LIZARD

Landscape Design and Ecology

PRELIMINARY ECOLOGICAL APPRAISAL

Land Adjacent to 1 Elm Cottages, Hook Lane, Aldingbourne, West Sussex

On behalf of: Bright Plan Ltd

Client:	Bright Plan Ltd			
Project:	Land Adjacent to 1 Elm Cottages, Hook Lane, Aldingbourne, West Sussex			
Reference:	LLD3217-ECO-REP-001-00-PEA			
Revision:	**Date:**	**Author**	**Proof**	**Approved**
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Validity:

This report is likely to be valid for 18 months from the date of the site visit, providing conditions on site have not changed and this can be verified by a suitably qualified ecologist. If works have not commenced by this date, an updated site visit should be carried out by a suitably qualified ecologist to assess any changes in the habitats present on site, and to inform a review of the conclusions and recommendations made.

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The Old Bank, 34 South Street, Ilarring, Worthing, West Sussex, BN14 7LH

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SUMMARY

Lizard Landscape Design and Ecology (LLDE) has been commissioned by Bright Plan Ltd to undertake a Preliminary Ecological Appraisal (PEA) of Land Adjacent to 1 Elm Cottages, Hook Lane, Aldingbourne, West Sussex (located around central grid reference: *SU 93126 04808*– hereafter referred to as 'the site'). This report presents the results of an initial scoping survey which was undertaken on the 25th of September 2024 to evaluate the existing ecological resources within and adjacent to the site, to highlight any potential ecological constraints and opportunities to inform scheme design, and to identify the need for further assessment prior to application, where required.

The site was dominated by modified grassland and bramble scrub. There are 2no. small, connected garages on-site surrounded by hardstanding. These habitats are of low ecological value. Along the northern border was a line of trees, predominantly made up of ash (*Fraxinus excelsior*). The southern and western border has individual trees, predominantly maple (*Acer campestre*), and a mature oak (*Quercus robur*). These habitats are of higher ecological value and should be protected and retained where possible within the scheme.

The site offers suitable habitat for reptiles and so a suite of 7no. reptile surveys should be carried out within the survey season to determine population size. The results of the survey will inform as to whether any further mitigation will be required. The site also offers suitability for foraging and commuting bats, nesting birds, GCN and small mammals. Reasonable avoidance measures, outlined herein, are considered sufficient mitigation for these species.

Table No. 01 - Summary of Recommendations

Ecological Receptor	Recommendations	Time Constraint
Reptiles	A reptile survey consisting of 7no. visits is required to inform appropriate mitigation requirements.	Visits should be completed between April – September.
Nesting birds	Development should avoid the main bird nesting season to minimise disturbance.	Avoid March – September (inclusive)
Small Mammals	Reasonable avoidance measures outlined within the following report.	N/A
Bats	Reasonable avoidance measures outlined within the following report.	N/A
GCN	Reasonable avoidance measures outlined within the following report.	N/A

1.0 INTRODUCTION

1.1 Lizard Landscape Design and Ecology (LLDE) has been commissioned by Bright Plan Ltd to undertake a Preliminary Ecological Appraisal (PEA) of Land Adjacent to 1 Elm Cottages, Hook Lane, Aldingbourne, West Sussex (located around central grid reference: *SU 93126 04808*– hereafter referred to as 'the site').

1.2 The purpose of this report is to establish the suitability of the site for development, inform the design process for future proposals, record the ecological baseline and identify key potential ecological constraints and opportunities associated with future development proposals. This report has been prepared with due consideration for existing best practice guidance (CIEEM, 2017; BSI, 2013) and aims to provide general advice on ecological constraints associated with development of the site. The report includes recommendations for further assessment where necessary. It is not intended that this report should be submitted with a planning application for development of the site, unless supported by the results of further surveys and a detailed assessment of the effects of the proposed development.

