
Preliminary Bat Roost and Barn Owl Assessment

The Chequers, Felstead

for

Hawthorn the Community Pub Co.

1 April 2022

Client

Hawthorn the Community Pub Co.

Planning authority

Uttlesford District Council

Time limit of reliance

Please note that the reported surveys were conducted on the date(s) stated in the report and that it represents site conditions at the time of the visit. The findings and recommended mitigation are based on these conditions. If site conditions change materially after the site survey, the original report cannot be relied upon and will need to be updated. Ecological reports and surveys can typically be relied on for 18 to 24 months from the date of survey.

Surveys supporting European Protected Species Mitigation Licence applications must be within the current or most recent survey season for bats (May to September), or within two survey seasons for great crested newts (March to June).


Document	Preliminary Bat Roost and Barn Owl Assessment
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Reference number	2702
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<i>Signed disclosure</i> <i>The information, data, advice and opinions provided in this report which I have provided is true and has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. I confirm that the opinions expressed are my true and professional bona fide opinions.</i> <i>Etienne Swarts, ACIEEM</i>	
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SUMMARY

- Greenlight Environmental Consultancy Ltd. has been commissioned to carry out a Preliminary Bat Roost and Barn Owl Assessment for a development at The Chequers, Braintree Road, Felstead, Essex, CM6 3DL (grid reference: TL 67909 20455).
- This report outlines the likelihood of bats and barn owls being present and any potential effects of the proposed development on such species.
- The ecology report is required in support of a planning application for the demolition of the existing outbuilding and construction of a new outbuilding.
- The survey and assessment were completed by independent, qualified and experienced ecologists with Natural England survey licences for the relevant protected species.
- The findings of the assessment are that there are no significant ecological constraints that would prevent the proposed works.
- **Further surveys for bats are required prior to works commencing to inform an ecological impact assessment of the site and an appropriate mitigation strategy.**
- If the following mitigation and enhancements are incorporated into the proposed layout, there will be a net gain for biodiversity, as is encouraged by the National Planning Policy Framework.

Protected habitats/species	Status	Potential effect	Recommended mitigation and enhancements
Protected sites	One statutory protected site within 2km.	No significant impacts on protected sites and their qualifying features.	None required.
Bats	Moderate bat roosting potential in building on site. Low value commuting and foraging habitat on site.	Potential destruction of bat roosts if present within building on site. Low scale loss and potential light disturbance of commuting and foraging habitats on site.	<u>Further surveys required</u> At least two activity surveys to be undertaken on the building on site between May-September. The outcome of the surveys will inform a detailed mitigation strategy and whether an EPS Mitigation Licence will be required from Natural England. <u>Mitigation</u> Any lighting schemes will comply with Bat Conservation Trust and CIE 150:2003 guidance.
Breeding birds	Nesting habitats for building nesting birds present on site, including potential breeding habitat for Red and Amber listed species.	Low scale loss of nesting habitat on site. Potential disturbance to breeding birds.	<u>Mitigation</u> Works to any buildings on site to be conducted outside bird nesting season or under watching brief of ecologist if during nesting season.

Protected habitats/species	Status	Potential effect	Recommended mitigation and enhancements
	No suitable barn owl foraging habitat on site.		<p><u>Enhancement</u></p> <p>Installation of one integrated swift box and one sparrow terrace on the new outbuilding on site.</p>
Other animals	N/A	Potential harm to animals.	<p><u>Mitigation</u></p> <p>Porous hedgehog friendly fencing will be used within and around the site.</p> <p>Rough sawn planks placed inside any open excavations.</p> <p>Night lighting of the construction site will be minimised as far as possible.</p> <p>Construction materials will be stored off the ground on pallets and waste materials in skips.</p>

1. METHOD

- 1.1. A walkover of the site was conducted on 24th March 2022 by Miranda Proctor – an independent, qualified and experienced ecologist. Survey conditions were as follows: 13°C, 4mph wind, sunny and dry.
- 1.2. All survey methods were carried out in accordance with the most up to date good practice guidance for the relevant protected species. Please refer to Appendix A for the full methodology and species breakdown.

2. SITE CONTEXT

Location

- 2.1. The general location of the site is shown in Figure 1 below.
- 2.2. The site is situated within the village of Felstead, with Mill Stream located approximately 1km southwest and the A120 located approximately 2.1km north. The closest town is Great Dunmow, located approximately 4.1km west of the site.
- 2.3. The site is enclosed by Felstead School grounds to the north, a residential dwelling with associated garden and hardstanding to the east, the B1417 to the south, and the pub with associated hardstanding to the west. The wider surroundings are comprised of a mixture of residential dwellings, blocks of woodland and arable fields lined with mature trees and hedgerows.



Figure 1

Satellite image of site surroundings, site indicated by red line.

Image © Google, date accessed 28/03/22

3. DESCRIPTION OF THE DEVELOPMENT

- 3.1. The proposals are for the demolition of the existing outbuilding and construction of a new outbuilding. Please refer to Appendix H for the proposed plans.

