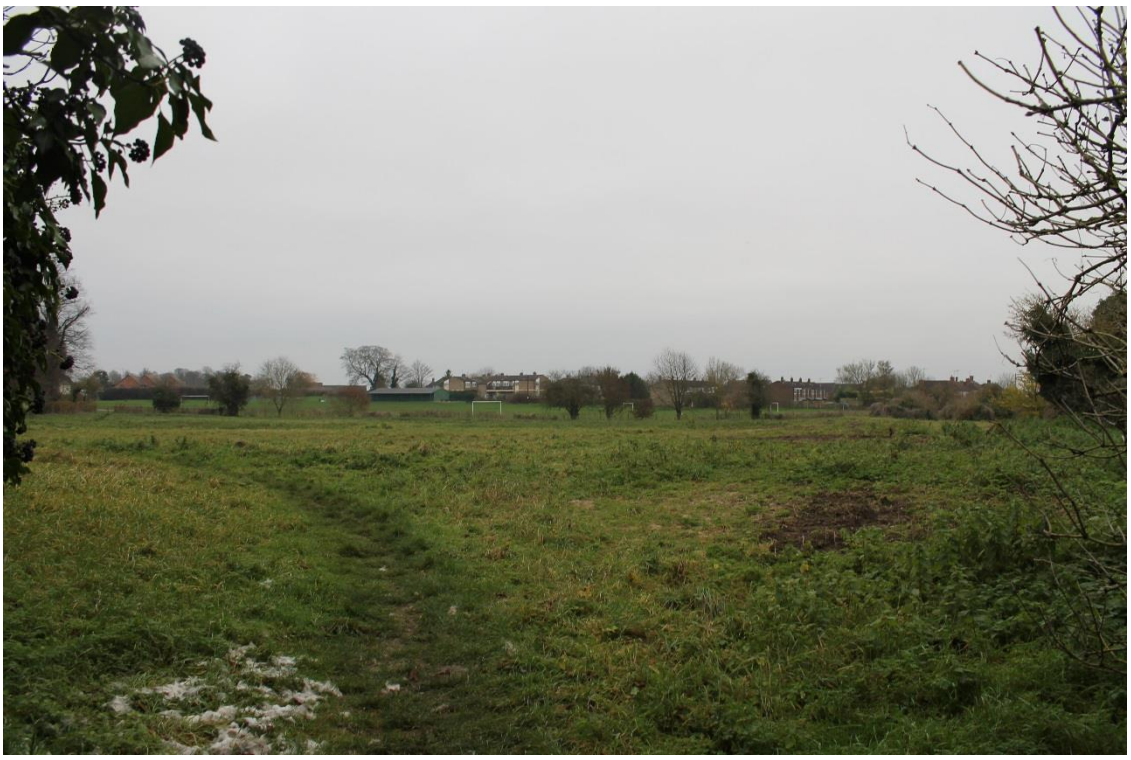
Preliminary Ecological Assessment of the land adjacent to Bishopstone Road, Stone, Aylesbury, Buckinghamshire



First Environment Consultants Ltd

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SUMMARY

On 26th September 2014 First Environment Limited undertook a Preliminary Ecological Appraisal at the land adjacent to Bishopstone Road, Stone.

This was undertaken to determine the presence of any important habitats or species which might be impacted on by the proposed development.

A search of ecological data for the area within a 2.0km radius was carried out, this revealing records of two legally protected species: one record of Common Frog *Rana temporaria*; and four records of Badger *Meles meles*. Most of these records were of a sufficient distance with sufficient barriers between them and the site to ensure the likelihood of these species' presence on site being low. However, one Badger record was approximately 350m to the west of the site, which is relatively nearby.

Within the 2.0km search zone there were two statutory sites, consisting of Sites of Special Scientific Interest. Both of these are of are a sufficient distance from the site, with sufficient barriers such as roads and residential properties between, to not be affected by the development.

The survey site consisted of a field with a footpath running through it, with an intact hedge with a dry ditch along the south-western boundary running parallel with Bishopstone road, a defunct hedge along the south-eastern boundary, and scattered trees along all boundaries.

The site was adjacent to residential properties to the north-west and north-east, public open space to the south-east, and Bishopstone Road to the south-west.

The majority of the site consisted of relatively species-poor semi-improved grassland which appeared to be recently unmanaged. Around seven species of plant were present, dominated by Giant Fescue *Festuca gigantea*, and also including Creeping Buttercup *Ranunculus repens*, Common Nettle *Urtica dioica*, and Cow Parsley *Anthriscus sylvestris*.

There was a number of trees both inside and just outside the site boundary. All the trees within the site were deciduous, and included Hawthorn *Crataegus monogyna*, Ash *Fraxinus*, Oak *Quercus*, Sycamore *Acer pseudoplatanus*, Hornbeam *Carpinus betulus* and Sweet Chestnut *Castanea sativa*.

