

Preliminary Ecological Appraisal

Land at Keepers Cottage, Coolham

September 2024

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26/09/2024

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Document Control:

Project no.:		Project name:		
13086		Land at Keepers Cottage, Coolham		
Version:	**Written by:**	**Checked by:**	**Authorised by:**	**Date:**
V1	Amber Howie	Paul Carter	Richard Schofield	11 July 2024
V2	Amber Howie	Richard Schofield	Richard Schofield	26 September 2024

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Non-technical Summary

Phlorum Ltd was commissioned by Savills UK to undertake a Preliminary Ecological Appraisal (PEA), and Bat Building Inspection (BBI) / Tree Preliminary Roost Assessment (PRA), which was carried out at land at Keppers Cottages, Coolham Road, Coolham, RH13 8GP on the 5th June 2024 in order to determine whether any ecological constraints could affect the proposed works for the site.

Current proposals are for demolition of the existing buildings and construction of a new dwelling with associated landscaping and parking areas. The survey area extended over approximately 0.09 hectares (ha).

The main findings of the surveys are as follows:

- The site is not subject to any statutory or non-statutory designations. The closest statutory designated site is Coneyhurst Cutting Site of Special Scientific Interest (SSSI). which is located 1km to the west.
- The site comprised buildings (u1b5), ruderal vegetation (g 81), bare ground (g 510), native hedges (h2a), and native hedgerow with trees (h2 11).
- It is recommended that targeted surveys in respect to bats are carried out.
- In addition, a precautionary approach to site clearance in respect to breeding birds, foraging badgers, hazel dormice, reptiles and hedgehogs is recommended to minimise any adverse impacts on these species' groups.

This version (V2) has been produced to amend minor typos within the text.

Further information on precautionary working practices and additional surveys together with recommended mitigation and enhancement measures are discussed in Section 5.

1. Introduction

Background

1.1 Phlorum Ltd has been commissioned by Savills UK to undertake a Preliminary Ecological Appraisal (PEA), with a Bat Building Inspection (BBI) / Tree Preliminary Roost Assessment (PRA) to inform the potential ecological constraints of proposed future development of Land at Keepers Cottages, Coolham Road, Coolham, RH13 8GP (hereafter referred to as "the site").

1.2 The purpose of the Preliminary Ecological Appraisal was:

- to identify the major habitats present;
- to identify the potential for any legally protected species to be present; and
- to recommend any additional ecological surveys, if required.

1.3 As part of the assessment, a desktop review and a site visit were carried out. The results of which were used to assess the nature conservation importance of the site and the potential of the site to support protected species.

1.4 This report has been compiled in accordance with current guidelines (British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development, 2013 and CIEEM, 2017 and 2018).

1.5 It is understood that the proposed development is for demolition of the existing buildings and construction of a new dwelling with associated landscaping and parking areas.

Site Location

1.6 The site is in a rural location, accessed by private road off a minor country road. There is no other housing within 500m of the site, and the immediate surroundings include priority habitat, such as the hedgerows across the surroundings, streams to the east within the woodland and north, and ancient woodland and deciduous woodland habitats. In the wider surroundings are minor and major roads, towns and rural residential homes.

1.7 The National Grid Reference for the centre of the site is TQ11132411. The survey area extended over approximately 0.09 hectares (ha).

2. Methodology

Desk Study & Consultations

Database and Map Search

2.1 The desktop study involved conducting database searches for statutory and non-statutory designated sites, legally protected species and features of interest within a 2km radius of the site. The database and map search was based on available information provided by the following sources:

- Sussex Biodiversity Records Centre (SxBRC, 2024);
- Multi-Agency Geographical Information for the Countryside (MAGIC, 2024);
- Ordnance Survey mapping;
- Aerial photography; and
- The Woodland Trust online Ancient Tree Inventory.

2.2 The desktop study also involved a search of all international designated sites within 12km of the site.

Habitat Survey and Assessment

2.3 Phlorum Limited carried out an ecological survey of the site on 5th June 2024. The survey was carried out by a suitably qualified ecologist, Amber Howie who has 2 years professional experience of undertaking ecological surveys. The survey results and assessment was reviewed by Paul Carter (BSc (Hons), MBA, MCIEEM), an ecologist with over twenty years of experience of managing ecological and landscaping projects, and by the project director Richard Schofield (BSc (Hons), MSc, CSJK, MCIEEM, MIEMA, CEnv), with over twenty years of experience in managing projects. The weather conditions during the survey were warm and clear.

2.4 The field survey comprised a walkover inspection of the land and habitats present. The survey followed standard Phase 1 survey methodology (JNCC, 2010) and covered all accessible parts of the site, including boundary features. The description of the site habitats has used the code/referencing from The UK Habitat Classification User Manual Version 2.0 (UKHab 2023). UKHab uses primary habitat codes, either on their own or followed by one or more secondary codes. Each individual code is separated by a space. Habitats were described and mapped (Figure 1: Appendix A). A list of plant species was compiled, together with an estimate of abundance made according to the DAFOR scale. The DAFOR scale provides an estimate of the relatively abundance of plant species within the Survey Area (Appendix D).

2.5 This assessment provides information on the habitats in the survey area and identifies actual or potential presence of legally protected or otherwise notable species/habitats in or immediately adjacent to the site.

2.6 Target notes highlighting a particular feature of ecological interest are provided in Appendix B, with associated photographs.

2.7 Scientific names are given after the first mention of a species, thereafter, common names only are used. Nomenclature follows Stace (2010) for vascular plant species.

Protected Species Assessment

2.8 The potential for the site to provide habitat for protected species was assessed from field observations in conjunction with results of the desk study. The site was inspected for indications of the presence of protected species including:

- Habitat considered suitable to support widespread reptile species including areas with a scrub/grassland mosaic and potential hibernation sites;
- On-site ponds offering potential breeding opportunities for great crested newts (*Triturus cristatus*) and the presence of suitable terrestrial habitat including hedgerows and rough grassland;
- The presence of features in and on trees indicating potential for roosting bats (*Chiroptera*), including knot and rot holes and loose bark. Secondary evidence of bats including staining, droppings, and feeding remains were also looked for;
- The presence of nesting habitat for breeding birds, including mature trees, dense scrub, and hedgerows, and direct evidence of bird nesting including bird song, old nests etc.;
- Habitats considered suitable to support badger (*Meles meles*) setts, and evidence in the form of hair, pathways, and latrines;
- Presence of woodland and/or hedgerows providing suitable habitat to support hazel dormice (*Muscardinus avellanarius*);
- Riparian habitat supporting suitable features for water voles (*Arvicola amphibius*) and otters (*Lutra lutra)*; and the
- Presence of nationally protected and/or invasive plants.

2.9 The potential presence for protected species is categorised as **Negligible**, **Low**, **Moderate**, **High,** or **Present**, based on the findings of the field survey and on the evaluation of existing data. However, the potential presence for bats is categorised as **None, Negligible**, **Low**, **Moderate**, or **High** (Collins, 2023).

2.10 The purpose of this assessment is to identify whether more comprehensive Phase 2 surveys for protected species or mitigation should be recommended.

Bat Building Inspection (Preliminary Roost Assessment)

2.11 The Bat Building Inspection (BBI), also referred to as a Preliminary Roost Assessment (PRA) was carried out on the 5th June 2024. The survey was undertaken in accordance with good practice guidelines (Collins, 2023). The survey was carried out by Amber Howie, a suitably qualified ecologist with experience in undertaking a range of ecological surveys, and reviewed by Richard Schofield who holds Bat Level 1 Survey Class Licence CL17 (Ref: 2021-51095-CLS-CLS).

2.12 The interior and exterior of the buildings were inspected closely with the aim of identifying the presence of bats and any secondary evidence together with any potential roost sites. Secondary evidence includes droppings, feeding remains, scratch marks and oil and urine staining.

2.13 The external inspection was carried out first and comprised a detailed search of all accessible architectural features for bat droppings, urine staining, scratch marks, staining around suitable crevices and feeding remains.

2.14 The internal inspection was then carried out, where it was safe to do so. A high-powered torch was used to illuminate internal features at height, for instance the apex of the roof and associated supporting beams, and these were inspected using close focusing binoculars when required.

2.15 Where access permitted, roof voids were also inspected. This comprised a search of the floor area and other flat surfaces, including stored materials, in order to find evidence of discarded feeding remains and bat droppings. Internal features such as the roof lining were examined to assess actual or potential roost opportunities.

2.16 In accordance with current standing advice issued by Natural England (2015), the following types of bat roosts were considered during the assessment:

- Day Roost - where individual bats, or small groups of males, rest or shelter in the day
- Night Roost - where bats rest or shelter at night between foraging in the active period, but rarely during the day
- Feeding 'Perch' Roost - where bats hang to eat or catch their prey or rest at night between feeding sessions.
- Hibernation Roost - where bats are found during winter. These roosts typically comprise a stable environment where bats can enter torpor; these areas are normally of a constant temperature.
- Transitional or Occasional Roost - where individual or small numbers of bats gather at a temporary site before and after hibernation.
- Maternity Roost – where female bats give birth and rise their young.
- Satellite Roost – an alternative roost found in close proximity to the main nursery roost colony and sued by a few individual breeding females to small group of breeding females through the breeding season.

Tree Assessment for Bats

2.17 The none, negligible, low, moderate, high classification for potential bats roots in trees do not work well, so the following table is use (Collins, 2023).

Table 2.1: Guidance for assessing the suitability of trees on proposed developments site for bats

Suitability	Description
NONE	Either no Potential Roost Features (PRF) in the tree or highly unlikely to be any.
FAR	Further assessment required to establish if PRFs are present in the tree.
PRF	A tree with at least one PRF present.

2.18 When a PRF is found Table 2.2 provides the guidance to assessing its (Collins, 2023).

Table 2.2: Guidance for categorising the potential suitability of PRFs on a proposed development site for bats

Suitability	Description
PRF-I	PRF is only suitable for individual bats or very small number of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

Caveat

Data Search Constraints

2.19 It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.

Survey Constraints

2.20 Ecological surveys are limited by factors that affect presence of plants and animals such as seasonality. Whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the environment.

2.21 The survey was carried out during the growing season and therefore most species would be expected to be visible and identifiable.

2.22 The appraisal does not constitute a full botanical survey, or a Phase 2 pre-construction survey that would include accurate GIS mapping for invasive or protected plant species. This survey provides a preliminary view of the likelihood of protected species occurring on the site based on the suitability of the habitat, known distribution of the species in the local area, and any direct evidence on the site. It is therefore used as a tool to recommend further protected species surveys (or other species of significant nature conservation interest) if on the basis of the preliminary assessment or during subsequent surveys, it is considered reasonably likely that protected species may be present.

2.23 It is however considered that the survey was sufficiently rigorous to assess the ecological value of the site.

Bat Survey Constraints

2.24 Bats are mobile animals which can move roost sites throughout the year. It is possible that surveys carried out in June may miss roosts not occupied until later in the year. However, where undisturbed, it is generally possible to find secondary evidence of bats throughout the year.

2.25 It is considered that the survey was sufficiently rigorous to assess the ecological value of the site for the purposes of this assessment.

Limitations

2.26 This appraisal also does not constitute as a full invasive species survey. All surveys are subject to the conditions on site at the time of the survey. Site surveys are non-intrusive and rely on the visual identification of aboveground growth. If parts of a site are inaccessible, then these areas can often not be surveyed unless they can be viewed from other areas. If any aboveground growth is being managed or has been disturbed or covered, or the below ground growth is dormant, then it may be impossible for us to identify invasive plants in these areas during our non-intrusive survey.

3. Baseline Conditions

Desk Study

Aerial Photography and OS Maps

3.1 Aerial photographs and OS maps show the site to be predominantly rural, with agricultural and grass fields, scattered woodland and the river Adur and streams in the wider surroundings. There appear to be number of ponds/drainage ditches/streams within 500m of the site, the majority of the waterways appear to be streams running off the river Adur.



Image 1; Waterbodies present within a 250-meter and 500-meter search radius. Waterbodies are marked by the arrows. The map shows the site boundary marked as the innermost red boundary. There appears to be one waterbody within a 250m search radius shown as the middle red boundary, and several waterbodies within the 500m search boundary shown as the outer red line (Magic, 2024).

3.2 There are several granted European Protected Species Licences (EPSLs) shown in ariel maps; however, they appear to be within the wider surroundings. The closest EPSL is for bats located approximately 1.6km to the southeast, great crested newt approximately 1.8km to the west, amphibians approximately 2km to the southwest and for mammals approximately 4.5km to the east. (Image 2). Unknown bat roosts or species-specific locations such as ponds, hedges and other priority habitats may still be present within the 2km search radius.