Site Information

1.3 The site covers an area of 0.1 ha and is a rectangular plot of land. The site is bound to the north by Hook Lane, and beyond that agricultural farmland. The site is also bound to the west and south by agricultural fields. To the east, the site is bound by residential properties, also located along Hook Lane. Access to the site is via a gate to the western edge of the site, the site contains 2 small, connected garages within the site bounds.

Surrounding Landscape

1.4 The site is located c. 300m to the west of Woodgate and Westergate, a thin strip of primarily residential housing, creating a semi-rural landscape. The dominant habitat within the wider landscape is agricultural fields, many of which have hedgerow borders. Additionally, the landscape has a handful of small parcels of woodland scattered throughout.

Development Proposals

1.5 It is understood that the proposals are for the construction of 2no. new dwellings, gardens and a new access.

Scope of the Assessment

1.6 In accordance with current guidance (CIEEM, 2017), the aim of the Preliminary Ecological Appraisal has been to:

- Identify the likely ecological constraints associated with a project;
- Identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy' (BSI, 2013);
- Identify any additional surveys that may be required to inform an Ecological Impact Assessment (EcIA); and
- Identify the opportunities offered by a project to deliver ecological enhancement.

2.0 METHODOLOGY

2.1 Desk Study

2.1.1 The Multi-Agency Geographical Information Centre (MAGIC) website[1] was consulted for information regarding the location of waterbodies, priority habitats, statutory designated sites and existing wildlife mitigation licences, within a potential zone of influence of the site. Additionally, the Local Planning Authority (LPA) website was consulted for information regarding the location of non-statutory designated areas, and satellite imagery and historic mapping was used to inform an assessment of the recent land use changes and habitat types within the area. The following potential zones of Influence's have been used for the following potential ecological receptors during the desk study assessment:

Table No. 02 – Zones of Influences for Ecological Receptors

Potential Zone of Influence	Type of Record / Designation/s / Ecological Receptor
0.5km	• Ponds, ditches and other water bodies.
2.0km	• Priority Habitats (UKBAP) (NERC, 2006); • European Protected Species Mitigation Licences (EPSMLs); • Local Nature Reserves (LNRs); • National Nature Reserves; • Sites of Special Scientific Interest (SSSIs); and • Local Wildlife Sites (LWS) / Site of Nature Conservation Interest (SNCI).
10.0km	• Special Protection Areas (SPAs); • potential Special Protection Areas (pSPAs); • Ramsars (Wetlands of International Importance); • proposed Ramsars (pRamsar); • Special Areas of Conservation (SACs); and • possible Special Areas of Conservation (pSACs).
12.0km	• Special Areas of Conservation (SACs) and possible Special Areas of Conservation (pSACs) designated for supporting Annex II bat species.

[1] www.magic.go.uk

2.1.2 All protected / notable species records within a 2.0km radius of the site were provided by Sussex Biodiversity Records Centre on the 16th October 2024.

2.1.3 The Local Planning Authority website was consulted to inform of additional relevant information to this assessment, including local development plan policies in relation to ecology and biodiversity (see *Appendix A – Planning Policy and Legislation*) as well as any Local Nature Recovery Strategies, Nature Improvement Areas (NIAs) and Biodiversity Opportunity Areas (BOAs) etc.

2.2 Field Survey

2.2.1 The field survey was undertaken on the 23rd of September by a Suitably Qualified Ecologist (Fleur Booth, 2 years professional experience). Weather conditions were mild (c.15°C), with a moderate westerly wind (Beaufort Scale 2-3), 100% cloud cover and occasional to persistent light rain.

2.2.2 The field survey comprised a walkover inspection of the site, immediately adjacent land and boundaries features, in which ecological features were noted and mapped in accordance with principles of the UKHabs-Professional Classification System (UKHabs Ltd., 2023). A minimum mapping unit of $25m^2$ / 5m length was used and habitats were identified to at least level 4 wherever practicable.

2.2.3 The condition of each of the existing habitats was assessed in accordance with the *Statutory Biodiversity Metric – Technical Annex I: Condition Assessment Sheets and Methodology* (NE, 2023).

