



Hillier Ecology

**Preliminary Ecological Appraisal at 12 Main Street, Bulwick,
Northamptonshire**



Prepared for Harris McCormack

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Hillier Ecology Limited

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Site Name	12 Main Street, Bulwick, Northamptonshire
Report Type	Preliminary Ecological Appraisal
Client	Harris McCormack

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VALIDITY

Due to the dynamic nature of ecological conditions the results of the survey(s) and related conclusions and recommendations as contained within this report should only be considered valid for up to 24 months from the date the last survey was undertaken.

Any alterations to the site proposals may invalidate the recommendations contained within this report.

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1.0 Summary

1.1 A Preliminary Ecological Appraisal has been carried out 12 Main Street, Bulwick, Northamptonshire.

1.2 The survey covered bats *Chiroptera*, birds *Aves*, Badger *Meles meles*, Hedgehog *Erinaceus europaeus*, hedgerow and flora.

1.3 The garden room on the site is in a semi-derelict condition and unsuitable to support roosting bats, it is considered to have negligible potential.

1.4 The trees on the site were considered to have negligible potential to support roosting bats with no suitable roosting features identified.

1.5 The site offers moderate suitability habitat for foraging and commuting bat species.

1.6 No further bat surveys will be required.

1.7 No birds were recorded during the survey; the trees and hedgerow offer potentially suitable nesting habitat.

1.8 No further bird surveys will be required.

1.9 No Badger setts were identified on the site and there was no evidence of Badger activity.

1.10 No further Badger surveys will be required.

1.11 A habitat assessment of the site was carried out to look at its suitability to support Hedgehog; it was thought that the site and surrounds are suitable for supporting Hedgehog.

1.12 No further Hedgehog surveys will be required.

1.13 The hedgerow survey recorded five woody species and did not meet the Hedgerow Regulations criteria as an important hedgerow.

1.14 Twenty-three common and widespread species of plant were recorded during the survey.

1.15 Overall the site is of low ecological value.

2.0 Introduction

2.1 Hillier Ecology Limited were commissioned by Harris McCormack to carry out a Preliminary Ecological Appraisal and produce the ecological report.

2.2 The survey was carried out to support the planning application to demolish the garden room and rebuild.

3.0 Site Details

3.1 The site is located at SP9635594203 (Appendix 1).

3.2 The site is situated in the village of Bulwick; the site and its surrounds are made up of the following habitats:

- Assorted buildings
- Amenity grassland
- Part derelict garden
- Hedgerow
- Trees
- Dwellings
- Mature gardens
- Mature trees

3.3 The diversity of habitats found is thought to be capable of supporting protected species.

3.4 The building is constructed as follows and shown in the photographs below and (Appendix 2):

Building Name/Number	1			
Building Grid Reference	SP9635294207			
Type of Building	Garden Room			
Age of Building	20 th century			
Condition of Building	Semi-Derelict			
Wall Construction	Brick/Timber/Concrete			
Roof Construction	Corrugated asbestos			
Roof Type	Sloping			
Potential Access Points for Bats	Open access			
Roof Void	Yes		No	X
Insulation	Yes		No	X
Structure of Roof	Not applicable			
Roof Lining	None			
Dimensions of Roof Void	Not applicable			
Suitable Roosting Features	None			
Evidence of Bats	None			
Evidence of Birds	None			
Potential to Support Roosting Bats	Negligible			
Suitable for Hibernating Bats	No			



Plate 1 Garden Room-Front View



Plate 2 Garden Room-Rear View



Plate 3 Garden Room-Internal



Plate 4 Garden Room-Internal



Plate 5 Survey Area



Plate 6 Survey Area



Plate 7 Survey Area



Plate 8 Survey Area



Plate 9 Survey Area



Plate 10 Hedgerow

4.0 Survey Methodologies

Bats (Buildings)

4.1 The building was assessed as to its potential to hold bat roosts.

4.2 The building survey involved a thorough external and internal search of all suitable cavities, holes and crevices, all suitable areas 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