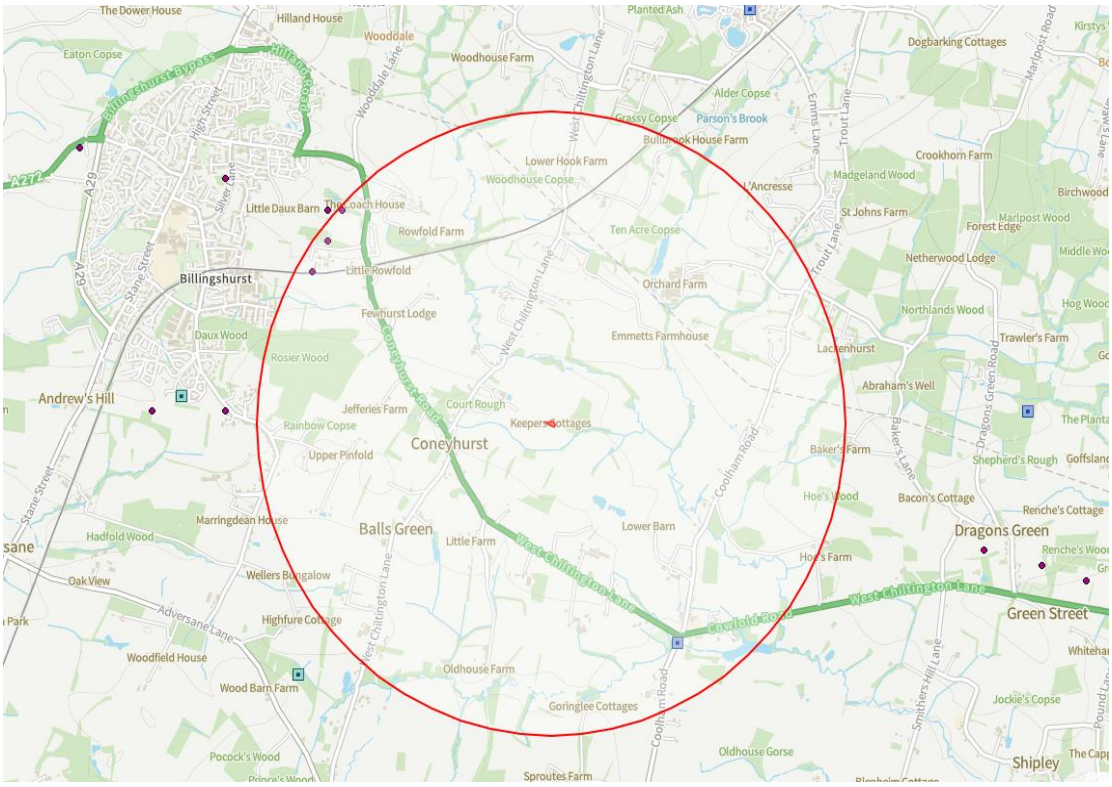

Image 2; Granted European Protected Species Licences (EPSLs) within a 2km search radius. The site is shown as the central red pin. There are several granted EPSLs within the wider surroundings. The closest EPSLs granted within the 2km search radius are for bats shown as the blue pin, mammals shown as the pink pins, amphibians as the green pins and great crested newts shown as the purple dots. (Magic, 2024).

Statutory and Non-Statutory Designated Sites

Statutory International Sites

3.3 The closest international statutory designated site is The Mens Special Area of Conservation SAC. Table 1 provides a list of statutory international sites within 12km of the site.

Table 1: Statutory international sites within 12km of the site

Site Name	Reason for Designation	Area (ha)	Distance from the Site
The Mens Special Area of Conservation (SAC)	Annex I habitats that are a primary reason for selection of this site • 9120 Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (*Quercion robori-petraeae* or *Ilici-Fagenion*) The Mens is an extensive area of mature beech (*Fagus sylvatica*) woodland rich in lichens, bryophytes, fungi and saproxylic invertebrates, and is one of the largest	204.69	7.4km to the west

	tracts of Atlantic acidophilous beech forests in the south-eastern part of the habitat's UK range. Annex II species present as a qualifying feature, but not a primary reason for site selection • 1308 Barbastelle (*Barbastella barbastellus*).		
Arun Valley SAC, Special Protection Area (SPA) & RAMSAR	Habitats on site include • Inland water bodies (Standing water, running water) • Bogs, marshes, water fringed vegetation, fens • Humid grassland, mesophile grassland • Broad-leaved deciduous woodland Annex II species that are a primary reason for selection of this site; • 4056 ramshorn snail (*Anisus vorticulus*). The ramshorn snail occurs across a range of sites in southern and eastern England. The Arun valley is one of the three main population centres for this species in the UK. This proposed site includes two of its core sites in the wash lands of the Arun floodplain (Pulborough Brooks and Amberley Wild Brooks SSSIs).	487.48	7.9km to the southwest
Warnham Local Nature Reserve (LNR)	A 17-acre Warnham Millpond with reedbeds, islands and marginal vegetation. Millpond Plantation and Walnut Tree Plantation are a mix of ancient woodland, conifer plantation and mixed broadleaved plantation. Boldings Brook runs through the middle of the reserve in a floodplain and floods the wet grassland and the willow carr in winter. The diverse habitats have a wealth of plants and animals with 10 species of amphibians and reptiles, 162 birds, 23 dragonflies and damselflies, 28 mammals including 7 bats, 366 plant species including grasses, sedges, rushes and ferns, as well as 523 species of moths. The reedbeds are good for warblers including Cetti's warbler and water rails. The	38.35	9.8km to the northeast

	woodlands are home to owls, sparrowhawks and roe deer and winter flocks of siskin and redwing. The grassland is particularly good for insects such as the migrant clouded yellow butterfly and six spot burnet moth. The water habitats from the large Millpond to the smaller dipping ponds and brooks have a wealth of wildlife from dragonflies to cormorants, teal, herons and fish.		

Statutory National and Local Sites

3.4 The closest statutory national and/or local designated site is Coneyhurst Cutting Site of Special Scientific Interest SSSI. Table 2 provides a list of statutory national and local sites within 2km of the site.

Table 2: Statutory national and local sites within 2km of the site

Site Name	Reason for Designation	Area (ha)	Distance from the Site
Coneyhurst Cutting Site of Special Scientific Interest (SSSI)	This is a geological SSSI.	0.15	1km to the west

Non-Statutory Sites

3.5 The closest non-statutory designated site is Rosier Wood Local Wildlife Site (LWS) Table 3 provides a list of non-statutory sites within 2km of the site.

Table 3: Non-statutory sites within 2km of the site

Site Name	Reason for Designation	Area (ha)	Distance from the Site
Rosier Wood Local Wildlife Site (LWS)	Ancient and seminatural woodland of hazel (*Corylus avellana)* coppice with oak (*Quercus robur)* standards. Coppicing is still carried out on the woodland today. It contains a rich diversity of plants, including notable species such as narrow-leaved bitter-cress (*Cardamine impatiens)*. It is also important for notable woodland fauna including	21	1.3km to the west

	breeding nightingale (*Luscinia megarhynchos)*, hazel dormouse (*Muscardinus avellanarius)* and white admiral (*Limenitis Camilla)*.		
St. Cuthmans Pond LWS	A lake with well-developed marginal flora, floating and submerged plants and bankside trees and shrubs in places. A reedbed adjoins the lake and there is also an area of rough grassland. The lake is left relatively undisturbed and is consequently of considerable value to a variety of fauna including birds, butterflies, dragonflies and damselflies, amphibians and fish. A number of interesting birds have been recorded here. Little grebe, grey wagtail and reed warbler can be found breeding and snipe uses the area for feeding.	6.3	1.8km to the southeast
Wildens Meadow LWS	Contains a mosaic of grassland and woodland habitats, together with a number of ponds. This provides good habitat for amphibians including the great crested newt (*Triturus cristatus)*, a notable species that has been recorded on the site. The LWS is connected by a network of hedgerows to the Rosier Wood LWS, although the railway line marks a small break in the connective habitat	3.2	1.9km to the northwest

Ancient Woodland

3.6 There is no ancient woodland covering any part of the site or immediately adjacent to the site. No trees on or adjacent to the site are listed on the Woodland Trusts' Ancient Tree Inventory.

3.7 The closest area of ancient woodland is situated approximately 360m to the north. There are several fragmented pockets of ancient woodland in the immediate and wider surroundings. This is shown in the priority habitat maps in appendix g.

Priority Habitat

3.8 Priority habitats are habitat types or elements with unique or significant value to a diverse assemblage of species.

3.9 The site is bordered by hawthorn and dog rose hedges, which are connected to the wider landscape and border the surrounding woodland, agricultural and grassland fields.

3.10 There are areas of priority habitat deciduous woodland adjacent to the southeast corner of the site and within the immediate surroundings. Priority habitat hedgerows are present bordering the site and within the immediate and wider surroundings, and streams are present in the wider area.

3.11 There are several areas of other priority habitats in the surrounding area, the closest are deciduous woodland, ancient woodland, grassland and wetland habitats. The locations of these are shown in the habitat maps in Appendix G.

3.12 Not all priority habitats are returned by the data search, it is possible that priority habitats such as ponds and hedgerows are present within the immediate and wider surroundings. The priority habitats listed within this report and the appendices are indicative of the habitats observed on site and recorded in the surroundings area but is not a complete list.

Habitats

Site Summary

3.13 The site comprised buildings, ruderal vegetation, bare ground, hedges and hedgerow with trees.

3.14 The site is a disused residential dwelling and garden. The site is accessed via a private road, which is bordered by woodland, a stream, agricultural fields with bordering hedgerows and grassland fields. The surrounding area is rural with agricultural land and grass fields bordered by well-connected woodland and hedgerow habitats.

3.15 The site is the building and gardens. The house is dilapidated, with the majority of the roof gone and the brickwork collapsing around the building. There is a small brick outbuilding at the back of the garden which is in the same condition as the house.

3.16 The gardens are bordered by two hedgerows, one hedgerow is separated and runs along the western aspect of the garden and the other runs around the east aspect of the garden and connects to the hedges that lead down the access track and into the woodlands and agricultural fields that immediately surround the site. There main habitat is a small garden, which to the east of the site is patched with bare ground and ruderal vegetation. The west garden area is bordered by a hedge with several large mature oak trees, during the PEA survey the vegetation in this garden area was between 0.5-1m in height, this had all been cut to ground level when the site was revisited for subsequent ecological surveys. The hedges that border the garden open at the centre as an access point and at the rear of the garden which is open to the agricultural fields behind.

3.17 The surrounding offsite habitats include areas of priority habitat, such as the hedgerows across the surrounding fields, streams to the east within the woodland and north, and ancient woodland and deciduous woodland habitats.

3.18 The main habitats recorded within the site are described below. The UKHab code is shown in the bracket after the habitat type (UKHab 2023). Additional details are shown on the habitat survey plan in Appendix A, and the target notes are listed in Appendix B.

Buildings (u1b5)

Building 1 (B1)

3.19 The majority of the site is a dilapidated residential building. The building was a brick built, two storey and detached. The building is disused and in a state of disrepair. The majority of the roof has fallen in, and there are no windows or doors. The building cannot be safely surveyed inside due to its condition.

Building 2 (B2)

3.20 There is a small outhouse building at the rear of the property that backs onto the bordering fields at the north of the site. The building is a single storey, brick build, in similar condition to the main building B1.

3.21 Within the buildings were several plants including English ivy *(Hedera helix)* and elder *(Sambucus nigra)* saplings.

Ruderal Vegetation (h3d)

3.22 The majority of the site is a small garden that runs around the house. At the west of the house, the garden is overgrown with ruderal vegetation, dominated by dock. The east aspect of the garden had some scattered areas of ruderal vegetation, predominantly around the garden edges and hedge borders.

3.23 Species noted included dock *(Rumex spp),* nettle *(Urtica dioica),* hogweed *(Heracleum sphondylium),* burdock *(Arctium minus),* cleavers *(Galium aparine),* buttercup (Ranunculus spp.), dandelion *(Taraxacum officinale),* cow parsley *(Anthriscus sylvestris),* white clover *(Trifolium repens),* white dead nettle *(Lamium album),* ground ivy *(Glechoma hederacea),* sow thistle *(Sonchus oleraceus),* common vetch *(Vicia sativa),* hedge bindweed *(Calystegia sepium),* germander speedwell *(Veronica chamaedrys),* climbing nightshade *(Solanum dulcamara),* garlic mustard *(Alliaria petiolata),* and fireweed *(Chamaenerion angustifolium).*

3.24 There was a good number of butterflies, bugs and insects around the site, particularly toward the north of the garden where the majority of the flowering species listed were located.

