



Update Walkover & Site Review

Coombe Farm

Sayers Common, West Sussex

Contents

1.0 INTRODUCTION	4
BACKGROUND	4
SITE CONTEXT AND STATUS.....	4
DESCRIPTION OF PROPOSED DEVELOPMENT	6
2.0 METHODOLOGY	7
DESKTOP STUDY.....	7
PRELIMINARY ECOLOGICAL APPRAISAL	7
LIMITATIONS	8
3.0 SUMMARY OF PREVIOUS SURVEYS	8
2017- PRELIMINARY ECOLOGICAL APPRAISAL.....	8
2017-18- SPECIES SPECIFIC SURVEYS	11
4.0 2022 RESULTS	13
DESKTOP STUDY.....	13
PHASE 1 HABITAT SURVEY	14
PROTECTED SPECIES	18
5.0 DISCUSSION	21
EFFECTS ON DESIGNATED SITES.....	21
PROTECTED SPECIES	26
ECOLOGICAL ENHANCEMENTS.....	34
6.0 IMPACT ASSESSMENT	38
7.0 CONCLUSIONS	42
8.0 REFERENCES.....	43
APPENDIX 1: PHASE 1 HABITAT MAP.....	46
APPENDIX 2: SPECIES LIST	47
APPENDIX 3: PHOTOS 2022	48
APPENDIX 4: PHOTOS 2021	49

LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated only dominant species may be recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

- 1.1 The Ecology Partnership has been commissioned by Welbeck Strategic Land II LLP Land to undertake an update walkover and site review of land at Coombe Farm, London Road, Sayers Common, West Sussex, BN6 9HY.
- 1.2 The Ecology Partnership had previously conducted a preliminary ecological appraisal (PEA) of the site on the 27th June 2017 (The Ecology Partnership 2017), with subsequent species specific surveys occurring between 2017 and 2018. An update walkover was conducted in January 2021. The results of these surveys have been summarised in Section 2 of this report.
- 1.3 This report presents the results of The Ecology Partnership's update walkover in and around the site conducted on the 30th November 2022, which aims to identify any notable changes of the habitats present on the site, and any changes to the site's potential to support protected species and protected habitats that may be affected by the proposed development. The same survey techniques and best practices were undertaken during the update walkover, as described within the original 2017 and 2021 PEA (The Ecology Partnership 2017).
- 1.4 This report comprises:
- Introduction (Section 1);
 - Assessment Methodology (Section 2);
 - Summary of Previous Surveys (Section 3);
 - Update Walkover Results (Section 4);
 - Discussion (Sections 5);
 - Impact Assessment (Section 6); and
 - Conclusions (Section 7).

Site Context and Status

- 1.5 The site is located to the east of London Road (B2118) at Coombe Farm which lies to the south of the village of Sayers Common, West Sussex (TQ 26862 17823). It covers

approximately 13ha and consists of woodland and grassland fields with tree lines and hedgerows. The wider landscape comprises largely of arable land and low-density housing. There are no statutory or non-statutory designations within 2km of the site.

- 1.6 The aerial photograph overleaf (Figure 1) shows the site and its immediate surroundings. The red line depicts the approximate site boundary and survey area, unlike the 2017 PEA, this update walkover does not include the residential unit and its associated grounds, located in the centre of the site.



Figure 1: Approximate location of the red line boundary

Created using Google Earth Pro (19th January 2021)

Description of Proposed Development

- 1.7 An indicative masterplan (Figure 2) for the site has been used within this report to approximate the potential impacts the final development would have on the site. It should be noted that the final masterplan is still being designed, and will be informed by a number of surveys, of which ecology is one.



*Figure 2: Indicative masterplan for the site
Provided by Welbeck (Dec 2022)*

2.0 Methodology

Desktop Study

- 2.1 A desktop study search was completed using an internet-based mapping service (www.magic.gov.uk) for statutory designated sites and an internet-based aerial mapping service (maps.google.co.uk) was used to understand the habitats present in and around the survey area, including identifying habitat linkages and features (ponds, woodlands etc.) within the wider landscape.

Preliminary Ecological Appraisal

- 2.2 An update walkover survey was undertaken on 30th November 2022 by ecologist Alexia Tamblyn MA (Oxon) MSc CEcol MCIEEM CEnv FRGS. This walkover was conducted to assess if there were material changes since the previous PEA conducted in 2021 and 2017, and to assess if there were any material changes in the potential for the site to support protected species.

Phase 1 Habitat Survey

- 2.1 The surveyors identified the habitats present, following the standard 'Phase 1 habitat survey' auditing method developed by the Joint Nature Conservancy Council (JNCC). The site was surveyed on foot and the existing habitats and land uses were recorded on an appropriately scaled map (JNCC 2010). The dominant plant species in each habitat were recorded, where appropriate.

Protected Species Assessments

- 2.2 Any evidence of protected species was recorded. Standard survey methods for finding evidence and assessing presence or likely absence based on habitat suitability were used for bats in trees and buildings (Collins 2016), breeding birds (BTO 2020), hazel dormice (Bright *et al.* 2006), great crested newts (ARG 2010), reptiles (Froglife 2015), badgers (Creswell *et al.* 1990) and water voles (Strachan *et al.* 2011).

Limitations

- 2.3 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment. The site was visited over the period of one site visit, as such seasonal variations cannot be observed and potentially only a selection of all species that potentially occur within the site have been recorded. Therefore, the survey provides a general assessment of potential nature conservation value of the site and does not include a definitive plant species list. Furthermore, due to the time of the survey as well as the intense management of the grassland, some species may not have been identified.
- 2.4 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on site, based on the suitability of the habitat and any direct evidence on site. It should not be taken as providing a full and definitive survey of any protected species group. The assessment is only valid for the time when the survey was carried out. Additional surveys may be recommended if, on the basis of this assessment, it is considered reasonably likely that protected species may be present.

3.0 Summary of Previous Surveys

2017- Preliminary Ecological Appraisal

- 3.1 An extended preliminary ecological appraisal was undertaken on 27th June 2017 by ecologists Alexia Tamblyn MA (Oxon) MSc CEnv MCIEEM FRGS and Paul Robinson BSc (Hons) MRSB (The Ecology Partnership 2017). An additional area of habitat, in and around Stonecroft, was surveyed by Natalie Kay BSc (Hons) MSc AIEEM and Paul Robinson on the 17th October 2017.
- 3.2 The site was considered to mainly consist of four fields of grassland, bounded by hedges and was being used as cattle pasture at the time of the survey. Between the fields and the roads and village are four blocks of woodland, all of which are ancient and semi-natural woodland, and three of which are within the proposed development's red line.

-
- 3.3 The species composition within the grassland habitats led to them being classified as semi-improved neutral grassland under the Phase 1 habitat scheme, which corresponds to the classification of **MG6** *Lolium perenne*-*Cynosurus cristatus* grassland (Rodwell 1992, Cooper 1998) under the National Vegetation Classification's (NVC).
- 3.4 The most abundant species recorded across the grassland habitats was perennial rye-grass and white clover, the highest diversity of species within the grasslands was located along the field edges where species such as: common fleabane; soft rush; agrimony; marsh foxtail; and star sedge which appeared occasionally.
- 3.5 The four units of woodland all were all classified as broadleaved semi-natural woodland under the Phase 1 Classification, however the units of woodland fall under different categories under the NVC. Sayers Common Wood was identified as **W8** *Fraxinus excelsior* – *Acer Campestre* – *Mercurialis perennis* woodland (Rodwell 1991, Hall et al. 2004), as its canopy was dominated by ash, and dogs mercury appeared frequently in the ground layer. Coombe Wood however, was classified as **W10** *Quercus robur* – *Pteridium aquilinum* – *Rubus fruticosus* woodland of less base rich soils, as oak dominated the canopy with hazel and bramble composed the majority of the understory.
- 3.6 The two unnamed woods were also noted as being different, with the ancient woodland between Coombe Farm and the A23 being heavily sheep grazed, and had as such lost most of its ground layer vegetation. The other woodland was noted as being more recent in origin, and was a dense mix of hazel and oak, with a sparse field layer.
- 3.7 Seven sections of hedgerow were also located around the site, each of which was assessed to see if they would classify as 'important' or 'species-rich', based on the criteria detailed within the Hedgerow Regulations 1997 (as amended),
- 3.8 Overall, hedgerows 1, 2, 6 and 7 were considered to be species-rich, with the full results available within Section 3 of the 2017 PEA (The Ecology Partnership 2017).
- 3.9 A single house and stable block were in the centre of the site, where subsequently assessed for their suitability for roosting bats. The house was classified as a confirmed roosting site for bats due to the presence of approximately 20-30 droppings being present. Samples of

the droppings were taken and were identified as belonging to brown long-eared bats, as such the house was classed as a brown long eared bat roost. Externally, multiple gaps in the roof tiles were noticed, which could also be used by opportunistic bats. On the other hand, the stable block was considered to support 'negligible' roosting bat potential.

- 3.10 A number of 'low' roosting bat potential oak trees were identified, which were located in hedgerows H2, H6 and H7. Much of the site was considered optimal foraging habitat for the majority of the UK bat species, due to the presence of woodland, hedgerows and the edge habitats on site.



Figure 3: Sections of hedgerow assessed within the red line boundary.

Created using Google Earth Pro (October 2017)

- 3.11 No evidence of badger activity was identified within the red line boundary of the site, however an active badger set was identified just outside of the red line boundary of the

site. This sett was located with the woodland within the southeast corner of the site, and just to the east of the red line boundary.

- 3.12 The habitats on site were considered highly suitable for dormice due to the presence of woodland, hedgerows and the presence of food sources, including: honeysuckle, bramble, hazel, elder and oak.
- 3.13 Other than the grassland within the curtilage of Stonecroft, which was deemed as having negligible potential for reptiles, the grassland, hedgerows and wood edge habitats within the site were considered to have the potential to support common species of reptiles.