4. PROTECTED SITES

Statutory

- 4.1. There is one statutory protected site located within 2km – one Local Nature Reserve (“LNR”).
 - i. Fritch Way LNR, approximately 1.1km north.

“All along the Fritch Way there are areas of open grassland with ant hills, insects, butterflies and a wide range of flowering plants.” Friends of Fritch Way, 2022.
- 4.2. The proposed development falls outside of all relevant Sites of Special Scientific Interest (“SSSI”) Impact Risk Zones.
- 4.3. Although the site is located within the emerging Essex Coast Recreational Disturbance Avoidance and Mitigation Strategy (“RAMS”) zone of influence, there will be no net gain in residential units, being a non-residential development.

5. PROTECTED AND NOTABLE SPECIES

Desktop review

Protected species licences

5.1. A 2km search on <http://www.magic.gov.uk/> indicated seven records of a granted European Protected Species (“EPS”) Mitigation Licence relating to:

- Great crested newt (case reference: 2015-13447-EPS-MIT, 2015-13447-EPS-MIT-1 and 2015-13447-EPS-MIT-2) from 2017, approximately 1.9km east.
- Great crested newt (case reference: 2015-7487-EPS-MIT and 2015-7487-EPS-MIT-1) from 2015, approximately 1.5km northeast.
- Bats (case reference: EPSM2010-2038) from 2010, approximately 2km east. Species on the license include: common pipistrelle *Pipistrellus pipistrellus* and brown long-eared *Plecotus auritus*.
- Bats (case reference: 2017-28598-EPS-MIT) from 2017, approximately 1km southeast. Species on the license include: common pipistrelle and brown long-eared.

Bats

5.2. There is one building on site which can be further divided into five sections, as indicated in Figure 2 and photos 1-9.



Building one

5.3. The outbuilding is constructed of brick walls, with pitched clay pantile roofs. The building features timber soffit boxes and timber framed windows and doors. The building can be further divided into five sections:

- Section A; two storeys, the second of which was deemed unsafe to enter due to an unstable floor and structure.
- Section B; open west aspect.
- Section C; partially open west aspect.
- Section D; enclosed room, with a closed inaccessible roof space.
- Section E; not internally accessible.

- 5.4. Internally, the roof spaces of sections A-C featured a mixture of wood batten and traditional bitumen felt roof lining, moderate-significant natural light via windows and/or open aspects, timber trusses and ridge beams. Cobwebs were moderate throughout and mouse and rat droppings were observed.
- 5.5. Roosting opportunities are present under slipped, missing and/or raised roof tiles, within brickwork cavities, crevices between timber and brick, crevices between timbers and within the loft spaces.
- 5.6. Although no bats or evidence of bats was observed during the survey, internal access was limited, with several areas being unsafe to enter or locked.
- 5.7. The outbuilding is assessed as **moderate** summer roost suitability for bats due to its location and roosting features.
- 5.8. The outbuilding is assessed as **negligible** hibernation roost suitability for bats due to roosting features being predominantly external. Although there were cavities in the brickwork and crevices internally, these were either exposed or superficial, which would create fluctuations in temperature and humidity during winter months providing unsuitable hibernating environments.



Photo 1, south and west aspects of building one, looking northeast.



Photo 2, north and west aspects of Section A, looking east.



Photo 3, internal view of Section A, looking north.



Photo 4, Section B, looking east.



Photo 5, internal view of section C, looking east.

