site is centrally located at National Grid Reference (NGR) TF 43323 24795.

The site is surrounded by scattered housing and gardens with extensive areas of agricultural fields with occasional mature trees and hedgerows. The immediate area is dominated by sections of compacted hardstanding containing a former agricultural/livestock building. A general site location is given as Figure 1 and shows the approximate survey boundary marked with a red line. The buildings and points of interest are numbered and are cross-referenced throughout the report within square brackets.



Photograph 1: Representative image showing the site access driveway.



Photograph 2: Representative image showing the side elevation of the survey building.



Photograph 3: Representative image showing the internal roof structure and storage.



Photograph 4: Representative image showing the rear elevation and stored items.

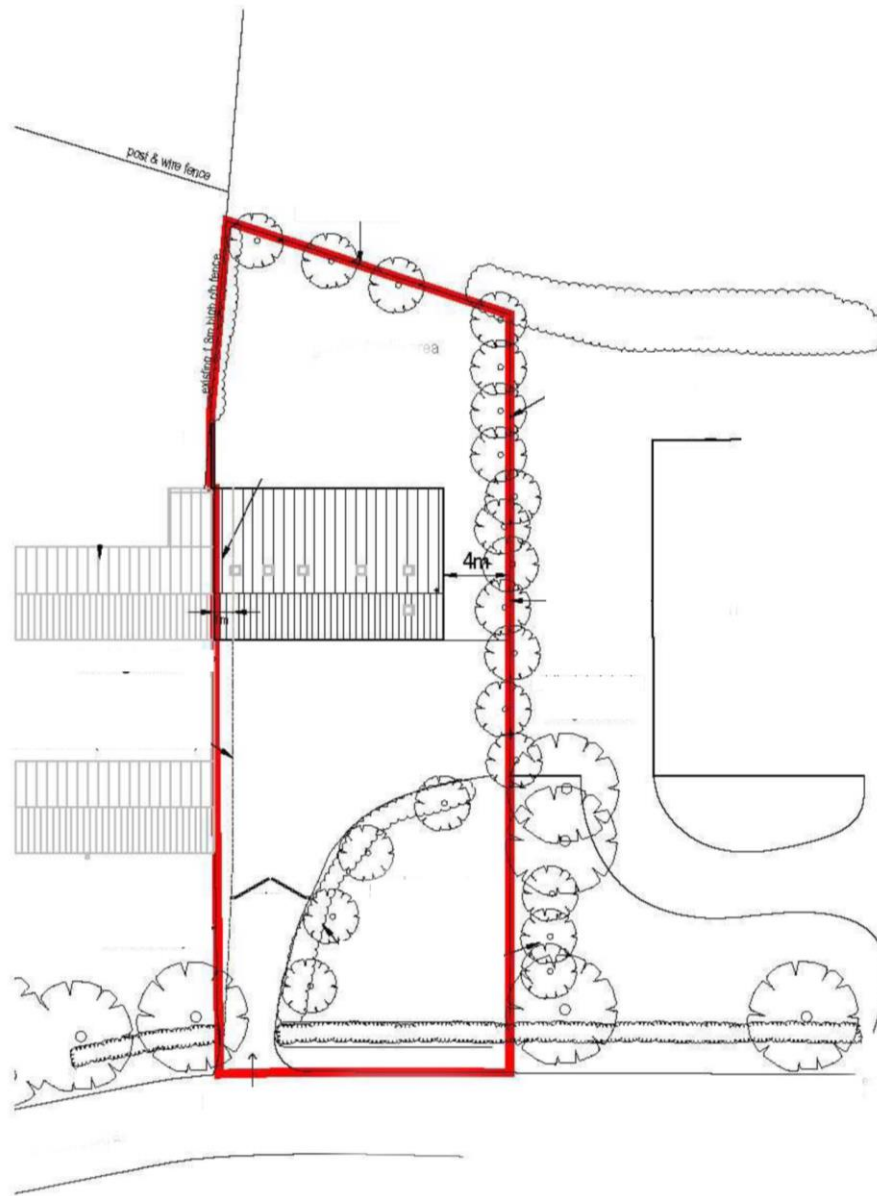


Figure 1. Site map showing the building location and approximate survey boundary (note that the map is not originated to north).