There was an intact hedge along the south-western boundary which included Hawthorn, Bramble *Rubus fruticosa* and Common Ivy *Hedera helix*. There was also

a defunct hedge running along the south-eastern boundary consisting of a similar species assemblage.

There were small amounts of scrub along the hedgerow on the south-western boundary. This included species such as Bramble and Common Nettle.

A shallow, dry ditch ran along the south-western boundary, under the hedgerow.

No rare vascular plants were found, and all species recorded were common and widespread.

There was minimal potential for bat roosting on site, as there were no buildings and few instances of roosting potential in trees. Plant species diversity was relatively low on the site, meaning there is unlikely to be much insect prey for bat foraging.

No evidence of Badger presence was found, other than a large mammal trail leading from the southern corner of the site to the dry ditch running along the south-west boundary. However no further evidence of Badger presence was found.

No evidence of Otter *Lutra lutra* or Water Vole *Arvicola amphibius* presence was found.

Three bird species were observed at the site: Robin *Erithacus rubecula*, Woodpigeon *Columba palumbus*, and one Red Kite *Milvus milvus* hovering above the site. The former two are on the RSPB Green list, which means they are of least conservation concern; and Red Kite is on the RSPB Amber list, which means it is of moderate conservation concern, although it is widespread in this area. Two nests were observed on the site, and there is potential for birds to nest within the hedges and scattered trees.

None of the habitats on site appeared particularly suitable for reptiles or common amphibians. There was no water on site and no obvious refugia or hibernacula, as well as a general lack of basking areas. As such, the presence of herptiles is considered unlikely.

Given the absence of water or wetland features on site, the presence of Great Crested Newts *Triturus cristatus* is unlikely.

There was some invertebrate activity observed on the site, including foraging Honey Bees *Apis sp.* and Bumble Bees *Bombus spp.* A number of Butterflies were also seen, including Red Admiral *Vanessa atalanta*. However, since much of the site consisted of relatively species-poor semi-improved grassland and there was

generally low plant species diversity, it was concluded that there was relatively low potential for rarer invertebrate species such as those listed as a priority in the UK Biodiversity Action Plan and/or Local Biodiversity Action Plan.

Development of the site could lead to the loss of potential bird nesting sites, a Red Kite hunting site, invertebrate foraging areas, and a Badger migration route if some of the vegetation is removed.

It is therefore recommended that as many of the trees and hedgerows as possible are retained. If trees or hedgerows are removed, it is recommended that suitable compensatory bird nesting habitat is provided. In addition, suitable foraging habitat should be retained or created for Red Kite, including long grassland vegetation and/or hedgerows which would encourage small mammal prey.

Creation of a wildflower meadow would provide foraging habitat for invertebrates such as bees and butterflies, and this could also act as the hunting habitat for Red Kite.

Badgers potentially seem to use the hedgerow along the south-western boundary, perhaps to move between foraging sites. This existing hedgerow should be retained as far as possible to provide a continuous corridor for Badger movement.

Since all in-use bird's nests and their contents are protected from damage or destruction, any tree and shrub removal should be undertaken outside the bird nesting period: 1st March to 31st August inclusive. If this time frame cannot be avoided, a close inspection of the trees and shrubs to be removed should be undertaken prior to clearance. Work should not be carried out within a minimum of 5.0 metres of any in-use nest, although this distance could be more depending on the sensitivity of the species.

Although no evidence of reptiles or common amphibians was found during the survey, both these and small mammals could potentially be present on site. As such, care should be taken at all times during vegetation removal and topsoil stripping. Any small mammals, reptiles and common amphibians disturbed or uncovered, should either be caught by hand and relocated to a safe area, or left to vacate the work site in their own time.

If excavations are to be undertaken, it should be noted that open trenches could potentially trap wildlife, especially if these fill up with water. Escape routes should therefore be provided if trenches cannot be infilled immediately. These can be in the form of branches or boards placed in the trench, with their upper ends above ground level and touching the sides, and sloping ends left in the bottom of the trench.

If any tree or hedgerow removal cannot be timed appropriately to avoid the bird nesting period (considered to be March to August inclusive), then further surveys by an ecologist of the ground, trees and/or hedgerows to be cleared or removed will be necessary. These can be carried out immediately prior to the commencement of any such clearance works.

*

Taking all the evidence into account, the proposed development of the land adjacent to Bishopstone Road, Stone is unlikely to impact significantly on wildlife if the appropriate mitigation measures are taken, and will not lead to a significant loss of habitat in the area.

1. INTRODUCTION

1.1 Background and survey objectives

On 26th September 2014 First Environment Limited undertook a Preliminary Ecological Appraisal at the land adjacent to Bishopstone Road, Stone.