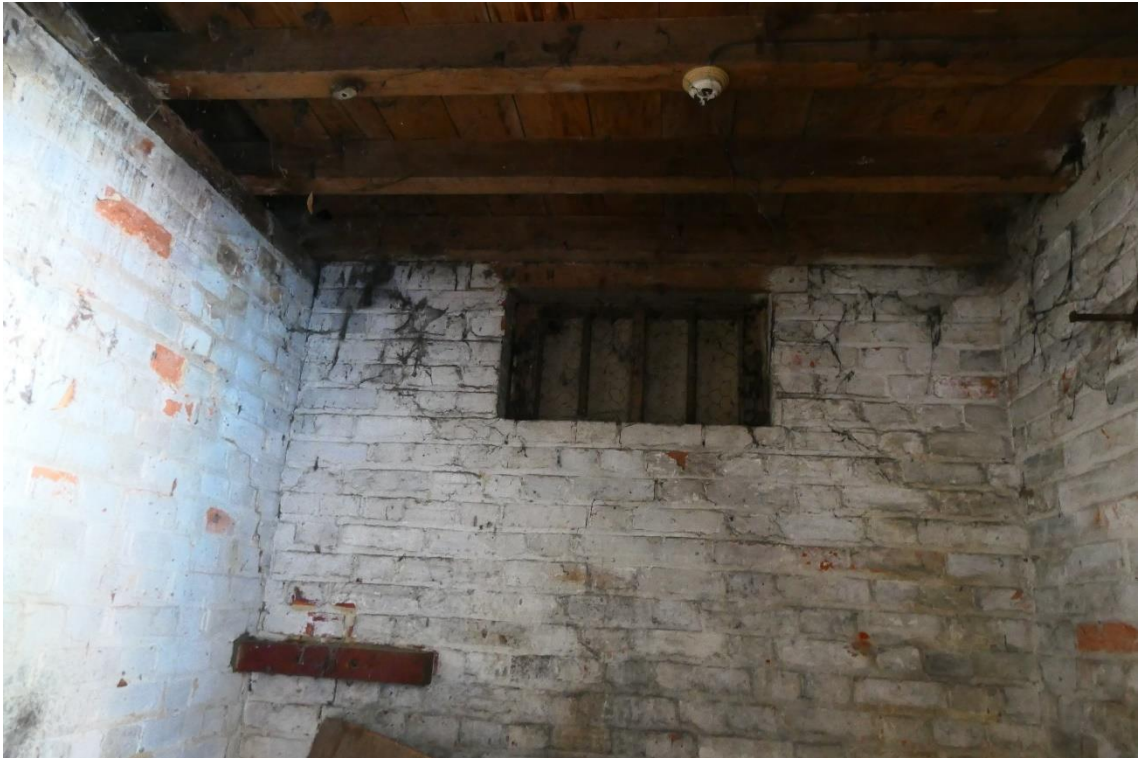


Photo 6, internal view of Section D, looking south.



Photo 7, south and west aspects of Section E, with internal access unavailable.



Photo 8, cavities within brickwork provide roosting features and access points for bats.



Photo 9, lifted, damaged and missing roof tiles provide roosting and access opportunities for bats.

Trees

- 5.9. The trees around the site boundary were not assessed for bat roosting potential as they were considered outside the scope of works

Foraging and commuting links

- 5.10. The site itself provides **low** value foraging habitat for bats along the boundary treelines, with bats mainly using nearby woodlands for foraging.
- 5.11. The landscape immediately adjacent to the site is considered of **low** value for foraging and commuting bats, with linked gardens, hedgerows and treelines providing links to the wider landscape. Residential dwellings adjacent the site and within Felstead have the potential to provide roosting opportunities for bats.

Birds

- 5.12. Birds in the UK are classified into three categories of conservation importance - red, amber and green. Factors such as global threat level, population decline, breeding population decline and contraction of breeding range are taken into account to determine classification.
- 5.13. The following bird species were observed during the site visit:

Red listed:

House sparrow	<i>Passer domesticus</i>
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Amber listed:

Dunnock	<i>Prunella modularis</i>
Woodpigeon	<i>Columba palumbus</i>

Green listed:

Blackbird	<i>Turdus merula</i>
Blue tit	<i>Cyanistes caeruleus</i>

- 5.14. The site provides suitable nesting habitats for building nesting species.
- 5.15. The site provides potential breeding habitat for the following Red listed species: house martin *Delichon urbicum*, house sparrow *Passer domesticus* and swift *Apus apus*.
- 5.16. The site provides potential breeding habitat for the following Amber listed species: woodpigeon *Columba palumbus* and wren *Troglodytes troglodytes*.
- 5.17. No signs of barn owl were found on the site and no foraging habitat is present.

6. DISCUSSION AND CONCLUSIONS

Protected sites

- 6.1. The development footprint falls outside all identified protected sites (statutory and non-statutory). There is one statutory protected site located within 2km of the site.
- The closest statutory protected site (Flich Way LNR), is located approximately 1.1km north and designated for its open grassland habitats.
- 6.2. The proposed development falls outside of all relevant SSSI Impact Risk Zones.
- 6.3. Although the site is located within the emerging Essex Coast Recreational Disturbance Avoidance and Mitigation Strategy (“RAMS”) zone of influence, there will be no net gain in residential units, being a non-residential development.
- 6.4. The proposed development is expected to have no effects on statutory or non-statutory protected sites or their qualifying features, owing to its relatively small scale, distance to protected sites and limited predicted impacts beyond the area of works.

Bats

- 6.5. The proposed works will require the demolition of all the buildings on site, which has the potential to materially modify or destroy potential bat roosting locations, if present.
- 6.6. The following surveys/mitigation is recommended to determine if any bat species are present, the nature of their use of the building(s) and any roosting locations:
- i. At least two bat activity survey (comprised of a dusk emergence and a dawn return-to-roost survey) to be conducted on the building on site between May and September. Please note, at least one survey must be conducted between May and August.
 - ii. If bats are found to be present and roosting within any building(s), further activity surveys and a European Protected Species Mitigation Licence may be required for the development.
 - iii. Any lighting schemes will follow guidance from the Bat Conservation Trust and CIE 150:2003. Warm-white (long wavelength) lights with UV filters will be fitted as close to the ground as possible. Lighting units will be angled below 70° and equipped with movement sensors, baffles, hoods, louvres and horizontal cut off units at 90°.
- 6.7. The outcomes of further activity surveys will inform the detailed recommended mitigation for bats. We consider that the proposed development will be able to accommodate this in the form of alternative roosting opportunities, as required.
- 6.8. Building Regulations state that the energy efficiency of buildings must be improved where possible and that contractors must assess the condensation risk within the roof space and make

appropriate provisions in line with BS 5250:2011. This British Standard states that both High Resistance (bitumen type 1F) and Low Resistance non-bitumen coated roofing membrane (NBCRM) underlays are acceptable as long as appropriate ventilation is provided. As NBCRM are proven to entangle bats through regular contact, which also compromises the integrity of the membrane, the Bat Conservation Trust recommend only traditional type 1F bitumen is used.