Access to the site is available from Marriots Gate at NGR TF 43305 24813. A large garden privet *Ligustrum ovalifolium* is situated along the front of the site, with a narrow grass verge located between the hedgerow and the road. The western corner of the site consists of a semi-circle of short sward amenity grassland with a small number of fruit trees. Both the northern and southern boundaries consist of timber panel fencing.

The area around the survey building is dominated by gravel hardstanding. To the rear of the survey building there is an area which was being used to store small items of machinery and a large metal container. The rear boundary is undefined containing some beech hedging and a small area of willows in the rear corner.

During the survey a number of domestic wildfowl were observed, including numerous domesticated geese, chicken, peacocks, and ornamental doves.

2.2 Survey buildings

The survey building is an open-fronted brick built structure supporting a metal framed pitched roof with open lean-to section to the rear. The roof is open to the apex (without any enclosed roof voids) and is clad with corrugated fibre cement boarding which is not lined (being fully available for inspection). The ridge of the building has been fitted with clay ridge tiles and the sides have been enclosed with single-skinned timber panels.

At the time of the survey the building was open (with unrestricted access to wildlife for both bats and birds) and was being used on a regular basis as a workshop and for general storage of assorted items including timber, building supplies, tools, and machinery.

Located on the gable end was a large wooden dovecote which at the time of the survey supported a number of ornamental doves.



Photograph 5: Representative image showing the metal-framed roof structure.



Photograph 6: Representative image showing the rear lean-to structure.

2.3 Survey constraints

There were no constraints to the survey, with full access available to the building.

The survey was conducted shortly before the recognised acceptable time for Extended Phase 1 Habitat Surveys. In relation to assessing habitat types and plant species present this is not considered significant as the site was dominated by gravel hardstanding.

2.4 Proposed work

The proposed work entails the internal conversion of the building into a single domestic dwelling.

3 METHODS

The site was surveyed on 25 Sept 2021 by Andrew Chick (NE bat licence no. 2015-15161-CLS-CLS and 2015-15162-CLS-CLS (Class 1 & 2) and NE great crested newt licence no. 2019-39641-CLS-CLS). All habitats and plant communities within and adjacent to the site were recorded and mapped. Representative photographs were taken.

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

- Bats
- Common species of birds
- Schedule 1 Species of bird – Barn Owls

The methods used to survey for these species are detailed below.

3.1 Data search

The NBN (National Biodiversity Network) Gateway website was consulted to check for records of protected species from the area.

The desk study also made use of publicly available internet resources including the Multi-Agency Geographic Information for the Countryside (MAGIC) database and Google maps to review Ordnance Survey maps and aerial photographs of the local area to provide contextual information. This was carried out during Sept 2021.

The MAGIC database was reviewed to obtain information on nearby statutory designated sites, including internationally designated nature conservation sites (Special Protection Areas, Special Areas of Conservation and Ramsar sites) within 2 km of the site boundary. Further information regarding these sites was then obtained where relevant from Natural England's website (Natural England, 2021).

3.2 Extended Phase 1 Habitat Survey Methodology

An Extended Phase 1 Habitat Survey (Nature Conservancy Council 1990) of the study area was undertaken on 25th Sept 2021.

3.3 Bats

Aided where necessary by the use of a powerful torch ('Clulite CB2' 1,000,000 candlepower) and ladders, a visual search was made internally and externally of all cracks and fissures in the walls and the undersides of the roofs (where still present) of all structures on site for bats. Where accessible, all undisturbed surfaces were inspected for evidence of past and present occupation by bats in the form of droppings, urine, or fur staining, feeding remains, scratch marks and the bodily remains of bats.

In accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition (Collins J, 2016), a preliminary roost assessment was carried out on the building 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. Ladders, high-powered torches, and binoculars were used to search for internal and external features including but not limited to:

- Gaps >15mm in brickwork
- Bat specimens (live or dead)
- Bat droppings and urine staining
- Feeding remains (e.g. moth wings)
- Cobweb-free sections of ridge beam

Due to the nature of the building the following features were not present:

- 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/slates

The building was 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 habitat 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 (a EPSL would be required)

3.4 Bat activity survey

A bat activity and emergence survey could not be carried out as February is outside of the bat active season (which runs from April until late-September). During the colder months of the year bats spend their time in hibernation, with intermittent activity coinciding with milder weather.

3.5 Common species of birds

All habitats were assessed for their potential to support nesting birds. All bird species seen or heard were noted. All disused and active nests were recorded.