2.2.4 A list of plant species noted was compiled, together with an estimate of relative abundance made according to the DAFOR scale (Table No. 11).

2.3 Evaluation of Ecological Features

2.3.1 An assessment was made to determine the likely importance of any flora / habitats present, as well as determining whether any qualified as being of conservation merit, such as those listed as habitats and species of principal importance for the conservation of biodiversity (NERC, 2006). Likely importance was determined in reference to a predefined geographical frame of reference, as laid out in *Guidelines for Ecological Impact Assessment* (CIEEM, 2022), this was assessed in accordance with the accordance with the criteria outlined below:

Table No. 03 – Likely Importance Assessment Criteria

Likely Importance Categories	Likely Importance Criteria
Negligible	Of no notable ecological value.
Site	Ecologically valuable within the context of the site
Local	Ecologically valuable within the context of the immediate surrounds, i.e., c. 1km^2
District	Ecologically valuable within the context of the wider surrounds / LPA district, i.e., c. 10km^2
County	Ecologically valuable within the context of the wider county, i.e., c. 100km^2
Regional	Of ecological value within the region, i.e., south east, south west, midlands etc.
National	Of ecological value within the context of the United Kingdom, such as a SSSIs, NNR's etc.
International	Ecological value of global significance, such as SACs, SPAs etc.

2.3.2 Habitats within and adjacent to the site were assessed to determine their potential to support protected and notable fauna. This assessment was based on professional judgment and experience, with due consideration to industry standard best practice guidance for the relevant taxa, as laid out in the table below. The possible presence of each taxon was summarised as either negligible, low, moderate, high or confirmed.

Table No. 04 – Habitat Suitability Assessment References

Fauna	Relevant Best Practice Guidance
Great Crested Newts	*Great Crested Newt Conservation Handbook* (Langton *et al*, 2001) & *Evaluating the Suitability of Habitat for the Great Crested Newt* (Oldham *et al,* 2000)
Reptiles	*Herpetofauna Workers' Manual* (Gent and Gibson, 2003)
Bats	*Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)* (Collins, 2023)
Dormice	*The Dormice Conservation Handbook* (English Nature, 2006)
Badger	*Survey Badgers* (Harris *et al,* 1989)
Water Vole	*The Water Vole Mitigation Handbook* (Dean *et al,* 2016)
Birds	*Guidance for Bird Surveys in Relation to Development* (NE, 2022)
Invertebrates	*Considering Terrestrial Invertebrates in Preliminary Ecological Appraisals* (Jukes, 2021) and *Organising Surveys to Determine Site Quality for Invertebrates* (English Nature, 2005)

2.3.3 Photographs were taken as evidence and to illustrate any notable ecological features on site. These have been provided within the body of the relevant parts of the Results section, where appropriate.

2.4 Daytime Bat Walkover Survey

2.4.1 A Daytime Bat Walkover (DBW) survey was undertaken as part of the field survey assessment by the suitably experienced surveyor (Fleur Booth Accredited Agent Under Licence; Louise Barker (Bat Level 2 Class Licence; 2023-11422-CL18-BAT)).

2.4.2 The Daytime Bat Walkover (DBW) survey entailed a slow walkover of the site, during which time the surveyor identified any structures, trees and other features that could be suitable for bats to roost in, and any habitats which could be suitable for bats to commute, forage or swarm in.

2.4.3 During this survey any direct evidence of bats was searched for and recorded, such as grease marks, urine stains, bat droppings, feeding remains and dead / live bats. Furthermore, any structures or trees which offered features with the potential to support bats were noted. For trees this included the identification of features typically associated with decay, such as, but not limited to, cracks, crevices and holes naturally formed by trees. For structures this included the identification of features such as, but not limited to, slipped, missing or uneven tiles, gaps around the soffit / barge board and raised flashing etc.