This was undertaken to determine the presence of any important habitats or species which might be impacted on by the proposed development of the site.

A search of the ecological data was carried out to ascertain the presence of nature conservation designations, protected habitats and records of protected species within a 2.0km radius of the site.

1.2 Site description

The survey site consisted of a field with a footpath running through it, with an intact hedge with a dry ditch along the south-western boundary running parallel with Bishopstone road, a defunct hedge along the south-eastern boundary, and scattered trees along all boundaries.

The site was adjacent to residential properties to the north-west and north-east, public open space to the south-east, and Bishopstone Road to the south-west.

The majority of the site consisted of relatively species-poor semi-improved grassland which appeared to be recently unmanaged. Around seven species of plant were present, dominated by Giant Fescue, and also including Creeping Buttercup, Common Nettle, and Cow Parsley.

There was a number of trees both inside and just outside the site boundary. All the trees within the site were deciduous, and included Hawthorn, Ash, Oak, Sycamore, Hornbeam and Sweet Chestnut.

There was an intact hedge along the south-western boundary which included Hawthorn, Bramble and Common Ivy. There was also a defunct hedge running along the south-eastern boundary consisting of a similar species assemblage.

There were small amounts of scrub along the hedgerow along the south-western boundary. This included species such as Bramble and Common Nettle.

A shallow, dry ditch ran along the south-western boundary, under the hedgerow.
The site was accessed from Bishopstone Road, in the westernmost corner of the site.

1.3 Proposed works

It is understood that the proposed works will comprise a residential development, consisting of 12 properties and associated landscaping.

2. METHODOLOGY

2.1 Desk study

A desk study was undertaken to determine the nature conservation designations, protected habitats and protected species that had been recorded within a 2.0 km radius of the site. This involved assimilating and reviewing data provided by statutory and non-statutory organisations.

The consultees for the desk study were:

- Multi Agency Geographic Information (MAGIC) website www.magic.gov.uk;
- National Biodiversity Network Gateway website https://data.nbn.org.uk.

2.2 Habitat survey

A Preliminary Ecological Appraisal was carried out across the whole of the survey site. It was conducted using standard JNCC (2003) techniques and methodologies.

The Preliminary Ecological Appraisal visit took place on 26th September 2014, in cloudy but mild conditions, with some light rain.

2.3 Protected species survey

During the surveys the potential for other protected and important species was assessed. This included European Protected Species, legally protected species and Local Biodiversity Action Plan Species.

2.4 Constraints

There were no constraints as the survey was carried out during the optimal time of year, and the weather conditions were good.

3. RESULTS

3.1 Desk study

3.1.1 Designated sites

Statutory sites

The study found that there were two statutory sites within 2.0km of the site, and these are set out in the table below.

Site name	Designation	Proximity to survey site
Stone	SSSI	0.7km north-west
Bugle Quarry	SSSI	0.7km east
Key: SSSI: Site of Special Scientific Interest		

Both of these sites are a sufficient distance from the site, with sufficient barriers such as roads and residential properties between, to not be affected by the development.

Non statutory sites

No non-statutory sites were found within a 2.0km radius of the site.

Protected habitats

An investigation into what important habitat types may be present in the surrounding area within 2.0km was also undertaken, and these are outlined in the table below.

Habitat type	Proximity to site
Ancient replanted woodland	1.1km northwest
Ancient and semi-natural woodland	1.8km west
Traditional orchard BAP priority habitat	0.7km east CP
Deciduous woodland BAP priority habitat	0.3km CP
Woodpasture and parkland BAP priority habitat	0.5km east CP

Key:
BAP: Biodiversity Action Plan
CP: 'at closest point' (used when there are multiple instances of one habitat)

There were no protected habitat types shown to be present on site, or near enough to be affected significantly by development of the site.

3.1.2 Protected species

A search of ecological data for the area within a 2.0km radius was carried out, this revealing records of two legally protected species of animal: one record of Common Frog; and four records of Badger. Most of these records were of a sufficient distance with sufficient barriers between them and the site to ensure the likelihood of these species' presence on site being low. However, one Badger record was approximately 350m to the west of the site, which is relatively nearby.

No records of legally protected species of plant were found within a 2.0km radius of the site.

3.2 Habitat survey

3.2.1 Habitat descriptions

The following habitats were recorded across the site:

- Semi-improved grassland;
- Scattered trees;
- Intact hedge;
- Defunct hedge;
- Scrub;
- Dry ditch.

These habitats are described below, and are shown on the habitat survey map (appendix 2).

Semi-improved grassland

The majority of the site consisted of relatively species-poor semi-improved grassland which appeared to not be mown or grazed recently (fig.1). Around seven species of plant were present, dominated by Giant Fescue, and also including Creeping Buttercup, Common Nettle, and Cow Parsley.