4.3 The buildings were categorised using the criteria below:

Assessment of Potential to Support Roosting Bats - Categories for Buildings	
Negligible potential	Buildings with no features capable of supporting roosting bats. Often these buildings are of a 'sound' well-sealed nature or have a single skin and no roof void. They tend to have high interior light-levels, and little or no insulation. Buildings without any roofs may also fall into this category.
Low potential	Buildings with limited features for roosting bats (e.g., shallow crevices where mortar is missing between building blocks/bricks). They may have open locations which may be subject to large temperature fluctuations and bat-access points may be constrained. No evidence of bats found (e.g., droppings / staining). Buildings may be surrounded by poor or sub-optimal bat foraging habitat. No evidence of bats found.
Moderate potential	Buildings with some features suitable for roosting bats. Buildings usually of brick or stone construction with a small number of features of potential value to roosting bats e.g., loose roof / ridge tiles, gaps in brickwork, gaps under fascia boards, and/or warm sealed roof-spaces with under-felt. Evidence of bats found a small scattering of droppings or urine staining. Could be suitable for summer day roost.
High potential	Buildings with a large number of features or extensive areas of obvious potential for roosting bats. Generally, they have sheltered locations, with a stable temperature regime and suitable bat-access points. Evidence of bats found droppings/urine staining. Could be suitable for a maternity roost or summer day roost.

Bats (Trees)

4.4 The survey involved a thorough search of all the trees looking for potential roost sites, which are the following:

- Cracks
- Cavities
- Loose Bark
- Broken Limbs
- Ivy

4.5 A search was made for the following signs:

- Faeces
- Urine staining
- Fur rubbing
- Live bats

4.6 The trees were categorised using the criteria below:

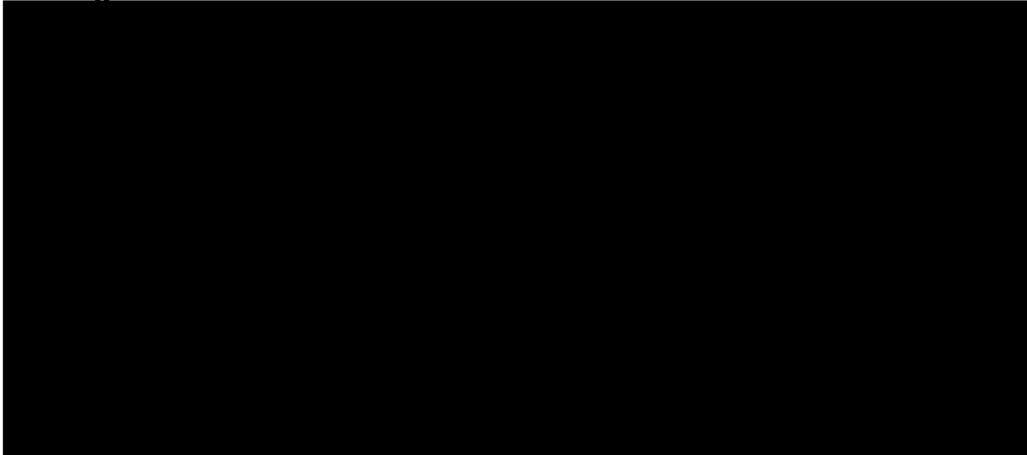
Assessment of Potential to Support Roosting Bats - Categories for Trees	
Negligible potential	Tree contains no suitable features for roosting bats. These can include young trees without ivy and without loose bark and obvious cracks / fissures. Usually saplings, semi-mature specimens with a small girth or mature trees which do not tend to form fissures as readily such as sycamore.
Low potential	Tree contains limited features suitable for roosting bats. Usually young (sapling or semi-mature) trees with some ivy or some loose bark but no obvious cracks or fissures. No evidence of bats found (e.g. droppings / staining).
Moderate potential	Tree contains some features suitable for roosting bats. Trees with some cracks or fissures and/or large amounts of ivy / loose bark. Usually semi-mature or mature specimens. Trees tend not to have large splits, hollow trunks or woodpecker holes. No evidence of bats found.
High potential	Tree contains features that are highly desirable for roosting bats. Trees with woodpecker holes / large cracks and/or crevices. Often with a hollow trunk. May support very dense ivy. No evidence of bats found.
Confirmed roost	Bats discovered roosting within the tree, or recorded emerging / entering a tree at dusk / dawn. Trees found to contain conclusive evidence of occupation by bats, such as bat droppings. A confirmed roost record (as supplied by an established source such as the local bat group) would also fall into this category.