Bare Ground (g 510)

3.25 In the eastern garden aspect were patches of bare ground. The soil was mostly dry and rocky.

Native Hedgerows (h2a)

3.26 The site is bordered by a native hedgerow. The eastern hedgerow is connected to the offsite hedges. In places the hedgerow was thinning and in poor condition, however the majority of the southern aspect of the hedge was in good condition with several native species.

3.27 Species noted included; hawthorn *(Crataegus monogyna)*, dog rose *(Rosa canina),* privet *(Ligustrum vulgare)* and field maple *(Acer campestre)*.

Hedgerow with Trees (h2 11)

3.28 The site is bordered by a native hedgerow. The western hedgerow is separated from the eastern hedge and adjacent offsite hedges. The majority of the southern aspect of the hedge was in good condition with several native species, and five large oak trees *(Quercus robur)* and one hawthorn tree at the far northwest corner. There is another small hawthorn tree within the hedge at the far northeast aspect of the eastern hedge.

Target Note (TN)

3.29 The following features of interest were noted during the survey and have been marked on Figure 1:

- **TN1 – Potential Roost Feature (PRF)**.

Bat Building Inspection (Preliminary Roost Assessment)

Main House (Building 1)

3.30 The main house was a large dilapidated residential house. The walls were brick and were worn with several areas buckling around the window and door frames. The roof is in a state of disrepair, the timber frame was exposed across the entire roof with the roof lining exposed and several bare areas of lining. There are two intact chimneys which had gaps in the brickwork.

3.31 Internally the structure was timber built, the interior was inaccessible due to its condition. Aspects of the internal structure were viewed from the windows where possible, the internal ceilings had collapsed and were stripped of materials. There are multiple access points for bats across the entire building.

3.32 No bats or secondary evidence of bats were found during the initial inspection.

3.33 Ingress opportunities were present across the entire roof, with access also possible through the window and door frames. As these features were located in a dilapidated building this would likely create extreme temperature fluctuations throughout the year, so it is considered the structure is only likely to provide habitats for temporary roosts or feeding/night roosts for a small number of bats rather than larger and more significant maternity and hibernation roosts.

3.34 Overall, the main house was assessed as having **high** potential to support roosting bats.

Building 2

3.35 Building 2 was a small outbuilding comprised of brick walls. The roof is missing and there is vegetation growing within the walls of the building.

3.36 During the survey, the only potential bat roosting areas were in gaps in the brickwork and timber door frames.

3.37 Overall, building 2 was assessed as having **low** potential to support roosting bats.

3.38 Both buildings were examined externally but not internally. No evidence of use by bats was seen.

Tree Assessment for Bats

3.39 In total one tree was considered to support features of moderate to high value to roosting bats.

3.40 All trees assessed as having roosting potential were found within the tree and hedge line along the northwest site boundary. For the purposes of this assessment, trees assigned as having a moderate or high value have been numbered and are illustrated on the survey map in Appendix A. Approximately 20% of the trees within the survey boundary were considered to provide low to negligible potential for roosts based on the degree of ivy cladding on the trunks. The remainder of the trees were considered to provide negligible potential for roosting bats.

3.41 Under current design proposals all trees noted as having potential to support roosting bats are to be retained.

3.42 Trees considered to be of low or negligible potential have been omitted from the summary table below however areas of trees with low potential are described later in the results section.

Moderate Value: Category 2

3.43 In total one tree with moderate potential was recorded throughout the site. Dominant features included a large crack to the upper extent of the trunk. The tree species are oak (*Quercus spp.)* and are semi-mature/mature and were within the hedgerow along the northwest boundary. Specific tree numbers for moderate potential are listed below:

- T1: Oak.

Low Value: Category 1

3.44 Approximately 20% of trees at the site were noted to have some degree of ivy cladding and/or flaking bark. The tree species are oak (*Quercus spp.)* and are semi-mature/mature and were within the hedgerow along the northwest boundary. Specific tree numbers for moderate potential are listed below:

- T2: Oak.

No Value: Category 0

3.45 The remaining Oak trees within the hedgerow at the northwest boundary were considered to offer negligible potential for roosting bats. this was based on the lack of visible potential roost features.

Protected Species

3.46 Legislation relating to the protected species referred to in this section is included in Appendix C.

3.47 The following paragraphs detail the suitability of the on-site habitats to support protected species and include information from the data search for protected, rare and otherwise notable species returned within a 2km radius.

Bats

3.48 The data search showed records of bats from the genera pipistrelle (*Pipistrellus*), long eared (*Plecotus*), myotis (*Myotis*), serotine (*Eptesicus*), Noctule/Leisler's (*Nyctalus*), within the 2km search area in the past 15 years.

3.49 During the survey potential bat roosting features were seen in the buildings and trees.

3.50 Overall, it was considered that the site offered **High** potential for roosting bats.

Amphibians

3.51 The data search showed records of great crested newt *(Triturus cristatus)* smooth newt *(Lissotriton vulgaris),* common frog *(Rana temporaria)* and common toad *(Bufo bufo)* within 2km of the site within the past 15 years.

3.52 Aerial photographs and maps show one waterbody within 250m of the site, and several within 500m of the site. The majority of the waterways appear to be streams running off the river Adur. The closest toad crossign is approximatly 11km to the north.

3.53 During the survey no water was seen on site. However, the habitat contained features that could support foraging and commuting newts. This included grassland, hedgerows and areas of dense vegetation.

3.54 It was considered that the site offered **negligible** potential for breeding newts and amphibians, and **low** potential for foraging and commuting newts and amphibians.

Reptiles

3.55 The data search showed records of adder *(Vipera berus),* grass snake *(Natrix Helvetica),* slow worm *(Anguis fragilis)* and common lizard *(Zootoca vivpara*) within 2km of the site within the past 15 years.

3.56 During the survey no reptiles or signs of reptiles were seen, however the habitat contained features that could support widespread reptile species. This included areas of grassland, dense vegetation, log piles and areas of bare ground. The wider habitats provide suitable supporting habitat for reptiles. The application is for minor residential development within the existing footprint of the building so there is not expected to be an impact to trees/hedgerows.

3.57 Overall, the site was assessed as having **moderate** potential to support reptiles. Due to the size of the site and the availability of better habitats immediately adjacent to the site, it is considered that precautionary working methods would be sufficient to safeguard this species group.

Birds

3.58 Several Red or Amber listed Birds of Conservation Concern[1] (BoCC), and notable[2] bird species were returned by the data search that may utilise habitats within the site. Species include swift *(Apus apus),* swallow *(Hirundo rustica),* starling *(Sturnus vulgaris),* and red kite *(Milvus milvus).*

3.59 During the survey it was noted that the onsite trees/hedgerows/scrub/buildings provided suitable habitat for nesting birds. Two buzzards *(Buteo buteo)* were seen over the site during the survey. Chiff chaff *(Phylloscopus collybita),* blackbirds *(Turdus merula),* wood pigeons *(Columba palumbus),* and pheasants *(Phasianus colchicus)* were also observed.

3.60 The application is for minor residential development within the existing footprint of the building so there is not expected to be an impact to trees/hedgerows.

3.61 Overall, it was considered that the site offered **moderate** potential for breeding birds.

Badgers

3.62 Records for this species are kept confidentially and were not returned by the data search.

3.63 The habitat on site was considered not suitable for breeding badgers, based on no setts being found and better suitable habitat opportunities in the surrounding area. However, it was suitable for commuting and feeding badgers.

3.64 Overall, the site offered **low** potential for breeding badgers and **high** potential for foraging and commuting badgers.

Hazel Dormice

3.65 The data search showed records of dormice within 2km of the site within the past 15 years.

3.66 The site contained vegetation of a density and type that would support breeding, foraging and commuting dormice, such as the native hedgerow around the site boundary. These habitats are not being directly impacted by the proposed site works, following precautionary measures are followed, no further surveys are recommended.

3.67 Overall, it was considered that the site offered **moderate** potential to support breeding dormice and **moderate** potential to support commuting dormice.

[1] Birds of Conservation Concern status is prioritised into high concern (Red), medium concern (Amber) and low concern (Green) (Eaton et al, 2009). Red-list species are those that are globally threatened according to the IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and have not shown a substantial recent recovery. Amber-list species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations. Green-list species are those that fulfil none of the criteria.

[2] Notable Birds are based on a list of birds that are particularly scarce or vulnerable either at national or a regional level. The majority of these bird species are designated as Schedule 1 species, under the Wildlife and Countryside Act 1981 (as amended), or listed as red or amber-listed BoCC.

Water Voles

3.68 The data search showed records of water vole within the 2km search area in the past 15 years.

3.69 The site did not contain the aquatic habitat and vegetation types that would support breeding, foraging or commuting water vole.

3.70 Overall, it was considered that the site offered **negligible** potential to support breeding water voles and **negligible** potential to support commuting and foraging water voles.

Otters

3.71 Reports of otter are not returned by the record centre in this area.

3.72 The site did not contain the aquatic habitat and vegetation types that would support breeding, foraging or commuting otters.

3.73 Overall, it was considered that the site offered **negligible** potential to support breeding otter and **negligible** potential to support foraging and commuting otter.

Hedgehogs

3.74 The data search showed records of hedgehogs (*Erinaceus europaeus*) within 2km of the site within the past 15 years.

3.75 Although no direct evidence of hedgehogs was seen during the survey, the habitats on site, such as the short grassland, log piles, leaf litter and dense scrub seen on site would provide suitable habitat for them to forage and/or hibernate.

3.76 Overall, the site offered **moderate** potential for hedgehogs.

Stag Beetles

3.77 The data search showed one record of stag beetle (*Lucanus cervus*) within 2km of the site within the past 15 years.

3.78 No direct evidence of stag beetles was seen on the site. However, the presence of vegetation and trees could have provided the dead wood required for this species.

3.79 Overall, the site offered **low** potential for stag beetle.

Invasive Plants

3.80 The data search showed records of plant species including giant hogweed *(Heracleum mantegazzianum),* Himalayan balsam *(Impatiens glandulifera)* and Japanese knotweed *(Reynoutria japonica*) occurring within the 2km search area in the past 15 years. These three plants were all listed as invasive in Schedule 9 Part II of the Wildlife and Countryside Act (1981 amended). But of these three plants only Japanese knotweed is still listed on Schedule 9 Part II, as Himalayan balsam and giant hogweed are now listed on the Invasive Alien Species (Enforcement and Permitting) Order 2019.

3.81 During the survey no specimens were seen of plant species that are listed in Schedule 9 Part II of the Wildlife and Countryside Act (1981 amended) or appear on the Non Native Species Secretariat (NNSS, 2023)[3] register of species that are of concern.

[3] GB Non Native Species Secretariate (NNSS) (2023). Accessed from www.nonnativespecieis.org

4. Evaluation

4.1 On the basis of the information available from the habitat survey and desk study, the site has been evaluated in terms of its potential for biodiversity, support of protected species and habitats, and the contribution the area makes as part of the wider landscape. The nature conservation value of the site has been assessed following standard criteria developed by CIEEM (2017 and 2018) and in accordance with BS 24040:2013 Biodiversity – code of practice for planning and development. This is provided below.

4.2 The biodiversity value of protected species within the site is a preliminary evaluation based upon the desk study records, habitat suitability, and the conservation status of the species in question. It should be noted that where European Protected Species (EPS) or species of Principle Importance for the Conservation of Biodiversity are present on-site they may be valued at a lower level/scale where it is considered likely that populations would not be of sufficient importance to justify designation at a higher level. However, regardless of their biodiversity value, such species are still subject to national and/or European legislation.

4.3 Key aspects of relevant planning policy regarding conservation, including an explanation of species referred to as being of 'Principal Importance for Conservation of Biodiversity' and European Protected Species and habitats, are provided in the Legislation section in Appendix C.

Geographic Evaluation

Features of International Importance

4.4 Features of International Importance are principally sites covered by international legislation or conventions. The Conservation of Habitats and Species Regulations 2017 (as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 implements the Natural Habitats and Wild Fauna and Flora (92/43/EC) (Habitats Directive) in England and Wales. The Regulations mainly deal with the protection of sites with certain habitats and populations of species that are important for nature conservation in a European context, i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

4.5 The site is not subject to any international statutory nature conservation designations. The International important sites within 12km of the site are:

- The Mens Special Area of Conservation (SAC);
- Arun Valley Special Area of Conservation (SAC), Special Protection Area (SPA) & RAMSAR; and
- Warnham Local Nature Reserve (LNR).