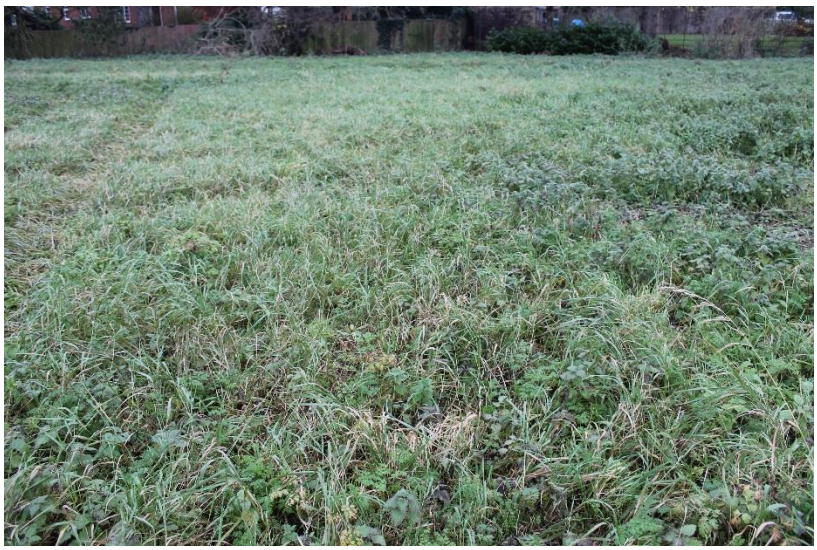


Fig. 1. Semi-improved grassland

Scattered trees

There was a number of scattered trees both inside and just outside the site boundary (fig. 2). All the trees within the site were deciduous, and included Hawthorn, Ash, Oak, Sycamore, Hornbeam and Sweet Chestnut.

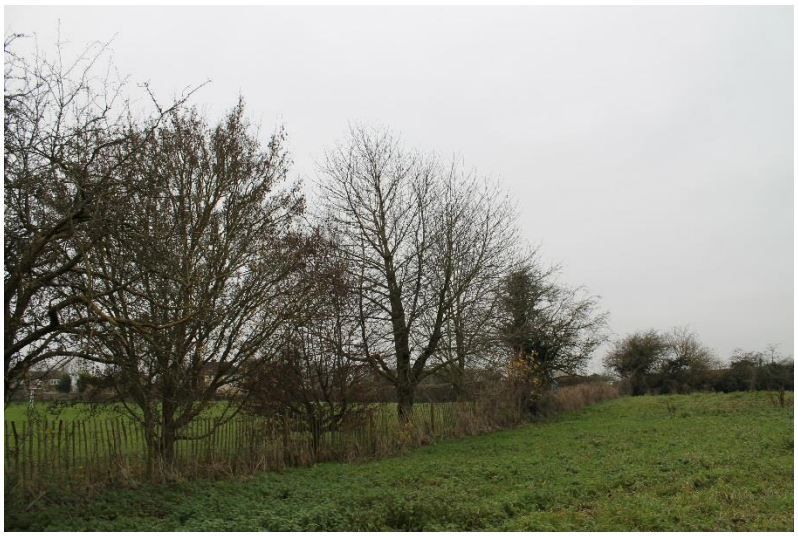


Fig. 2. Scattered trees

Intact hedge

There was an intact hedge along the south-western boundary (fig.3), parallel to the road, which included Hawthorn, Bramble and Common Ivy.

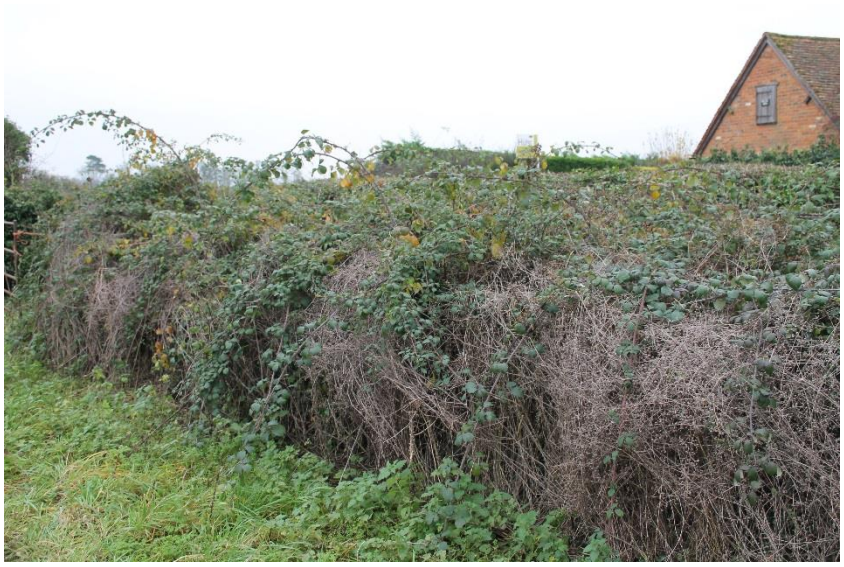


Fig. 3. Intact hedge

Defunct hedge

There was a defunct hedge running along the south-eastern boundary (fig.4), with significant gaps at intervals, consisting of a similar species assemblage as the intact hedge.