Birds

4.7 An assessment of the suitability of the site to support breeding birds has been carried out.

4.8 All birds seen and heard were recorded.

Badger



Hedgehog

4.11 A habitat assessment of the site was carried out to look at its suitability to support Hedgehog. Favoured habitats are shown below:

- Gardens
- Hedgerows
- Woodlands
- Grasslands
- Parkland

Hedgerow

4.12 The hedgerow will be assessed against the Hedgerow Regulations criteria for important hedgerows.

Flora

4.13 All native plants seen during the survey were recorded.

5.0 Survey Results

5.1 The Preliminary Ecological Appraisal was carried out by Howard Hillier who holds Natural England Bat Survey Licence 2016-21564-CLS-CLS assisted by Joe Hillier.

5.2 The Preliminary Ecological Appraisal was carried out on 8th October 2021 in the following weather conditions: overcast, Beaufort Windscale 1 and a temperature of 14°C.

Bats (Buildings)

5.3 The building on the site is in a semi-derelict condition and unsuitable to support roosting bats, it was graded as having negligible potential.

Bats (Trees)

5.4 The trees on the site indicated negligible potential to support roosting bats with no evidence of bat usage and no potential roosting features identified.

5.5 The site offers moderate suitability foraging and commuting habitat for bat species.

Birds

5.6 No birds were recorded during the survey.

5.7 Suitable nesting habitat is offered by the trees, and hedgerows.

Badger

5.8 No Badger setts were identified on the site and there was no evidence of Badger activity.

Hedgehog

5.9 A habitat assessment of the site was carried out to look at its suitability to support Hedgehog, it was thought that the site and surrounds are suitable for supporting Hedgehog.

Hedgerows

5.10 The hedgerow survey recorded five woody species and did not meet the Hedgerow Regulations criteria as an important hedgerow

Flora

5.10 Twenty-three common and widespread species of plant were recorded during the survey with a species list provided in (Appendix 5).

6.0 Conclusions

Bats (Buildings)

6.1 The building on the site is in a semi-derelict condition and unsuitable to support roosting bats.

Bats (Trees)

6.2 The trees on the site indicated negligible potential to support roosting bats with no evidence of bat usage and no potential roost features.

6.3 The habitats present on the site and surrounds are of moderate suitability for foraging and commuting bats.

6.4 The provision of bat boxes complemented by bat friendly lighting will offer enhancement.

Birds

6.5 The trees and scrub on the site offer suitable nesting habitat.

6.6 Installing bird boxes will provide mitigation and enhancement.

Badger

6.7 There was no evidence of Badger setts on the site and no evidence of Badgers using the site.

Hedgehog

6.8 The habitat assessment found the site and surrounds suitable habitat for Hedgehog.

Hedgerow

6.9 The hedgerow did not meet the Hedgerow Regulations criteria as an important hedgerow.

Flora

6.10 All plants recorded were common and widespread.

General

6.10 A data search was not carried out due to the urban nature of the surrounding area.

6.11 Overall the site is of low ecological value.

7.0 Recommendations

Bats

7.1 To provide enhancements bat boxes should be installed in a south facing position at a height of not less than three metres.

7.2 It will be necessary to employ a bat friendly lighting scheme avoiding lighting to newly created roost features.

Birds

7.3 To avoid disturbance to nesting birds the removal of suitable nesting habitat should take place outside of bird nesting season which runs from March to August inclusive; where this is not possible an inspection should be carried out by a suitably experienced ecologist prior to removal.

7.4 The installation of bird boxes will enhance biodiversity; this should comprise of Sparrow Terraces and Swift boxes (in groups of 3) installed between north and east at heights of two to five metres.