Birds

- 6.9. The proposed works are expected to result in a low scale loss of bird nesting habitat through the demolition of the building on site.
- 6.10. Any works affecting bird nesting habitat such as management of buildings would ideally need to be conducted outside the main nesting season, which lasts from March to August. If work is planned during the bird nesting season, then a precautionary check of all habitats will be conducted by a qualified ecologist immediately prior to starting any work. If any nesting birds are found, an appropriate protection zone from the nest will be required and will be maintained until the young have fledged.
- 6.11. As enhancements, the following will be implemented:
 - i. One integrated swift box installed on the new building on site (Schwegler Brick Nest Box Type 25 – Appendix E).
 - ii. One sparrow terrace installed on the new building on site (Schwegler 1SP Sparrow Terrace – Appendix E).
 - iii. A soft landscaping scheme to include the planting of new native species-rich (≥ 5 species), hedgerows and trees on and around the site (see Appendix G for suggested species).
- 6.12. Natural England and Local Planning Authorities (“LPA”) have recognised a significant decline in swift populations across the country, and are actively endorsing integrated swift boxes to provide a net gain in biodiversity, as is encouraged by NPPF 2021.

Other animals

- 6.13. The surrounding habitat of the site is considered suitable for hedgehogs. To maintain potential hedgehog routes within the site and between the site and further habitats, any fencing installed will be porous and provide access openings for hedgehogs (see Appendix F for examples).

6.14. General mitigation to protect wildlife during the construction period are as follows:

- Any excavations will have a rough sawn plank placed inside to act as a ramp to allow any animals that have fallen in to escape. The excavations will be checked each morning works are scheduled for, to remove any animals trapped.
- Lighting of the construction site at night will be minimised as far as practicable, to reduce the risk of possible disruption to nocturnal animals such as bats and badgers.
- Construction materials will be stored off the ground on pallets and waste materials in skips, to prevent providing shelter for animals and subsequent harm when materials are moved.

7. BIBLIOGRAPHY

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Appendix A Methods

Desktop Review

A desktop review of published data, such as records of protected sites and species, OS maps and satellite images has been carried out. A data search was carried out using www.magic.gov.uk for statutory protected sites and habitats.

A field survey visit was conducted to confirm the findings of the desktop review and to record habitats and species located on site.

Equipment available for use during the survey were binoculars, ladders, torches, endoscope and a digital camera.

Bats

An assessment of the habitats on and surrounding the site for bat interest was made, in accordance with latest bat survey guidelines (Collins, 2016).

The building(s) on site was assessed for its potential to support roosting bats and involved a thorough internal and external search of all suitable cavities, holes and crevices. All suitable areas, including objects, ledges and floors were inspected for the following signs:

- Bat droppings
- Stains around roosting places and entrance points
- Urine marks
- Prey remains
- Areas devoid of cobwebs
- Live or dead bats
- Suitable cracks and crevices for bats to enter

In exposed conditions, the signs of bat usage such as droppings and urine marks can be obliterated by heavy rain.

An evaluation system was applied to the building(s) using the following criteria:

- **Negligible roost suitability for bats.** These buildings have no potential roosting features for bats, or very few or minor features in an isolated or unsuitable location such that the presence of a bat roost is considered highly unlikely. Such buildings usually fall into two main types: generally, well maintained without cracks and crevices, no gaps between bargeboard or soffit and wall, or without an attic space; or those which contain some or all of the above features, but are both draughty and thick in cobwebs or contain strong odours such as solvents, diesel etc. It must be borne in mind that a building from this latter group can become suitable for bats following refurbishment. This often happens to houses once the attic space has been cleaned and under-felted prior to timber treatment. When no suitable habitats

for bats are found, no further surveys or European Protected Species (“EPS”) mitigation licence are required.

- **Low roost suitability for bats.** Buildings in this category have one or more potential roost sites that could be used by individual bat opportunistically. These buildings do not however provide suitable conditions (such as space, shelter, temperature, humidity, or light and noise disturbance) to be used on a regular basis by a large number of bats. Structures with low roost suitability for bats will require **one dusk emergence or one dawn re-entry survey** conducted between May and August to assess their current use by bats.
- **Moderate roost suitability for bats.** These buildings contain one or more potential roosting sites which could be regularly used by bats owing to their size, shelter, protection and conditions. These buildings are however unlikely to support a roost of high conservation status (maternity roost or hibernation roost). Structures with moderate roost suitability for bats will require two surveys, **one dusk emergence and one dawn re-entry survey** conducted between May and September with at least one of the surveys undertaken between May and August, to assess their current use by bats.
- **High roost suitability for bats.** This group includes buildings with one or more potential roost sites which are obviously suitable for use by a larger number of bats on a regular basis and potentially for longer periods of time owing to their size, shelter, protection and conditions. These buildings may support a roost of high conservation status (maternity roost or hibernation roost) and will require three activity surveys to assess their current use by bats. The surveys should include at least **one dusk emergence and** at least **one dawn re-entry survey** (the third survey can either be at dusk or dawn) and should be conducted between May and September with at least two of surveys undertaken between May and August.