2.4.4 All suitable bat habitat was assessed in accordance best practice criteria (Collins, 2023), which is outlined herein. During the survey all trees within and immediately adjacent to the site were assessed using the following criteria:

Table No. 05 – Criteria for Assessing the Bat Roosting Suitability of Trees

Suitability	Description
None	Either no potential roosting features in the tree, or highly unlikely to be any.
FAR	Further assessment required to establish if potential roosting features are present in the tree.
PRF	A tree with at least one potential roosting feature present.

2.4.5 If it was possible to adequately assess a Potential Roosting Feature (PRF) from ground level then this was completed, and the feature classified as either:

- **PRF-I**: Feature only suitable for individual or very small numbers of bats, either due to size or lack of suitable surrounding habitat; or
- **PRF-M**: PRF is suitable for multiple bats and therefore has the potential to be used by a maternity colony.

2.4.6 Furthermore, all structures were assessed externally, and internally wherever possible for their potential to support bats, using the following criteria:

Table No. 06 – Criteria for Assessing the Bat Roosting Suitability of Structures

Potential Suitability	Description
None	No habitat features on site likely to be used by any roosting bats at any time of year.
Negligible	No obvious habitat features on site likely to be used by roosting bats. However, some small uncertainty remains, as bats can use small and apparently unsuitable features occasionally.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of year. However, these do not provide enough shelter, space, protection, appropriate conditions or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats.
Moderate	A structure with one of more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat, but unlikely to support a roost of high conservation status, irrespective of species conservation status.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat, with the potential to support high conservation status roosts irrespective of species conservation status.
Confirmed	Direct evidence of bats identified.

2.4.7 Finally, an assessment of the winter hibernation potential of the structures was made in consideration of the criteria used for assessing structures and trees, in combination with the potential presence of classic hibernation features, known roosts and suitability of habitat in the surrounds.

2.5 Great Crested Newts – Habitat Suitability Assessment

2.5.1 Any ponds identified within or adjacent to the site were subject to a Habitat Suitability Index (HSI) assessment to determine their suitability to support GCN, in line with current guidance (Oldham *et al*, 2000). The HSI is a numerical index, between 0 and 1 (0 representing completely unsuitable habitat and 1 representing optimal habitat), calculated based on the suitability of 10 calculable indices.

2.5.2 HSI assessment is useful to aid in determining how suitable a given waterbody is for GCN, but it does not directly correlate with GCN presence or population numbers and serves as information only.

2.5.3 The 10 indices considered as part of the HSI assessment include geographic area, pond area, permanence of waterbody, water quality, shading, waterfowl presence, fish presence, number of ponds within 1.0km, suitability of terrestrial habitat and macrophyte cover, which were investigated during the field survey assessment.

2.6 Badgers

2.6.1 [redacted]

2.7 Constraints and Limitations

2.7.1 Due to the field survey consisting of only one site visit, certain species, particularly some of the flowering plants, may not have been visible or may have been otherwise inconspicuous at the time of the survey and hence overlooked. These are accepted constraints associated with the UKHabs Survey Methodology.

3.0 RESULTS

3.1 Desk Study

Pond Search

3.1.1 There is a network of 5no. ponds within 500m of the site. P1 is c. 390m north-west of the site, with P2 just c. 75m north of P1. P1 and P2 are located along Hook Lane. P3 is c. 230m north of the site, also close by to Hook Lane. P4 and P5 are directly adjacent to one another and are c. 230m and c. 260m south-east of the site.