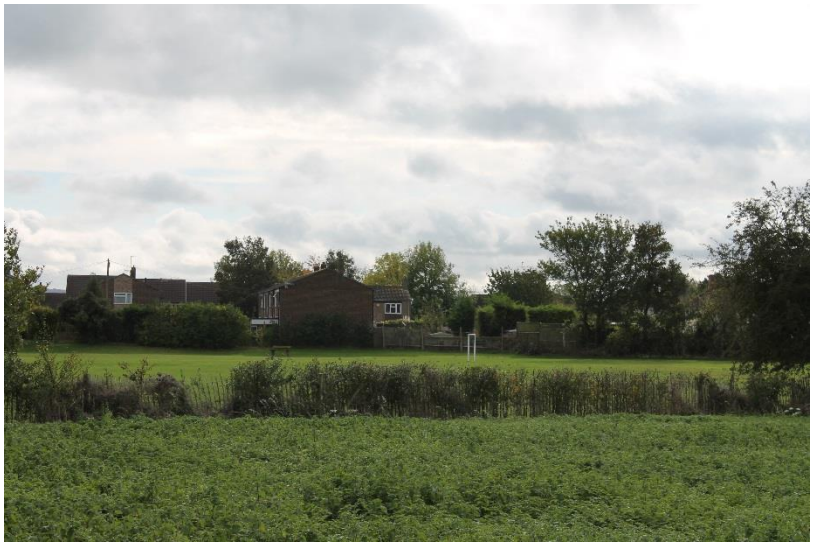


Fig. 4. Defunct hedge

Scrub

There were small amounts of scrub along the hedgerow on the south-western boundary (fig. 5). This included species such as Bramble and Common Nettle.

Fig. 5. Scrub

Dry ditch

A shallow, dry ditch ran along the south-western boundary, under the hedgerow.

3.2.2 Flora

The botanical composition of habitat was typical, and all species recorded are common and widespread. No rare vascular plants were found, and there were no invasive species.

3.3 Protected species survey

3.3.1 Bats

There was minimal potential for bat roosting on site, as there were no buildings and few instances of roosting potential in trees. Plant species diversity was relatively low on the site, meaning there is unlikely to be much insect prey for bat foraging.

3.3.2 Badgers

No evidence of Badger presence was found, other than a large mammal trail leading from the southern corner of the site to the dry ditch running along the south-west boundary (fig. 6). However no further evidence of Badger presence was found.

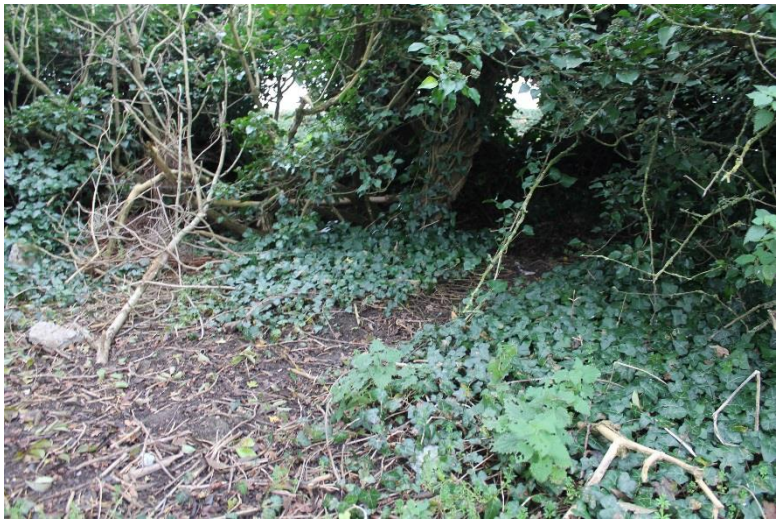


Fig. 6. Possible badger trail

3.3.3 Otters

No evidence of Otter presence was found.

3.3.4 Water Voles

No evidence of Water Vole presence was found.

3.3.5 Birds

Three bird species were observed at the site: Robin, Woodpigeon, and one Red Kite hovering above the site. The former two are on the RSPB Green list, which means they are of least conservation concern; and Red Kite is on the RSPB Amber list, which means it is of moderate conservation concern, although it is widespread in this area and was not seen to be nesting on the site.