The habitats on and around the site were assessed for their commuting and foraging potential for bats. An evaluation system was applied to the commuting and foraging potential using the following criteria.

- **Negligible commuting and foraging potential for bats.** Habitat features unlikely to be used by commuting or foraging bats.
- **Low commuting and foraging potential for bats.** Habitats that could be used by a small number of commuting or foraging bats such as, a gappy hedgerow, unvegetated stream or lone trees, but are isolated and not well connected to the surrounding landscape.
- **Moderate commuting and foraging potential for bats.** Habitats that are continuous and connected to the wider landscape such as, lines of trees, scrub, linked back gardens, grasslands and water features.
- **High commuting and foraging potential for bats.** Habitats that are continuous and connected to the wider landscape such as, river valleys, watercourses, hedgerows, lines of trees, deciduous woodland, and grazed parkland. These habitats are likely to be used regularly by commuting or foraging bats and are likely to be close to, or connected to, known roosts.

Birds

The site and its surrounding habitats were assessed for their potential to support breeding birds. Bird nesting habitat could include grassland, hedgerows, scrub, trees and buildings.

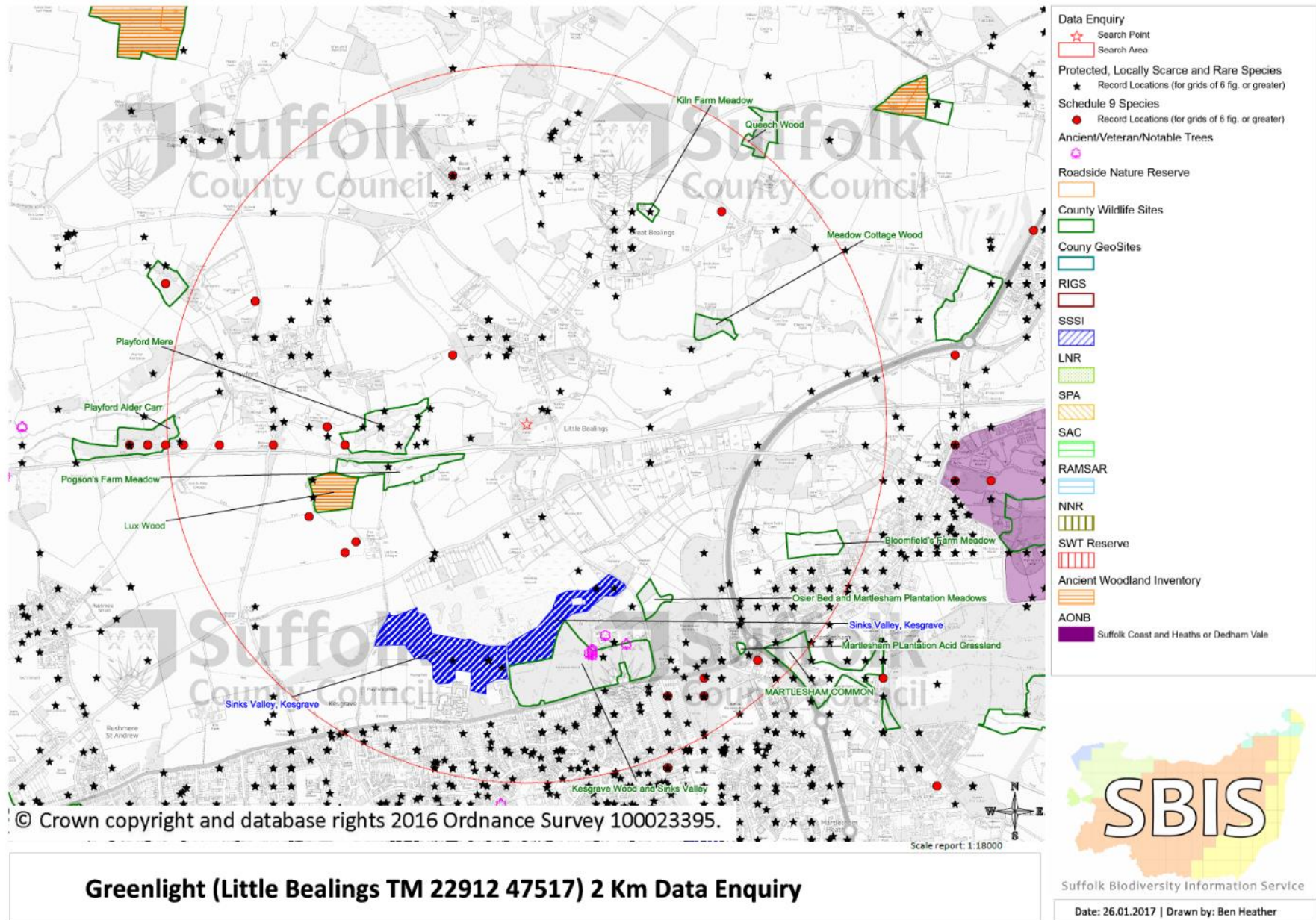
Bird species noted during the site visit were recorded. Trees, buildings and grassland were checked for use by barn owls, swifts and skylarks.