4.6 The closest site of International Importance is The Mens SAC located 7.4 km to the west. The designated habitats/qualifying species of this SAC are Atlantic acidophilous beech forests and barbastelle bats. The site does provide supporting habitat for this designated site but may for its qualifying species.

Features of National Importance

4.7 Features of national importance include Sites of Special Scientific Interest (SSSIs) which are designated under the Wildlife and Countryside Act 1981 (as amended). The site is not subject to any national statutory nature conservation designations and it is not considered that any habitats or populations or assemblages of species within the site would meet the criteria for the designation of SSSIs at an appropriate geographic level[4].

4.8 The closest designated site of national importance for nature conservation is Coneyhurst Cutting Site of Special Scientific Interest SSSI located 1km to the west. The site does not provide any supporting habitat for this SSSI.

4.9 The site is also located within the 2km Impact Risk Zone of Coneyhurst Cutting Site of Special Scientific Interest SSSI but the site does not have any supporting habitat for this SSSI.

Features of Regional (i.e. West Sussex) Importance

4.10 The site does not include any features of value at this level neither is it likely to be selected as a SINC based on the results of the current survey.

Features of District (i.e. Horsham) Importance

4.11 The site is relatively small and does not support any features that were considered to be of value at this level.

Features of Local (i.e. Coneyhurst) Importance

4.12 The site does not support any features that were considered to be of value at this level.

Features of Value Immediate Vicinity (c. 250m) of the Project

4.13 The on-site vegetation is of value within the immediate vicinity and provides suitable habitat to support protected species including bats, breeding birds, foraging badgers, hazel dormice, reptiles and hedgehogs. It also forms part of the wider ecological network of habitats in the locality, providing wildlife corridors for mobile species to move through the landscape.

Summary

4.14 Overall, on the basis of the survey results and the above criteria, habitats within the site are considered largely to be of ecological value within the immediate vicinity only. The site provides suitable habitat to support several protected species and groups including bats, breeding birds, foraging badgers, hazel dormice, reptiles and hedgehogs However, populations of these are unlikely to be locally significant.

[4] JNCC Guidelines for selection of biological SSSIs (see http://jncc.defra.gov.uk/page-2303#download).

Local Plan Evaluation

4.15 It is considered that the statutory Horsham Local Plan (Adopted 2015) contains the following nature conservation policies relevant to the site. A list of the policies is provided below. The full text of the relevant policies is contained in the Legislation section in Appendix C and this should also be referred to.

Horsham Local Plan (2015)

- Policy 25 - District Character and the Natural Environment.
- Policy 26 – Countryside Protection.
- Policy 30 – Protected Landscapes.
- Policy 31 – Green Infrastructure and Biodiversity.

5. Discussion and Recommendations

Discussion

5.1 The survey site is located at Land at Keepers Cottages, Coolham Road, Coolham, RH13 8GP. The survey area extended over approximately 0.09 hectares (ha). Habitats to be impacted by the development proposals include buildings, ruderal vegetation, bare ground, hedges and hedgerow with trees.

5.2 Design proposals include demolition of the existing buildings and construction of new dwellings and associated landscaping and parking areas.

5.3 Habitats within the proposed development area were assessed as being of value to wildlife within the local vicinity with potential to support bats, breeding birds, foraging badgers, hazel dormice, reptiles and hedgehogs and these species may pose a constraint to works.

5.4 The application is for residential development within the existing footprint of the building so there is not expected to be an impact to trees/hedgerows.

5.5 It is recommended that targeted surveys in respect to bats are undertaken in order to determine presence or likely absence.

5.6 In addition, a precautionary approach to site clearance in respect to bats, breeding birds, foraging badgers, hazel dormice, reptiles and hedgehogs is recommended to minimise any adverse impacts on these species' groups.

5.7 Details regarding specific mitigation, including further surveys and precautionary working practices together with habitat enhancement measures are provided below.

Recommendations

Bats

5.8 Bats receive protection under The Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (as amended).

5.9 Due to the sites High potential suitability to support roosting bats, a series of emergence or re-entry surveys is recommended in order to provide information on if and how bats are using the site. These surveys must be undertaken during the peak active period for bats taken to run between May and August.

5.10 The results of the bat survey can then be used to inform specific mitigation and enhancement measures for this species group to include a lighting scheme that is sympathetic to bats.

5.11 Where a roost is likely to be impacted by the works, and where avoidance is not possible, it may be necessary to obtain a European Protected Species Mitigation (EPSM) Licence before the works can proceed and to complete any necessary mitigation.

5.12 Such a licence would need to be obtained from Natural England once full planning permission is in place. The application will require the drafting of a detailed mitigation strategy including timing and construction methods in addition to the mitigation measures proposed. Natural England currently require 30 working days to determine a licence application.

5.13 If a bat roost is found for a common bat species and the roost is of low conservation value, then a Low Impact Class Licence may be obtained for the site instead. This type of licence is typically obtained within 15 days.

Breeding Birds

5.14 The on-site trees/scrub/hedgerows/buildings provide suitable nesting habitat for a range of bird species. All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended).

5.15 In order to avoid any potential impact on breeding birds, the clearance of any trees/scrub/hedgerows / demolition of buildings should be undertaken outside the main bird nesting season which runs from March to August inclusive[5], with clearance works possible between September and February. Where this is not possible, an ecologist would need to check the vegetation for active nests and signs of bird breeding activity.

5.16 In the event that a nest is found, an exclusion zone around the nest would be established. Works would have to cease within this buffer area until the young birds have fledged.

Reptiles

5.17 The proposed development is considered to have a relatively low impact on any potential reptile populations that may be present. It is therefore felt that a precautionary approach to vegetation clearance should be sufficient to safeguard this protected species group. This would involve vegetation clearance to be carried out in stages in order to avoid any potential impacts on reptiles. This work should be supervised by a suitably experienced ecologist.

Badgers

5.18 Badgers receive protection under The Protection of Badgers Act 1992.

5.19 Due to the potential presence of badgers in the area, a series of general precautions are recommended. This will include the following;

- Throughout construction, all on-site contractors must be made aware of the potential presence of badgers in the locality and a toolbox talk should be given by a qualified ecologist immediately prior to the start of construction works to discuss the potential for badgers to pass through the site and to provide information on legislation and the ecology of this species.

[5] It should be noted that this is the main breeding period. Breeding activity may occur outside this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

- All trenches should be covered at night or if this is not possible, ramps must be installed into the trenches to enable badgers to escape should they enter the excavations. All materials must be stored safely and lids securely fitted, particular waste and other potential food sources.

Hazel Dormice

5.20 The hazel dormouse is protected under the Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife and Countryside Act 1981 (as amended).

5.21 Although there was habitat on site that was considered suitable for supporting dormice, it is not felt that this will be significantly impacted by the proposed development. Therefore, a precautionary approach to the clearance of the site should be sufficient for protecting any dormice present.

5.22 It is recommended that all clearance work is undertaken in the presence of a suitably qualified ecologist, who will guide the schedule of works.

Hedgehogs

5.23 Hedgehogs are listed on the Natural Environment and Rural Communities (NERC) Act 2006 Section 41 as a Species of Principal Importance and a London BAP Priority Species. They are a rapidly declining species.

5.24 Hedgehogs need short grass areas to search for invertebrate prey. Log piles and decaying vegetation are used to forage and hibernate in. Areas of leaf litter can be collected and used in nests. Dense scrub areas are also useful to build hibernation nests during winter. Wildlife friendly corridors allow hedgehogs and other wildlife to migrate across a site. These are discussed in the Wildlife Friendly Pathways Section below.

Habitat Retention

5.25 All retained trees, including all adjacent off-site trees should be protected in accordance with British Standards (BS 2012) 5837:2012 Trees in Relation to Design, Demolition and Construction. The root protection areas of any retained trees must be left free from should be in the form of fencing and signs installed for the duration of the works. excavation and disturbance, and protected during any proposed works. Protection

Habitat Enhancement

5.26 New development offers the opportunity for habitat enhancement in accordance with national and local planning policy and some recommendations are included below.

<u>Bird and Bat Boxes</u>

5.27 Additional bird nesting and bat roosting provision could be incorporated into new design proposals. These could either be installed on trees or incorporated into the new building design. Some recommendations are made below as a guide.

5.28 Bat roosting opportunities could be provided through the installation of boxes on the outside of the walls or remaining trees, such as the Schwegler 2F, or other makes of a similar design, such as Chavenage Bat box. There are a range of bat boxes available and these can be selected to suit the development and bat species in the locality.

5.29 Bird boxes could be installed on the walls of the new building or in the remaining trees which could include the following Schwegler bird house or 1B makes, or similar designs from alternative suppliers. If the client is happy for bird boxes to be installed on the walls of the new building then a Schwegler sparrow terrace 1SP could also be used.

5.30 Further details of the bird and bat boxes are provided in Appendix F.

5.31 Bat boxes should be installed at appropriate locations ideally with south-east, south, or south-west facing aspects at least 3m from ground level. Ideally they need to be exposed to 6-8 hours of direct sunlight, but sheltered from strong winds. If installed on the building, these should ideally be positioned directly below the eaves.

5.32 Bird Boxes should be located out of prevailing wind, rain, and strong sunlight, ideally with a clear flight path to the entrance. Ideally they should be installed two to four metres from the ground facing north or north-east.

Wildlife Friendly Pathways

5.33 The increase in building can result in ecological areas which are unconnected. Effectively these are ecological islands, and often there is no way for wildlife to migrate to and from these areas. One way to reduce the impact and allow wildlife, including hedgehogs, to migrate across sites is to install wildlife friendly pathways across a site. This can include a range of things such as wildlife corridors, such as hedgerows and scrub or rough grassland corridors, but also installing holes in fences. Wildlife holes, often referred to as hedgehog holes, help wildlife migrate through areas. The holes need to be at least 13cm by 13cm, at ground level.

Compensatory Planting

5.34 Additional tree and shrub planting could be incorporated into the landscape proposals to compensate for any removal to facilitate the works. Planting should include a high proportion of native species and be of local provenance where possible. These should be carefully selected to ensure they contain species suitable for the area. Some species of known wildlife value are listed in Appendix E.

6. Conclusions

6.1 The site survey revealed the following habitats:

- Buildings;
- Ruderal Vegetation;
- Bare Ground;
- Hedges; and
- Hedgerow with Trees.

6.2 The site is not subject to any statutory or non-statutory designations. The closest statutory site is Coneyhurst Cutting Site of Special Scientific Interest (SSSI). located approximately 1km to the west at its closest point and the survey area does not support any features that contribute to the designation of this site.

6.3 The following protected species surveys are recommended in order to determine presence or likely absence:

- Bats.

6.4 In addition, a precautionary approach to site clearance in respect to bats, breeding birds, foraging badgers, hazel dormice, reptiles and hedgehogs is recommended to minimise any adverse impacts on these species' groups.

6.5 It has been recommended that the site is enhanced by introducing some compensatory planting and installing bat and bird boxes.