3.6 Schedule 1 species of birds (Barn Owls)

An inspection was made of the building for the presence of barn owls and the signs indicative of their past or present use. These signs include:

- Regurgitated pellets
- Faecal deposits
- Feathers
- Discarded prey items

The places that could potentially be used as breeding locations, including roof voids and horizontal surfaces at first floor level, were also checked for any signs of current or former nesting attempts. These signs included brooding adult birds, concentrations of accumulated flattened pellet nest debris, faecal encrustation, eggs or eggshell remains, surplus prey items, bodily remains of chicks or infant down feathers.

3.7 Other statutorily protected species

As part of the extended walkover of the site and its environs, a search for signs of use by other statutorily protected species was also undertaken. Particular attention was focused on the habitats and plants and the presence of any ponds.

4 RESULTS

4.1 Data search

The National Biodiversity Network (NBN) www.nbn.org.uk was searched for records of protected species within the 10km OS grid square TF42. The Lutton area is known to support a number of bat species including Brown Long-eared Bat *Plecotus auratus*, Common Pipistrelle *Pipistrellus pipistrellus* and Soprano Pipistrelle *Pipistrellus pygmaeus* (Lincolnshire Bat Group, pers. comm.)

4.2 Habitats and plant species

The habitat types and plant species recorded on the site are common and widespread in Lincolnshire. There are no habitats or plants of local importance or significance. None of the plant species recorded on site appear on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). No nationally rare or scarce plants as defined by Wiggington (1999) and Stewart *et al* (1994) respectively were found.

4.3 Bats

No bats or signs of bats were found in the survey building. **The construction and fabric of the building was considered to offer limited potential to support roosting bats.** A detailed inspection of stored items within the front and rear sections of the building found no bat droppings on any of the surfaces.

4.4 Birds

A typical assemblage of common British birds was recorded on the site and in the immediate environs of the site.

A number of domestic wildfowl and poultry were recorded on site including domestic geese, chickens, peacocks, and ornamental doves.



Photograph 7: Representative image showing some of the domestic geese.



Photograph 8: Representative image showing the large dovecote.

During the survey no active nests were found on site.

Schedule 1 species of birds (Barn Owls)

No barn owls were seen during the course of the daylight survey, no **evidence** of either current or past roosting by this species was found within the survey building.

4.5 Other statutorily protected species

No ponds were found in the immediate environs of the survey site. A map showing the location of the site and a 250 metre buffer around the site is given as Figure 2 in Appendix 1.

If the proposed development involves disturbance only within the current building and hardstanding then no further survey is considered necessary. Given all of these findings, the potential for other statutorily protected species likely to be affected by the development is considered to be very low and no further work is recommended.

5 DISCUSSION AND RECOMMENDATIONS

All recommendations provided in this section are based on the current understanding of the site proposals, correct at the time the report was compiled. Should the proposals alter, the conclusions and recommendations made in the report should be reviewed to ensure that they remain appropriate. The following section outlines the assessment of the site and provides recommendations where required.

The recommendations are colour-coded for clarity.

	Pre-commencement surveys which should be completed prior to the commencement of work on site.
	Design phase recommendations to protect and enhance onsite ecology and biodiversity.
	Compliance and methodology recommendations to secure best procedures during onsite construction.

5.1 Habitats

5.1.1 Recommendations

The site comprises hardstanding, introduced shrubs and a small area of amenity grassland. The hardstanding is of negligible ecological value and the amenity grassland is of low intrinsic ecological value. Overall, the site is considered to be of low ecological value and the proposals are not considered likely to give rise to an adverse ecological impact.

i Under the proposed scheme of work no trees on site are affected. However, it is recommended that all works should be carried out in accordance with BSI (2012), BS 5837:2012, to protect trees and their root areas.

5.1.1 Habitat creation

i Habitat creation could be carried out to compensate for the works and to enhance the site for nature conservation and wildlife. In particular BAP Priority Habitats should be considered. It is important that ecological 'corridors' are maintained along the site boundaries. Habitat creation could include planting of native species-rich hedgerows along the rear boundary. A list of suitable native species for planting and sowing is provided in Appendix 5.

For the proposed habitats to provide some compensation for the works it is essential that native species suitable to the local area are used for planting and that they are designed to maximise their wildlife potential.