2017-18- Species Specific Surveys

- 3.14 One pond (Bull pond) was located on site, with an additional five located within a 250-500m buffer of the site (Figure 4), with good connectivity to the site and no large boundaries to movement, such as the A23. Ponds 1, 2 and 3 were unable to be surveyed as they were on private or otherwise inaccessible land, however the remaining ponds were assessed for their potential to support GCNs. The results of the HSI concluded that Bull Pond had 'poor' suitability, Pond 4 had 'Average' suitability and Pond 5 had 'Good' suitability to support GCN. However, the results of water samples taken from each of these ponds all came back negative, which shows likely absence.

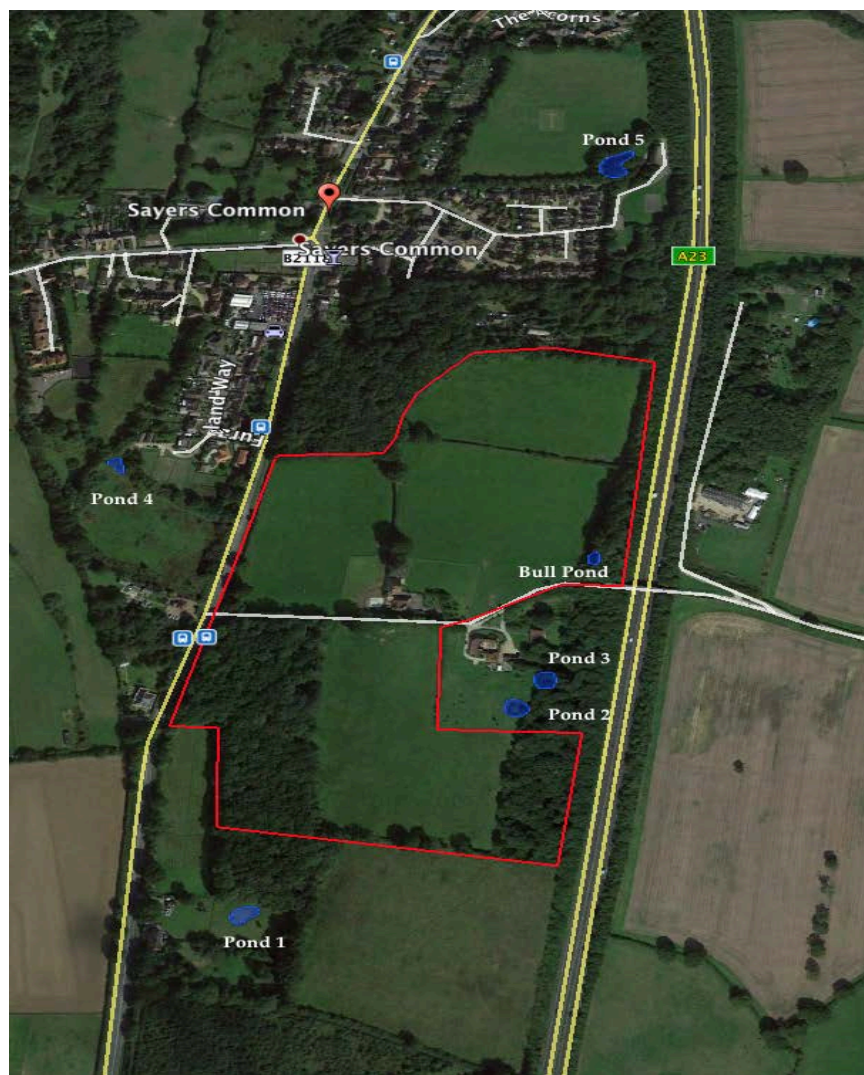


Figure 4: Ponds identified within and around the site

Created using Google Earth Pro (October 2017)

- 3.15 Dusk emergence surveys were carried out on the 5th and 11th June 2018 on the house within the site. No bats were observed emerging or re-entering the building over the course of the survey efforts.
- 3.16 Dusk activity surveys were carried out on the 19th September and 3rd October 2017, with further surveys occurring on 25th April, 25th June, 24th July and 22nd August 2018. A dawn transect was carried out on the 25th May. Over the course of the surveys multiple bat species were recorded which included: common pipistrelles; soprano pipistrelles; Nathusius's pipistrelle; noctule; serotine; Leisler's; brown long-eared bat; *Myotis*; and

barbastelle. The full results of the survey efforts can be found within the associated bat activity report (The Ecology Partnership 2018).

3.17 A total of 65 dormouse tubes were established along the hedgerows, tree line and woodland within the site on the 14th September 2017, which were subsequently checked once a month in October- November 2017 and April- September 2018. Over the course of the survey effort no evidence of dormouse activity was identified, including from the nut searches carried out in October 2017 and September 2018. Further information on the dormouse survey effort can be found in the associated dormouse report (The Ecology Partnership 2018). The results of the survey suggests that dormice are not present within the site boundaries or the woodland edges.

3.18 Artificial refugia was set up on the site on the 26th March 2018, which were then checked over seven survey visits between the 5th April and 15th May 2018 for reptiles. The results of the survey effort revealed that the site supported a 'low' population of grass snakes, slow worms and common lizards, the full details can be found in the associated reptile report (The Ecology Partnership 2018).

3.19 Breeding bird surveys over the site were conducted monthly between April and June 2018. In total, 34 species, of which 26 were probable or confirmed breeders on the site were identified on site. Four of the probable breeders: dunnock; mistle thrush; song thrush; and starling, with a further four of the non-probable breeders: willow warbler; stock dove; kestrel and swift, are all of conservation concern. A full list of identified birds and their conservation concern can be seen in the associated bird report (The Ecology Partnership 2018).

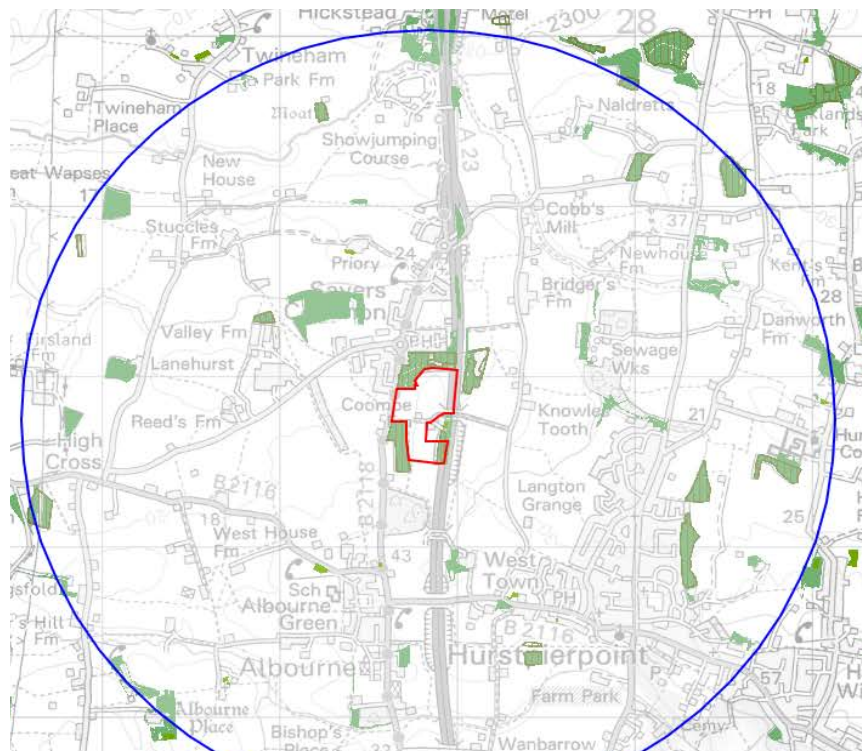
4.0 2022 Results

Desktop Study

4.1 The site does not lie within or adjacent to any statutory designations and there are none within 2km of the site. The nearest designation is over 3km away. There are also no non-statutory designations such as Local Wildlife Sites or Sites of Importance for Nature Conservation within 2km of the site.

4.2 The site is surrounded by a number of priority habitats (Figure 5), the closest of each type are:

- Deciduous woodland within the site;
- Ancient and semi-natural woodlands within the site;
- Traditional orchards approximately 780m southwest.



Map produced by MAGIC on [02/12/2022]. © Crown Copyright and database rights [2015]. Ordnance Survey 100022861. Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of information that is being maintained or continually updated by the originating organisation. Please refer to the documentation for details, as information may be illustrative or representative rather than definitive at this stage.

Figure 5: Deciduous woodland (dull green); traditional orchards (dark green); and ancient & semi-natural woodland (green vertical hatches) within 2km (blue line) around the red line boundary of the site.

4.3 Satellite imagery did not reveal any new ponds in relation to the ones revealed in the 2017 and 2021 PEA.

Phase 1 Habitat Survey

4.4 The site was considered to consist of four main areas of grassland bounded by hedgerows, as well as three units of woodland, with Sayers Common Wood bordering the northern section of the site. Whilst it was considered that the site had not materially changed from the original PEA in 2017 and 2021, a description of each habitat is provided below.

- 4.5 Amenity grassland was identified within the curtilage of the property in the middle of the site, however, it is understood that this area falls outside the development area and as such was not fully assessed. A full species list for the other habitats is provided in Appendix 2: Species List.