Constraints

Although the survey was conducted outside of the main activity season for bats, a preliminary roost assessment could be completed by assessing the suitability of the building for occupation by bats.

Several areas of the building were inaccessible at the time of survey, being either unsafe or locked.

Appendix B
Map of protected sites within 2km



Appendix C

Protected sites citations

SSSI citations

COUNTY: SUFFOLK SITE NAME: SINKS VALLEY, KESGRAVE

DISTRICT: SUFFOLK COASTAL

Status: Site of Special Scientific Interest (SSSI)

Notified under: Section 28 of the Wildlife and Countryside Act 1981 as amended

Local Planning Authority: SUFFOLK COUNTY COUNCIL, Suffolk Coastal District Council

National Grid Reference: TM 228463 Area: 24.3 (ha.)

Ordnance Survey Sheet 1:50,000: 169 1:10,000: TM 24 NW

Date Notified (Under 1981 Act): 9 Feb 1996 Date of Last Revision: October 1996

Description and Reasons for Notification:

Sinks Valley is one of the few remaining valleys within the Suffolk Coast and Heaths Natural Area that are almost entirely occupied with semi-natural vegetation. It contains a full sequence of habitats from open water, fringing swamp, spring-fed fen and wet grassland, and wet alder woodland, to dry acid grassland, heathland and oak woodland rising up the valley sides. It is this diversity of habitats, their barely interrupted sequence and their clear relation to the landform that makes Sinks Valley special.

The valley, occupied by Butlers Brook, cuts into a succession of sands and gravels overlying Red Crag and London Clay. Acid grassland and bracken predominate at the western end on the free-draining sandy soils of the valley sides. The grassland is dominated by sheep's fescue *Festuca ovina*, common bent grass *Agrostis capillaris* and sheep's sorrel *Rumex acetosella*. Heathland is restricted to two small areas where heather *Calluna vulgaris* is abundant in the sward. Where rabbits graze heavily there is a short turf rich in lichens *Cladonia* spp., mosses and herbs. In places, the acid grassland is similar to grasslands which are only found in Breckland of west Suffolk and Norfolk, with plants such as shepherd's cress *Teesdalia nudicaulis*, common stork's bill *Erodium cicutarium*, early hair-grass *Aira praecox* and bird's-foot *Ornithopus perpusillus*. The nationally scarce plant, mossy stonecrop *Crassula tillaea* can be found along pathways. Bracken *Pteridium aquilinum* forms extensive stands on the dry open ground where there has been little grazing in recent years. Open woodland with oak *Quercus robur*, scots pine *Pinus sylvestris* and birch *Betula pendula* has developed on former acid grassland on the southeastern side of the valley.

Towards the valley bottom, where the ground is spring-fed the grassland changes with Yorkshire Fog *Holcus lanatus*, heath bedstraw *Galium saxatile* and soft rush *Juncus effusus* more dominant. It supports heath rush *Juncus squarrosus*, which is rare in the Suffolk Coast and Heaths. This type of grassland is unusual in lowland Britain, as it is much more typical of upland western and northern Britain.

Appendix D Legislation

European Protected Species

The Ramsar Convention (1971) on Wetlands of International Importance especially as Waterfowl Habitat seeks to promote the conservation and wise use of wetlands, particularly those which support internationally significant numbers of water birds. This is achieved through the designation of Ramsar Sites.

The European Community Council Directive on the Conservation of Wild Birds (79/409/EEC) sets out general rules for the conservation of all naturally occurring wild birds, their nests, eggs and habitats. It requires member states to designate Special Protection Areas (SPAs) for protection of certain species.

The main piece of legislation relating to nature conservation in Great Britain is **The Wildlife and Countryside Act 1981 (as amended)**. This Act is supplemented by provision in **The Countryside and Rights of Way (CROW) Act 2000** and **The Natural Environment and Rural Communities Act 2006 (in England and Wales)**. This act provides varying degrees of protection for the listed species of flora and fauna, including comprehensive protection of wild birds, their nests and eggs.

The Countryside and Rights of Way Act 2000 strengthens the protection given to SSSIs. It revises the procedures for the notification of SSSIs and for the consenting of operations which may damage the special interest of a SSSI. Local authorities have a duty to take steps, consistent with the proper exercise of their functions, to further the conservation and enhancement of SSSIs. The act also strengthens the existing provisions of the Wildlife and Countryside Act 1981 for the enforcement of wildlife legislation, including a new offence of "recklessly" destroying or damaging the habitats of certain protected species.

UK wildlife is also protected under **The Conservation (Natural Habitats &c.) Regulations 1994** (which were issued under the European Communities Act 1972), through inclusion on Schedule 2. In 2017, these Regulations, together with subsequent amendments, were consolidated into **The Conservation of Habitats and Species Regulations 2017**.