Two nests were observed on the site, both of which seemed to be inactive.

There was potential for birds to nest within the hedges and scattered trees.

3.3.6 Reptiles and common amphibians

None of the habitats on site appeared particularly suitable for reptiles or common amphibians. There was no water on site and no obvious refugia or hibernacula, as well as a general lack of basking areas.

As such, the presence of herptiles is considered unlikely.

3.3.7 Great Crested Newts

Given the absence of water or wetland features on site, the presence of Great Crested Newts is unlikely.

3.3.8 Invertebrates

There was some invertebrate activity observed on the site, including a considerable number of foraging Honey Bees, as well as three foraging Bumble Bees. A number of Butterflies were also seen, including one Red Admiral.

However, since much of the site consisted of relatively species-poor semi-improved grassland and there was generally low plant species diversity, it was concluded that there was relatively low potential for rarer invertebrate species such as those listed as a priority in the UK Biodiversity Action Plan and/or Local Biodiversity Action Plan.

3.3.9 Other species

No other important or protected species were noted during the survey visit.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Site evaluation

The site was concluded to be of low wildlife value.

None of the six habitats recorded at the site are considered rare or important, and they are generally common throughout the local area. The plant communities present are regarded as common, under no conservation threat, and are not of remarkable value to wildlife.

The six habitats present were found to be unlikely to support important animal species. Only three taxonomic groups of ‘important’ species need to be considered in the site’s redevelopment, namely birds, Badgers and invertebrates.

The site was found unlikely to support specially protected species of birds, those rare or deemed under conservation threat. However, common garden birds may be found on site, and nesting habitat may be found in some trees and shrubs on site. Additionally Red Kites may use the site for hunting.

The Badger and bat potential of the site was considered too low to warrant further surveys. However, Badgers appeared to use the hedgerow along the south-western boundary. The four records of Badgers in the local area confirms that they are likely to be present in the surrounding area; but due to the lack of setts or other signs of Badger presence on the site, such as snuffle holes, it is considered that they are unlikely to use the site a great deal.

It was concluded that the only perceivable ecological value of the site appears to be for birds and invertebrates.

4.2 Possible impacts of proposed work and recommendations

Development of the site could lead to the loss of potential bird nesting sites, a Red Kite hunting site, invertebrate foraging areas, and a Badger migration route if some of the vegetation is removed.

It is therefore recommended that as many of the trees and hedgerows as possible are retained. If trees or hedgerows are removed, it is recommended that suitable compensatory bird nesting habitat is provided. In addition, suitable foraging habitat should be retained or created for Red Kite, including long grassland vegetation and/or hedgerows which would encourage small mammal prey.
Creation of a wildflower meadow would provide foraging habitat for invertebrates such as bees and butterflies, and this could also act as the hunting habitat for Red Kite.

Badgers potentially seem to use the hedgerow along the south-western boundary, perhaps to move between foraging sites. This existing hedgerow should be retained as far as possible to provide a continuous corridor for Badger movement.

Since all in-use bird's nests and their contents are protected from damage or destruction, any tree and shrub removal should be undertaken outside the bird nesting period: 1st March to 31st August inclusive. If this time frame cannot be avoided, a close inspection of the trees and shrubs to be removed should be undertaken prior to clearance. Work should not be carried out within a minimum of 5.0 metres of any in-use nest, although this distance could be more depending on the sensitivity of the species.

Although no evidence of reptiles or common amphibians was found during the survey, both these and small mammals could potentially be present on site. As such, care should be taken at all times during vegetation removal and topsoil stripping. Any small mammals, reptiles and common amphibians disturbed or uncovered, should either be caught by hand and relocated to a safe area, or left to vacate the work site in their own time.

If excavations are to be undertaken, it should be noted that open trenches could potentially trap wildlife, especially if these fill up with water. Escape routes should therefore be provided if trenches cannot be infilled immediately. These can be in the form of branches or boards placed in the trench, with their upper ends above ground level and touching the sides, and sloping ends left in the bottom of the trench.

*

Taking all the evidence into account, the proposed development of the land adjacent to Bishopstone Road, Stone is unlikely to impact significantly on wildlife if the appropriate mitigation measures are taken, and will not lead to a significant loss of habitat in the area.

4.3 Further surveys

If any tree or hedgerow removal cannot be timed appropriately to avoid the bird nesting period (considered to be March to August inclusive), then further surveys by an ecologist of the ground, trees and/or hedgerows to be cleared or removed will be necessary. These can be carried out immediately prior to the commencement of any such clearance works.

5. REFERENCES

JNCC, 2003. *Handbook for Phase 1 habitat survey – a technique for environmental audit (revised reprint)*. Joint Nature Conservation Committee, Peterborough.

Rose F., 2006. *The Wild Flower Key*. Penguin Books Ltd, London.