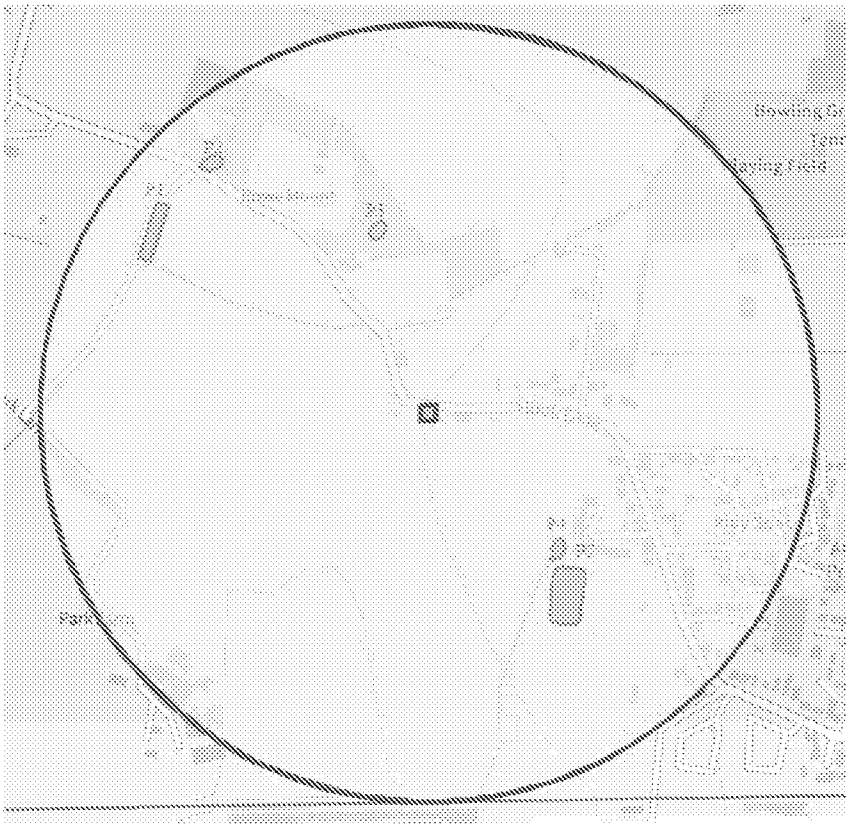

Fig 01: Map of Ponds within 500m of the site. Image created using MagicMaps https://magic.defra.gov.uk/MagicMap.aspx .

Priority Habitats Search

3.1.2 In accordance with the MAGIC dataset, within a 2.0km search radii of the site there were UKBAP Priority Habitats (NERC, 2006) of *Lowland Meadows, Deciduous Woodland (*majority of which was *Ancient),* and *Traditional Orchards.*

European Protected Species Mitigation Licence (EPSML) Search

3.1.3 In accordance with the MAGIC dataset, within a 2.0km search radii of the site, the following records for existing European Protected Species Mitigation Licences (EPSMLs) were returned:

Table No. 07 – EPSMLs within Potential Zone of Influence

Date	Species	Licence Permission	Distance and Direction from Site
10/11/2017 - 01/12/2022	Hazel dormouse *Muscardinus avellanarius*	Damage and Destruction of a resting site	1.38km NE
26/09/2019 - 31/12/2026	Great Crested Newt *Triturus cristatus*	Damage and destruction of a resting site	0.35km SE

Local Non-Statutory Designated Areas

3.1.4 The following non-statutory designated areas were identified within 2.0km of the site.

Table No. 08 – Non-Statutory Designated Areas

Site	Location
Chichester Bats, Strategic Wildlife Corridors	c.900m W

Statutory Designated Sites

3.1.5 Statutory designated sites identified within a potential zone of influence of the site include:

Table No. 09 – Statutory Designated Sites

Site	Description	Location
International Statutory Designated Sites within 10/12km		
Pagham Harbour SPA, Ramsar	The site is designated under article 4(2) for supporting; Internationally important winter population of: • Dark-bellied brent geese Branta bernicla bernicla A nationally important winter population of: • Pintail, *Anas acuta* • Grey plover, *Pluvialis squatarola* • Black-tailed goldwit, *Limosa limosa* The site also qualifies under article 4(1) for supporting; • Wintering ruff *Philomachus pugnax* and breeding populations of • Little tern *Sterna albifrons* Common tern *Sterna hirundo*	c. 7.8km SW
Chichester and Langstone Harbours SPA, Ramsar	The site is designated under article 4(2) for supporting; >10,000 wintering wildfowl, and >20,000 wintering waders Internationally important migratory populations of: • Grey plover, *Pluvialis squatarola* • Sanderling, *Caldris alba* • Dunlin, *Caldris alpina* • Redshank, *Tringa tetanus* • Brent geese, *Branta bernicla* • Shelduck, *Tadorna tadorna* • Teal, *Anas crecca* Internationally important winter populations of: • Ringed plover, *Charadrius hiaticula* • Curlew, *Numerius arquata* • Bar-tailed goldwit, *Limosta lapponica* • Turnstone, *Arenaria interpres* • Wigeon, *Anas penelope*	c. 9.1km W