The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites. The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 5. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

National Planning Policy - National Planning Policy Framework (NPPF)

Section 15 of the National Planning Policy Framework 2021 (NPPF): Conserving and enhancing the natural environment states that 'planning policies and decisions should contribute to and enhance the natural and local environment by ... minimising impacts on and providing net gains for biodiversity.'

Office of The Deputy Prime Minister (“ODPM”) Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their impact within the planning system.

Paragraph 98 of Circular 06/2005 states that ‘the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat’.

Implications of legislation and policies

Without this ecological assessment, the potential developer would be unable to demonstrate due diligence in his responsibilities. Furthermore, the local planning authority would not have been provided with sufficient information for a planning decision to be made. This could result in non-determination or refusal of the application.

With legal responsibilities and planning implications, it is essential that any ecological assessment of a potential development site, including the area of this report, must determine the possible presence or absence of any protected species as part of any planning development consideration.

Where mitigation or compensation measures are required to ensure that no significant impacts will result on biodiversity from the development, the proposed measures may be secured through planning conditions or by EPS Mitigation Licences from Natural England.

Bats

All bat species in Britain are protected under the Wildlife and Countryside Act 1981 through inclusion on Schedule 5. They are also protected under the Conservation (Natural Habitats &c.) Regulations 1994 (which were issued under the European Communities Act 1972), through inclusion on Schedule 2. On 30th November 2017, these Regulations, together with subsequent amendments, were consolidated into the Conservation of Habitats and Species Regulations 2017.

European protected animal species (“EPS”) and their breeding sites or resting places are protected under Regulation 42. It is an offence for anyone to deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs. It is an offence to damage or destroy a breeding or resting place of such an animal. It is also an offence to have in one's possession or control, any live or dead European protected species.

The threshold above which a person will commit the offence of deliberately disturbing a wild animal of a European protected species has been raised. A person will commit an offence only if he deliberately disturbs such animals in a way as to be likely significantly to affect (a) the ability of any significant groups of animals of that species to survive, breed, or rear or nurture their young, or (b) the local distribution of abundance of that species. The existing offences under the Wildlife and Countryside Act (1981) as amended which cover obstruction of places used for shelter or protection (for example, a bat roost), disturbance and sale still apply to European protected species.

This legislation provides defences so that necessary operations may be carried out in places used by bats, provided the appropriate Statutory Nature Conservation Organisation (in England this is Natural England) is notified and allowed a reasonable time to advise on whether the proposed operation should be carried out and,

if so, the approach to be used. The UK is a signatory to the Agreement on the Conservation of Bats in Europe, set up under the Bonn Convention. The Fundamental Obligations of Article III of this Agreement require the protection of all bats and their habitats, including the identification and protection from damage or disturbance of important feeding areas for bats.

Barn Owls

The Habitats Regulations (1994), as amended, states that a person commits an offence in the case of Barn Owl only if this species is disturbed in the breeding season. This applies equally to all those bird species listed under Schedule 1.

Breeding Birds

It is an offence to kill, injure or take any wild bird; take, damage or destroy the nest of any wild bird while that nest is in use or being built (even of "pest" species); take or destroy the eggs of any wild bird.





Natural England Licensing - EPS Mitigation Licensing

Licences can be obtained from the Wildlife Management and Licensing Service at Natural England to allow certain activities that would otherwise constitute an offence, for the purposes of development (e.g. destruction of a bat roost, loss of great crested newt aquatic and terrestrial habitat, etc).

Appendix E

Examples of bird boxes



(images sourced from www.nhbs.com, www.habibat.co.uk and www.manthorpe.co.uk)

<p>Integrated swift box Schwegler Brick Nest Box Type 25</p>  <p>Type 25</p>	<p>Integrated swift box Manthorpe Swift Brick</p> 
<p>Integrated sparrow terrace 1SP Schwegler Sparrow Terrace</p> 	<p>Integrated sparrow terrace Terraced Sparrow Box</p> 
<p>Recommendations for installing bird boxes: (Sourced from British Trust for Ornithology www.bto.org and Manthorpe www.manthorpe.co.uk)</p>	
<p>The highest priority when siting a nest box must be to provide a safe and comfortable environment in which birds can nest successfully.</p> <p>Tips for putting up a nest box:</p> <ul style="list-style-type: none"> • Boxes should be sited 1-3m from the ground, ideally on tree trunks but can be placed on the side of a shed or wall. Avoid areas where foliage obscures the entrance hole. • Don't place boxes too close to another nest box of the same type, as this may promote aggressive behaviour between neighbours. • Shelter your nest box from prevailing wind, rain and strong sunlight. The box should face between north and east, and angled vertically or slightly downwards to prevent rain entering. • Make sure cats cannot get into the box. • Keep nest box away from bird feeders. • Use galvanized or stainless steel screws or nails. If fixing boxes to trees, galvanised wire can be used to tie the box to the trunk or hang it from a branch. Make sure to regularly inspect these fittings (every two or three years) to ensure the box remains securely attached. <p>Tips for putting up house sparrow terraces and swift bricks/boxes:</p> <ul style="list-style-type: none"> • Locate ≥5m high on the gable wall of the property and above the level of the insulation zone. • Where possible, install in locations that are unlikely to receive large amounts of direct sunlight during the hottest times of the day, ideal places include below the overhang of the verge and barge board. 	

Appendix F

Examples of hedgehog friendly fencing

(images sourced from www.quercusfencing.com and www.jackson-fencing.co.uk)

<p style="text-align: center;">Quercus Fencing</p> <p style="text-align: center;">Hedgehog friendly oak woven fencing panels</p> 	<p style="text-align: center;">Jacksons-Fencing</p> <p style="text-align: center;">Hedgehog friendly gravel board for use with slotted posts</p> 
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Recommendations for installing hedgehog friendly fencing:

(Sourced from Hedgehog Street www.hedgehogstreet.org)

A hedgehog friendly fence should have a gap measuring at least 13cm by 13cm in the gravel board. These gaps allow any hedgehog to pass through but are too small for nearly all pets.

At least one hedgehog friendly fence panel should be located on each side of your garden, to provide unimpeded access.

Almost all fencing materials can be made hedgehog friendly, but may require DIY adaptations. Please note that some concrete gravel boards contain metal rods running along the length of the boards to provide strength and rigidity, and cannot be cut. To overcome this, a gap can be left between the gravel board and post to provide the required gap.

Appendix G

Native species suitable for planting and sowing

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

Key: (f) – fruit and berry species; (e) – evergreen species; (se) semi-evergreen species; (d) – deciduous species

Trees	
Alder (d)	<i>Alnus glutinosa</i>
Apples (f; d)	<i>Malus spp.</i> (local varieties)
Ash (d)	<i>Fraxinus excelsior</i>
Beech (d)	<i>Fagus sylvatica</i>
Bird cherry (f; d)	<i>Prunus padus</i>
Elder (f; d)	<i>Sambucus nigra</i>
Elm (d)	<i>Ulmus procera</i>
Field maple (d)	<i>Acer campestre</i>
Pedunculate oak (d)	<i>Quercus robur</i>
Rowan (f; d)	<i>Sorbus aucuparia</i>
Pears (f; d)	<i>Pyrus spp.</i>
Silver birch (d)	<i>Betula pendula</i>
Small-leaved lime (d)	<i>Tilia cordata</i>
White willow (d)	<i>Salix alba</i>
Wild cherry (f; d)	<i>Prunus avium</i>
Walnut (d)	<i>Juglans regia</i>

Shrubs	
Blackthorn (f; d)	<i>Prunus spinosa</i>
Buckthorn (f; d)	<i>Rhamnus catharticus</i>
Crab apple (f; d)	<i>Malus sylvestris</i>
Dog rose (f; d)	<i>Rosa canina</i>
Dogwood (f; d)	<i>Cornus sanguinea</i>
Field maple (d)	<i>Acer campestre</i>
Guelder-rose (f; d)	<i>Viburnum opulus</i>
Hawthorn (f; d)	<i>Crataegus monogyna</i>
Hazel (d)	<i>Corylus avellana</i>
Holly (e)	<i>Ilex aquifolium</i>
Honeysuckle (f; d)	<i>Lonicera periclymenum</i>
Spindle (f; d)	<i>Euonymus europaeus</i>
Wild privet (f; se)	<i>Ligustrum vulgare</i>
Yew (f; e)	<i>Taxus baccata</i>

Flowering plants	
Bird's-foot trefoil	<i>Lotus corniculatus</i>
Black knapweed	<i>Centaurea nigra</i>
Common cat's-ear	<i>Hypochoeris radicata</i>
Common sorrel	<i>Rumex acetosa</i>
Common vetch	<i>Vicia sativa</i>
Cowslip	<i>Primula veris</i>
Field scabious	<i>Knautia arvensis</i>
Foxglove	<i>Digitalis purpurea</i>
Lady's bedstraw	<i>Galium verum</i>
Meadow buttercup	<i>Ranunculus acris</i>
Meadow vetchling	<i>Lathyrus pratensis</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>
Primrose	<i>Primula vulgaris</i>
Red clover	<i>Trifolium pratense</i>
Selfheal	<i>Prunella vulgaris</i>
Sweet violet	<i>Viola odorata</i>
Wild daffodil	<i>Narcissus pseudonarcissus</i>
Yarrow	<i>Achillea millefolium</i>

Grasses	
Common bent	<i>Agrostis capillaris</i>
Crested dog's-tail	<i>Cynosurus cristatus</i>
Meadow fescue	<i>Festuca pratensis</i>
Red fescue	<i>Festuca rubra</i>
Rough meadow-grass	<i>Poa trivialis</i>
Small timothy	<i>Phleum bertolonii</i>
Smooth meadow-grass	<i>Poa pratensis</i>
Sweet vernal-grass	<i>Anthoxanthum odoratum</i>
Yellow oat-grass	<i>Trisetum flavescens</i>

Appendix H

Proposed plans