5.2 Bats

5.2.1 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 2010 – 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.

5.2.2 Recommendations

The search of all of the internal areas and the exterior of the building recorded no evidence of bat activity in any area. The building is of a construction detail that is very rarely utilised by roosting bats,

with limited habitat associated with the ridge tiles only. The search of the building found no evidence of bat use.

The survey indicates that the survey building is not used as an established long-term roost site by bats. No evidence of long term use by bats was recorded. The survey results indicate that the building is not key to the overall conservation status of bats in the local area and the development of the building would not alter the ability of bats to survive and reproduce; therefore there is no constraint on the development of the building and no requirements for any mitigation or further survey work. The 'ecological functionality' of bats in the local area will not be adversely affected by the development of the survey building.

Bats can occupy the smallest of spaces which cannot easily be inspected. It is recommended, as a **precaution**, that all contractors are warned of the possibility of finding bats and informed that they must stop work at once if they see bats or suspect that they are present. A procedure to follow in the unlikely event of finding a bat is given as Appendix 2. It is also recommended (again as a precaution) that work does not commence in the time period between the beginning of October and mid-April in order to avoid any potential disturbance to hibernating bats.

5.2.3 Recommended conservation measures

Bat populations generally have declined greatly over the last fifty years, so measures to incorporate potential roost niches into the building during development work could be of great benefit. The installation of bat bricks and bat roost units or bat boxes during the development work could be of benefit to the conservation status of bats in the local area. There is no legal obligation to incorporate such features and there is no requirement for mitigation; however, such provision would be of great benefit to local bat populations. Examples of roost units which could be used are given as Appendix 3.

5.2.4 Summary of potential suitability for bats

The following table is a summary of the potential suitability of the building within the site for bat roost potential (BRP). The results of the table are based on the features outlined in Table 4.1 from the 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' 3rd edition, Collins J, The Bat Conservation Trust (2016) and reproduced in Appendix 2.

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

Since the outbuilding and surrounding landscape have the potential to be used for nesting by species of common bird, any site preparation/renovation work should commence outside of the active nesting season which typically runs from March through to late-August.

**Breeding Birds**

If work commences during the bird breeding season, a search for nests should be carried out before starting work, and active nests should be protected until the young fledge.

Ornamental bird species

Since the building is clearly used for nesting by ornamental species of birds (doves), any future redevelopment building work should ideally avoid the active nesting season which typically runs from March through to late-August. It is recommended that the dovecote is removed outside of the breeding season.

5.3.3 Recommended conservation measures – House Sparrows

The site has the potential to support House Sparrows. This species is included on the UK Biodiversity Action Plan and on the Red List under the criteria set out in Birds of Conservation Concern 3: (Eaton M A et al, 2009), as their breeding population has suffered declines of over 50% in the last 25 years.

**House Sparrows**

A positive conservation recommendation would be to install sparrow nest boxes within the redevelopment. Details of nest boxes are given in Appendix 4.