7. References

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8. Glossary of Terms

BAP	Biodiversity Action Plan
BRC	Biological Records Centre
CIEEM	Chartered Institute of Ecology and Environmental Management
Habitats Directive	Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora
LNR	Local Nature Reserve
LWS	Local Wildlife Site
MAGIC	Multi-Agency Geographical Information for the Countryside
NNR	National Nature Reserve
Nomenclature	The system of devising of names for plants
NPPF	National Planning Policy Framework
PEA	Preliminary Ecological Appraisal- formerly referred to as a Phase 1 Habitat Survey
SAC	Special Area of Conservation
SINC	Site of Importance for Nature Conservation
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest

Figures and Appendices

Appendix A

Habitat Map and Target Notes



Figure 1: Land at Keepers Cottages Habitat Survey Map

Drawn by: AH
On the: 05/07/2024
Not to Scale
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Target Notes (TN)

The following features of interest were noted during the survey and have been marked on Figure 1:

- **TN1 – Potential Roost Feature (PRF)**

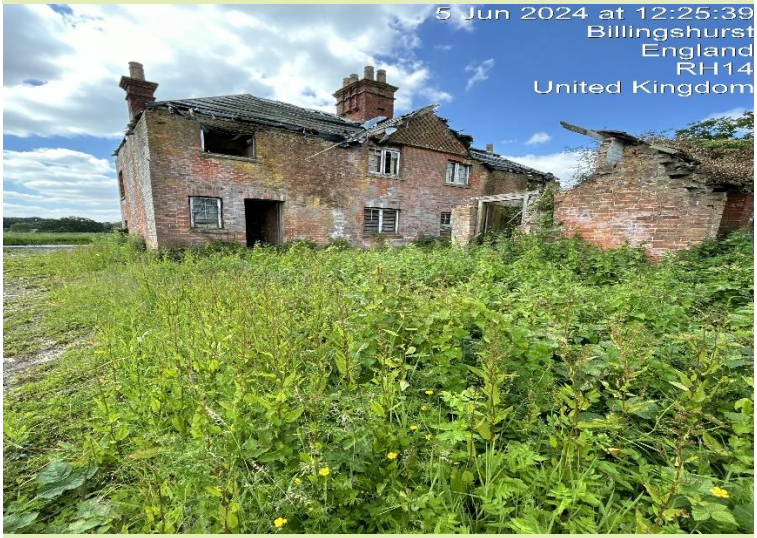
Appendix B

Photographs

Photographs

Photo No.	Feature (Target Note No.)	Photograph of Feature
1	View of the southern face of B1 from the access track	
2	View of the east face of the main building (B1) and (B2) visible to the right. The garden area is visible in the image with bare ground and ruderal vegetation present	

3	View of the east garden from the driveway area. The offsite habitats are visible in the image with hedges, woodland and grass/agricultural fields	
4	Hedges around the east garden and bare ground with ruderals	
5	View across the northern boundary from the northeast corner of the east garden. B2 is visible on the left. Offsite hedges and trees are visible to the right.	

6	View of the northern face of B1 and the corner of B2. Both buildings are in a state of disrepair	
7	A view up from the ground floor into B1. Image shows the building is severely dilapidated.	
8	B2	

9	View of the west garden. Showing tall ruderal vegetation, hedgerows and hedgerows with trees.	
10	**TN1-** Large oak in the hedge boundary with PRF	

11	Facing west along the access track showing boundary and offsite habitats	
12	Facing east along the access track showing boundary and offsite habitats	

Appendix C

Legislation

Legislation

This section contains information pertaining to the legislation and planning policy applicable in Britain. This information is not applicable to Northern Ireland, the Republic of Ireland the Isle of Man or the Channel Islands. Information contained in the following appendix is provided for guidance only.

Species

The objective of the EC Habitats Directive6 is to conserve plants and animals which are considered to be rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2017 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and also implements the obligations set out for species protection from the Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Various amendments have been made since the Wildlife & Countryside Act came into force in 1981. Further details pertaining to alterations of the Act can be found on the following website: www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000) and Nature Conservation (Scotland) Act 2004.

There are a number of other legislative Acts affording protection to species and habitats. These include:

- Countryside and Rights of Way (CRoW) Act 2000;
- Deer Act 1991;
- Natural Environment & Rural Communities (NERC) Act 2006;
- Protection of Badgers Act 1992; and
- Wild Mammals (Protection) Act 1996.

Badgers

Badgers and their setts are protected under the Protection of Badgers Act (1992), which consolidated and added to the previous Badger Acts of 1973 and 1991. Under this legislation it is an offence to:

- cruelly ill-treat a badger, including use of tongs and digging;
- intentionally or recklessly cause a dog to enter a badger sett;

[6] Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.

- intentionally or recklessly damage, destroy or obstruct access to a badger sett[7] or any part thereof;
- intentionally or recklessly disturb[8] a badger when it is occupying a badger sett;
- possess or control a dead badger or any part of a badger;
- sell or offers for sale, possesses, or has under his control, a live badger; and
- wilfully kill, injure, take, or attempt to kill, injure, or take a badger.

A Development Licence will be required from Natural England for any development works affecting an active badger sett, or to disturb badgers while individuals are occupying the sett. Depending on the nature of the works and the specifics of the sett, badgers could be disturbed by work near the sett even if there is no direct interference or damage to the sett itself. Natural England has issued guidelines on what constitutes a licensable activity. There is no provision in law for the capture of badgers for development purposes and therefore it is not possible to obtain a licence to translocate badgers from one area to another.

Bats

Bats are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). This act protects individuals from:

- intentional or reckless disturbance (at any level);
- intentional or reckless obstruction of access to any place of shelter or protection; and
- selling, offering, or exposing for sale, possession or transporting for purpose of sale.

In addition, all species of bat are fully protected under The Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- deliberate killing, injuring, or capturing of Schedule 2 species (all bats);
- deliberate disturbance of bat species as to impair their ability:

  (i) to survive, breed, or reproduce, or to rear or nurture young; and

  (ii) to hibernate or migrate.
- deliberate disturbance of bat species as to affect significantly the local distribution or abundance of the species;
- damage or destruction of a breeding site or resting place; and
- keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part thereof.

[7] A badger sett is defined in the legislation as *"any structure or place which displays signs indicating current use by a badger"*. This includes seasonally used setts. Natural England (2009) have issued guidance on what is likely to constitute current use of a badger sett: www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

[8] For guidance on what constitutes disturbance and other licensing queries, see Natural England (2007) Badgers & Development: A Guide to Best Practice and Licensing. www.naturalengland.org.uk/Images/badgers-dev-guidance_tcm6-4057.pdf, Natural England (2009) Interpretation of 'Disturbance' in relation to badgers occupying a sett www.naturalengland.org.uk/Images/WMLG16_tcm6-11814.pdf, Scottish Natural Heritage (2002) Badgers & Development. www.snh.org.uk/publications/online/wildlife/badgersanddevelopment/default.asp and Countryside Council for Wales (undated) Badgers: A Guide for Developers. www.ccw.gov.uk.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake activities listed above. A licence is required to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and monitored.

Breeding Birds

Under the Wildlife & Countryside Act, 1981 (as amended), a wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild state. Game birds, however, are not included in this definition (except for limited parts of the Act). They are covered by the Games Acts, which fully protect them during the closed season.

Under the Wildlife & Countryside Act, 1981 (as amended), all birds, their nests and eggs are protected under Sections 1-8 of the Act and it is an offence, with certain exceptions, to:

- intentionally (or recklessly in Scotland) kill, injure, or take any wild bird;
- intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built;
- intentionally take or destroy the egg of any wild bird;
- have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act;
- have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act;
- use traps or similar items to kill, injure or take wild birds;
- have in one's possession or control any bird (dead or alive) unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations; and
- in Scotland only, intentionally or recklessly obstruct or prevent any wild bird from using its nest.

Certain rare species receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young;
- intentional or reckless disturbance of dependent young of such a bird;
- in Scotland only, intentional or reckless disturbance whilst lekking; and
- in Scotland only, intentional or reckless harassment.

The British Trust for Ornithology (BTO) has a list of birds that are Species of Conservation Concern. These birds are not legally protected but where they are found on site they should be given planning consideration. The criteria for birds listed as amber (medium conservation concern) include:

- historical population decline during 1800-1995, but recovering: population has more than doubled over last 25 years;
- moderate (25-49%) decline in UK breeding population over last 25 years;
- moderate (25-49%) contraction of UK breeding range over last 25 years;
- moderate (25-49%) decline in UK non-breeding population over last 25 years;
- species with unfavourable conservation status in Europe (Species of conservation Concern);
- five year mean of breeding pairs in the UK;
- ≥50% of UK breeding population in 10 or fewer sites;
- ≥50% of UK non-breeding population in 10 or fewer sites;
- ≥20% of European breeding population in UK; and
- ≥20% of NW European (wildfowl), East Atlantic Flyway (waders) or European (others) non-breeding populations in UK.

Hazel Dormice

The hazel dormouse (*Muscardinus avellanarius*) is fully protected under The Conservation of Habitats and Species Regulations 2017 through its inclusion on Schedule 2. Regulation 41 prohibits:

- deliberate killing, injuring, or capturing;
- deliberate disturbance as to impair its ability:

  (i) to survive, breed, or reproduce, or to rear or nurture young; and

  (ii) to hibernate or migrate.
- deliberate disturbance as to affect significantly the local distribution or abundance of the species;
- damage or destruction of a breeding site or resting place; and
- keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part of this species.

The hazel dormouse is also currently protected under the Wildlife and Countryside Act 1981 (as amended) through its inclusion on Schedule 5. Under this Act, this species is additionally protected from:

- intentional or reckless disturbance;
- intentional or reckless obstruction of access to any place of shelter or protection; and
- selling, offering or exposing for sale, possession or transporting for purpose of sale.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect dormouse breeding or resting places (N.B. this is usually taken to mean dormouse 'habitat') or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above. The licence will

allow derogation from the relevant legislation but will also to enable appropriate mitigation measures to be put in place and monitored.

Herpetofauna (Reptiles and Amphibians)

The following species receive full protection under the Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2.

- sand lizard (*Lacerta agilis*);
- smooth snake (*Coronella austriaca*);
- natterjack toad (*Epidalea calamita*);
- great crested newt (*Triturus cristatus*); and
- pool frog (*Pelophylax lessonae*).

Under this legislation, Regulation 41 prohibits:

- deliberate killing, injuring or capturing of species listed on Schedule 2;
- deliberate disturbance of any Schedule 2 species as to impair their ability:

  (i) to survive, breed, or reproduce, or to rear or nurture young; and

  (ii) to hibernate or migrate.
- deliberate disturbance of any Schedule 2 species as to affect significantly the local distribution or abundance of the species;
- deliberate taking or destroying of the eggs of a Schedule 2 species;
- damage or destruction of a breeding site or resting place; and
- keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part of a species.

With the exception of the pool frog, these species are also currently listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this Act, they are additionally protected from:

- intentional or reckless disturbance (at any level);
- intentional or reckless obstruction of access to any place of shelter or protection; and
- selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). These species include:

- adder (*Vipera berus*);
- grass snake (*Natrix natrix*);
- common lizard (*Zootoca vivipara*); and
- slow-worm (*Anguis fragilis*).

Under this legislation, for these species it is prohibited under Section 9(1) & (5) to:

- intentionally (or recklessly in Scotland) kill or injure these species; or

- sell, offer, or expose for sale, possess, or transport for purpose of sale these species, or any part thereof.

The following species are listed in respect to Section 9(5) of Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) which only affords them protection against sale, offering or exposing for sale, possession, or transport for the purpose of sale:

- common frog (*Rana temporaria*);
- common toad (*Bufo bufo*);
- smooth newt (*Lissotriton vulgaris*); and
- palmate newt (*L. helveticus*).

Water Voles

The water vole (*Arvicola amphibius*) (=*terrestris*) is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- intentionally kill, injure, or take (capture) this species;
- intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection;
- intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection; and
- sell, offer, or expose for sale, or have in his possession or transport for the purpose of sale, any live or dead water vole or part of this species.

Where development works are liable to affect habitats known to support water voles, Natural England must be consulted. All alternative design options must have been explored and communicated to Natural England in order to demonstrate that works have tried to avoid contravening the legislation e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable etc. Conservation licences for the capture and translocation of water voles may be issued by Natural England for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population.

Otters

Otters (*Lutra lutra*) are fully protected under The Conservation of Habitats and Species Regulations 2017 through their inclusion on Schedule 2. Regulation 41 prohibits:

- deliberate killing, injuring, or capturing of otters;
- deliberate disturbance as to impair their ability:

  (i) to survive, breed, or reproduce, or to rear or nurture young; and

  (ii) to hibernate or migrate.
- deliberate disturbance as to affect significantly the local distribution or abundance of the species;
- damage or destruction of a breeding site or resting place; and

- keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part of this species.

Otters also receive protection under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- intentional or reckless disturbance (at any level);
- intentional or reckless obstruction of access to any place of shelter or protection; and
- selling, offering, or exposing for sale, possession or transporting for purpose of sale.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect breeding or resting places or for activities likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above. The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and monitored.

Wild Mammals

All wild mammals are protected against intentional acts of cruelty under the Wild Mammals (Protection) Act 1996. Under this legislation it is an offence to:

- mutilate, kick, beat, nail, or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention of this legislation, due care and attention should be taken when carrying out works that have the potential to impact any wild mammal as described above.

Plants

Wild plants are protected under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Some rare plant species also receive full protection under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits:

- intentionally (or recklessly in Scotland) picking, uprooting, or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only); and
- selling, offering, or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or parts.