Modified Grassland

- 4.6 The four areas of grassland were considered to be largely similar in species composition and structure. Sheep were grazing the northern fields at the time of the November survey. Previously these fields were grazed by cows and sheep. The continuous management of the field networks through grazing and ensured that the habitats had not materially changed since the 2017 survey.
- 4.7 All of the fields were dominated by perennial rye grass, with Yorkshire fog appearing frequently. The grassland is defined as an **MG6** *Lolium perenne* related grasslands (Rodwell 1992, Cooper 1998) under the National Vegetation Classification's (NVC).
- 4.8 MG6 grasslands are defined as modified grassland, where the vegetation is dominated by fast growing grasses on fertile, neutral soils dominated by rye grass and white clover. This is a species poor habitat of less than 9 species per meter squared. However, across the site the species per meter squared is less than 9 and approximately 5 species per meter squared across the majority of the field networks. Under the condition assessment the grassland fails the first of the condition assessment criteria which is required to reach a 'moderate' condition. As such the grassland is considered to be 'poor' condition.
- 4.9 It must be noted that the species becomes more diverse on the edges of the fields, where the grassland habitats lie adjacent to woodland and hedgerows. On damp soils there is occasional common fleabane, soft rush, agrimony, marsh foxtail and a few spikes of star sedge on a ditch bank. Hard rush was also locally abundant in the northeast corner of the site by Sayers Common Wood.

Broadleaved Woodland

- 4.10 Within the survey area were three units of broadleaved woodland, these were Coombe Wood in the southwest, an unnamed wood in the southeast and an unnamed wood in the northeast. Sayers Common Wood was also located along the northern boundary of the

site. Coombe Wood, the unnamed wood in the southeast of the site and Sayers Common Wood, are all also classified as semi-natural ancient woodlands.

- 4.11 Coombe Wood located in the southwest of the site, was dominated by pedunculate oak with hazel appearing abundantly in the understorey. Coombe Wood falls within the NVC classification of **W10** *Quercus robur* – *Pteridium aquilinum* – *Rubus fruticosus*.
- 4.12 The unnamed wood in the southeast was seen to have a similar composition to Coombe Wood, with pedunculate oak dominating the canopy and hazel dominating the understorey. The woodland had previous signs of sheep grazing. The woodland was still accessible for sheep and the ground flora was still considered to be sparse. This had not materially changed since the 2021 and 2017.
- 4.13 The unnamed woodland in the northeast was thought to be more recent in origin due to the immature state of the trees present. Pedunculate oak and hazel were abundant within this woodland, with occasional patches of bramble in the ground layer.
- 4.14 Sayers Common Wood, located to the north of the site, is outside the redline boundary. This is ancient woodland habitat. Whilst not extensively surveyed due to the habitats located outside the redline, the canopy is dominated by ash with frequent dog's mercury in the field layer. This is the NVC's **W8** *Fraxinus excelsior* – *Acer Campestre* – *Mercurialis perennis* woodland.
- 4.15 Overall, it was considered that all of the units of woodland within the site had not materially changed since the 2017 and 2021 PEA.

Hedgerows

- 4.16 A total of seven hedgerows were identified around the site, with their locations shown in Figure 3.
- 4.17 An assessment of each hedgerow is detailed below in Table 1. The table identifies the hedgerow by number (as per figure 3) and details the number of woody species per 30m sections, alongside the structure, shape and associated features. The hedgerows were not assessed for their 'importance' in terms of historic vale or archaeological interest.

Table 1: Hedgerow Assessment

Hedgerow	Woody species in 30m	Structure/Shape	Features	Species rich
1	Snowberry, hawthorn, field maple, sycamore, ash, blackthorn, elder and prunus species	Thick hedgerow and base.	Along access tack. Connections to other hedgerows. Partially parallel to hedgerow H6	Yes
2	Ash, oak, dog rose, hawthorn, field maple, blackthorn	Thick, mature trees present, ditch on either side of the hedgerow	Mature oaks present in the hedgerow Associated with a ditch	Yes – associated features present, including connections, ditch mature trees etc
3	Blackthorn, hawthorn, oak	More woodland edge, scrubby	Associated with the ancient woodland edge	No – 3 woody species and not sufficient associated features More woodland edge than hedgerow
4	Hawthorn, blackthorn, dog rose	Heavily managed with signs of recent cutting. Rabbit digging present.	Mature trees only present at western end of hedgerow	No
5	Hawthorn, blackthorn, dog rose	Thin in places, rabbit digging	Gappy, mature trees only present at western end of hedgerow	No
6	Hawthorn, field maple, ash, blackthorn, elder	Thick hedgerow and base	Along access tack. Connections to other hedgerows. Partially parallel to hedgerow H1	Yes
7	Blackthorn, hawthorn, hazel, oak, dog rose, ash	Thick hedgerow, good layers, thick base	Connected to two areas of woodland	Yes - less than 10% gaps, mature trees present and connections

4.18 Overall, it was considered that the hedgerows on site had not materially changed since the previous site visit. It must be noted that they have been regularly managed within the field networks. The hedgerows were considered to be leggy in some locations, which is likely a result of grazing regimes.

Pond

4.19 A single pond was identified near the eastern boundary, in the unnamed woodland in the northeast corner of the site, previously identified as Bull Pond within the 2017 PEA (The Ecology Partnership 2017). The pond was located at the bottom of the slope leading up to the road bisecting the site and appeared to be semi-permanent/ ephemeral in nature.

*Target Notes*¹**Target Note 1 – Badger Sett**

- 4.20 A badger sett was located outside the red line boundary of the site in the unnamed woodland in the southeast corner of the site. It should be noted that the badger sett was located on the other side of a chicken wire fence, within the embankment adjacent to the road network. The sett was observed to still be active, with recent excavations present.

Target Note 2– Mammal holes

- 4.21 Multiple mammal holes were located around the site, the locations of which are marked on the habitat map in Appendix 1.

Protected Species*Roosting bats*

- 4.22 The age of the trees varied across the site, a number of mature trees were identified on site, largely on the edges of the woodland. Several of the trees were considered to have some potential for bats in the woodland and the woodland edge. A single fallen tree is noted on the south western woodland edge is noted, this is now not considered to have value for bats.
- 4.23 A number of ‘low’ roosting bat potential mature pedunculate oaks were identified across the site in the hedgerows H2, H6 and H7. The trees noted along current access track are to be largely retained, however one individual tree may be removed for new access. It is recommended that once the final layout has been determined, an update bat assessment is conducted. Currently trees long the access track are considered to be of ‘low’ potential to support bats.
- 4.24 It must be noted that the trees set within the woodland were not individually assessed for their potential to support roosting bats as it is understood that the woodland habitats are to be fully retained within the proposals.

¹ The location of the Target Notes can be seen within the habitat map in Appendix 1.

Commuting and foraging bats

- 4.25 Much of the site is considered optimal foraging habitat for the majority of UK bat species and previous surveys highlight the use of the site by a number of bat species.
- 4.26 The areas of woodland and hedgerows on site provide highly suitable foraging and commuting routes for bats. The hedgerows and associated trees across the site provide connectivity to both on and off-site foraging areas as well as shelter and opportunistic foraging.
- 4.27 The extent of hedgerows and woodland have not altered since the original surveys, and as such the bat fauna is likely to remain similar to the surveys conducted in 2017 and 2018.

Badgers

- 4.28 A badger sett (Target Note 1- Badger Sett) was located in the south eastern woodland, just east of the sites red line boundary. This sett seemed well established with numerous active holes noted. However, this could not be fully investigated as it was outside the red line boundary and potentially on Highways Agency land.
- 4.29 No evidence of badger activity such as snuffle holes, setts or latrines were identified within the red line boundary of the site. Whilst other mammal holes were identified within the red line boundary of the site (Target Note 2- Mammal Holes), these were not of a size or shape indicative of badgers, but rather rabbits. In addition, multiple rabbit droppings were seen outside the majority of the holes, further indicating their use by rabbits and not badgers.
- 4.30 Sayers Common Wood, located to the north of the site and outside the red line boundary, was not assessed for badgers as access was not possible.

Dormice

- 4.31 Previous surveys of the site did not identify any dormice within the red line boundary during the course of the surveys. The extent of the woodland has not altered since the previous surveys and considering the absence of evidence of use, it is still considered that dormice are unlikely to be present, even though the habitats on site appear to be suitable.

Reptiles

- 4.32 The grassland across the site was largely grazed to a short sward height, however, there are areas where the sward height is longer due to the low stocking of sheep on the site currently. It was therefore considered that much of the grassland was unsuitable for reptiles, due to the continual grazing regime.
- 4.33 The hedgerows and woodland edge habitats, supported a slightly longer sward height and a higher species composition, providing retained opportunities for reptiles. As previous surveys identified the presence of reptiles within the site boundaries, it is considered likely that a reptile population still persists within the edges of the site.

Great Crested Newts

- 4.34 Previous surveys did not identify any GCNs present within the ponds were surveyed. The surveys conducted in 2018 and the update site review of the ponds using the HSI measures in 2021 identify that the ponds have low suitability to support GCNs. The results of the previous eDNA surveys did not identify that Bull Pond, Pond 4 and Pond 5 support GCN as no GCN eDNA was identified within the water samples.
- 4.35 It is considered unlikely that GCNs have colonised these ponds and as such the results from the 2018 surveys are considered still valid.
- 4.36 Ponds on the other side of the A23 were not considered further as it was considered to be significant barriers to dispersal.

Nesting Birds

- 4.37 The scattered trees, hedgerows and woodland habitats could provide potential for birds to nest within.
- 4.38 Four of the probable breeders dunnock; mistle thrush; song thrush; and starling, recorded in 2018 are likely to still be present within the red line boundary, with the habitats still present and which have not materially altered since these surveys were conducted. No additional species were recorded during the update walkover survey.

Other Species

- 4.39 Due to a lack of suitable habitat and/or connectivity, the site was not considered suitable for other protected species, such as water voles or otters.
- 4.40 Invertebrates are likely present within the woodland habitats. During the 2017 survey the butterfly silver-washed fritillary (*Argynnis paphio*) was in flight at the woodland's edge of Coombe Wood, an oak dominated woodland.
- 4.41 Dead wood habitats are present within the woodlands and are therefore considered to be of some local value. Stag beetles have been recorded within 1km of the site. The woodland habitats present may provide some local resources for this species.
- 4.42 Hedgehogs have been recorded within 1km of the site. There is suitable habitat for hedgehogs on site.