6 REFERENCES

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APPENDIX 1

Location of ponds within 250 metres of the survey site

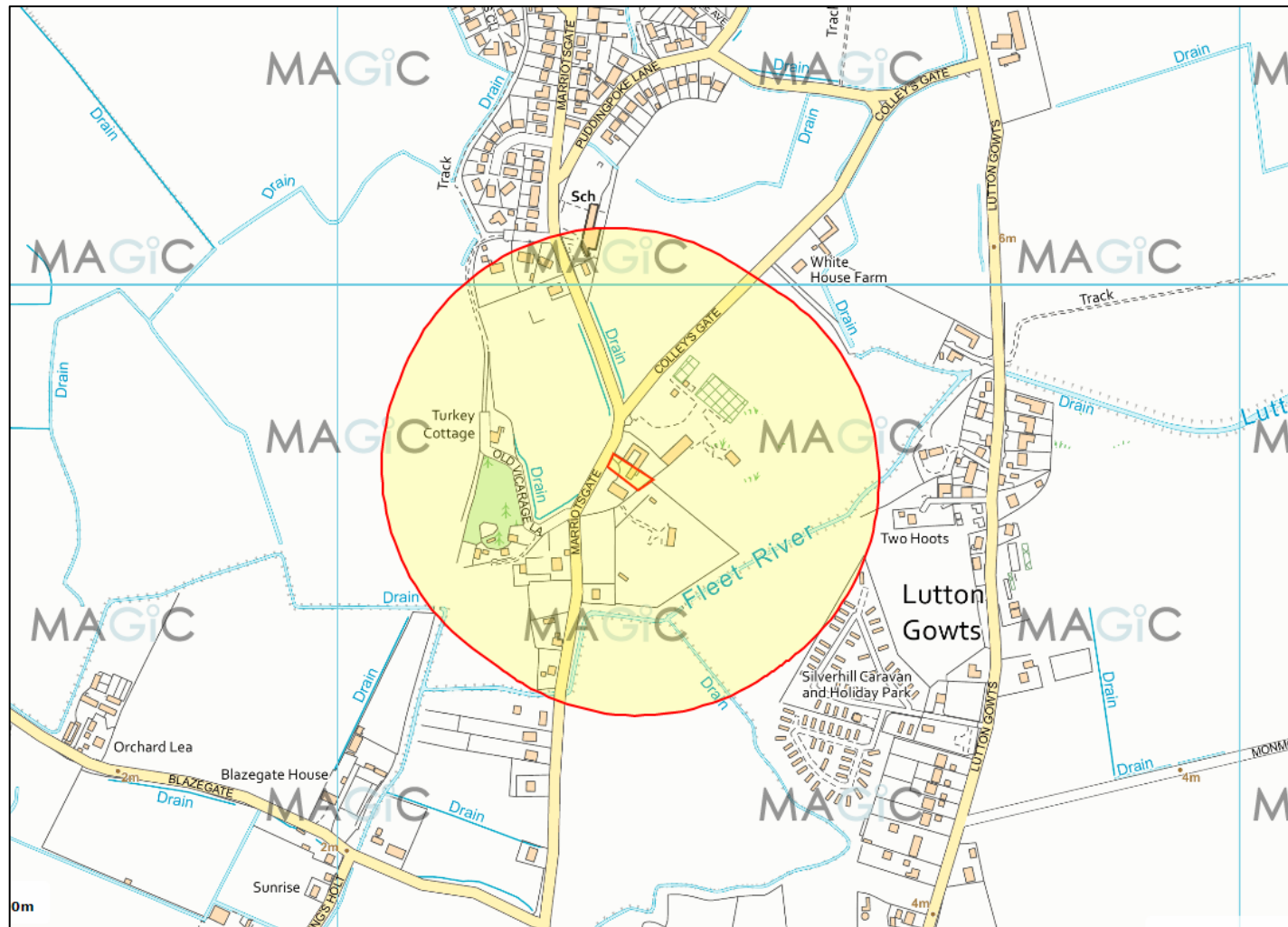


Figure 2. A map showing the site and the lack of ponds within 250 metres of the survey site.

(Copyright <http://www.natureonthemap.naturalengland.org.uk> OS Map © Crown Copyright 2017 All rights reserved. Licence number 100051272).

APPENDIX 2

Procedure to follow if bats are discovered during works

- If at any point during the works, bats are discovered then contractors must immediately stop work in the relevant area concerned and telephone Andrew Chick 0788 0700313.
- An appropriately licensed bat worker will liaise directly with Natural England. Actions will then be taken following advice given. This may include removal of bats, but only where direct written or verbal permission is gained from Natural England.
- Only when Natural England is satisfied that there is no further risk to bats will works recommence.
- Should it transpire that the operation being carried out is of more risk to bats than was originally thought, then works will be stopped until they can be supervised by an appropriately licensed bat worker.
- If a bat is found under a tile or in any other aperture, works will stop immediately (as above). If the bat does not voluntarily fly out, then the aperture will be carefully covered over to protect the bat(s) from the elements, leaving a small gap for the bat to escape voluntarily. Any covering should be free from grease or other contaminants, and should not be a fibreglass-based material.
- Any injured bats should be gently placed in a secure ventilated box in a cool, quiet dark place (e.g. cardboard box with a sealed lid) by the contractor while wearing gloves for the bat's protection whilst awaiting the arrival of the licensed person.

APPENDIX 3

Examples of bat roost units and bat access bricks

Ibstock - <http://www.ibstock.com/literature/eco-products/>

Eco-Habitats for Bats

Eco-habitats for bats

In the UK there are 17 species of breeding bats, all of which are protected by law. Our range of bat boxes helps to encourage safe habitats for these remarkable mammals, allowing them to live in harmony with people.