Site	Description	Location
	• Pintail, *Anas acuta* • Shoveler, *Anas clypeata* • Red-breasted merganser, *Mergus serrator* The site also qualifies under article 4(1) for supporting; and breeding populations of 3 tern *(Sterna)* species	

3.1.6 The site is located within the Impact Risk Zone of *Eartham Pit Boxgrove SSSI*. However, development proposals do not meet the criteria which would require the LPA to consult with Natural England regarding potential impacts.

3.2 Existing Habitat Assessment

Site Assessment

3.2.1 Habitats within and adjacent to the site include:

- Buildings
- Developed land; sealed surface (with vacant or derelict land)
- Modified grassland (with scattered trees and line of trees)
- Bramble scrub

Buildings

3.2.2 There are 2no. small, connected garages on site. Both are 1no. storey, the western building is made of red brick with a corrugated plastic roof. The eastern building is made of wooden weather boarding and has a flat felted roof. These are both in constant use and used to store machinery and equipment. They are of **negligible** ecological value.

3.2.3 The total extent of this habitat measured approximately 35m^2 (see *Figure No. 02 – Pre-Development Site Habitats Plan*). The habitat is of negligible ecological value and a condition assessment was not applicable.

Developed land; sealed surface

3.2.4 A small area of hardstanding surrounds the western and southern borders of the 2no. garages. This habitat is of **negligible** ecological value.

3.2.5 The total extent of this habitat measured approximately 50m^2 (see *Figure No. 01 – Site Habitats Plan*). A condition assessment for this habitat was not applicable.

Vacant or derelict land

3.2.6 To the entrance of the site, there is a poorly maintained access route, once covered in gravel but currently succession is taking place with pioneer species, such as dandelions (*Taraxacum officinale*) colonising the area. This habitat is of **negligible** ecological value.

3.2.7 The total extent of this habitat measured approximately 55m^2 (see *Figure No. 01 – Site Habitats Plan*). The habitat was assessed as being of poor condition as it failed criteria A and C but passed criteria B of the condition assessment criteria, which ultimately resulted in a score of 0.01 Habitat Units.

Modified grassland

3.2.8 The majority of the site was made up of modified grassland, which contained debris and disused machinery. At the time of the survey the sward height was c. 10m and dominated by grasses including perennial ryegrass (*Lolium perenne),* cocksfoot *(Dactylus glomerata),* and Yorkshire fog *(Holcus lanatus). O*ther plants noted were comfrey *(Symphytum officinale),* common vetch *(Vicia sativa)* and white clover *(Trifolium repens).* The habitat is of **site** value only.

3.2.9 The total extent of this habitat measured approximately 400m^2 (see *Figure No. 02 – Site Habitats Plan*). The habitat was assessed as being of poor condition as it failed criteria A, B, and D but passed criteria C, E, F and G of the condition assessment criteria, which ultimately resulted in a score of 0.08 Habitat Units.

Scattered trees

3.2.10 Several scattered trees were present throughout the borders of the site. This included a mature oak (*Quercus robur*), covered in ivy (*Hedera helix*) in the southeast of site, as well as 3no. maple trees (*Acer campestre*) to the south and a young ash (*Fraxinus excelsior*) to the northwest. Overall, these trees are of **site** value.

3.2.11 The total extent of this habitat measured approximately 204mm^2 (see *Figure No. 02 – Site Habitats Plan*). The habitat was assessed as being of good condition as it failed criteria D but passed criteria A, B, C, E, and F of the condition assessment criteria, which ultimately resulted in a score of 0.24 Habitat Units.