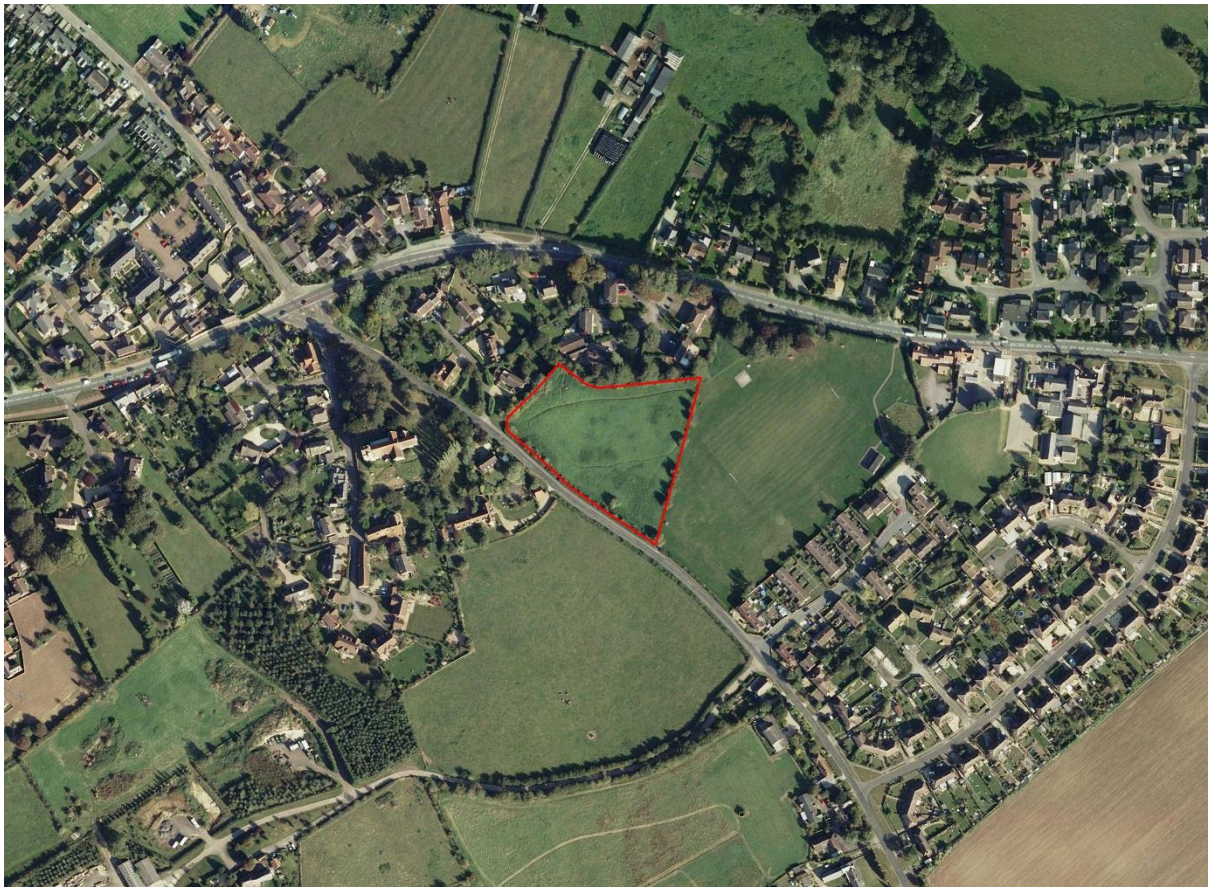
APPENDICES

Appendix 1: Site Location Plan

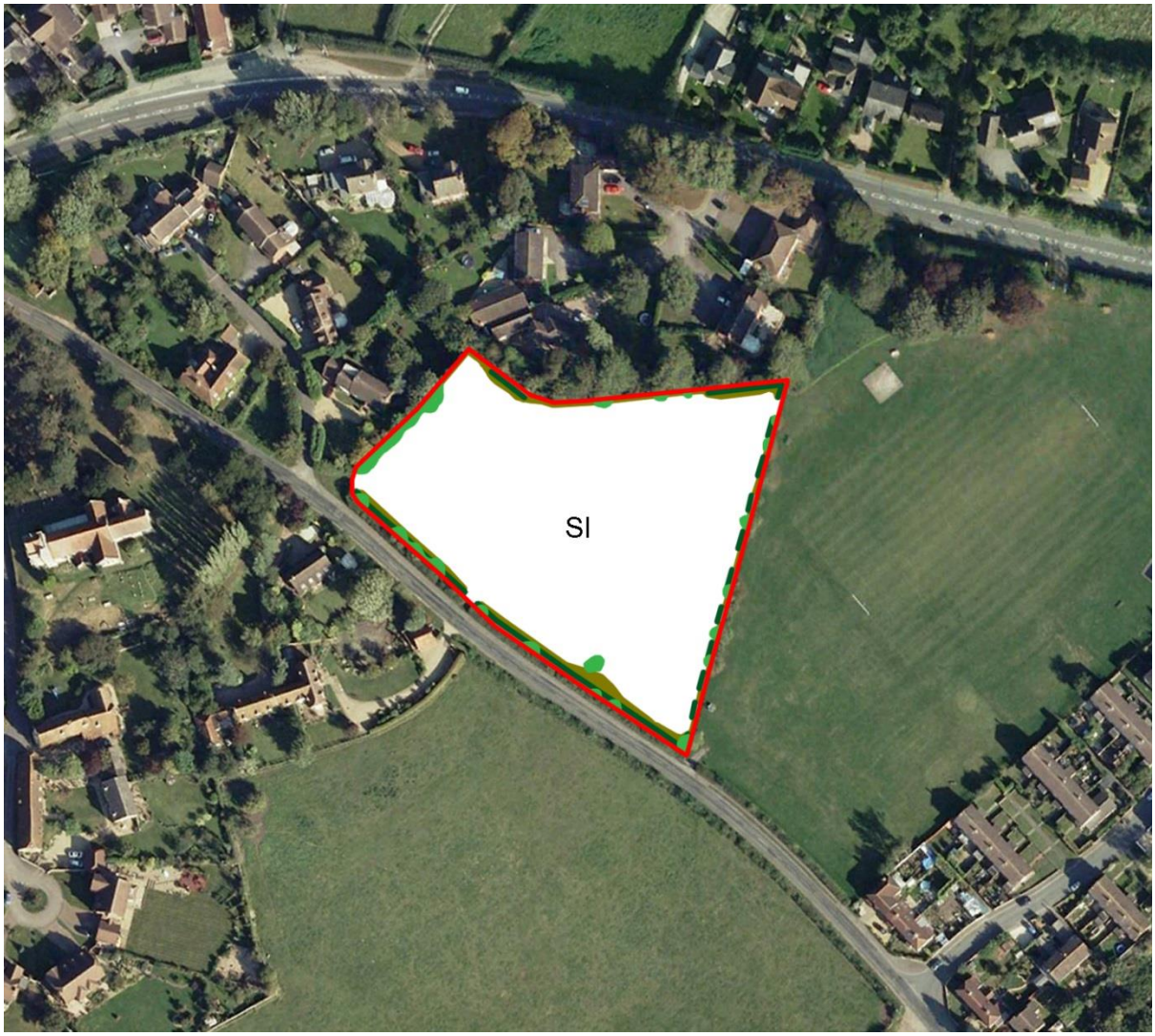
Appendix 2: Habitat Survey Map

Appendix 3: Relevant legislation

Appendix 1: Land adjacent to Bishopstone Road – Site Location Plan



Appendix 2: Habitat Survey Map (not to scale)



Appendix 3: Relevant legislation

3.1 – Badgers

Badgers are protected in Britain by the Protection of Badgers Act 1992. The purpose of this Act is to protect the animals from deliberate cruelty and from the incidental effects of lawful activities which could cause them harm. Under this legislation it is an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat a Badger, or attempt to do so;
- Interfere with a sett by damaging or destroying it;
- Obstruct access to, or any entrance of, a Badger sett;
- Disturb a Badger when it is occupying a sett.

Note that if any of the above resulted from a person being *reckless*, even if they had no intention of committing the offence, their action would still be considered an offence. A person is not guilty of an offence if it can be shown that the act was *'the incidental result of a lawful operation and could not have been reasonably avoided'*; only a court can decide what is 'reasonable' in any set of circumstances.

Penalties for offences under this legislation can be up to six months in prison and a fine of up to £5,000 for each offence.

A Badger sett is defined in the Act as *'any structure or place which displays signs indicating current use by a Badger*'. This can include culverts, pipes and holes under sheds, piles of boulders, old mines and quarries, etc.

'Current use' does not simply mean 'current occupation' and for licensing purposes it is defined as *'any sett within an occupied Badger territory regardless of when it may have last been used'*. A sett therefore, in an occupied territory, is classified as in current use even if it is only used seasonally or occasionally by Badgers, and is afforded the same protection in law.

3.2 – Birds

In Britain, all wild birds, their nests and eggs are protected under the Wildlife & Countryside Act 1981. There are penalties for:

- *Killing, injuring or capturing them, or attempting any of these;*
- *Taking or damaging the nest whilst in use;*
- *Taking or destroying the eggs.*

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Land adjacent to Bishopstone Road – Preliminary Ecological Appraisal Report

To: Manor Oak Homes
White Lodge Farm
Walgrave
Northampton

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