Hedgehog

7.5 To provide enhancements Hedgehog homes should be provided across the site.

General

7.6 Enhancements are shown in (Appendix 6).

8.0 Legal Protection

Bats

8.1 The Conservation of Habitats and Species Regulations 2017 transpose into UK law Council Directive 92/43/EEC of 1992 (often referred to as the Habitats Directive). All bats are listed under Annex IV and some (horseshoe bats, Bechstein's and Barbastelle) are also listed under Annex II which relates to Special Areas of Conservation. These Regulations make it an offence to:

- Deliberately capture, injure or kill a bat.
- Deliberately disturb bats in a way as to be likely significantly to affect the ability of any significant groups of bats to survive, breed, rear their young, or to affect the local distribution or abundance of that species.
- Damage or destroy a breeding site or resting place of a bat.
- Keep, transport, sell or exchange, or offer for sale or exchange a live or dead bat or any part of a bat.

8.2 In addition the Wildlife & Countryside Act 1981 (as amended) makes it an offence to:

Intentionally or recklessly

- Disturb any bat whilst it is occupying a structure or place which it uses for shelter or protection.
- Obstruct access to any structure or place which any bat uses for shelter or protection.

8.3 Penalties are fines of up to £5000 per bat and up to a 6 month custodial sentence.

Birds

8.4 All common wild birds are protected under The Wildlife and Countryside Act 1981 (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.

8.5 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.

Badger

8.6 The Badger receives legal protection under The Protection of Badgers Act 1992.

8.7 The following is a summary of the offences contained in the act. It is a criminal offence to commit any of the following:

- To interfere with a sett by damaging or destroying it.
- To obstruct access to, or any entrance of a Badger sett.
- To disturb a Badger when it is occupying a sett.

8.8 A Badger sett is defined by the legislation as “any structure or place, which displays signs indicating current use by a Badger” and this is taken by Natural England to include seasonally used setts.

Hedgehog

8.9 Hedgehog are afforded limited protection under Schedule 6 of the Wildlife and Countryside Act 1981 (as amended) making it illegal to capture or kill them using certain methods. They are also protected from cruelty through the Wild Mammals Protection Act 1996.

The Natural Environment and Rural Communities Act (2006)

8.10 Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006) sets out a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The list (including 56 habitats and 943 species) drawn up in consultation with Natural England, provides a guide to local and regional authorities when implementing their duty as defined in Section 40 of the NERC Act 2006.

- “Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.” - Section 40(1).

- “Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat”. - Section 40(3).

National Planning Policy Framework (2019)

8.11 National Planning Policy Framework (NPPF) (2019) sets out Government Policy on Biodiversity and Nature Conservation and places a duty on planners to give material consideration to the effect of a development on legally protected species when considering planning applications. NPPF also promotes sustainable development by ensuring that developments take account of the role and value of biodiversity and that it is conserved and enhanced within the development.