In addition to the legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2017. Regulation 45 makes it an offence to:

- deliberately pick, collect, or destroy a wild Schedule 5 species; and
- be in possession of, or control, transport, sell, or exchange any wild live or dead Schedule 5 species or anything derived from it.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect species of plant listed under The Conservation of Habitat and Species Regulations 2017.

Invasive Plant Species

Certain plants are listed on Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Species include:

- Japanese knotweed (*Reynoutria japonica*);
- giant hogweed (*Heracleum mantegazzianum*);
- Himalayan balsam (*Impatiens glandulifera*);
- certain species of rhododendron (*Rhododendron* sp.); and
- certain species of cotoneaster (*Cotoneaster* sp.).

Species listed are non-natives whose establishment or spread in the wild may be detrimental to native wildlife. Inclusion on Part II of Schedule 9 therefore makes it an offence to:

- plant or otherwise cause these species to grow in the wild.

This legislation makes it is an offence to cause species listed to grow in the wild. Therefore, if they are present on site and development activities have the potential to cause the further spread of these species to new areas, it will be necessary to ensure appropriate measures are in place to prevent this.

Habitats

International Statutory Designations

- Special Protection Areas (SPAs): Terrestrial SPAs are afforded protection by The Conservation (Natural Habitats, &c.) Regulations 1994 ((as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019) and offshore SPAs are afforded protection under The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended by EU Exit Regulations 2019). SPAs are designated under the EC Birds Directive (Council Directive 2009/147/EC on the Conservation of Wild Birds). SPAs are areas recognised as important habitat for rare and migratory birds within the European Union (rare birds as listed on Annex I of the Directive).
- Special Areas of Conservation (SACs): These areas are designated under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora), designated for the habitats and (non-bird) species listed on Annexes I and II to the Directive under the same regulations as detailed for SPAs.

- Ramsar sites: These areas are wetlands designated under the Convention on Wetlands of International Importance (1971). Wetlands can include areas of marsh, fen, water, or peatland and may be natural or artificial, permanent, or temporary. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CRoW) Act 2000.

National Statutory Designations

- Sites of Special Scientific Interest (SSSIs): These sites are designated by the countryside agencies (for example Natural England) under the Wildlife & Countryside Act 1981 (as amended). Prior to 1981 these were designated under the National Parks and Access to the Countryside Act 1949. Improved mechanisms for the protection of SSSIs have also been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).
- National Nature Reserves: These sites are also designated by the countryside agencies under the Wildlife & Countryside Act 1981 (as amended).

Local Statutory Designations

- 1949 Local Nature Reserves (LNRs): These sites are designated by local authorities under the National Parks and Access to the Countryside Act 1949. These are sites recognised for their wildlife or geological interest at a local level and are managed for nature conservation.

Non-Statutory Designations

- Local Wildlife Sites: Areas of local conservation interest may be designated by local authorities. The terminology for these sites varies depending on the county. They can be called Sites of Nature Conservation Importance (SNCI's), Sites of Importance for Nature Conservation (SINCs), County Wildlife Sites (CWS), Listed Wildlife Sites (LWS), Local Nature Conservation Sites (LNCS), and Sites of Biological Importance (SBIs). The designation criteria may vary between counties. Local Wildlife Sites are of material consideration when planning applications are being determined.
- The Hedgerow Regulations 1997: These have been compiled to protect 'important' countryside hedgerows from damage or removal. A hedgerow is considered important if it (a) has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations. Under the Regulations, it is against the law to remove or destroy certain hedgerows without permission from the local planning authority. Hedgerows covered by these regulations include those on or adjacent to common land, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry, and land used for the keeping or breeding of horses, ponies, or donkeys.

National Planning Policy

- The National Planning Policy Framework (NPPF) (2023) replaces the former NPPF 2021, 2019, 2018 and 2012, and the former PPS9 document and emphasises the need for sustainable development. The Framework specifies the need to protect and enhance valued landscapes, biodiversity and geodiversity, identify and safeguard components of local wildlife-rich habitats and wider ecological networks including the hierarchy of international, national, and locally designated sites of importance for biodiversity; wildlife corridors; and stepping that connect them. Plus partnerships for habitat management, enhancement, restoration, or creation. The Framework aims to promote the conservation, restoration, and enhancement of priority habitats, ecological networks, and the protection and recovery of priority species. In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; appropriate mitigation or compensation measures are in place where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

Local Planning Policy

Horsham District Planning Framework (2015)

Policy 25 - District Character and the Natural Environment:

- As set out in the introduction to this chapter, the rural qualities of Horsham district are highly valued by those who live and work here, and the landscape and environment also contribute to the economy of the district, both directly and indirectly. The Council is seeking to maintain and where appropriate enhance the beauty and amenity of both the natural and built-up areas of the district. The potential for development to result in small changes which cumulatively impact on landscape, settlement character and the natural environment will be a key consideration, particularly in terms of the impact on smaller scale and local features. In addition to the protected landscapes, as shown on the Policies map, Neighbourhood Plans and other development proposals will need to demonstrate that proposals conserve and enhance the character of the district as identified in documents such as the Horsham District Landscape Character Assessment 2003, and that development is located in areas with the greatest landscape capacity to accommodate development, as indicated in the Landscape Capacity Assessment 2014. Where appropriate, local greenspace designations may also have a role in conserving and enhancing the character of the district, where it can be demonstrated that they are special to the local community.
- Consideration of the townscape character of settlements will be informed by broad based studies of historic character, Conservation Area Appraisals, Village or Parish design statements and any emerging Neighbourhood Plans. Maintenance of the existing settlement pattern is a key objective for the Council, and in particular maintaining the separation between settlements.
- Neighbourhood Plans and development proposals will also need to demonstrate that proposals contribute to the multi-functional network of green spaces, water and other environmental features in urban and rural areas known as Green Infrastructure. It includes trees, parks, road verges, allotments, cemeteries, woodlands, rivers and wetlands. The Council's Green Infrastructure Strategy identifies current and potential future provision of Green Infrastructure. This includes the opportunity to enhance existing biodiversity in identified opportunity areas or any subsequent updates. Neighbourhood Plans and development proposals will also be required to demonstrate that existing biodiversity is protected and enhanced, including the hierarchy of designated sites indicated on the proposals maps and where necessary, demonstrate the requirements of the Habitats Regulations have been met.
- Whilst it is recognised that the undeveloped nature of rural areas must be protected, it is acknowledged that there may be circumstances where development is necessary to ensure the continued sustainable development of rural areas. This might include development which is required to sustain social and economic needs of rural communities, such as subsidised housing, business uses, community, leisure, cultural and tourism facilities, and necessary upgrades to infrastructure, such as water supplies, or high speed broadband and renewable energy.

Policy 26 – Countryside Protection:

- Horsham district covers a large area and contains a diverse range of characteristics, from the heavily wooded character in the north, to more open river floodplains in the south. The Council is seeking to identify the most valued parts of the district for protection, as well as maintain and enhance this natural beauty and the amenity of the district's countryside. It is considered important that the unique characteristics of the district's landscapes are retained and where practicable, enhanced. It will be necessary to ensure that development proposals take into account the key characteristics of the landscape character areas.

Policy 30 – Protected Landscapes:

- Designated for their national importance in terms of landscape and scenic quality, sections of both the High Weald Area of Outstanding Natural Beauty (AONB) and the South Downs National Park fall within the administrative area of Horsham district. The South Downs National Park Authority is the Planning Authority for the National Park Area of Horsham district, and this policy, in common with all others in this plan does not apply to the land within the National Park Area.
- It is essential that the key qualities of these protected landscapes are conserved and enhanced. In the AONB, this includes the heavily wooded character, gill streams, and historic farmsteads and into the locally distinctive hammer ponds whereas a key feature of the South Downs are the steep scarp slopes which form a backdrop to many of the settlements in the south of the district. The conservation and enhancement of protected landscapes will be actively supported, particularly as defined in the High Weald AONB Management Plan and the South Downs Integrated Assessment Plan or any other relevant updates to these documents.
- Development has the potential to harm protected landscapes. Major development will not normally be permitted, and will need to demonstrate that the need for development cannot be met elsewhere or in another way, and that the development is in the public interest. It is however acknowledged that protected landscapes need to be able to adapt to cope with new pressures and meet the needs of residents in the area, and there may be cases where small scale development that helps to maintain economic or social well being in or adjoining these landscapes is necessary.
- Development close to the edge of both the AONB and the South Downs National Park has the potential to have adverse impacts on the qualities of these landscapes, and applicants will need to be mindful of this in relation to any proposals close to the boundary of either of these protected landscapes.

Policy 31 – Green Infrastructure and Biodiversity:

- Green Infrastructure is a term used to describe a multi-functional and connected network of green spaces, water and other environmental features in urban and rural areas. It includes trees, parks, road verges, allotments, cemeteries, woodlands, rivers and wetlands. Green Infrastructure can contribute to the provision of 'ecosystem services'. This includes flood protection, water purification, carbon storage, land for food

production, places for recreation, landscape and nature conservation. Without these services, life as we know it would not be possible, and increased flooding or drought episodes will have severe economic consequences.

- The Council has identified the key strategic Green Infrastructure Assets and opportunities in the district. In addition to existing features such as woodland and rivers, there are also new opportunity areas where new elements of green infrastructure could be provided in the future. It should also be recognised that Green Infrastructure extends beyond Council boundaries - the Downs Link for example extends north to Guildford and south to Shoreham-by-Sea. Green Infrastructure also exists at a smaller scale, in towns, villages and neighbourhoods, and new developments can also provide new green infrastructure through the provision of sustainable drainage systems that can also be used as green spaces, or by providing new recreation routes that are planted to benefit biodiversity.
- The network of Green Infrastructure within the district must be maintained and enhanced. Further detail on the precise location of the strategic green infrastructure assets is available in the Council's Green Infrastructure strategy documentation. Applicants will also need to be mindful of other policies in this document which also contribute to the provision of Green Infrastructure.
- Forming part of the Green Infrastructure network of the district, Horsham district contains a rich network of biodiversity (variety of life). The nature of the habitats and species found across the District is very varied, but key characteristics include the network of woodland habitats, which is particularly dense in the north of the district. Much of this woodland has been present since at least 1600. Designated as ancient woodland, these areas are of particular importance to wildlife and are irreplaceable. As identified by the Local Economic Partnership, woodland has the potential to play a key economic role in the district in the future, providing a low carbon fuel source together with biodiversity benefits. Another key habitat in the District is the dense network of hedgerows, which support a range of wildlife in their own right, and act as corridors, linking wildlife habitats across the district. The floodplains of the Arun and Adur are also distinctive habitats within the district, and the Arun Valley in is of both national and international importance for nature conservation. Farmland is another key habitat across the district, and the south-west of the district provide an important feeding ground for the internationally important Barbastelle bats.
- Development has the potential to harm biodiversity both directly and indirectly. Direct effects include loss of land to new development, whereas indirect effects include increased traffic resulting in a decline in air quality, which can impact habitats and species some distance from a development site. Development does however have potential to create places for biodiversity, for example by planting native species as part of site landscaping, or incorporating features such as bat or bird boxes.
- This policy seeks to ensure that development does not cause a net loss in biodiversity, and provides net gains in biodiversity where possible. The Policies Map shows the location of key nature conservation sites and further information regarding the location of areas with potential for enhancing biodiversity (biodiversity opportunity areas) available in the Council's Green Infrastructure Strategy and the Sussex Biodiversity

Action Plan. Further information on habitats and species that have been recorded in the District is available from the Sussex Biodiversity Record Centre.

- Development proposals must provide sufficient information to assess the effects of development on biodiversity, and should provide any necessary ecological surveys together with any proposed prevention, mitigation or compensation measures. All development proposals should seek to enhance biodiversity through a range of measures, including enhancements either on or off the site, and provide buffer strips around protected sites, including Ancient woodland and other vulnerable habitats, and maintain, re-instate and enhance wildlife corridors. Applicants will also need to be mindful of the presence of any invasive species on the site and seek to remove these in accordance with any relevant legislation.

- Although located in the South Downs National Park, applicants will need to be particularly mindful of the impact development within Horsham district could have on Arun Valley Special Protection Area (SPA) and The Mens Special Area for Conservation (SAC). Both these sites are of international importance for nature conservation, and applicants will need to demonstrate that development does not have adverse impacts on either of these sites in accordance with relevant legislation. In the case of Arun Valley, proposals must demonstrate that they will avoid harm to the water quality and water levels on the site. In the case of The Mens, development must not impact on bat flight paths in the district. As recommended in the Council's Habitat Regulations Assessment of this plan, a 'bat sustenance zone' has been identified and is shown on the Policies Map. Within this area, it may be necessary for compensatory measures such as hedgerow enhancement to be undertaken prior to any development.