5.0 Discussion

- 5.1 The following paragraphs consider the effects of the development on designated sites, priority habitats and protected and priority species. Provisional recommendations are also given for means to achieve net biodiversity gain, following the principle (CIEEM et al. 2016) of following the mitigation hierarchy of; avoidance, minimisation of loss, compensation on site and biodiversity offset.
- 5.2 It is considered that the habitats present and the proposals for the site have not materially changed since the 2017 and 2021 PEA and that the results of the protected species surveys conducted in 2017 and 2018, are considered to still be valid.

Effects on Designated Sites

- 5.3 The site does not lie within or adjacent to any statutory designations and there are none within 2km of the site. The nearest designation is over 3km away. The site lies within a SSSI impact zone, which are considered to be 'advisory' in terms of developments which would potentially impact upon the 'integrity' of the SSSIs within the landscape. At this distance from the SSSI impacts from residential developments are not considered to be

significant in terms of the SSSI habitats and are not listed as developments which may harm the SSSI. As such it is considered that no further assessment on SSSIs are required.

- 5.4 There are also no non-statutory designations such as Local Wildlife Sites or Sites of Importance for Nature Conservation within 2km of the site.
- 5.5 Considering the above, the development of the site is not considered likely to impact upon any designated sites. The development of the site will not result in the habitat loss or fragmentation or isolation of habitats connected to any designated sites and will not result in any land squeeze around designated sites.
- 5.6 Indirect impacts, such as associated with an increase of recreational pressure from an increase in a large residential population, are likely to be minimal due to distances involved to the protected sites. However, any recreational impacts must be considered in relation to on site habitats of principle importance and biodiversity interest. These are discussed below.

Habitats

- 5.7 It is also considered that as the habitats present and the proposals for the site have not materially changed since the 2017 PEA and the protected species surveys which were conducted throughout 2018. The site was re assessed in 2021 and again, as the management regime had not altered, the dominant habitats across the site had not materially changed.
- 5.8 The dominant habitats on site were the fields which were in current use for grazing. The fields correspond to the National Vegetation Classification's (NVC) **MG6** *Lolium perenne-Cynosurus cristatus* grassland (Rodwell 1992, Cooper 1998) or **MG6** *Lolium perenne* leys as considered potentially in 2021. This is the typical grassland of permanent pasture in lowland UK on neutral soils that have been agriculturally improved.
- 5.9 The MG6 community is within a group of grassland communities defined as of "lower botanical nature conservation interest" (Cooper et al. 2014) both for their plant community and for the lower potential to support uncommon plant species. As such it is considered that the dominant habitat on site is common and widespread and of limited conservation

interest. This grassland habitat is classified, under the DEFRA metric 3.1 condition assessment as 'modified grassland' due to the dominance of perennial rye. The condition is considered to be 'poor' due to the limited species present within a square meter. The grassland is managed through grazing and this retains the species composition.

- 5.10 This grassland is considered to be a low distinctiveness habitat due to the species paucity. The loss of this habitat can be compensated through the provision of higher value habitats, including native scrub mixtures, wetland grassland habitats and species rich grassland.
- 5.11 Other habitats, notably the habitats in the curtilage of Stonecroft, are considered to be common and widespread and of amenity value only. Stonecroft is outside the development boundary.
- 5.12 Hedgerows and lowland deciduous woodland are habitats of principal importance for the conservation of biodiversity under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. This means that development needs to take into account impacts on this habitat to prevent its degradation. The two southern compartments of priority deciduous woodland, Coombe Wood and the unnamed woodland, are designated as ancient semi-natural woodland. Furthermore, Sayers Common Wood, located on the northern edge of the site, is also designated as semi nature ancient woodland.
- 5.13 Any loss of sections of hedgerows can be compensated through new hedgerow planting or enhancement of retained hedgerow features. Currently the hedgerows H2, H4 and H5 are not considered to be species rich, and therefore new / additional planting, would help improve the value of these features.

Ancient Woodland

- 5.14 Government guidance² (Jan 2022) requires avoidance of damage to ancient woodland, with at the least a 15m buffer to avoid physical damage to trees and more, plus other mitigation, if other negative effects such as recreational damage or air pollution are likely.

² <https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences>

- 5.15 The National Planning Policy Framework (NPPF) (2021) is the key government policy document relating to planning decisions affecting ancient woodland. The importance of ancient woodlands as an irreplaceable habitat is set out in paragraph 180 of the NPPF, which states:

d) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; ...'

- 5.16 Woodlands are considered to be ancient or semi-natural even if they have been disturbed. The soil and the seed bank is considered to be of primary importance rather than the maturity or otherwise of the trees.
- 5.17 As the individual woodland blocks adjacent to site are documented as ancient they must be considered as part of the design layout. Natural England identify the following significant effects from adjacent land that may have an effect on ancient woodland. These must be considered within the scheme.

Effects from development of adjacent land:

- *Fragmentation and loss of ecological connections with surrounding woodland/ veteran trees and the wider natural landscape;*
- *Effects on the root protection area of individual trees;*
- *Reduction in the area of other semi-natural habitats adjoining ancient woodland;*
- *Increased exposure to pollutants from the surrounding area;*
- *Increased deposition of dust, particularly from quarries, resulting in physical and/or chemical effects;*
- *Impacts on local hydrology through drainage or water table levels changing;*
- *Increased public use near veteran trees such that safety works leading to possible damage to the tree may be needed;*
- *Change to the landscape context for ancient woods and veteran trees;*
- *Change to light pollution at night (if development includes street lighting);*
- *Fly tipping, garden encroachment and increased predation from cats.*

-
- 5.18 Natural England standing advice for ancient woodland is for the creation of a buffer zone of a minimum of 15m from the edge of the woodland. This buffer zone has been identified as being of this size due to the above considered effects with regards to development and ancient woodland. The 15m buffer zones have been incorporated into the master plan of the development.
- 5.19 Indirect impacts, however, must also be considered. The master plan must consider other aspects of development, such as lighting levels, hydrology and public use. SUDs are to be used within the scheme, to ensure that there are no changes to water quality in the off-site stream network. The use of SUDs can ensure that water discharge and quality are maintained at current levels, as well as provide new opportunities for wildlife creation. SUDs should be included on the edges of the ancient woodland buffer (outside the 15m) so that any ecological benefit as a result of SUDs development can be linked with maintained and enhanced habitats on the ancient woodland edge.
- 5.20 Indirect impacts such as lighting is discussed in the section relating to bats. However, a lighting scheme will be developed to ensure that dark corridors are maintained around the edges of the site and through the site.
- 5.21 Predation by cats is considered to be a problem for local wildlife. Recommendations include the use of educational leaflets to local residents and the enhancement of retained features to help increase the carry capacity of the local area for wildlife such as and nesting birds.
- 5.22 Recreational pressure will be managed through access managed and good quality design. Public footpaths are present within the site currently, and these will be appropriately managed and maintained. The woodland, Coombe Wood, located on the south west of the site, will be managed as part of the scheme. Pathways, which allow managed access into the ancient woodland, will be provided. These will be through raised board walk type structures to ensure that woodland soils do not become compacted or eroded. Woodland interpretation boards will also be provided. Enhancements to the woodland will occur, through management, the use of planting (where required) and the use of species specific enhancements (bird and bat boxes for example), will be provided as part of the proposals.

Planning Policies/Legislation

- 5.23 Under the Mid Sussex District Plan 2014 – 2031 (adopted March 2018) there are several policies that relate to the natural environment and biodiversity. Under the current proposals, the development should satisfy these policies if all enhancements and recommendations within this report are undertaken. For example, under Policy DP37: Trees, Woodland and Hedgerows, *'ancient woodland and aged trees will be protected'* will be fulfilled as tree and root protection buffers will be put in place, and works carried out under a CEMP plan. Under Policy DP38: Biodiversity, *'biodiversity will be protected and enhanced'* during development, including a *'net gain in biodiversity'*.
- 5.24 The Environment Bill received Royal Assent on 9th November 2021 and is now enacted as the Environment Act 2021. Part 6 (Nature and Biodiversity) and Schedule 14 of the Environment Act 2021 insert a new section 90A and Schedule 7A into the Town and Country Planning Act 1990 (TCPA), which contain the provisions requiring mandatory biodiversity net gain for development granted planning permission pursuant to the TCPA. These provisions are not yet in force, but, once they are brought into effect through implementing legislation, will require developments to provide a biodiversity value post-development that exceeds the predevelopment biodiversity value of the onsite habitats by at least 10%. These provisions are not expected to come into force until November 2023 for new planning applications. However, it is expected that a net gain in planning applications, reflected in policy DP38, would be required.
- 5.25 The Hurstpierpoint and Sayers Common Parish council Parish 2031 Neighbourhood Plan (Referendum Version February 2015), Policy C3, Local Gap Prevention of Coalescence, covers the site and lands from the south of Sayers Common to the Albourne Road.

Protected Species

Roosting Bats

- 5.26 All of the scattered trees around the site were considered to support at least 'low' roosting bat potential, and it is recommended that all of these trees should be retained within the proposals. The indicative masterplan for the site (Figure 2), shows that the majority of the scattered trees are to be retained within the scheme, however, if any trees need to be

removed should be re-evaluated for bats. Enhancements for bats are detailed later within the report.

Foraging and Commuting Bats

- 5.27 The linear features on site, including the hedgerows and woodland edges, are known to provide foraging and commuting habitat for bats. Hedgerows and edges also help to connect the site to the wider landscape ensuring that bats can move with ease across the area using the linear features for shelter, protection and opportunistic foraging.
- 5.28 According to the indicative masterplan, all of the woodland edges are being retained within the scheme, with buffer zones set in place protect these habitats from direct and indirect impacts.
- 5.29 According to the indicative masterplan, the majority of hedgerows are being retained on site, with only small sections being removed for access roads along occurring to H1, H2, H4, H5, and H6. Roads cutting through a wildlife corridor such as a hedgerow or tree line should be made as narrow as possible or contain an 'island' in the centre of the road such as a tree to aid with crossings by bats and birds (Figure 6). Large trees on either side of the road would aid in providing an aerial bridge over the road with overhanging branches and thereby reduce the gap over which bats and birds have to cross.



Figure 6: 'Hop-overs' created using trees to guide bats over roads (Limpens et al. 2005)

- 5.30 Where lighting is required on site, a sensitive lighting scheme must be implemented. Again collaboration between a lighting professional and ecologist may be required in order to help design this scheme but measures should include:
- The impact on bats can be minimised by the use of Light emitting diodes (LEDs) instead of mercury, fluorescent or metal halide lamps where glass glazing is

preferred due to their sharp cut-off, lower intensity and their dimming capability. Lighting should be directed to where it is needed and light spillage avoided.

- This can be achieved by the design of the luminaire and by using accessories such as hoods, cowls, louvres and shields to direct the light to the intended area only.
- Soft landscape planting should also be used as a barrier or manmade features such as walls or fencing with planted climbers where required within the build can be positioned so as to form a barrier between any development and the linear features used by bats.

5.31 Bollard lighting is recommended to be used across the site, along internal streets where possible, in place of full street lighting (Figure 7). The retained central linear features, edges of the ancient woodland and the southern and western edges of the site are recommended to be maintained as dark corridors with no lighting installed in these areas. This will maintain the integrity of these corridors for foraging bats. Warm-white or red lights are recommended to be used if health and safety concerns are great as these are said to limit the impact on insects and therefore bat activity.



Figure 7: Use of red bollard lights are considered to be 'bat friendly'

5.32 Bat surveys were completed in 2017 and 2018. These surveys are now considered to be over 4 years in age. It must be noted that the habitats on site have not materially changed and therefore it is considered unlikely that the results of the bat surveys have significantly changed. However, update surveys would be recommended to inform any final compensation and mitigation measures within the scheme.

- 5.33 It is considered that the surveys still provide sufficient information to ensure any prediction of impacts on the species recorded can be made in terms of the development proposals for the call for sites.

Badgers

- 5.34 An active badger sett was recorded within the embankment adjacent to the A23, to the east of the unnamed area of ancient woodland. The sett was active and appeared to support numerous holes. This sett is located outside the red line boundary and within the off site adjacent deciduous woodland, and as such is not considered likely to be directly impacted by any development proposals.
- 5.35 No other badger setts were located within the site at the time of the survey, however, it is acknowledged that not all areas could be accessed (within Sayers Common Wood, outside the red line boundary) and some of the areas of denser vegetation.
- 5.36 However, as badgers are known to be present within the local landscape it must be assumed that the habitats on site form part of their territory and foraging grounds.
- 5.37 Whilst foraging ground is not legally protected, the loss of foraging habitat, the isolation of setts from foraging habitat (and access to water) and the loss or interruption of pathways to foraging habitat or water sources maybe considered as 'ill treatment'. As such any designs for the site must consider how badgers would move across the landscape and must include the provision of green links from the sett to their foraging habitats. Best practice guidelines have also been listed below to help ensure badgers are not harmed during the construction phase of the development.
- 5.38 Best practice guidelines recommended that:
- Any excavations and trenches associated with construction are either covered at night or supplemented with a means of escape for any badgers that may fall into the excavation whilst foraging;
 - Any open pipes or conduits laid should be blocked off each night to prevent badgers from entering them;
 - If possible, construction work should only take place between dawn and dusk with no late evening work to reduce possible disturbance.

- 5.39 If these methods are followed, no significant residual impacts are predicted on badgers or other small mammals on site or within the local area.

Dormice

- 5.40 The woodland habitats within the red line boundary were considered to be a mix of suitability for dormice. Sections of the woodland in Coombe Wood were considered to have some suitability for dormice and some of the more species rich hedgerows were considered to provide the cover and the species diversity that is required by dormice.
- 5.41 However, some sections of hedgerows were leggy and limited in terms of species present. The unnamed south east woodland, had been previously grazed by sheep, and lack the structure or diversity of understorey to support dormice. This is largely linked to the presence of a suitable understorey to provide the woodland vertical stratification that is favoured by dormice. The woodlands were linked across the site by hedgerows, which also provide linkages to suitable off-site habitats.
- 5.42 However, no signs of dormouse activity were discovered during the 2018 dormouse surveys (The Ecology Partnership 2018). It is considered highly unlikely that dormice have commuted to and established themselves within the site since the last survey effort. Therefore, no further surveys are required for this species.

Great Crested Newts

- 5.43 There was one pond found on site (Bull Pond) and another five within 500m of the site were identified as pertinent to the site. Access to ponds 1-3 was not possible on the day of the survey so only the remaining three were assessed for their habitat suitability for GCNs. Bull Pond was considered to be of poor suitability for GCNs, with Pond 4 and Pond 5 having average suitability. eDNA surveys were carried out on all ponds where access was possible on 27th June 2017. The results for the bull pond and ponds 4 and 5 were all negative for GCN DNA.
- 5.44 There are however, three ponds which were not accessible for eDNA or HSI surveying. Two of these ponds are located within Coombe Farm garden, with a further pond identified to the south of Coombe Wood. It is again recommended that letters requesting access to these ponds are sent out to the landowners, as to give the best data to inform

potential mitigation measures for GCN. An update eDNA of Bull Pond is also recommended, due to its location on the site.

- 5.45 If access to these ponds are not permitted, any development should proceed under a precautionary approach.
- 5.46 It must be noted that research on GCNs terrestrial habitat (Cresswell et al in the UK - '*An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt Triturus cristatus* English Nature Research Reports 576 and *Spatial patterns of migrating GCNs and smooth newts: the importance of the terrestrial habitat surrounding the breeding pond*') has identified a higher affinity of GCNs using areas which are wooded, rather than grassland. Woodland habitats present varied structural habitat and provide both shelter and humid microclimates to a much greater extent than grassland. Newts use old woodland stump and piles of old leaves as damp refuge but also taking advantage of the heat produced from decomposing plant materials. These habitats are not found on the grassland habitats as is the case here, and it is this terrestrial habitat, which is to be impacted by any development.
- 5.47 The development does not isolate the pond from other local ponds, nor does the development impact on breeding sites, or isolate breeding sites from other breeding sites, or indeed breeding sites from foraging habitat or dispersal routes. As such it is considered that any development on the site, of which the majority is considered largely unsuitable for GCNs, would not impact upon the favourable conservation status of GCNs in the wider landscape.
- 5.48 Considering the above a precautionary approach to the sites use by GCNs should be undertaken. As such, sensitive clearance has been recommended and enhancements for the edges of the site have been recommended within this report.

Reasonable Avoidance Measures

- 5.49 It is recommended that the current grazing regime be maintained to limit suitability of the site for GCNs to ensure the grass does not form a taller tussocky sward that is more suited to terrestrial GCNs.

- 5.50 When removing shrubs or other small patches of vegetation where present, a sensitive approach to vegetation removal should be adopted, detailed below. Prior to any clearance works commencing, consideration should be given to the status of reptiles on-site.

Vegetation removal works will follow the following specification:

- Vegetation removal works are to be carried out using hand tools only.
- Vegetation will be strimmed/cut down using the following method in suitable weather conditions (avoiding rain/wet conditions) under ecological supervision:
 1. Day 1: Strim/cut shrubs/trees etc to 200mm
 2. Day 2: No works to vegetation to allow any great crested newts present to vacate the site
 3. Day 3: Strim/cut to ground level
 4. Day 4: No works to vegetation to allow any remaining great crested newts present to vacate the site
 5. Day 5: End of sensitive clearance process

- 5.51 Prior to commencement of works, the location of the proposed development should be kept in a state that is unattractive to GCN and without potential refuge opportunities:

- Grass should be regularly mown to keep to approximately 50mm
- Area should be kept free from scrub and tall ruderal species
- Area to be kept free of piles of debris such as log piles, leaf piles, brick heaps or loose soil.

- 5.52 During development work construction materials, as well as skips and pallets, should be stored on hardstanding where possible and furthermore, should be elevated off the ground. This so that no features are created that GCN could potentially use as refuge habitat.

- 5.53 Where trenches and holes are dug, these should not be left open overnight. GCN (and other amphibians, reptiles and small mammals) may get trapped in vertical-sided trenches. Therefore, where there is a risk of this occurring, the holes should be refilled or planks of wood should be placed so that any trapped animals may use these to escape.

- 5.54 It is considered that if these methods are used on site then it is considered that no individual GCN would be harmed by the proposals. It is also considered that these

measures will also reduce the potential risk on other species, such as reptiles and small mammals.

Reptiles

- 5.55 As a 'low' population of grass snakes, common lizards and reptiles were identified within the site during the 2018 surveys (The Ecology Partnership 2018) and as the site is still seen to have potential to support reptiles, it is considered that the low population of reptiles still persist on site.
- 5.56 Whilst the surveys are considered to be over 4 years old, it is considered that the surveys are sufficient to predict impacts resulting from the proposed development. As the grassland management is the same since the 2018 surveys, with grazing regimes still present on site. This has resulted in areas of short sward height, which would not be considered suitable for reptiles. Have the edge habitats are considered to still retain their suitability to support reptiles.
- 5.57 A mitigation strategy for reptiles will include a translocation strategy and receptor area set within the development parameters. It is considered that there is plenty of space within the design to accommodate reptiles, with opportunities to enhance woodland edges to support reptiles in the long term.

Breeding Birds

- 5.58 The breeding bird survey carried out in 2018 (The Ecology Partnership 2018) identified a total of 34 species, of which 26 were probable or confirmed breeders on the site were identified on site. Four of the probable breeders: dunnock; mistle thrush; song thrush; and starling, with a further four of the non-probable breeders: willow warbler; stock dove; kestrel and swift, are all of conservation concern.
- 5.59 As the majority of the woodland and scattered trees habitats are being retained within site, the impacts on the nesting habitats of these birds are thought to be minimal. However, it is recommended that the proposals also retain as much of the hedgerows as possible as to avoid impacting the nesting habitats of these birds. If any of these features are to be removed, these should be compensated for within the site as to replace any lost habitat.

5.60 Whilst the development's grasslands provide some habitat in mitigation, the extent of grassland is reduced. Hence some residual impact on these species' local populations is predicted without mitigation. The impact is on common and widespread, albeit declining, species therefore of no more than local significance, at the scale of the proposed development.

5.61 A full list of mitigation measures and enhancements for breeding birds on site is located within the breeding bird report (The Ecology Partnership 2018d).

Other Species

5.62 As active rabbit warrens have been identified on site, if these are to be impacted this needs to be done sensitively as to ensure no rabbits, or other small mammals, are harmed during works to ensure the works are compliant with the Wild Mammals Protection Act 1996.

5.63 The habitats are likely to support invertebrates such as stag beetles and dead wood is present on site. The habitats on site are to be managed and enhanced for a range of wildlife including invertebrates. Species rich grassland and enhancement of scrub and wildflower species, will uplift the current habitats and have the potential to support a greater diversity of species such as butterflies.

5.64 The site has potential to support hedgehogs and new habitat provision will help support such species.

Ecological Enhancements

5.65 Several enhancements can be made to the final development to help reduce potential ecological impacts, as well as to try and achieve 10% biological net gain.

5.66 The following general recommendations are made in terms of new habitat creation:

- Woodland buffer through the creation of an ecotone between the woodland and the development;
- Creation of new ponds/wetlands along suitable habitat edges;
- Creation of high value habitats such as orchards, within the scheme;
- Use of native tree planting within the development site;
- Enhancement of edge habitats and features, creating robust networks;

- Use of a range of wildlife boxes (detailed below) within the scheme.

5.67 To enhance the local bat population and provide roosting opportunities within the site, bat boxes can be hung on some of the mature trees around the site, if any are retained. Woodcrete boxes are recommended as they are breathable and long-lasting. These can include Schwegler boxes, such as the 2F, 2FN and 1FD models, as well as suitable alternatives such as the Vivaro Pro Low Profile Woodstone Bat Box range.

5.68 Bat boxes can also be integrated into the structure of the new building (Figure 8). These provide good opportunities for crevice-dwelling species such as pipistrelles. The opening of the bat box/tube will be the only section visible and they are designed so that they require little to no maintenance. Several of these tubes can be established in a row together providing a good-sized roost space. The bat tubes should be inserted in the brickwork at least 4m from ground level in a location not illuminated by artificial lighting. Habitat, in association with the Bat Conservation Trust, provide a range of boxes which are unfaced for render or designed to match the brickwork of the building.

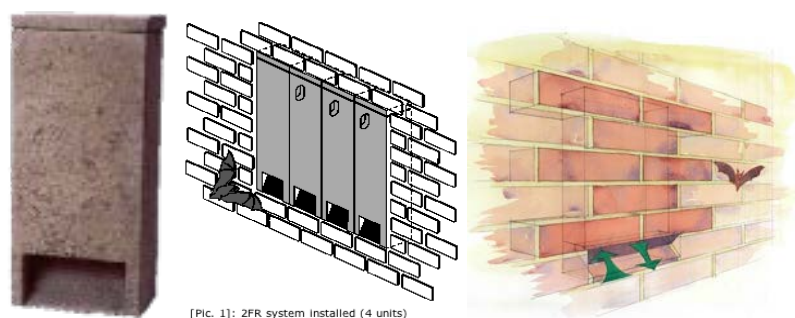


Figure 8: Bat tubes incorporated into the wall of a building to provide roosting space

5.69 Nest boxes can be installed in order to provide new nesting opportunities for birds. These can be hung on surrounding mature trees, if any are retained. Bird boxes made from woodcrete or similar are recommended due their longevity.

5.70 It is also recommended that log piles (Figure 9) could be made in the northeast, southeast and southwest corners of the site, bordering the units of woodland. The log pile can be created from any trees that are being removed as part of the proposal. Log piles offer shelter for hibernating small mammals, reptiles, GCN and insects, as well as a foraging

area for some birds. These should be stacked, and can be further enhanced through the addition of leaf litter and planting of climbing species such as honeysuckle or clematis



Figure 9: (left): Examples of log piles that can be made on site

- 5.71 Hedgehog (*Erinaceinae europaeus*) homes could also be placed within the southwest corner of the site (Figure 10). These provide areas of shelter for hedgehogs within the site, helping support the local population.



Figure 10: Example of a hedgehog house that can be utilised on site

- 5.72 Where possible, fencing will be made hedgehog-friendly by creating a 13cm x 13cm hole at the base (Figure 11). These simple features allow hedgehogs to travel between gardens and increase habitat connectivity. To ensure these are not blocked, small signs can be painted or erected above the hole.



Figure 11: Hedgehog-friendly fencing and highway signage (hedgehogstreet.org)

- 5.73 Enhancements for badgers could include the planting of tree / shrub species which badgers are known to favour. Species such as fruit trees (plums, damsons, pears, apples) and berry bearing species (elder, blackberries) could be planted within the site to provide new food resources within the badger territory and foraging range.
- 5.74 Any trees removed on site need to be replaced elsewhere in an equivalent number and new tree planting can take place throughout the site. These should be native species of value to wildlife and can include oak (*Quercus sp.*), hazel (*Corylus avellana*), beech (*Fagus sylvatica*), cherry (*Prunus sp.*), hornbeam (*Carpinus betulus*) and rowan (*Sorbus aucuparia*).
- 5.75 New hedgerows could be planted within the site to improve wildlife corridors. Hedgerows help to provide a layering of different habitats that can be utilised by a wide variety of species. Species that can be planted include blackthorn (*Prunus spinosa*), hawthorn (*Crataegus monogyna*), hazel (*Coryllus avellana*), holly (*Ilex aquifolium*), elder (*Sambucus nigra*), alder buckthorn (*Frangula alnus*), guelder rose (*Viburnum opulus*), dog rose (*Rosa canina*) and dogwood (*Cornus sanguinea*).
- 5.76 Newly formed areas of grassland, open space, boundaries and vacant spaces post-development could be supplemented by integrating a variety of native plant species. Patches of bare soil can be sown with wildflower seed mixes to increase the biodiversity of the site and also offer aspects of aesthetic appeal, such as with Emorsgate Seeds mix EM1F or EM2F.
- 5.77 Sustainable Urban Drainage Systems (SUDS) should be considered as part of any development. They help to reduce potential impacts associated with surface water

discharge on the local landscape. They can also provide additional habitat for local wildlife. Examples include swales, ponds, green roofs, filter drains and permeable paving. A new pond would be a significant ecological enhancement for the site and would create new habitat for GCNs in the local area. Any new waterbodies should be linked to the wider landscape through the protection and enhancement of tree lines and associated grassland strips. The pond ditch could be planted to enhance invertebrate species on the site and provide breeding opportunities for amphibian species. Care must be taken however to ensure that aggressive alien species are not accidentally introduced. These habitats can also be an important water source for birds and mammals, including badgers.

- 5.78 It is considered that following these enhancements and using the indicative masterplan as an estimate for the onsite post-development habitats, that a 10% habitat net gain in habitat units is possible. However, it is also considered that currently there will be a loss in hedgerow units over the site, due to the lack of replacement planting, which would need to be compensated for.

6.0 Impact Assessment

- 6.1 This section of the report forms an EcIA (Ecological Impact Assessment) and is designed to quantify and evaluate the potential impacts of the development on habitats and species present on site or within the local area.

Methodology

- 6.2 The approach to this assessment accords with guidance presented within the CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM 2018). In essence, an EcIA assesses the activities associated with a proposed scheme that are likely to generate changes within identified zone of influences, on identified ecological features and receptors. The proposals are subsequently reviewed and mitigation and compensation measures are outlined which help to reduce negative impacts.
- 6.3 The zone of influence for the development is defined as:
- The project red line, for effects on habitats and species;

- Adjacent habitat, considered by species, for mobile species with territories or foraging ranges that may overlap the site.

6.4 The types of features considered in the assessment of effects, to meet legislative and policy requirements, are:

- Designated sites (European, national and local);
- Protected species;
- Habitats and species of principal importance (Section 41 list);
- Hedgerows and woodland, where not of principal importance; and
- Habitats, where not of principal importance, that may function as wildlife corridors or stepping stones.

Baseline Ecological Conditions

6.5 The site falls within the zone of influence for the following important ecological features:

- Deciduous Woodland priority habitat on site;
- Hedgerow habitats; and
- Ancient and semi-natural woodland priority habitat on site.

6.6 In addition, the site supports / has the potential to support the following important ecological features:

- Roosting bats;
- Foraging and commuting bats;
- Reptiles;
- GCN;
- Badgers;
- Nesting birds;
- Stag beetles / other invertebrates;
- Hedgehogs.