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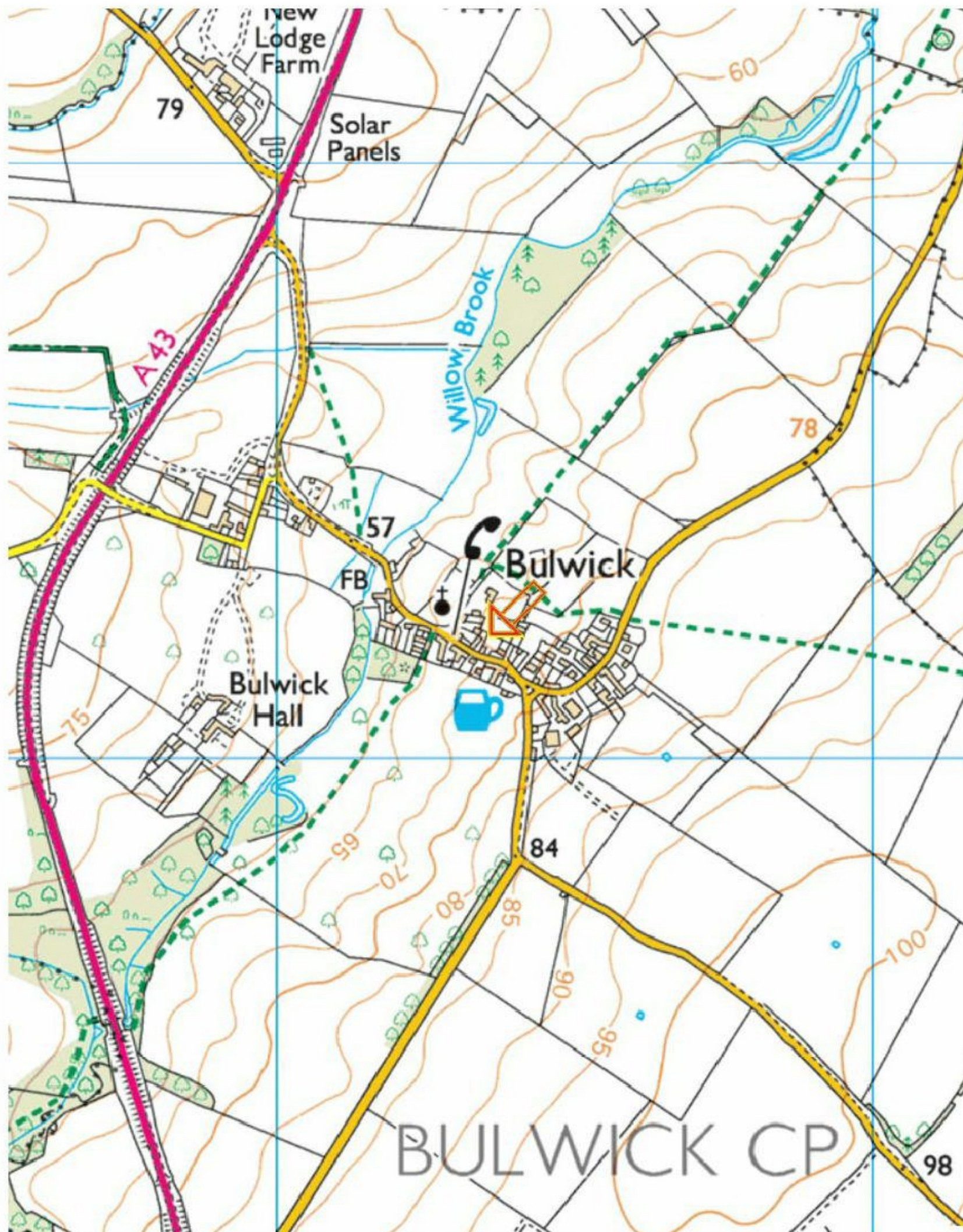
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10.0 Appendices

Appendix 1 Site Location



Appendix 2 Location and Block Plan



Appendix 4 Species List Flora

Butterfly-bush	Butterfly-bush
Cock's-foot	<i>Dactylis glomerata</i>
Common Nettle	<i>Urtica dioica</i>
Creeping Buttercup	Ranunculus repens
Curled Dock	<i>Rumex crispus</i>
Daisy	<i>Bellis perennis</i>
Dandelion	<i>Taraxacum officinale</i>
Elder	<i>Sambucus nigra</i>
False Oat-grass	<i>Arrhenatherum elatius</i>
Ground-ivy	<i>Glechoma hederacea</i>
Hawthorn	<i>Crataegus monogyna</i>
Hawkweed	<i>Hieracium murorum</i>
Hazel	<i>Corylus avellana</i>
Ivy	<i>Hedera helix</i>
Lesser Burdock	<i>Arctium minus</i>
Prickly Sow-thistle	<i>Sonchus asper</i>
Rosebay Willowherb	<i>Chamerion angustifolium</i>
Smooth Sow-thistle	Smooth Sow-thistle
Sycamore	<i>Acer psuedoplatanus</i>
White Clover	<i>Trifolium repens</i>
Wild Marjoram	<i>Origanum vulgare</i>
Wood Avens	<i>Geum urbanum</i>
Yew	<i>Taxus baccata</i>

Appendix 5 Biodiversity Enhancements

Bat Boxes



Beaumaris Woodstone Bat Box (3)

Suitable for crevice dwelling bats, the Beaumaris Bat Box is made from 100% woodstone and is available in two sizes.