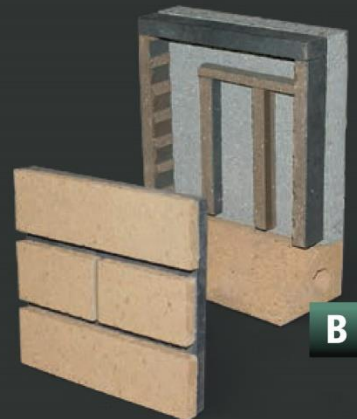


Free access Bat Box (A)

- Discrete single bat brick.
- Easy to install.
- Allows bats to create a natural home habitat within the cavity of the building.

Enclosed Bat Box (B and C)

- Designed specifically for the pipistrelle bat.
- Available in all brick types.
- Attractive motif (option C only).
- Discrete home for bats.
- Various sizes.
- Several roosting zones are created inside the box.
- Bats are contained within the bat box itself.
- Maintenance free with entrance at the base.
- Ideal for new build & conservation work.



Bat Boxes

	Sizes (mm)	Durability
Eco Habitats for Bats - Technical Data: A	215 x 65	F2 S2 - Frost Resistant Low Soluble Salts
Eco Habitats for Bats - Technical Data: B	215 x 215 or 215 x 290	F2 S2 - Frost Resistant Low Soluble Salts
Eco Habitats for Bats - Technical Data: C	215 x 215 or 215 x 290	F2 S2 - Frost Resistant Low Soluble Salts

APPENDIX 4

Conservation of House Sparrows – Nest Boxes

Recommended conservation measures – House Sparrows

House Sparrow populations have been in decline since the mid-1980s, with this once familiar species now absent from many urban sites. The loss of suitable nest cavities appears to have played a role in this decline so the provision of one or more nest boxes (House Sparrows are colonial breeders) is a positive conservation measure to mitigate against the loss of breeding sites in redundant farm buildings.

The House Sparrow terrace is a wide box which is split into two/three chambers and which will thereby provide nesting space for up to three pairs. This is particularly important for these birds as they are very social and like to nest in a colony. Providing a secure nesting site and warm overwinter roosting site could greatly aid in increasing adult and nestling survival.

House Sparrow nest boxes are best placed so that the entrance hole is facing north-east and is sheltered from the prevailing wind and rain. Obvious sun traps, such as south-facing walls should be avoided. Nest boxes do not need to be positioned within cover. The box should be positioned 6–7 feet off the ground, higher if there is a risk of disturbance. You are responsible for your own safety, so assess the risks and take care when building the box, whilst fixing it into position and when monitoring its use.

The box may be cleaned out during the winter after any inhabitants have left. If you wish to wash the box at the same time it is recommend that hot water only should be used.



Photograph 9: Schwegler 1SP Sparrow Nestbox (left) and Woodstone Sparrow Nest Box (right).

APPENDIX 5

Native Species Suitable for Planting and Sowing

The plants should be obtained from specialist nurseries and preferably be of local genetic stock.

1. Native Shrub and Tree Species

Shrubs	
Blackthorn	<i>Prunus spinosa</i>
Buckthorn	<i>Rhamnus catharticus</i>
Crab apple	<i>Malus sylvestris</i>
Dog rose	<i>Rosa canina</i>
Dog wood	<i>Cornus sanguinea</i>
Field maple	<i>Acer campestre</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Holly	<i>Ilex aquifolium</i>
Spindle	<i>Euonymus europaeus</i>
Wild privet	<i>Ligustrum vulgare</i>
Trees	
Ash	<i>Fraxinus excelsior</i>
Pedunculate oak	<i>Quercus robur</i>
Silver birch	<i>Betula pendula</i>
Wild cherry	<i>Prunus avium</i>

Table 1. Native Shrub and Tree Species to be used on site.

APPENDIX 6

Tables; Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition, Collins J, The Bat Conservation Trust (2016).

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, 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 suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree 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 (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree 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 their size, shelter, protection, conditions and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, treelined watercourses and grazed parkland. Site is close to and connected to known roosts.

Table 7.1 Recommended timings for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability	Moderate roost suitability	High roost suitability
May to August (structures) No further surveys required (trees)	May to September with at least one of surveys between May and August	May to September with at least two of surveys between May and August

Table 7.3 Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey (structures). No further surveys required (trees).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey.	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn