Ecological Impact Assessment (EcIA)

Land at Coombe Farm, Sayers Common

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LIABILITIES:

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

The views and opinions 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

Purpose of the Report

1.1 This Ecological Impact Assessment (EcIA) evaluates the effects of the development of land at Coombe Farm, Sayers Common. The results of The Ecology Partnership's surveys and desk study of the site and surrounding land are presented. These findings are assessed against the proposals for residential development on the site in order to:

- Evaluate the baseline interest;
- Identifies and ranks significant impacts;
- Sets out mitigation and compensation measures and the means to secure these;
- Assesses the significance of residual impacts;
- Identifies enhancement measures; and
- Sets out requirements for post-construction monitoring.

Site Context and Description of the Project

1.2 Current proposals for the site are to build a new residential development with associated access and landscaping which includes the creation of SuDS ponds.

1.3 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.

1.4 The aerial photograph (Figure 1) shows the site and its immediate surroundings. The red line depicts the approximate site boundary and survey area.

Figure 1: Approximate location of the red line boundary (Google Earth Pro February 2025)

Legislation

1.4 The following legislation has been considered in determining the scope of this EcIA.

- The Bern Convention (1979);
- Convention on Biological Diversity (1992)
- The Habitats Directive (1992);
- The Birds Directive (1979);
- Wildlife and Countryside Act (1981 as amended);
- The Natural Environment and Rural Communities (NERC) Act (2006);
- Conservation of Habitats and Species Regulations 2017 (as amended);
- The Protection of Badgers Act 1992;
- The Hedgerow Regulations 1997;
- The Environment Act 2021.

National and Local Planning Policy

1.5 National policy guidance is provided by National Planning Policy Framework (NPPF 2024), which sets out the Government's planning policies for England and how they should be applied. Section 15 of the document is entitled 'Conserving and Enhancing the Natural Environment'.

1.6 The site falls under the planning control of Mid Sussex District Plan 2014-2031 (adopted March 2018). These policies include the following which are considered relevant to ecology, biodiversity and nature conservation:

- ***Policy DP38: Biodiversity***
- ***Policy DP17: Ashdown Forest SPA and SAC***

2.0 Methodology

Scope of the Assessment

2.1 The zone of influence of the development is defined as:

- The project red line, for effects on designations, habitats and species;
- Adjacent habitat, considered by species, for mobile species with territories or foraging ranges that may overlap the site;
- Designated sites which can be impacted through development activities; and
- Undesignated priority (Section 41) habitats that may be sensitive receptors to increased recreational pressure or other impacts such as surface water pollution.

2.2 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;
- Invasive species (Schedule 9 of Wildlife and Countryside Act); and
- Habitats, where not of principal importance, that may function as wildlife corridors or stepping stones.

Desktop Study

2.3 A desktop study 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) to understand the habitats present in and around the survey area as well as habitat linkages and features within the wider landscape. Records for the site and local area (up to 2km) were purchased from Sussex Biodiversity Records Centre (SxBRC), for a 2km radius around the site

Field Surveys

Phase 1 Survey / UKHAB and Preliminary Ecological Appraisal (PEA)

2.4 The original Preliminary Ecological Appraisal (PEA) was carried out by The Ecology Partnership on 27th June 2017, with an update PEA once again assessed on 25th January 2021. A recent update PEA to support this planning application was undertaken on 30th July 2024. The surveyors identified the habitats present, following the UKHab classification system. The site was surveyed on foot and the existing habitats and land uses were recorded on an appropriately scaled map. The potential for the site to support protected species was also assessed (CIEEM 2017).

Protected Species Surveys

2.5 The desktop study and habitat survey identified that the habitats which had the potential to support bats, dormice, . Further surveys were recommended and a summary of the survey work completed is outlined in Table 1 below. Detailed survey methodologies are provided in the appended reports.

Table 1: Species surveys undertaken in 2017, 2018 and 2024

Faunal Group	Survey Methodology	Date of Surveys	Guidance
Bats – foraging and commuting	Dusk activity transect surveys commenced at sunset until 2 hours after sunset, during which time, bats were identified and recorded. These surveyors were undertaken during suitable weather conditions, when conditions were relatively dry and mild with little/no wind.	Site assessed on the **27th June 2017, 25th January 2021,** and **30th July 2024.** First set of dusk activity transect surveys conducted **19th September and 3rd October** 2017**, 25th April, 25th June, 24th July and 22nd August 2018.**	Bat Surveys – Good Practice Guidelines 3rd / 4th edition (Collins 2016 / 2023).

Faunal Group	Survey Methodology	Date of Surveys	Guidance
	Additional static remote detector recording surveys, were carried out on site, at a frequency of one per month.	Second set of surveys conducted on **28th May, 3rd July and 30th September 2024.**	
Bats – Remote Recording Surveys	During the PEA, the sites potential to be used by foraging and/or commuting bats was assessed. The site was considered to be of moderate habitat suitability and therefore further surveys were conducted to understand how bats were using the site. These were conducted in 2017-2018 and 2024. Likely flight paths were identified across the site, along which locations to place the static detectors were selected. These were then deployed and left on site for five consecutive nights and collected in for analysis.	In 2017-2018, three Anabat static detectors were deployed on site for five consecutive nights on the **9th September and 3rd October 2017 and 25th April, 45th May, 25th June, 24th July and 22nd August 2018** In 2024, three Anabat static detectors were deployed for five consecutive nights on the **29th April, 26th May, 19th June, 22nd August and 11th September.**	Bat Surveys – Good Practice Guidelines 3rd / 4th edition (Collins 2016 / 2023).
Bats – roosting potential trees	As part of the PEA, any trees likely to be removed by the scheme and supporting particular features likely to be of value to bats, such as splits, cracks, rot holes, coverings of ivy, peeling bark, or similar were recorded. The potential for the trees to support roosting bats has been assessed in accordance with the criteria set out in the Bat Conservation Trust guidelines (Collins, 2016).	Site assessed on the **27th June 2017, 25th January 2021,** and **30th July 2024**	Bat Surveys – Good Practice Guidelines 3rd edition (Collins 2016).
Badger survey	During the PEA, all habitats potentially suitable for badgers were systematically examined for evidence of badger activity.	Site assessed on the **27th June 2017, 25th January 2021,** and **30th July 2024**	The evaluation of badger activity was based on methodology developed for the National Survey of Badgers (Creswell et *al*. 1990).
GCNs	OS maps revealed one pond historically been recorded on site ponds and six further ponds within 250m of site. The on-site pond was dry thoughout the 2024 survey period, and ponds 4, 5 and 6 were separated from site by significant barriers to dispersal in the A23 and residential development. Access to	Site assessed on the **27th June 2017, 25th January 2021,** and **30th July 2024**	Oldham at al. 2000

Faunal Group	Survey Methodology	Date of Surveys	Guidance
	ponds 1, 2 and 3 was not granted at the time of survey. .		
Reptiles	As part of the PEA, the site was assessed for its suitability to support reptiles. Much of the grassland on site was grazed, with field boundaries providing habitat structure commonly associated with reptiles. As such, 7 presence/absence surveys recommended and undertaken	Site assessed on the **27th June 2017, 25th January 2021,** and **30th July 2024** 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. Artificial refugia was set up on the site on the 29th April 2024, which were then checked over seven survey visits between the 9th May and 19th June for reptiles	Herpetofauna Workers Manual (Gent and Gibson 1998).
Dormice	As part of the PEA, the site was assessed for hazel dormice. Due to some suitable foraging and commuting habitat located in the field boundaries, subsequent presence / absence surveys were undertaken in 2024 as a precautionary measure. Dormouse nest tubes were installed in suitable habitat and checked once a month.	Site assessed on the **27th June 2017, 25th January 2021,** and **30th July 2024** Nest tube installation: **14th September 2017** A total of 50 dormouse tubes established. Surveys were undertaken once a month in October-November 2017 and April-September 2018.	Dormouse Conservation Handbook - 2nd edition (Bright *et al.* 2006)
Other mammals	As part of the PEA, the site was assessed for its suitability for other species i.e. water voles and hedgehogs. No further surveys were required.	Site assessed on the **27th June 2017, 25th January 2021,** and **30th July 2024.**	Water Vole Conservation Handbook (Strachan *et al.*, 2011). Ecology of the European Otter (Chanin, 2003).
Birds	As part of the PEA, the site was assessed for its potential to support nesting birds. The hedgerows, treelines, and scrub retained suitability for nesting birds. A breeding bird survey was undertaken.	Site assessed on the **27th June 2017, 25th January 2021,** and **30th July 2024.** Three breeding bird surveys conducted on **April and June 2018.**	British Trust for Ornithology (BTO) Breeding Birds Atlas method (Balmer *et al.* 2013)

Ecological Assessment Methodology

2.6 This assessment has been carried out with reference to 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (CIEEM 2018). The guidelines help in determining baseline conditions, what features are important, what impacts are significant and how to apply the mitigation hierarchy. The sequential application of the guidelines to this assessment are outlined in the following paragraphs.

Baseline condition

2.7 The baseline condition of the site is the situation documented in this report (section 3) from data (field surveys and desk study) gathered during 2017-18, 2021, and in 2024 plus any relevant modifications within or outside the red line within the zones of influence.

Important ecological features

2.8 Important ecological features are those for which the decision maker (LPA or other regulator) needs the EcIA to help to assess the effects (negative, neutral or positive) and to guide the determination of the planning application. Important features are therefore generally defined by whether legislation or policy requires their consideration. For example, a European site within the zone of influence of the development is important and needs an assessment of effects. Similarly, at different levels, any legally protected species and any features such as wildlife corridors and section 41 species, with national or local policy support, are important features. Features that cannot be referenced to legislation and policy are generally not important and the next step of the EcIA (impact assessment) is not necessary. There may occasionally be situations where professional judgement and local expertise is relevant in defining local rarity as important, regardless of a lack of current legislative and planning support.

2.9 The CIEEM guidelines (2018) avoid rigid guidance on the levels of importance, which is often required within EIA, along with the level of magnitude of an effect, as one axis of an impact matrix. Sometimes a label of European, national or local importance may be obvious, for European sites, SSSIs and Local Wildlife Sites respectively. It is often less clear whether a small population of a Section 41 priority species or small extent of a Section 41 habitat should be of local or greater or less importance, as this may depend on data that does not exist on the distribution and abundance of the feature. Legally protected species

can be important solely because of the need to meet legislation, or because they are also a feature of a County Wildlife Site or target of a local Biodiversity Action Plan. In these cases, the same species could warrant different levels of importance, possibly with different implications for what is reasonable mitigation or compensation, beyond legislative compliance.

2.10 This report follows CIEEM guidelines (2018) in not forcing features into a level of importance, but using ranked importance where possible. Sites are given three levels, corresponding to their legislative and planning support: European, National and Local. Habitats and species, where not a qualifying feature of the hierarchy of sites, are simply referenced to the planning policy or legislation that supports their importance and where possible assessed from the extent, range or population size within zone of influence in relation to the extent, range or population size in the relevant administrative unit, for example LPA boundary or BAP boundary.

Impact assessment

2.11 According to CIEEM guidelines (2018), the only essential purpose of impact assessment in EcIA is: "*to assess and report significant residual effects that remain after mitigation measures have been taken into account. However, it is good practice for the EcIA to make clear both the potential significant effects without mitigation and the residual significant effects following mitigation*".

2.12 Impact assessment is required for each feature determined as important and not for other features. CIEEM guidelines (2018) advise that each impact assessment should consider, if possible, the different stages of a development (construction, operation and decommissioning) and that it should be characterised by the following:

- Positive or negative - whether the impact leads to an adverse, beneficial or neutral effect;
- Extent – the spatial area over which the impact occurs;
- Magnitude – change in, for example, the amount of habitat or the size of population;
- Duration – both in relation to the life cycle of the ecological feature and of the life of the project;

- Frequency and timing – for example, the number of disturbance incidents to birds and their timing in relation to the breeding cycle; and
- Reversibility – if and at what timescale recovery is possible.

2.13 As with the assessment of importance, CIEEM guidelines (2018) do not encourage a classification of the magnitude of impacts on a scale of severity. Rather, the significance of each impact should be assessed as the quantity of a feature of importance impacted; for example, residual loss of 5% of the extent of woodland within a Local Wildlife Site or gain of 10% in the extent of a section 41 habitat (hedgerows) on the site.

Avoidance, mitigation, compensation and enhancement

2.14 CIEEM guidance (2018) recommends a mitigation hierarchy. Once important features and significant impacts are identified, the project design should be modified where possible to avoid significant impacts. If avoidance is not possible, mitigation then compensation should be sequentially considered. A residual impact is an impact that remains after mitigation but is documented here both before and after compensation, as mitigation, particularly if embedded in the design, is assumed to be delivered without input from the LPA or other regulator, whilst compensation may require planning conditions and have some uncertainty on which the regulator should deliberate. Enhancement is an activity that results in a net gain in biodiversity, generally for an important feature, "over and above" anything required for mitigation or compensation. The terms mitigation and compensation are not always clearly defined and there is difference of opinion on their definitions. This report follows the Information Paper on the subject developed in consultation with Natural England for HS2 (2017), from which this quote and illustration are taken:

"*A clear distinction is made between the use of the terms 'mitigation' and 'compensation' reflecting the habitual use in ecological impact assessment of 'mitigation' to mean 'measures taken to avoid or reduce negative impacts', as separate from 'compensation' meaning 'measures taken to make up for the loss of, or permanent damage to, biological resources through the provision of replacement areas*"

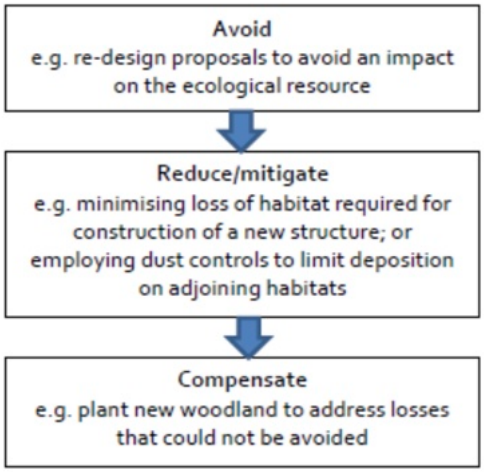

Figure 2: The mitigation hierarchy (from HS2 2017)

Limitations of the Assessment

2.15 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 several site visits, as such seasonal variations cannot be fully 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. However, the survey area was visited on a number of occasions over the optimal period, ensuring that detailed habitat information could be gathered. It is therefore considered that the survey work has allowed a robust assessment of habitats and botanical interest across the site.

2.16 The specific protected species surveys were undertaken at the appropriate time of year and during suitable weather conditions to an appropriate level of survey effort. Any specific limitations are noted in the relevant sections above or discussed in the results section.

3.0 Baseline Ecological Conditions

Biological Records from SxBRC

3.1 A 2km radius data search was requested from Sussex Biodiversity Records Centre (SxBRC) as part the PEA conducted in 2024. Notable protected species from this search are outlined in Table 2, below. Only records of species which are suited to the habitats present on site and recorded within the last ten years have been included.

Table 2: Notable species records within 2km of the site in the last 10 years

Species*	Legislation	Distance from site	Most recent record
Great Crested Newt *Triturus cristatus*	Wildlife and Countryside Act (1981 as amended) Schedule 5; NERC Act (2006) Section 41; UK BAP Priority	*c.* 1.6km south-east	2019
Common Lizard *Zootica vivipara*	Wildlife and Countryside Act (1981 as amended) Schedule 5; NERC Act (2006) Section 41; Bern Convention Appendix 3	*c.* 600m south	2021
Slow Worm *Anguis fragilis*	Wildlife and Countryside Act (1981 as amended) Schedule 5; NERC Act (2006) Section 41; Bern Convention Appendix 3	*c.* 1.6km north-east	2018
Grass Snake *Natrix natrix*	Wildlife and Countryside Act (1981 as amended) Schedule 5; NERC Act (2006) Section 41; Bern Convention Appendix 3	*c.* 1.6km south-east	2017
West European Hedgehog *Erinaceus europaeus*	UK BAP Priority, NERC Act (2006) Section 41	*c.* 1km south-west	2024
Bechstein's Bat *Myotis bechsteinii*	The Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5; UK BAP Priority.	*c.* adjacent to north of site	2017
Whiskered *Myotis mystacinus*	The Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5; UK BAP Priority.	*c.* adjacent to north of site	2017
Natterer's Bat *Myotis nattereri*	The Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5; UK BAP Priority.	*c.* adjacent to north of site	2017
Common pipistrelle *Pipistrellus pipistrellus*	The Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5; UK BAP Priority.	*c.* 500m NE from the site	2024
Soprano pipistrelle *Pipistrellus pygmaeus*	The Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5; UK BAP Priority.	*c.* 500m NE from the site	2024

Red Kite *Milvus milvus*	Wildlife and Countryside Act (1981 as amended) Schedule 1 Pt1, Birds Directive Annex 1	*Within 2km*	2023
Linnet *Linaria cannabina*	UK BAP Priority, NERC Act (2006) Section 41, BoCC5 Red List.	*Within 2km*	2020
Nightingale *Luscinia megarhynchos*	BoCC5 Red List	*c.* 1.6km N from the site	2023

*Additional species are present within the biological records but may be older than 10years or outside our search radius. Some species have not been included due to the likelihood of presence on site due to habitat types.

Designated sites

3.2 There is one nationally designated site within 15km of the site. Castle Hill SAC, designated for a mosaic of calcareous semi-natural dry grasslands. No statutory designated sites are present within 2km of the site boundary; the nearest site is Wolstonbury Hill SSSI that lies *c.* 3.6km southeast of the site. The site lies within the 'impact risk zone' for this SSSI. However, the developments which are listed as having potential to impact upon wider SSSIs are listed as those for large scale infrastructure or oil /gas exploration / extraction. The proposals are for residential development and therefore fall outside developments which would be considered likely to impact upon the SSSI.

3.3 Castle Hill SAC and Wolstonbury Hill SSSI are scoped out of the assessment due to the distances from the proposed development site and the development proposals falling outside the listed developments which are considered to impact the designated sites.

3.4 There are no non-statutory sites within 2km of the site and therefore no impacts on non statutory sites are considered likely as part of the proposals.

Habitats

Context and surrounding priority (Section 41 list) habitats

3.5 There are a number of priority habitats present both on site and within the local surroundings including deciduous and ancient woodland and hedgerows on site, and traditional orchard *c.* 50m southeast of site.

3.6 Lowland decidous woodland , ancient woodland and hedgerows are habitats listed under S41 of the NERC Act 2006 and as such are considered to be Habitats of Principle

Importance. As Habitats of Principle Importance, the council/decision maker has to have 'due regard' for these habitats.

Figure 3: Priority habitat: deciduous woodland (dark green) and traditional orchard (medium green). The Habitat of Principal Importance: ancient and semi-natural woodland (vertical stripes) and ancient replanted woodland (horizontal stripes) was also present in the local surroundings.

Baseline habitats on the site

3.5 There have been few changes to the habitats present on site in 2024 since the initial surveys were conducted in 2017 and 2021. The site is dominated by four parcels of grassland. Boundary habitats included hedgerows, broadleaved treelines, and ancient and deciduous woodland. The habitats are detailed in the PEA report 2024 and illustrated in Figure 4 below.

Figure 4: Baseline habitats on site

Table 3. Habitats present in on site, and their relative importance

Habitat	Description	Importance
Modified grassland	All fields onsite are characterised as MG6 *Lolium perenne-Cynosurus cristatus* grassland due to the abundance of perennial ryegrass, Yorkshire fog, crested dog's tail, and the species-poor nature of the grasslands. The southernmost section also supported frequent meadow foxtail and sweet vernal grass. Species richness was slightly increased in the southernmost field, in comparison to the rest of site. Field supported occasional common daisy, creeping buttercup, and dandelion and a number of rarely occurring forbs.	**Site**
Line of trees	A single tree line was present, running from east to west through the centre of the site, which consisted solely of pedunculate oak.	**Local**

Woodland	The site contains three woodland areas with varying characteristics. **Woodland 1 (Coombe Wood)** lies in the southwest and features a canopy dominated by pedunculate oak, with a patchy understory of hazel, field maple, hawthorn, and bramble. **Woodland 2**, an area of ancient woodland along the southeastern boundary, has been affected by sheep grazing, resulting in a sparse understory; its canopy is similarly dominated by pedunculate oak and hazel, with occasional blackthorn and bramble. **Woodland 3**, along the eastern boundary, appears less mature and also supports pedunculate oak and hazel, with occasional blackthorn and field maple.	**County**
Hedgerows	The site includes six hedgerows with varied structure and species composition. Hedgerow 1 runs along an access track and connects to other hedgerows, while Hedgerow 2 contains mature oak trees and is associated with a ditch. Hedgerow 3 lies along the edge of ancient woodland, and Hedgerow 4 is a heavily managed feature with mature oak trees at its western end. Hedgerow 5 is a more gappy, defunct feature, and Hedgerow 6 includes trees and plays an important role in connecting two woodland areas.	**Site**
Bramble scrub	Bramble-dominated scrub was located parallel to the southern site boundary. Rare willow sp. trees were also present within this habitat. Due to the density of the bramble, no ground layer was noted.	**Site**

Species and species groups

3.6 Species data is derived primarily from the 2km biological records from the Sussex Biological Records Centre (SxBRC). These are detailed in Table 2 and within the PEA.

3.7 The desktop study revealed there were four European Protected Species (EPS) licences within 2km of the red line boundary (Figure 6):

- Common Pipistrelle & Soprano Pipistrelle in 2018 – *c.* 125m north of site
- Brown Long-Eared bat in 2014 – *c.* 800m northwest
- Common Pipistrelle & Soprano Pipistrelle in 2019- *c.* 1.4km southwest
- Great crested newt in 2015 - *c.* 1.8km east

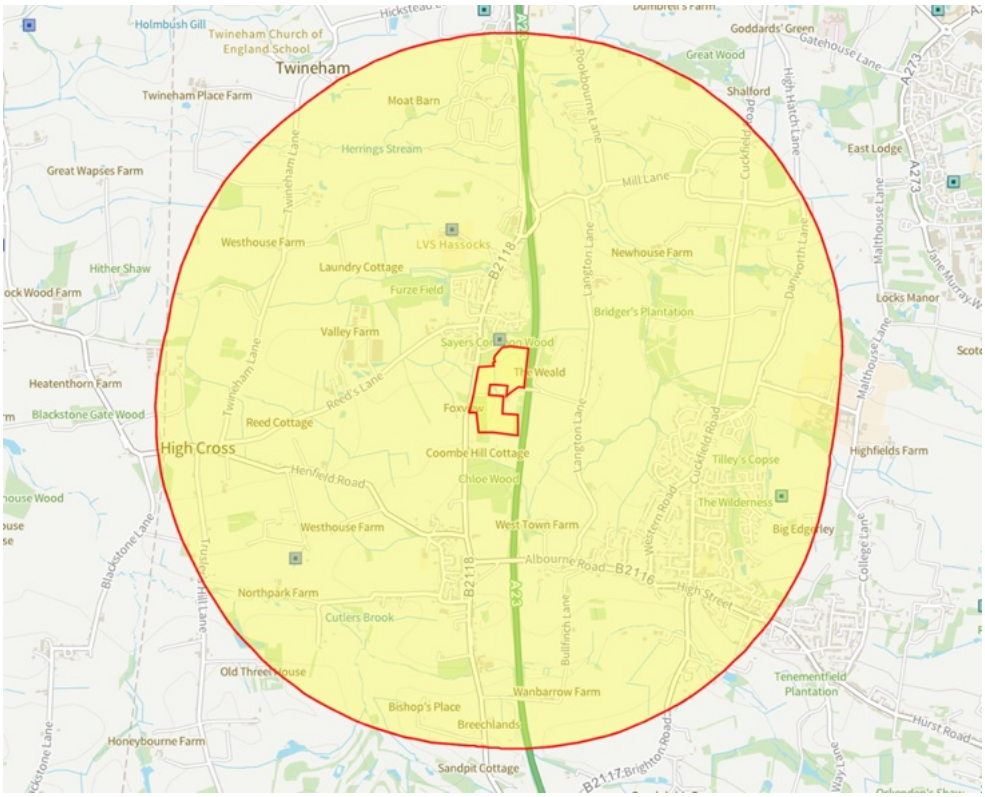

Figure 5: EPS licences within 2km of the red line boundary. Bats (blue square), GCN (green square).

Bats

3.8 A Ground Level Tree Assessment (GLTA) of the trees on site was carried out as a precaution, although it is understood that all the trees would be retained as part of the proposed development. A total of 4 trees were identified as being PRF-I (BCT 2023) for roosting bats, with the mature pedunculate oaks identified across the site at the time of survey. Locations and details of these trees are detailed in the PEA completed in 2024.

3.9 PRF-I trees have been assessed as having potential to support low numbers of bats most likely individuals, this is through the general size and structure of a tree even though no specific feature has been identified, or through the presence of insignificant small features which may support a roost of low conservation value. All trees are to be retained as part of proposals

3.10 The preliminary ecological appraisals in 2017, 2021 and 2024 identified the requirement for bat activity surveys due to the presence of suitable bat habitat located in the field boundaries.

3.11 Low to moderate levels of bat activity were recorded during transect surveys in 2021 and night time bat walkover surveys in 2024. Activity on site was dominated by common and soprano pipistrelles which are both common and widespread.

3.12 In 2017, three Anabat detectors recorded greater levels of bat activity on site than previously indicated by the transects. Similarly to the transect surveys, activity was dominated by common and soprano pipistrelles. A number of other species not previously identified on site were also recorded including barbastelle and myotis species.

3.13 In 2024, three Anabats were established across the site, and these identified similar species composition, with the remote recordings being dominated by common and soprano pipistrelles. Myotis species were the third most recorded species during the survey period. Other species, including the brown, long-eared bat and noctule, were recorded infrequently. Unlike 2017, barbastelle and Leisler's bats were not recorded.

Badgers

3.14 During the PEAs conducted in 2017 and 2021, no evidence of badgers such as setts or latrines were found on-site. The 2017 survey recorded possible badger holes to the southeast of the site, within the woodland adjacent to the A23. These appeared to lead offsite. No evidence of badgers on site was recorded in any subsequent survey. Given the presence of woodland on site and the rural nature of the surrounding area, it is considered likely that badgers use the site for foraging and commuting.

3.15 During the 2024 PEA, similar observations were made therefore best practice guidelines were recommended including the covering of any trenches or excavations overnight and blocking any open pipes/conduits to prevent badgers from entering them overnight.

Hazel Dormice

3.16 The site contains suitable woodland and hedgerow habitat for dormouse, and the woodland and treeline network on-site and throughout the wider landscape provides direct connections to additional areas of suitable habitat. In 2017-18 and 2024 presence/absence nest tube surveys were completed. These surveys found no evidence of dormice present, only wood/yellow-necked mice were found to be using the tubes. Therefore, it was considered that dormice are likely absent from the site.

GCN

3.17 A single historic dry pond was present on site, and total of six other waterbodies were present within a 250m radius of the red line boundary (Figure 7). It is considered that ponds 4, 5 and 6, whilst within 250m of the site, are separated from the site by significant barriers to dispersal. For ponds 4 and 5, this is in the form of residential development, with kerbed roads lying between the ponds and the site. For pond 6, the A23 lies between the pond and the site.

3.18 Ponds 1, 2 and 3 all lie within 75m of the site. Access to these ponds was requested in 2017 and 2024, and refused on both occasions. Despite the low suitability of the habitats on site for GCN, the proximity of possible GCN breeding ponds means that it is possible that GCN utilise the site boundaries for foraging or commuting

3.19 The site lies within an 'orange' and 'red' NatureSpace impact risk zone. This indicates that GCN are likely present within the wider area, and therefore likely to use the habitats on site.

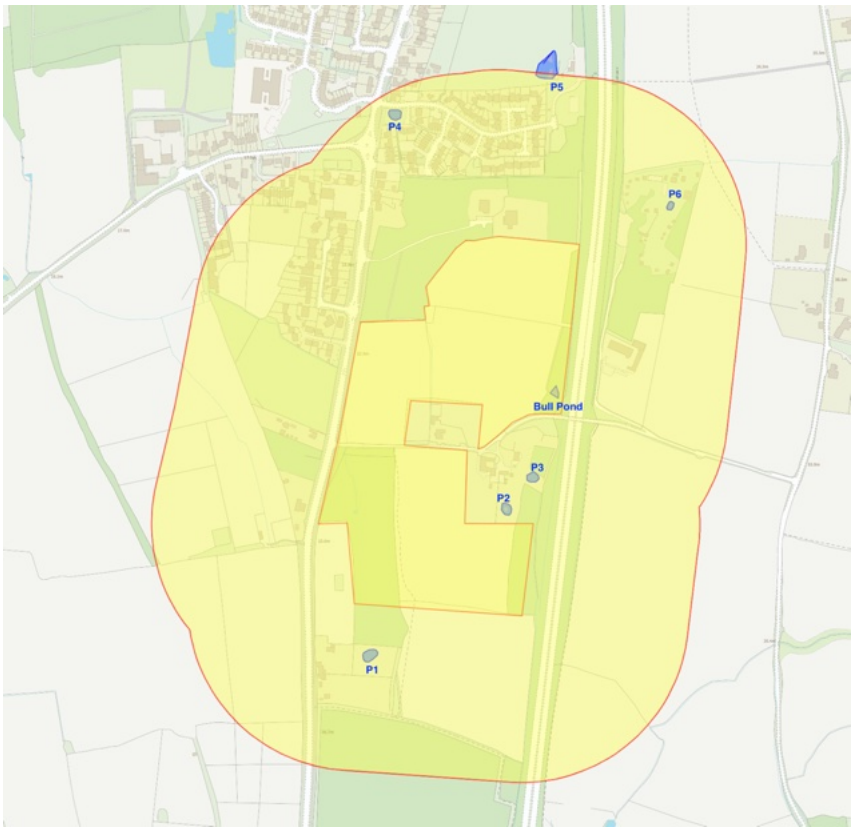

Figure 7: Waterbodies present within 250m of site.

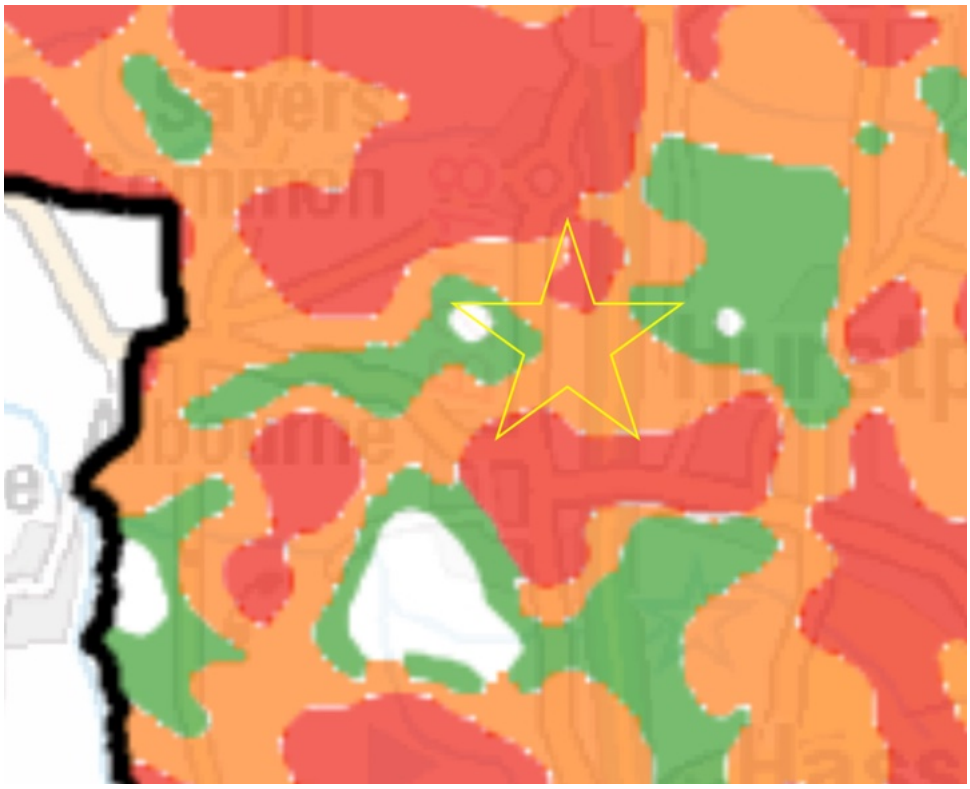

Figure 8: NatureSpace impact risk map showing the site in the green zone

Reptiles

3.20 The majority of the site boundaries included woodland edge habitat, which is considered to be optimal for common reptile species. Reptile surveys in 2018 and 2024 found a 'low' population of slow worms, grass snakes and common lizards on site. An outline mitigation strategy has been detailed within the reptile survey report, including a translocation of the reptile population on site.

Breeding birds

3.21 The breeding bird survey undertaken in 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.

3.22 As the majority of the woodland and trees, as well as exisitng hedgerows are being retained within the site, the impacts on the nesting habitats of the majority of nesting birds

are thought to be minimal. Considering the above, it was determined the site to be of **low** local importance to breeding bird species.

Other Species

3.23 The site was not considered to support habitats considered suitable for other protected species including otters or water voles.

Table 6: Summary table of faunal groups within development zone of influence

Faunal Group/Species	Description	Level of Importance
Bats – roosting in trees	Several trees with bat roost features were identified on site. 4 trees were identified as PRF-Is, possibly able to support small numbers of individuals. These trees are to be retained as part of proposals	**Site** (*legislative implications if roosts are present*)
Bats – foraging and commuting	The site has multiple linear foraging and commuting routes which include: tree lines, hedgerows, and scrub. The activity surveys found a low to moderate level of bat activity during the 2017-18 and 2024 surveys. With both finding low to moderate levels of common species with common and soprano pipistrelles dominating the calls. The activity surveys indicate the boundary features and central linear mature treeline may form part of a network of foraging and commuting habitat for bats across the landscape.	**Local** (*good quality foraging and commuting habitat in local context*)
Badgers	No evidence of badgers being on site were noted, such as setts or latrines. Badger holes were historically recorded adjacent to site, therefore it is possible that badgers use the site for foraging and commuting. Protected for welfare reasons and included for legal compliance.	**N/A** (*likely absent from site*)
Reptiles	Reptile surveys in 2018 and 2024 found a 'low' population of slow worms, grass snakes and common lizards on site.	**Local**
GCN	Due to the proximity of waterbodies to the site, and the suitable habitat on site, it is considered possible that GCN are present on site	**Local**
Dormice	Surveys did not identify any dormice or evidence of dormouse activity.	**N/A** (*likely absent from site*)
Birds	The 2024 surveys recorded a total of 34 species. Of these, eight of these were species of conservation concern: dunnock, mistle thrush, song thrush, willow warbler; stock dove; kestrel, swift and starling. Of	**Site**

Faunal Group/Species	Description	Level of Importance
	these, dunnock, mistle thrush, song thrush and starling were considered to likely be breeding on or directly adjacent to site. It was considered that the site was of low local importance to breeding bird species.	
Hedgehog	Local records for hedgehogs and open rural nature of the site, presence of foraging and commuting hedgehogs onsite cannot be ruled out.	**Site** (*foraging habitat in local context*)

Future Baseline

3.24 Future baseline conditions are conditions which would be likely to arise if present conditions continue and a change of land use through the planning system does not occur. These conditions are assumed to be the continued functioning of the site for pasture with associated management of hedgerows, trees and woodland as required.

4.0 Description of the Proposed Development

4.1 The current proposals for the site are to build a new residential development with associated access and landscaping which includes the creation of SuDS ponds. .

4.2 Specified features of the submitted site layout that can be considered in which the scheme has been designed around (**Avoidance/Mitigation**) are:

- The retention of the ancient woodland and lowland deciduous woodland within the scheme;
- The retention and protection of the majority of mature trees, hedgerows, and scrub around the edges of the site;
- Development of SuDS system to prevent harmful run-off into surrounding habitat;
- Production and application of CEMP document on site.

4.3 Additional **species-specific mitigation** measures to be incorporated within the scheme (maybe subject to change as part future reserved matters application):

- Retention of trees with bat roost potential;
- A sensitive lighting scheme, particularly adjoining green linear features, to maintain dark corridors on and off site for bats;

- Precautionary method of works during construction to prevent inadvertent harm to foraging and commuting badgers;
- An on-site reptile translocation;
- Clearance of any suitable nesting bird habitat, including boundary scrub, trees, and outbuildings, outside of nesting bird season or under ecological supervision; and ;
- Sensitive clearance for hedgehogs and inclusion of hedgehog highway holes in any proposed fencing.

4.4 Specified features of the submitted landscape and ecology strategy drawing that are proposed as **compensation** are:

- Planting of trees to compensate for any lost;
- Enhancement of areas of greenspace with planting other neutral grassland, and planting up SuDS as part of BNG strategy for loss of overall habitat to minimise habitat loss on site.

5.0 Assessment of Effects and Mitigation Measures

5.1 The impact assessment is for the development as described above (section 4), including the submitted site layout plan and landscape and ecology strategy and their embedded mitigation. The assessment does not separate construction and operation impacts, solely assessing effects on important features that would result from the final layout. Residual impacts are those after mitigation and before compensation.

5.2 Features within the red line that require an impact assessment are those determined as important in section 3, namely;

- Ancient Woodland (priority habitat);
- Lowland Deciduous Woodland (priority habitat);
- Ecologically valuable line of Trees (priority habitat);
- Onsite non-priority habitats – scattered trees, grassland;.
- Bats (roosts, and foraging and commuting habitat);
- Reptiles;
- Breeding Birds;
- Great crested newts;
- Other species (badgers, hedgehogs).

Lowland Deciduous and ancient Woodland (Priority Habitat)

5.3 The are of priority woodland habitat is located on site to the central eastern boundary. Coombe Wood is an area of ancient woodland located to the south west of the site with an area of unnamed ancient woodland located to the south east of the site, adjacent to the A23.

5.4 Direct impacts to the habitats during the construction are considered unlikely as the development retains the woodland in its entirety and buffers the woodland from any areas of development. There may be a **minor negative residual effect** of **local** importance on this woodland due to the increase of recreational pressure and the potential impacts resulting from this.

5.5 It is considered highly unlikely that the unnamed ancient woodland to the south east of the site and the unnamed lowland deciduous woodland to the north east would not be utilised for recreation purposes, notably for dog walking, due to the location adjacent to the A23, the small size of the woodlands and the slope associated with the A23.

Line of trees (priority habitat)

5.6 The central treeline is to be largely retained within the current proposals. There is a section in which the canopy connection is expected to be fragmented due to the access road through the middle of the site.. This design has been created to retain this habitat as much as possible. With the loss of a small area of connectivity, it is considered that there will be a **minor negative** impact on the line of trees.

Hedgerows (Priority Habitat)

5.7 Sections of hedgerow are present along the field boundaries around the site. The majority of this habitat is to be retained on site, with four of six hedgerows being severed to allow access across site. Therefore, there will be a **minor negative impact** for this habitat on site.

Onsite non-priority habitats

5.8 The individual trees have been designed into the scheme, buffered and should be protected during the scheme following advice of an arboricultural consultant. The proposal was redesigned to ensure that retention of the mature trees. As the trees are to

be retained no impacts are predicted on this habitat and is considered to be a **neutral impact.**

5.9 The grassland habitats on site are common and widespread and of limited ecological value and the loss is not considered beyond site level.

Bats (roosts trees)

5.10 All trees with bat potential identified within the current baseline have been retained within the scheme. With this in mind, the installation of bat boxes on retained trees onsite post-development will result in **neutral effect** for roosting bats.

Bats (foraging and commuting)

5.11 The majority of the linear features favoured by bats as flight lines on site, including hedgerow, woodland edges and treelines are to be retained and buffered as part of the proposal. This will maintain connectivity of flightlines and foraging habitat across site and the local landscape. Small sections will be lost to provide access across the site. Mature trees are being retained where possible.

5.12 The majority of the development footprint comprises of sub-optimal modified grassland with the suitable habitats being largely restricted towards the site margins, and this included mature trees and mixed scrub.

5.13 There will only be a minor loss of mature scrub to allow for access between the fields, and the southern, western and northern boundary of the site is buffered and well defined. As such the optimal habitats on site will be retained and enhanced as part of the proposals.

5.14 The implementation of a sensitive lighting scheme on site, and the retention and enhancement of existing wildlife corridors are considered sufficient to ensure the development will result in **neutral effect** for foraging and commuting bats.

Badgers

5.15 Whilst there was no evidence of badgers found within or around the site, it was considered possible that badgers may use the site as a commuting or foraging area. The legislative protection for badgers applies to the animals and their setts for welfare purposes. As such,

this assessment does not consider the loss of foraging habitat since the development will not isolate the setts or restrict the movement of badgers to feeding areas. An update walkover will be carried out prior to the commencement of works and can be secured through planning conditions. If any new setts are found to be within the development footprint following update surveys, then a Natural England mitigation licence will need to be applied for.

5.16 As badgers are known to be present in the local area, the following best practice methods will be adopted:

- Any trenches or excavations on site should be either covered over at night or a plank of wood placed in so as to allow any mammals to escape if the badgers were to accidentally fall in.
- Any open pipes or conduits laid should be blocked off each night to prevent badgers from entering them.
- Construction work should only take place between dawn and dusk with no late evening work. This will reduce possible disturbance to badgers as they emerge to forage and also reduce the risk of traffic casualties from late working site traffic.

5.17 With the above mitigation in place, **no residual effects** are predicted for badgers as a result of the proposed development.

Hedgehogs

5.18 Whilst having no specific legal protection they are protected from certain forms of harm under Wild Mammals (Protection) Act 1996. As such, if any mammal holes are identified during works, these should be assessed by a suitably qualified ecologist to determine the species of their inhabitant. These can then be excavated sensitively by hand rather than mechanical equipment. It is recommended that hedgehog holes are placed within any new panel fencing on site, to allow continued access to hedgehogs across the site for commuting and foraging purposes. With these measures employed **no residual impacts** are predicted.

Breeding birds

5.19 The legislative protection afforded active nests, birds and their eggs and young will be met through the clearance of vegetation outside of the breeding season or after a nesting bird check by a suitably qualified ecologist. The development will result in a temporary loss of suitable nesting habitat through the loss of small areas to provide access to site. The loss of these habitats reflects a negligible loss in the total potential breeding bird suitable habitat on the site, which is being compensated for with additional tree and scrub planting as part of the proposals.

5.20 Species recorded on site included dunnock, mistle thrush, song thrush, starling, willow warbler; stock dove; kestrel and swift which are all listed as either red or amber on the BoCC. Of these, dunnock, mistle thrush, song thrush and starling were considered to be breeding on or directly adjacent to site. The majority of these species were noted within the boundary tree lines, hedgerows and scrub boundaries across the site, which these species use as their nesting locations. It is also considered that as the vast majority of these features are being retained and enhanced, with new and more diverse areas of grassland are being created, which could provide better foraging opportunities for breeding birds in the local area.

5.21 All works to nesting bird suitable habitat should be undertaken outside of the breeding bird season (March-September inclusive) or immediately after a nesting bird check by a suitably qualified ecologist. If active nests are identified, works in the vicinity of the nest must cease until the birds have fledged the nest.

5.22 It is however considered that there may be some increase in disturbance from new residents to nesting birds as part of the operational phase and there is also the potential for predation by domestic pets such as cats.

5.23 Overall, it is considered that with the mitigation measures in place, that the proposals will result in a **minor negative** effect on breeding birds over the site, prior to enhancements.

Reptiles

3.25 Proposals will result in the loss of some suitable reptile habitat, in medium-sward grassland, and some boundary habitat. Whilst the majority of boundary habitats are to be

retained, without mitigation, works would result in a major negative effect on the reptile population on site. To avoid harm to individual reptiles and mitigate for the loss of habitat within the site, reptiles will be trapped out of the development area, and safely translocated to areas newly created, suitable reptile habitat around the site boundaries. Whilst this will mitigate any short-term physical impacts to individuals that would otherwise occur during habitat clearance works on site, without sufficient compensatory habitat creation, there will still be a **minor negative effect** on the reptile population in the long-term.

GCN

5.24 The majority of habitat onsite, mainly the modified grassland, was considered sub-optimal for GCN due to grazing pressures. The hedgerow, and woodland habitats along site boundaries were considered to provide some foraging, commuting, and refuge opportunities for GCN in their terrestrial phase. Given the proximity of three ponds to the site, it is considered possible that GCN use the hedgerow and woodland habitats on site for foraging, commuting and shelter. As such, before any compensation, works to the grassland are considered to have a **minor impact** to GCN.

6.0 Cumulative effects

6.1 Cumulative effects are those arising from individually insignificant actions that, when combined, result in a significant effect to an ecological feature that is greater than the sum of its parts. Considered in isolation, such individual impacts can be overlooked or not sufficiently scrutinised. It is therefore an important feature of the ecological impact assessment process to identify cumulative impacts.

6.2 It is noted that a development was approved for on Land South Of Henfield Road Albourne for 'Outline planning permission for the erection of up to 120 residential dwellings including 30% affordable housing, public open space and community facilities'. This was approved for outline at outline stage as part of DM/22/2416. All consented developments are all required, as a result of the planning process, to minimise effects on ecology through mitigation measures. The granting of planning permission for these sites have been a result of assessing potential impacts on surrounding habitats, including

designated sites, as required by law and policy. This includes assessing the impacts alone and in combination with other projects and plans within the local landscape.

6.3 Assuming that the nearby developments have mitigation in place to negate any potential negative effects such as increased surface water run-off, atmospheric pollution or increased visitor pressure, a cumulative impact from the developments would be insignificant. However, the Ecological Impact Assessment submitted for the site set out steps to retain key habitats and wildlife corridors, such as site boundaries, as to minimise the impact on ecology within and around the site. Overall, it is considered that with the applications design which retains the most important ecological habitats as well as the steps taken in the neighbouring development, that a cumulative impact from the developments would be insignificant.

6.4 Assuming that nearby developments have mitigation in place to negate any potential negative effects such as increased visitor pressure on surrounding habitats, biodiversity net gain requirements and that protected species surveys have been conducted, a cumulative impact from the developments would be insignificant.

7.0 Compensation

7.1 It is recommended that the compensation methods, outlined below, are included as part of planning conditions for the outline planning application. In this development, compensation covers the loss of the small sections of scrub which have been required for removal to allow for access. Compensation addresses the loss of habitat, which could not be avoided through the development plans.

Lowland Deciduous and ancient Woodland (Priority Habitat)

7.2 Whilst the woodland areas are all being retained, impacts resulting from recreation may occur. Compensation measures to remove impacts on the woodland areas include the fencing along the woodland and with an addition of thorny edges, providing both a physical and natural barrier for access into the woodland. The thorny edge will prevent access, but provide a rich ecotone for the woodland edge creating a more diverse edge. This natural barrier will also cover the fenceline.

7.3 In addition to the protection measures of the woodlands, the creation of an enhanced footpath area linking to the wider footpath networks will be created. Furthermore, the enhanced open space will provide opportunities for on site use and recreation.

7.4 Due to the buffers, the fencing and the uplift of the footpath network, the walking routes and the routes around the SuDS, it is considered that impacts resulting from recreation will be removed, as such **no residual effect** is anticipated for woodland habitats onsite.

Priority Hedgerow – Native Hedgerow

7.5 Replacement of the small section of priority hedgerow on site will be compensated for by the planting of areas of species rich native hedgerow on site, as such **no residual effect** is anticipated for priority hedgerow habitats onsite.

Line of trees

7.6 Replacement of the single tree as part of al line of trees on site will be compensated for by the planting of areas of species rich native hedgerow on site, as such **no residual effects** are anticipated for priority hedgerow habitats onsite.

Habitats

7.7 A biodiversity net gain will be achieved through the proposed development. This is due to the inclusion of areas of other neutral grassland, boundary planting, and the planting of a total of 158 individual trees within communal spaces. Additionally, Sustainable Drainage Systems (SuDS) have been designed to support wildlife and create new habitats on site. The main development is confined to the central grassland areas, which were assessed as having the lowest ecological value. Overall, **no residual effects** on the site's habitat value are anticipated.

Bats

7.8 The bat activity report outlines the recommended mitigation and compensation measures for bats overall across the site. The following compensation measures are considered to be sufficient to remove any residual effects on these species:

- Planting of new urban trees, across the which would maintain aerial linkages and contribute to the green infrastructure within the site;

- Trees will also be planted within the POS creating a more diverse open space provision;
- Planting POS and SUD areas wildflower meadow mixes to increase invertebrate activity and in turn, prey for bats;
- New hedgerow and scrub planting to bolster linear habitats and create more diverse ecotones.

7.9 A sensitive lighting scheme will be condition as part of the permission. This will ensure that light levels along the boundaries are low to ensure bats can utilise the edge habitats as per current levels.

7.5 The habitats to be created as part of the development, including scrub and wildflower planting around the site's edges are considered to be of higher quality habitat for bats then what is currently present on site. Whilst modified grassland is to be lost the site will support a range of new and enhanced habitats, resulting in a **neutral impact of site importance** for foraging and commuting bats. As such, there will be **no residual effects** on bats from development.

Birds

7.6 New planting and bird boxes included within the development will compensate for the minor loss of nesting and foraging habitat, result in a net gain of suitable breeding and foraging habitat for bird species post development. Mature scrub and trees and the woodland are largely being retained. New planting will compensate for any small habitat loss. The loss of modified grassland fields will remove the provision of some foraging habitat, but not nesting habitat due to current grazing use. The recommended compensation measures are through the provision of the scrub edge planting and wildflower planting which would provide new nesting and foraging habitat for native species. It is considered there will be an overall **neutral impact at site level.**

Reptiles

7.7 The reptile survey report outlined the recommended mitigation and compensation measures for reptiles. These measures will be implemented to compensate for the losses

of suitable grassland habitats. The below compensation measures would result in a **minor positive effect of site importance**:

- Planting of native mixed scrub site boundaries, increasing suitable habitat and improving connectivity across site;
- Creation of SUDS designed to support species rich grassland planted for wildlife;
- Creation of new grassland areas around the new SUDS and POS with a wildflower meadow mix; and
- Management of retained and new habitats to provide a range of niches, specifically grassland areas maintained at a longer sward for wildlife.

GCN

7.8 The majority of habitat onsite, mainly the modified grassland, was considered sub-optimal for GCN due to grazing pressures. The ponds off site, but adjacent to the site, have potential for GCNs. As there is uncertainty with regards to the status of GCNs, a Nature Space licence will be required. The removal of sub optimal grazed grassland is not considered significant, however, without compensation and mitigation measures, there could be direct impacts on indviduals and an overall loss of habitat.

7.9 The licence will require sesnitve clearance measures. This will reduce direct impact on indivudals. With regards to loss of grassland, new high-quality habitat creation included within the development will compensate for this loss, resulting in a net gain of suitable foraging habitat GCNs. As such, there will be **no residual effects**.

Hedgehogs & Badgers

7.10 The new high-quality habitat creation included within the development will compensate for the loss of nesting and foraging habitat, resulting in a net gain of suitable breeding and foraging habitat for badgers and hedgehogs post-development. As such, there will be **no residual effects**.

8.0 Enhancement

8.1 Biodiversity gain, to meet NPPF and the Environment Act, is proposed and should be secured by planning condition. The following enhancements are proposed are to be incorporated into the site design:

- New tree planting throughout the site;
- Orchard and native species planting to occur within shared open areas;
- Creation of SuDS ponds with wildflower planting;
- Sowing amenity grassland areas with a flowering lawn mixture;
- Long-term management of the areas of scrub to benefit wildlife;
- Provision of integral bird and bat boxes
- Installation of log piles and hibernacula creation;
- The provision of hedgehog highways and hedgehog homes;
- Planting of a wildflower mix within the shared open areas;
- Long-term management of retained habitats to benefit wildlife; and
- An onsite net gain for achieved on site of 23.45%.

9.0 Monitoring

9.1 Ecological clerk of works tasks will be required during construction, to ensure implementation of the conditions and to check that there is no change in the baseline that may alter the implementation of the development. All details of monitoring and mitigation measures during site preparation and construction would be detailed within a Construction Environmental Management Plan (CEMP).

9.2 As part of the reptile translocation, refugia placed out within the trapping area would be monitored daily, throughout the designated trapping period, with any reptiles found moved safely to the receptor area.

9.3 Other than private gardens, all habitats and ecological features on site will be monitored, maintained, and managed for biodiversity in the long-term, including those within the receptor site. Full details of monitoring, maintenance, and management measures would be detailed within a Landscape Ecological Management Plan (LEMP)

9.4 Prior to any development, a check for any evidence of badger setts will be made. Any tree which is scheduled for removal will be re surveyed prior to felling to ensure compliance with legislative requirements. Sensitive clearance will take place under ecological supervision, including nesting bird checks and the sensitive removal of habitats.

10.0 Summary

10.1 The table below summarised impacts on site to the various identified receptors. Monitoring works as detailed above will be undertaken before and during construction.

Table 7: Features of the site where significant effects are predicted to from the development

Feature	Effect type and magnitude	Mitigation	Residual effect	Compensation to remove residual effects	Residual effect after compensation	Enhancement/ biodiversity gain
Priority and protected species and habitats						
Ancient Woodland	**Negative (Minor)** Disturbance or impacts such as dust of developing up to site boundary **Negative (Minor)** Impacts resulting from recreation impacts	Implementation of a 15m buffer zone, protection from CEMP Ancient woodland and lowland woodland fenced off from the development and thorny scrub planted edges. Enhanced footpath and open space creation On stie recreation opportunities and play areas	**Neutral**	N/A	**Neutral**	N/A
Lowland mixed deciduous woodland	**Negative (Minor)** Disturbance or impacts such as dust of developing up to site boundary	Protection of retained habitat during construction. Better management through habitat management plan	**Negative**	N/A	**Neutral**	Appropriate long term management

Line of trees	**Negative (Minor)** Loss of small section of tree line	Restrict loss to as small an area as possible Protection during construction	**Negative (Minor)**	New line of trees planting	**Neutral**	Planting of new trees throughout the site Long term management for wildlife
Hedgerows	**Negative (Minor)** Loss of small sections of tree line	Restrict loss to as small an area as possible Protection during construction	**Negative (Minor)**	Creation of hedgerow planting	**Neutral**	Creation of new mixed species native hedgerow throughout the site Long term management for wildlife
Other Habitats	**Negative (Minor)** Loss of grassland habitats	Creation of new habitats on site, with extensive tree planting, wildflower grassland creation, scrub planting and wildlife friendly SuDS	**Negative (Minor)**	Purchasing of offsite biodiversity credits	**Neutral**	Ditch management and the removal of the invasive giant hogweed. Extensive tree planting across the site Purchase of offsite biodiversity credits to achieve 10% net gain overall
Bats (roosting)	**Negative (minor),** All current trees with bat roosts retained	Retention of bat roost trees onsite Employment of sensitive lighting scheme	**Negative (Minor)**	Erection of compensatory bat boxes on retained mature trees and new development	**Neutral**	Additional bat roosting boxes to be incorporated around the site.
Bats (foraging and commuting)	**Negative** temporary reduction in habitat, potential damage through artificial light.	Retention of vast majority of bat foraging and commuting habitat within the site and use of a	**Negative (Minor)**	New hedge, scrub and tree planting to replace any features lost.	**Neutral**	Planting of additional foraging habitats for bats through SUDS, scrub

		sensitive lighting scheme.				and hedgerows.
Reptiles	**Negative (minor),** loss of habitat. Potential predation from domestic cats from new residents.	On-site reptile translocation from development area to retained & enhanced suitable habitat. Sensitive clearance methods employed at the appropriate time of year under supervision of an ecological clerk of works. **Negative (minor)**	**Negative (Minor)**	Replacement habitat created within the site	**Neutral**	Planting of additional habitat. Long-term management of the on-site edge habitats for the species Log piles added
GCNs	**Negative (minor),** loss of habitat. Potential for direct impact on individuals	Sensitive clearance methods employed at the appropriate time of year under supervision of an ecological clerk of works. **Negative (minor)**	**Negative (Minor)**	Replacement habitat created within the site	**Neutral**	Planting of additional habitat. Long-term management of the on-site edge habitats for the species Log piles added
Badgers	**Negative (minor),** reduction in foraging and commuting habitat.	Retention of vast majority of edge habitats which would be used for commuting and foraging. Best practice guidelines utilised to reduce risk of harming individuals during construction.	**Neutral**	N/A	**Neutral**	Increase in variety of habitats on site
Hedgehogs	**Negative (minor),** temporary reduction in foraging and commuting habitat .	Retention of vast majority of edge habitats which would be used for commuting and foraging.	**Neutral**	N/A	**Neutral**	Increase in variety of habitats on site

Breeding birds (active nests, all species)	**Negative (Minor)**, damage to active nests and loss of habitats. Potential predation from domestic cats from new residents.	Retention of vast majority of edge habitats which would be used for commuting and foraging. Construction works timing outside of breeding bird season (BS42020: 2012)	**Negative (Minor)**	Replacement habitat and habitat creation, nest box provision	**Neutral**	Increase in tree planting / scrub and shrub planting across site with provision of additional bird boxes

11.0 References

Balmer, D. *et al*. 2013. *Bird Atlas 2007-11: The Breeding and Wintering Birds of Britain and Ireland*. British Trust for Ornithology.

Biggs, J., Ewald, N., Valentini, A., Gaboriaud, C., Griffiths, R.A., Foster, J., Wilkinson, J., Arnett, A., Williams, P. and Dunn, F., 2014., Analytical and methodological development for improved surveillance of the Great Crested Newt. *Defra Project WC1067*.

Bright, P., Morris, P. & Mitchell-Jones, T., (2006)., *The Dormouse Conservation Handbook.* 2nd edition. English Nature.

Bulmer, D.E., Gillings, S., Caffrey, B.J., Swann, R.L., Downie, I.S. & Fuller, R.J., (2013)., *Bird Atlas 2007-11. The breeding and wintering birds of Britain and Ireland*. BTO, Thetford.

Chapman, C., & Tyldesley, D. (2016). *Functional linkage: how areas that are functionally linked to European sites have been considered when they may be affected by plans and projects—a review of authoritative decisions*. Natural England Commissioned Report, 207.

CIEEM., (2018)., Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. (ed.)., (2016)., *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). Bat Conservation Trust, London.

Cresswell, P., Harris, S. & Jefferies, D. J., (1990)., *The history, distribution, status and habitat requirements of the badger in Britain*. Nature Conservancy Council, Peterborough.

Froglife., (1999)., *Reptile survey: An introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife advice sheet 10, http://www.froglife.org/advice/sheets/htm

Gent, T. & Gibson, S. eds., (1998)., *Herpetofauna Workers Manual.* Joint Nature Conservation Committee, Peterborough.

HS2., (2017)., *High Speed Two Phase One Information Paper. E28. Mitigation and Compensation*. HS2, Birmingham.

Institution of Lighting Professionals., (ILP – 2018)., *Guidance Note 08/18 – Bats and artificial lighting in the UK.* ILP, Rugby.

Jehle, R. and Arntzen, J.W. (2000), Post-breeding migrations of newts (Triturus cristatus and T. marmoratus) with contrasting ecological requirements. Journal of Zoology, 251: 297-306.

Joint Nature Conservation Committee., (JNCC - 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 Handbook.* Froglife, Halesworth.

Mathews, F., Kubasiewicz, L.M., Gurnell, J., Harrower, C.A., McDonald, R.A. & Shore, R.F., (2018)., *A Review of the Population and Conservation Status of British Mammals: Technical Summary*. A report by the Mammal Society under contract to Natural England, Natural Resources Wales and Scottish Natural Heritage. Natural England, Peterborough.

Musgrove, A. *et al.,* (2013)., Population estimates of birds in Great Britain and the United Kingdom. *British Birds*. 106: 64 –100

Natural England., (2001) *Great Crested Newt Mitigation Guidelines*. Natural England, Peterborough.

Natural England., (2010) *European Protected Species and the Planning Process.* www.naturalengland.org.uk.

Natural England., (2011) *Badgers and Development: A guide to best practice and licensing*. Natural England, Bristol.

Oldham, R.S., Keeble, J., Swan, M.J.S. & Jeffcote, M., (2000)., Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal*, **10**(4): 143-155.

Stone, E.L., Jones, G. & Harris, S. (2009)., Street lighting disturbs commuting bats. *Current Biology*, **19:** 1123-1127.

Stone, E.L., Jones, G., & Harris, S. (2012)., Conserving energy at a cost to biodiversity? Impacts of LED lighting on bats. *Global Change Biology*, **18:** 2458-2465.

Stone, E.L., Jones, G., & Harris, S. (2015)., Impacts of artificial lighting on bats: A review of challenges and solutions. *Mammalian Biology*, **80:** 213-219.

Zeale, M.R., Davidson-Watts, I. & Jones, G., (2012). Home range use and habitat selection by barbastelle bats (*Barbastella barbastellus*): implications for conservation. *Journal of Mammalogy*, 93(4), pp.1110-1118.

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