These boxes have a rough interior to provide lots of grip. They have good thermal insulation, reducing temperature fluctuations within the box. They are painted black to best absorb the sun's heat, which is important as bats need to increase their body temperature before they emerge in the evening.

Suitable for wall mounting.

Woodstone is very strong and durable, so this product has a 10-year warranty.

Bird Boxes



WoodStone Sparrow Nest Box

The House Sparrow Nest Box is from the Vivara Pro range and is manufactured from WoodStone - a mix of concrete and FSC wood fibres. This material is strong and highly insulating which helps to provide a thermally stable environment within the box. It also protects against damage from predators such as woodpeckers, squirrels and cats. It has two breeding chambers making it particularly suitable for house sparrows as they prefer to nest in colonies.

The House Sparrow Nest Box can be integrated into the masonry of a new house or fixed onto an external wall using strong screws and wall plugs (not included). If possible, it should be positioned near to vegetation and at a minimum of 2 m above ground.



WoodStone Swift Box

The FSC certified WoodStone Swift Nest Box is constructed entirely out of WoodStone meaning it is long lasting and won't rot away like a traditional wooden nest box. Swift numbers are declining, in part because of the loss of nesting sites. Installing a swift box is a great way to help these birds and to ensure their continued presence in our surroundings. There is an opening at the back of the box for easy cleaning with the nest entrance on the underside of the box. This type of entrance is preferred by swifts but discourages house sparrows and starlings from occupying the box. This box should be installed at least five metres above the ground, ensuring that there is unobstructed access for birds entering and leaving. If possible, boxes should be sited under the shelter of eaves or overhanging roofs.

Specification

Width: 38cm

Height: 24.5cm

Depth: 26.5cm

Weight: 6kg

Material: FSC certified WoodStone

Woodstone Open Nest Box



These attractive nest boxes are manufactured from WoodStone which is a mix of concrete and FSC certified wood fibres. Unlike a traditional wooden nest box, these boxes will not rot away or deteriorate and are guaranteed for 10 years.

These open nest boxes are suitable for wrens, robins, song thrushes and blackbirds, and they are available in brown, green or grey to complement both natural woodland and garden settings.

Woodstone 28mm Hole



These attractive nest boxes are manufactured from WoodStone which is a mix of concrete and FSC certified wood fibres.

These 28mm hole nest boxes are suitable for blue tits, tree sparrows, great tits, crested tits and coal tits and they are available in brown, green or grey to complement both natural woodland and garden settings.

Hedgehog Nest Box



A completely redesigned hedgehog nest that incorporates all the best features of previous nests, is far safer for the hedgehog, and eliminates loose entrance tunnels and plastic pipes by building all these features into one robust design.

This nest box has been designed and ultimately tested extensively with great success over a period of 12 months by the Hedgehog Preservation Society and their hedgehog "carers", whose help is much appreciated. The final nest design

has also been approved by Dr Pat Morris of London University who has contributed to its development.

Features:

- * Fully built-in tunnel with 5" square access for even the largest hedgehog to avoid unwanted visitors.
- * Raised 'step' at entrance to enable the box to be partly buried.
- * Totally safe nesting area well away from the tunnel entrance.
- * Lower roof to enable the hedgehog to build a snug nest.
- * Specially designed inbuilt "unlockable" ventilation to provide just the right temperature and humidity without draughts.
- * Totally removable roof for easy inspection and cleaning.
- * Underfloor runners letting air to the underside of the box but allowing the box to be pushed easily into place in undergrowth, etc.
- * Reinforced and strengthened corners making a sturdy nest box.
- * One compact unit easy to position.

Specification

Exterior quality 12mm resin bonded ply. The box remains untreated on the inside. Best situated in a quiet corner of the garden and covered with leaves and other garden debris. Removable lid for cleaning purposes and reinforced corners, manufactured with surface sunk nails to resist rusting.

Nest box size: Height 22cm x Width 38cms x Length 47cm