- In addition to the wider importance of woodland and Ancient Woodland identified above, individual trees, including 'veteran trees' are also important contributors to the character and biodiversity of the District, and many are protected by Tree Preservation Orders. It should be recognised that it may sometimes be necessary to undertake work on or fell protected trees (eg due to disease or storm damage). Applicants wishing to undertake work on protected trees are advised to consult the available Government Guidance on this issue. Where replacement planting is required, replanting with native species will be encouraged to ensure that ecological networks remain functional and to prevent the isolation of trees and woodland in the landscape.

Appendix D

Plant Species List

Plant Species List

Scientific nomenclature follows Stace (2010) for vascular plant species and British Bryological Society (BBS) Special Volume No. 5 *English Names for British* Bryophytes for bryophyte species. Vascular plant common names follow the Botanical Society of the British Isles 2003 list, published on its web site, www.bsbi.org.uk. The plant species list was generated as part of a Phase 1 Habitat survey and does not constitute a full botanical survey.

Abundance was estimated using the DAFOR scale as follows:

D = dominant, A = abundant, F = frequent, O = occasional, R = rare, L = locally

Key to qualifiers: G = garden origin, P = planted, Y = young, S = seedling or sucker, T = tree, H = hedge, W = water, ? = identification uncertain.

Scientific Name	Common Name	Abundance	Qualifier
Acer campestre	Field maple		H
Alliaria petiolata	Garlic mustard	O	
Anthriscus sylvestris	Cow parsley	O	
Arctium minus	Burdock	F	
Crataegus monogyna	Hawthorn		H/T
Calystegia sepium	Hedge bindweed	O	
Chamaenerion angustifolium	Fireweed	O	
Glechoma hederacea	Ground ivy	O	
Galium aparine	Cleavers	O	
Heracleum sphondylium	Hogweed	O	
Hedera helix	Ivy	O	
Lamium album	White dead nettle	O	
Ligustrum vulgare	Privet		H
Quercus robur	Oak		T
Rosa canina	Dog rose		H

Rumex spp.	Dock		D
Ranunculus spp.	Buttercup		F
Sambucus nigra	Elder		T
Sonchus oleraceus	Sow thistle	O	
Solanum dulcamara	Climbing nightshade	R	
Taraxacum officinale	Dandelion	F	
Trifolium repens	White clover	O	
Urtica dioica	Nettle	F	
Vicia sativa	Common vetch	R	
Veronica chamaedrys	Germander speedwell	R	

Appendix E

Suggested Compensatory Planting

Suggested Compensatory Planting

This section provides a list of plants which are of proven value to wildlife. The list is not exhaustive and merely provides a guide for suggested planting for wildlife value. Planting should be tailored on a site by site basis. The list includes some native and ornamental species however the emphasis should always be on the use of predominantly native species.

N = Native, NN = Non-native.

This list includes species that may be harmful if handled or ingested. Schedule 9 (Part 2) of the Wildlife and Countryside Act, 1981 (as amended) includes a list of invasive plants, including aquatic species, that should always be avoided in planting schemes.

Large Shrubs

Hedge veronica/Hebe (*Veronica* spp.) NN

Hawthorn (*Crataegus monogyna*) N

Blackthorn (*Prunus spinosa*) N

Rose: dog rose (*Rosa canina*), field rose (*R. arvensis*), burnet rose (R. *pimpinellifolia*) N

California lilac (*Ceanothus* spp.): (*C. arborea*) NN

Wild privet (*Ligustrum vulgare*) N

Common holly (*Ilex aquifolium*) N

Barberry (*Berberis* spp.): (*B. darwinii*), (*B. thunbergii*), (*B. x stenophylla*) NN

Daisy Bush (*Olearia* spp.): (*O. x hastii*), (*O. macrodonta*), (*O. traversii*) NN

Firethorn (*Pyracantha coccinea*) NN

Hazel: (*Corylus avellana*) N, (*C. maxima*) NN

Viburnum (*Viburnum* spp.): wayfaring tree (*V. lantana*) N, guelder rose (*V. opulus*) N, laurustinus (*V. tinus*) NN. Note: *V. lantana* can become invasive in more open habitats.

Dogwood (*Cornus sanguinea*) N

Broom (*Cytisus scoparius*) N

Escallonia (*Escallonia macrantha*) NN

Hardy fuchsia (*Fuchsia magellanica*) NN

Buckthorn (*Rhamnus cathartica*) N

Spindle (*Euonymus europaeus*) N

Tutsan (*Hypericum androsaemum*) N

Yew (*Taxus baccata*) N

Trees

Cherry (*Prunus* spp.): wild cherry (*P. avium*), bird cherry (*P. padus*), domestic plum (*P. domestica*) N, or cherry plum (*P. cerasifera*) NN

Ash (*Fraxinus excelsior*) N

Apple (*Malus* spp.): edible apple (*M. domestica*), crab apple (*M. sylvestris*) N

Pear (*Pyrus* spp.): edible pear (*P. communis*) NN

Small-leaved lime (*Tilia cordata*) N

Silver birch (*Betula pendula*) N

Yew (*Taxus baccata*) N

Black poplar (*Populus nigra*) N

Foxglove tree (*Paulownia tomentosa*) NN

Beech (*Fagus sylvatica*) N

Climbers

Jasmine (*Jasminum* spp.): summer jasmine (*J. officinale*), winter jasmine (*J. nodiflorum*) NN

Ivy (*Hedera helix*) N

Climbing hydrangea (*Hydrangea anomala* ssp. *petiolaris*) NN

Honeysuckle (*Lonicera* spp.): (*L. periclymenum*) N

Clematis (*Clematis* spp.) NN

Hop (*Humulus lupulus*) N

Firethorn (*Pyracantha atalantioides*) NN

Bulbs

English bluebell (*Hyacinthoides non-scripta*) N

Squill species (*Scilla* spp.) N/NN

Snowdrop (*Galanthus nivalis*) N

Winter aconite (*Eranthis hyemalis*) E

Crocus species (*Crocus* spp.) NN

Wild Daffodil (*Narcissus pseudonarcissus*) N

Onion species (*Allium* spp.) N/NN. Note: *Allium triquetrum* (three cornered leek) and *Allium paradoxum* (few-flowered leek) are Schedule 9 invasive plant species.

Wood anemone (*Anemone nemorosa*) N

Lesser celandine (*Ficaria verna*) N

Appendix F

Bird and Bat Box Designs

Bird and Bat Box Designs

Bird Boxes

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	**Schwegler Nest Box 1B** Hole-fronted 26mm entrance hole	16 x 16 x 23	Multi-purpose, including: blue-, marsh-, coal-, and crested tit, and possibly wren. All other species are prevented from using the nest box due to the smaller entrance hole.	Suitable walls or semi-mature/mature trees and shrubs; attached to a tree trunk or hung from branches. Ideal points include discrete areas away from predators, such as against walls, plant, and metal supports.
	**Schwegler Bird House** 32mm entrance hole	15 x 21 x 33	Multi-purpose, including: great-, blue-, marsh-, and coal tit, redstart, nuthatch, pied flycatcher, and sparrows.	Fixed to a semi-mature/mature tree trunk, wall or fence using the hanging bracket on the back. Between 1.5 m and 3 m high, and should be sited higher if area has a particularly high cat population.

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	**Schwegler Sparrow Terrace 1SP**	20 x 43 x 24.5	House sparrow. It may also occasionally attract tits, redstarts, and spotted flycatchers.	In an elevated position such as on post/platform within dense shrub/tree planting or on top of lighting columns. Alternatively, they could be attached to the side of a building. The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of houses in built-up areas, and on industrial and agricultural buildings such as barns, sheds, and factories. Due to its weight (15kg), it is not suitable for fences or garden sheds. Ideally place the terrace two metres or more above the ground. Either install on the surface of the wall using the plugs and screws provided or install directly into the wall. Cleaning is not necessary. The front panel can be removed by turning the screw hook.

Bat Boxes

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	**2F Schwegler Bat Box (General Purpose) with or without Double Front Panel**	16 x 16 x 33	Without panel: Particularly successful with brown long-eared bat. Also used by noctule. With panel: Ideal for crevice-dwelling species: pipistrelles, Myotis species (particularly Daubenton's), Leisler's, and serotine.	On trees or buildings and at a height of 3 to 6m. In open sunny positions and in groups of 3 to 5 facing different directions. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.
	**Chavenage Bat Box**	10 x 18 x 38	Small crevice-dwelling bats: e.g. pipistrelles.	On trees in gardens or woodland and also on house walls. 2.5 - 5m high on a building, mature tree, or vegetation line (trees/tall hedge) or on a feeding/flight route in partial daytime sun. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.

Appendix G

Priority Habitat Map(s)

Priority Habitat Maps

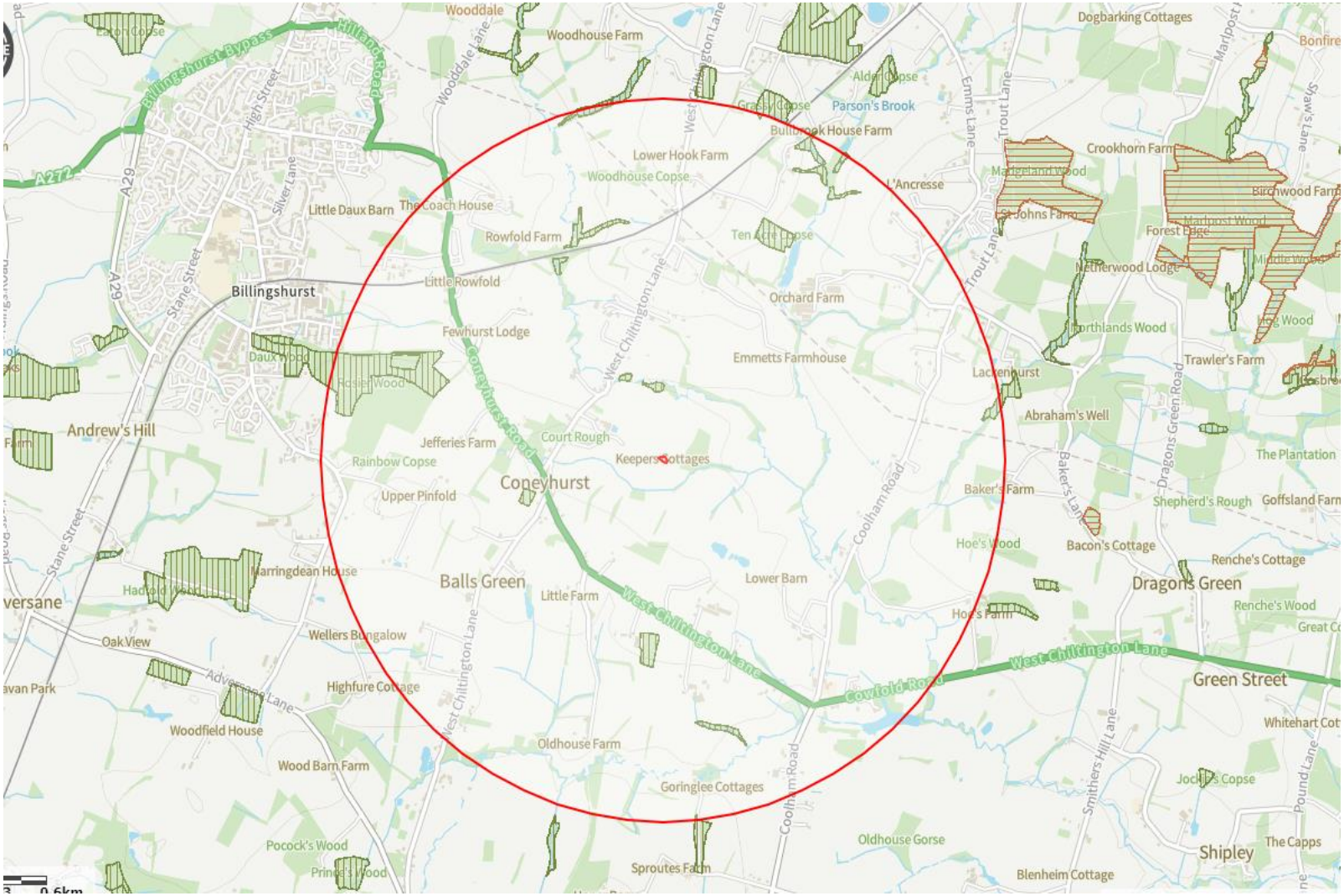


Figure 4; Priority ancient woodland habitat in the wider surroundings. Site boundary is shown in red. A 2km search buffer is shown in red.