Impact Assessment and Mitigation

Table 2: Assessment of effects from the proposal after mitigation and compensation

Feature	Scale of Importance	Mitigation/Compensation Required	Residual Effect
Deciduous Woodland priority habitat	Local	Fully retaining the priority habitat, as well as the use of a sensitive lighting scheme to protect the 'dark corridor' it provides. A buffer zone around the woodland is also to be provided to protect the woodland from indirect impacts.	Not significant
Ancient and semi-natural woodland priority habitat	Local	Fully retaining the priority habitat, as well as the use of a sensitive lighting scheme to protect the 'dark corridor' it provides. A buffer zone around the woodland is also to be provided to protect the woodland from indirect impacts.	Not significant
Roosting bats in trees	Local	Retention of the mature trees within the site as to avoid any significant impacts. If this changes and any of the mature trees on site are to be removed, update surveys on all of the trees to be impacted should be conducted prior to any works, to identify their potential and the need for any further mitigation. Enhancement through the installation of bat boxes.	Not significant
Commuting and foraging bats	Local	Sensitive lighting scheme to retain dark corridors across the woodland boundary and hedgerows across the site. As well as the retention of the majority of linear features which could be used by commuting and foraging bats to reduce directly impacting linear features over the site.	Not significant
Reptiles	Local	Low population of common lizard, slow worm and grass snake on site. Mitigation through translocation and receptor area selection and enhancement. The master plan provides plenty of space to support retained and enhanced habitats for reptiles.	Not significant
GCN	Local	eDNA surveys conducted in 2017 were negative for GCNs. The ponds surveyed have not materially changed. RAMs have also been recommended to be followed to further reduce potential impacts on GCN.	Not significant
Badgers	Local	No evidence of badger activity within the site was identified, however a badger sett just off site was noted. As the badgers are likely foraging and commuting over the site, recommendations have been made to help ensure no badgers are harmed	Not Significant

		during the construction and development phase of the proposals.	
Nesting Birds	Local	Retention of the majority of suitable habitat for nesting birds. Mitigating direct harm to nests by removal of any suitable habitat outside of nesting bird season or after a check by a suitably qualified ecologist. Enhancement through the installation of bird boxes and new planting.	Not significant
Stag beetles / other invertebrates	Local	Grassland species poor. Enhancement of grassland post development with species rich grassland habitat. Protection of woodland and creation of new habitat edges	Not significant
Hedgehogs	Local	Potential to be present within habitat edges. These are being retained. New scrub and species rich habitats are to be created. The garden habitats will be permeable to wildlife.	Not significant

Cumulative impacts

- 6.7 The scheme should also be considered in conjunction with other surrounding proposals in order to determine cumulative impacts on ecological features. The majority of developments within the area surrounding the site involve small-scale works, such as extension works (DM/22/2607) or tree works (for example DM/22/2735).
- 6.8 Current development of Kingsland Laines, Reeds Lane, (DM/19/1148) / consent ref 12/01540/OUT) for 120 units, is under construction, with a number of units completed. DM/19/3952 for 9 units, land south of White Horse Lodge has been granted and is currently under construction.
- 6.9 However, there are some proposals within the local area that result in a net increase in residential units and development around Sayers Common. Application DM/22/2012 for the erection of a 2 storey, 66 bed care home for older people, with associated access and parking and landscaping, is proposed off Goldcrest Drive. This site was surveyed in 2022 with no evidence of great crested newts or reptiles on site, with the site being considered unsuitable for dormice. It was considered that the habitats present were common and widespread. Cumulative impacts from this development were not considered significant.

-
- 6.10 Application DM/22/0640 for 36 new dwellings and outline for 2 self builds, is yet to be determined.
- 6.11 With Albourne, DM/22/2416 for south of Henfield road is proposed 120 new residential units, POS and community facilities. Ecological surveys have been undertaken, including bats, dormice, reptiles, breeding birds and an EcIA provided. A net gain in ecological value of the site post development is expected.
- 6.12 A number of the proposals will result in a net increase in residential units have not been granted planning permission. As such, it is considered that these proposals would not currently result in any cumulative impacts alongside the proposals discussed within this report. Furthermore, it is considered that if any of these are to be granted permission in the future that the ecological impacts of the developments, including cumulative impacts, would have been sufficiently addressed prior to approval.

7.0 Conclusions

- 7.1 The site does not lie within or adjacent to any statutory or non-statutory designated sites. It is considered highly unlikely that the development will cause adverse effects to these areas or the surrounding landscape.
- 7.2 Overall, it was considered that the habitats on site had not materially changed since the original PEA in 2017 and the update walkover conducted in 2021, with the site largely dominated by species-poor semi-improved grassland habitats, which were heavily managed either through sheep grazing or mowing. These habitats in themselves are considered to be common and widespread and of limited ecological interest.
- 7.3 Other habitats present within the site included the ancient woodland, mature trees, a small pond, hedgerows, and deciduous woodland, which are considered to be of significant ecological value, which these habitats also being habitats of principle importance as defined by the NERC Act 2006. As such these must be considered within the design of the master plan.

- 7.4 Numerous scattered trees are also present on site. It is recommended that all mature trees are maintained within the scheme. If trees are required for removal, then further surveys maybe required.
- 7.5 The previous species specific surveys conducted are considered to be robust and sufficient in order to predict impacts resulting in the proposed development. Foraging bats, low populations of reptiles are found on site. eDNA surveys did not identify any GCNs within the surrounding ponds, however, it is acknowledged that several ponds could not be surveyed. As such a precautionary approach to works are recommended.
- 7.6 A badger sett was located off site to the east, adjacent to the A23. No other setts were identified on site at the time of the survey. Consideration for the foraging habitats and commuting routes for badgers within the development is recommended.
- 7.7 Due to the loss of such a large area of grassland, further compensation and mitigation is thought to be necessary for species of breeding birds, namely mistle thrush, song thrush and starling. Enhancements and mitigation for these species can be found within the breeding bird report (The Ecology Partnership 2018).
- 7.8 The site is considered not constrained by otters, dormice, and water voles, and no further surveys work is recommended for these species.
- 7.9 A number of general site enhancements are also recommended, these include instillation of nest boxes and bat roosting boxes, as well as sowing of wildflower seed and planting of native shrubs and trees.

8.0 References

Bat Conservation Trust (2016) *Bat Surveys – Good Practice Guidelines*. Bat Conservation Trust, London.

Cresswell, W. & Whitworth, R. (2004) *An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt Triturus cristatus*. Peterborough, UK.

Cooper, E. 1998. [*Summary descriptions of National Vegetation Classification grassland and montane communities*](#). Joint Nature Conservation Committee, UK Nature Conservation Series No. 14.

-
- English Nature (2001) *Great Crested Newt Mitigation Guidelines*. Natural England, Peterborough.
- English Nature (2006) *The Dormouse Conservation Handbook, 2nd Edition*. English Nature, Peterborough.
- Hall, J.E., Kirby, K.J. & Whitbread, A.M. 2004. [*National Vegetation Classification: field guide to woodland*](#). Revised edition. Joint Nature Conservation Committee.
- Hume, V. & Grose, M. 2010. A revision of the Ancient Woodland Inventory for West Sussex. Natural England.
- Jefferson, R.G., Smith, S.L.N. & MacKintosh, E.J. 2014. *Guidelines for the Selection of Biological SSSIs. Part 2: Detailed Guidelines for Habitats and Species Groups. Chapter 3: Lowland Meadows*. Joint Nature Conservation Committee.
- Joint Nature Conservation Committee (2010) *Handbook for Phase 1 habitat survey – a technique for environmental audit*. JNCC, Peterborough.
- Langton, T.E.S., Beckett, C.L. & Foster, J.P. (2001) *Great Crested Newt Conservation Handbook*. Froglife, Halesworth.
- Mitchell-Jones, A.J. (2004) *Bat Mitigation Guidelines*. English Nature, Peterborough.
- Neal, E. & Cheeseman, C. (1996) *Badgers*. T & A D Poyser Ltd. London.
- Rodwell, J.S. (ed.). 1991. *British Plant Communities. Volume 1. Woodlands and scrub*. Cambridge University Press.
- Rodwell, J.S. (ed.). 1992. *British Plant Communities. Volume 3. Grassland and Montane Communities*. Cambridge University Press.
- The Ecology Partnership (2017) *Preliminary Ecological Appraisal Coombe Farm, Sayers Common, West Sussex*. Leatherhead
- The Ecology Partnership (2018a) *Bat Activity Survey 2017-2018 Coombe Farm, Sayers Common, West Sussex*. Leatherhead

The Ecology Partnership (2018b) *Dormouse Survey 2017-2018 Coombe Farm, Sayers Common, West Sussex*. Leatherhead

The Ecology Partnership (2018c) *Reptile Survey 2018 Coombe Farm, Sayers Common, West Sussex*. Leatherhead

The Ecology Partnership (2018d) *Breeding Bird Survey Coombe Farm, Sayers Common, West Sussex*. Leatherhead

Stroh, P.A. *et al.* 2014. *A Vascular Plant Red List for England*. Botanical Society for the British Isles.