Ancient and Semi-Natural Woodland

Ancient Replanted Woodland

(Magic, 2024)

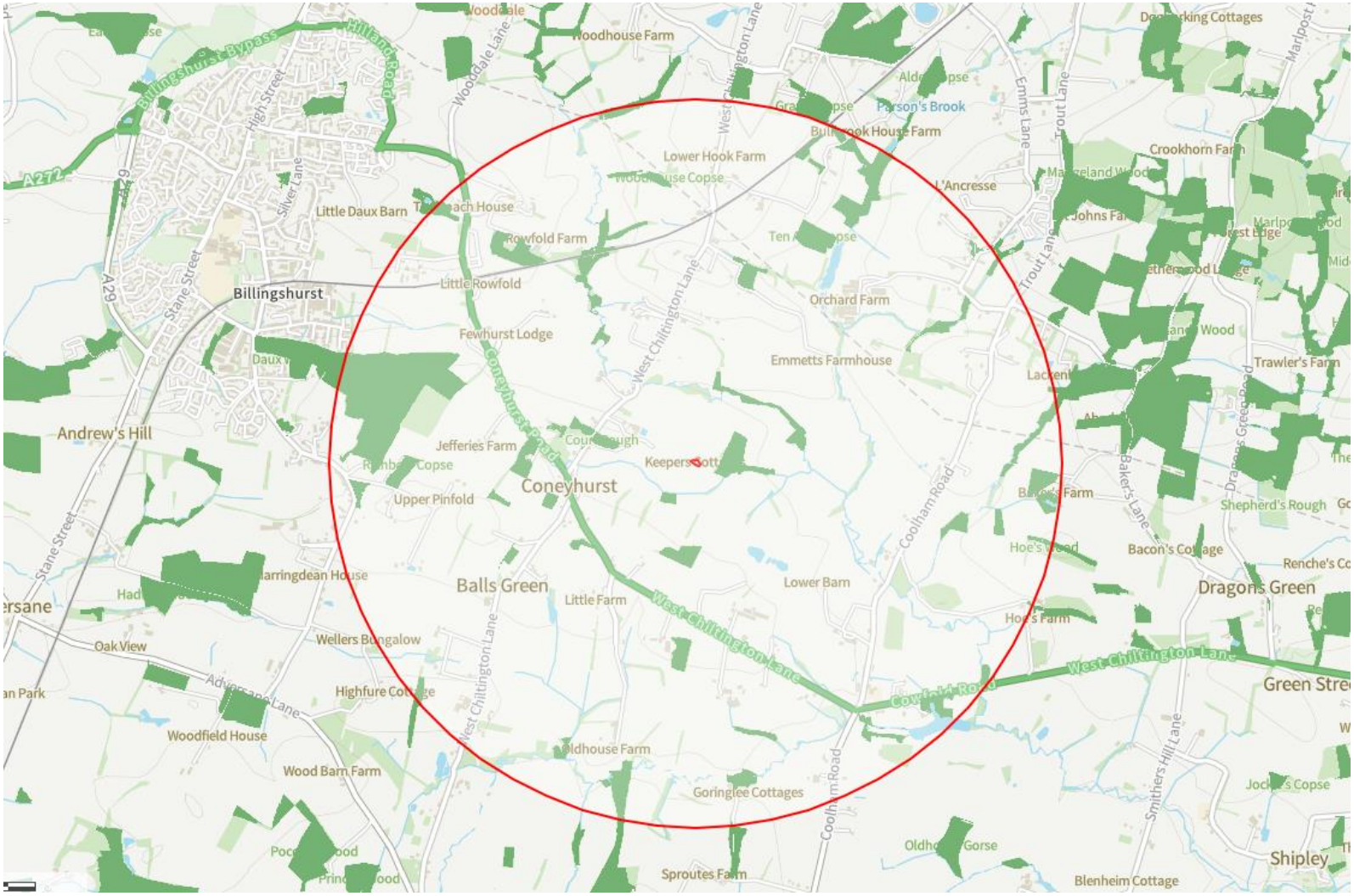


Figure 5; Priority woodland habitat in the wider surroundings. Site boundary is shown in red. A 2km search buffer is shown in red.

Priority Habitat Inventory - Deciduous Woodland (England)

(Magic, 2024)

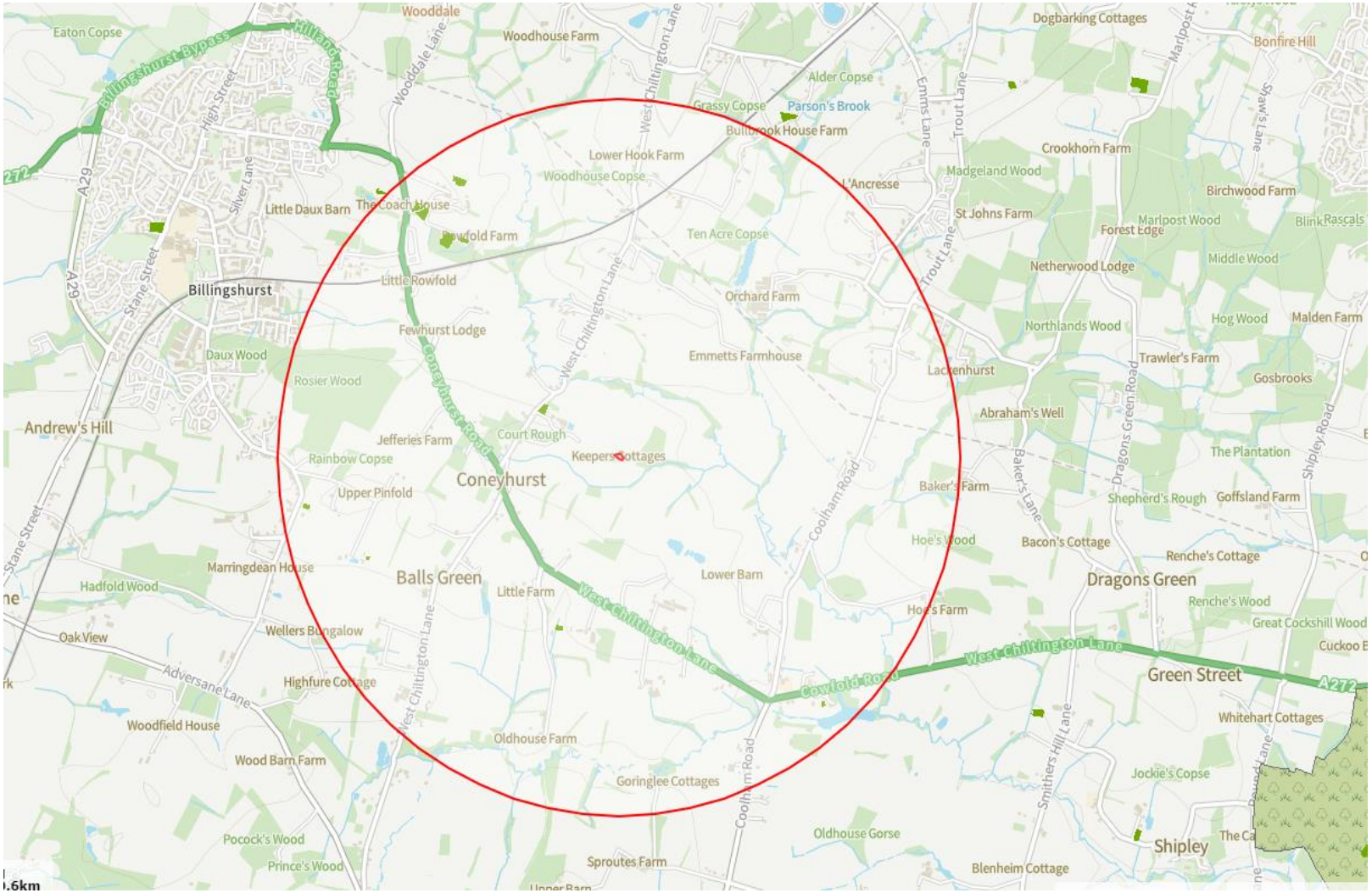


Figure 6; Priority woodland habitat in the wider surroundings. Site boundary is shown in red. A 2km search buffer is shown in red.

(Magic, 2024)

Traditional Orchards

Woodpasture and Parkland BAP

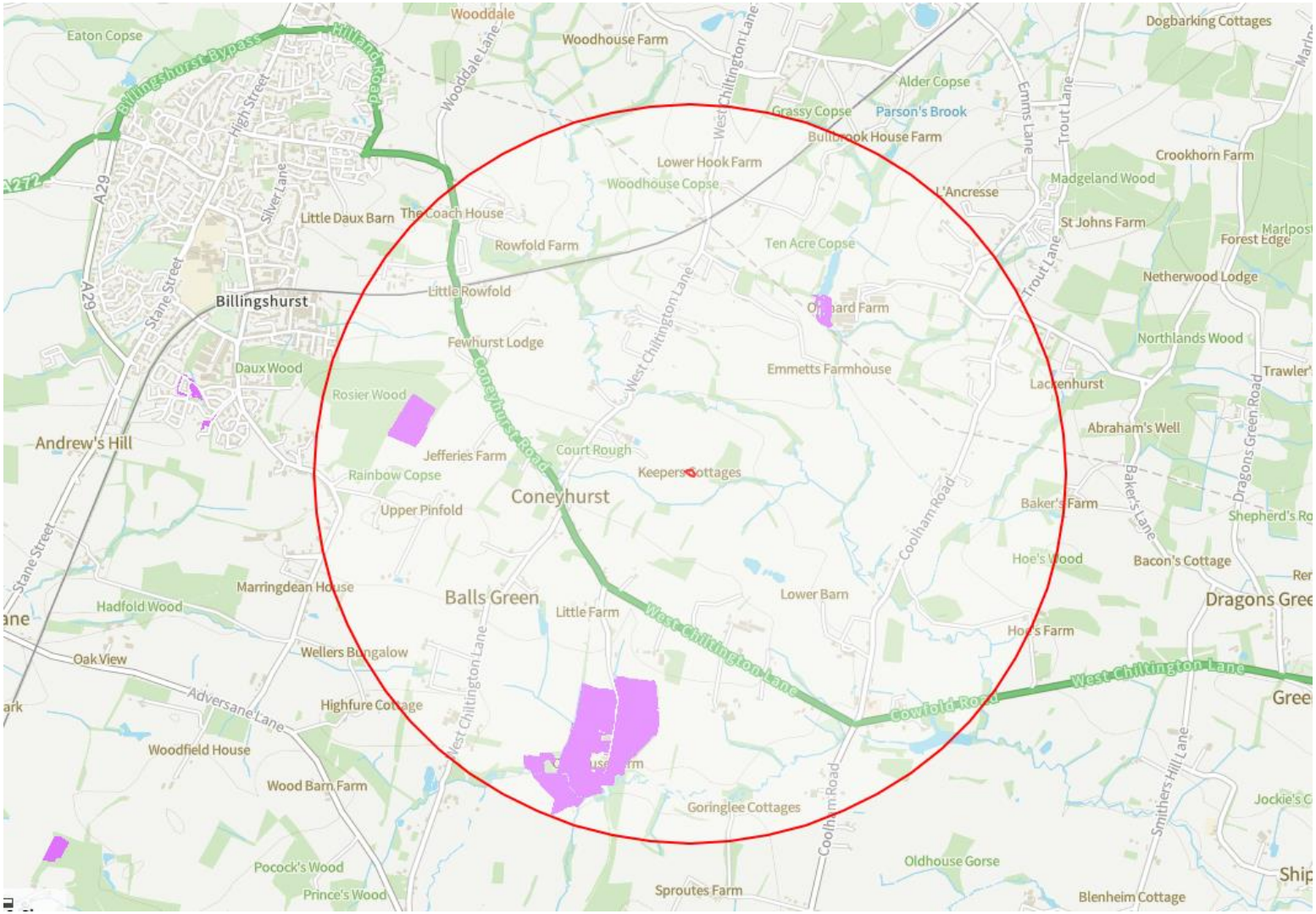


Figure 7; Priority grassland habitat in the wider surroundings. Site boundary is shown in red. A 2km search buffer is shown in red.

Good quality semi-improved grassland (England)

(Magic, 2024)



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