Internet resources:

Google Maps: www.google.co.uk/maps

Magic Interactive Map: www.magic.gov.uk

EmorsgateSeeds: www.wildseed.co.uk

Appendix 1: Phase 1 Habitat Map

Sayers Common Phase 1 Habitat Map

Key

RLB

T1 Target Note 1- Badger Sett

T2 Target Note 2- Mammal Holes

Ancient and semi-natural woodland

Deciduous Woodland

A Amenity grassland

SI Semi-improved grassland

Hedgerows

Hedges

Scattered trees

Pond

Buildings

Hardstanding

Fence Line

Site: Sayers Common

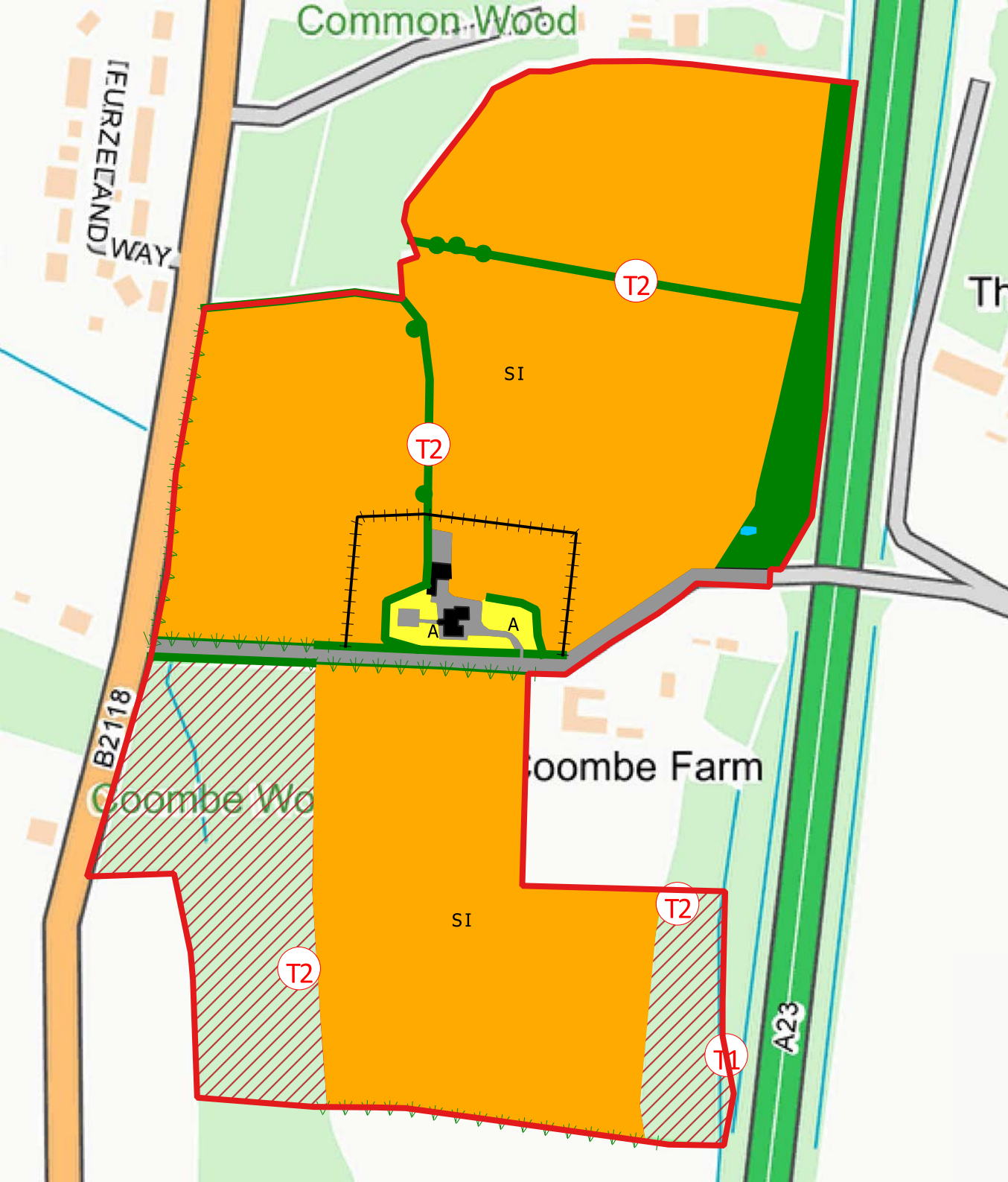
Client: Welbeck

Surveyors: KM & LJ

Date of Survey: 25th January 2021

the
ecology
partnership

The Ecology Partnership Ltd
Thorncroft Manor, Thorncroft Drive,
Leatherhead, KT22 8JB
W: www.ecologypartnership.com
E: info@ecologypartnership.com
T: 01372 364133



Appendix 2: Species List

DAFOR Scale	Meaning	Percentage Cover of habitat
D	Dominant	51-100%
A	Abundant	31-50%
F	Frequent	16-30%
O	Occasional	6-15%
R	Rare	1-5%
LA	Locally Abundant	31-50% of a specific area

Common name	Latin name	DAFOR score
Scattered trees		
Pedunculate oak	<i>Quercus robur</i>	A
Ash	<i>Fraxinus excelsior</i>	O
Field Maple	<i>Acer campestre</i>	R
Species-poor semi-improved grassland		
Perennial rye-grass	<i>Lolium perenne</i>	D
Yorkshire fog	<i>Holcus lanatus</i>	F
Red fescue	<i>Festuca rubra</i>	O
Dove's-foot Crane's-bill	<i>Gernaium mole</i>	O
Cleavers	<i>Galium aparine</i>	O
Yarrow	<i>Achillea millefolium</i>	R
Sheep sorrel	<i>Rumex acetosella</i>	R
Cock's foot	<i>Dactylis glomerata</i>	R
White clover	<i>Trifolium repens</i>	R
Bramble	<i>Robus fruticosus</i>	R
Common nettles	<i>Urtica dioica</i>	R
Dandelion	<i>Taraxacum officinale</i>	R
Hard rush	<i>Juncus inflexius</i>	LA
Species rich hedgerow		
Woody species and scattered trees		
Hawthorn	<i>Crataegus monogyna</i>	D
Blackthorn	<i>Prunus spinosa</i>	A
Dog rose	<i>Rosa canina</i>	O
Elder	<i>Sambucus nigra</i>	R
Snowberry	<i>Symphoricarpos albus</i>	R
Pedunculate oak	<i>Quercus robur</i>	R
Ash	<i>Fraxinus excelsior</i>	R
Field Maple	<i>Acer campestre</i>	R
Ground layer		
Broadleaved dock	<i>Rumex obtusifolius</i>	O
Cleavers	<i>Galium aparine</i>	O
Bramble	<i>Robus fruticosus</i>	R

Common nettles	<i>Urtica dioica</i>	R
Species rich hedgerow		
Woody species and scattered trees		
Hawthorn	<i>Crataegus monogyna</i>	D
Blackthorn	<i>Prunus spinosa</i>	A
Dog rose	<i>Rosa canina</i>	O
Pedunculate oak	<i>Quercus robur</i>	R
Ground layer		
Cleavers	<i>Galium aparine</i>	O
Bramble	<i>Robus fruticosus</i>	R
Common nettles	<i>Urtica dioica</i>	R
Broadleaved woodland		
Canopy		
Pedunculate oak	<i>Quercus robur</i>	D
Ash	<i>Fraxinus excelsior</i>	F
Understorey		
Hazel	<i>Corylus avellana</i>	D
Ground Layer		
Hazel	<i>Corylus avellana</i>	D
Bramble	<i>Robus fruticosus</i>	A
Honeysuckle	<i>Lonicera periclymenum</i>	R
Common nettles	<i>Urtica dioica</i>	R
Ancient and semi-natural woodland		
Canopy		
Pedunculate oak	<i>Quercus robur</i>	D
Ash	<i>Fraxinus excelsior</i>	R
Understorey		
Hazel	<i>Corylus avellana</i>	D
Bramble	<i>Robus fruticosus</i>	R
Honeysuckle	<i>Lonicera periclymenum</i>	R
Ground Layer		
Bluebell (shoots)	<i>Hyacinthoides p.</i>	O
Dogs mercury	<i>Mercurialis perennis</i>	R
Lords-and-ladies	<i>Arum maculatum</i>	R

Appendix 3: Photos 2022

Photo 1: Hedgerow H1 on the left hand side and the Coombe Wood edge.



Photo 2: Hedgerow H2 with mature tree lines



Photo 3: Coombe
Wood edge



Photo 4: Hedgerow
H7 and the grassland
habitats



Photo 5: Un named
woodland to the south
east. Well grazed
woodland
understorey



Photo 6: Grassland habitats grazed.








Photo 7: Grazed grassland in the north of the site











Photo 8: Off site woodlands to the north of the site.






Appendix 4: Photos 2021

Photograph 1: Photo overview of the grassland habitats on site.	
Photograph 2: Photo overview of the grassland habitats on site, showing the current sheep grazing management occurring onsite.	
Photograph 3: Photo of H1.	
Photograph 4: Photo of H2	
Photograph 5: Photo of H3	

Photograph 6: Photo of H4	
Photograph 7: Photo of H5	
Photograph 8: Photo of H7	
Photograph 9: Photo of the ancient and semi-natural woodland located in the southeast corner of the site.	
Photograph 10: Photo of Coombe Wood ancient and semi-natural woodland.	

Photograph 11: Photo of part of the deciduous woodland located in the northeast corner of the site.	
Photograph 12: Photo of Bull Pond located on site.	
Photograph 13: Photo of Pond 4.	

<p>Photograph 14: Photo of Pond 5.</p>	 A photograph of a pond, identified as Pond 5, surrounded by trees and branches. The water is calm, reflecting the surrounding greenery and sky. The foreground is filled with bare, thin branches, some of which are in sharp focus, creating a sense of depth.
<p>Photograph 15: Photo of part of the badger sett (Target Note 1- Badger Sett).</p>	 A photograph showing a badger sett entrance. The entrance is a dark, circular hole in the ground, surrounded by a mound of earth and fallen leaves. The surrounding area is covered in dry, brown leaves and some green moss, indicating a woodland setting.
<p>Photograph 16: Photo of some of the mammal holes on site (Target Note 2- Mammal Holes).</p>	 A photograph showing a dense thicket of trees and branches, likely a woodland area. The branches are bare and tangled, creating a complex network of lines. The ground is covered in fallen leaves and some green moss, suggesting a natural, undisturbed habitat.

The Ecology Partnership Ltd

Thorncroft Manor

Thorncroft Drive

Leatherhead

KT22 8JB

Tel: 01372 364 133

www.ecologypartnership.com

Approved: Alexia Tamblyn MA (Oxon) MSc CEcol CEnv MCIEEM FRGS

Date: 06/12/2022