Line of Trees

3.2.12 A line of ash trees, 35m in length (see *Figure No. 02 – Site Habitats Plan*), exists along the northern boundary of the site. Each of these trees are covered in dense ivy. This habitat is of **site** value.

3.2.13 The habitat was assessed as being of moderate condition as it failed criteria D but passed criteria A, B, C, and E of the condition assessment criteria, which ultimately resulted in a score of 0.14 Hedgerow Units.

Bramble scrub

3.2.14 The east of the site is dominated by bramble (*Rubus fruticosus*) scrub. This habitat is of **site** ecological value.

3.2.15 The total extent of this habitat measured approximately 200m^2 (see *Figure No. 02 – Site Habitats Plan*). A condition assessment for this habitat was not applicable.

3.3 Invasive Species

3.3.1 A significant amount of hairy bindweed (*calystegia x pulchra*) was observed on site particularly to the west. This species is not listed on Schedule 9 of the Wildlife and Countryside Act 1981; however, it is listed as an invasive species within Sussex.

3.4 Protected and Notable Fauna - Likely Presence Assessment

Amphibians

Desk Study

3.4.1 The desk study identified the presence of multiple species of amphibians within 2km of the site, including Great Crested Newt (GCN). There are results for amphibians spread throughout the entire radius, with 7no. records of GCN identified in clusters at c.670m north-east, c.260m south-east and c.800m south. This includes low numbers of GCN in ponds P4 and P5, as well as in the ditch to the immediate west of P4. A total of 9no. common frog (*Rana temporaria*), 14no. smooth newt (*Lissotriton vulgaris*), 1no. palmate newt (*Lissotriton helveticus*), and 3no. common toad (*Bufo bufo*) records were also returned within the search radius.

Site Assessment

3.4.2 Access to the surrounding ponds was not possible, however the site is separated from these by a road (Hook Lane). It is accepted that, unless connected by highly suitable habitat, most great crested newts tend to stay within 250m of breeding ponds (Langton *et al.*, 2001). There is suitable habitat on-site in the form of the grassland, and scrub, and P4 and P5 are reasonably connected via field margins and tree lines around the arable field to the south of the site. However, this site is very small and contains no waterways or ponds and so it is considered of being no more than **low** value to these species.

Reptiles

Desk Study

3.4.3 Background desk study identified presence of slow worm (*Anguis fragilis)*, grass snake (*Natrix helvetica)*, adder (*Vipera berus)* and common lizard (*Zootoca vivipara)* within 2km of the site. A large majority of the records are located to the east of the site, between c.500m to c.2000m away, with LLDE recording slowworms 270m SE of the site during a previous reptile survey for another local project.

Site Assessment

3.4.4 Reptiles require a mosaic of habitats to persist in a landscape, including vegetative cover for refuge opportunities, open areas for basing and a diverse flora to support viable invertebrate prey throughout the year. Each of these exist on site and the habitats on-site are of **moderate** suitability for reptile species.

Bats

Desk Study

3.4.5 The species records search returned results for Western Barbastelle (*Barbastella barbastellus),* Serotine (*Eptesicus serotinus),* Bechstein's bat (*Myotis bechsteinii),* Daubentons bat (*Myotis daubentoniid),* Whiskered bat (*Myotis mystacinus),* Natterer's bat (*Myotis nattereri),* Noctule (*Nyctalus noctule),* Nathusius's pipistrelle (*Pipistrellus nathusii),* Common pipistrelle *(Pipistrellus pipistrellus),* Soprano pipistrelle (*Pipistrellus pygmaeus)* and Brown long-eared bat (*Plecotus auratus)*. The records largely clustered to the north and east of the site, often associated pockets of woodland. There are, however, records identified across the entire search radius.

Preliminary Roost Assessment - Trees

3.4.6 No trees on site were identified that offered bat roost suitability during the ground level assessment. However, many of the trees on-site were covered in ivy that may have obscured or hidden potential features.

3.4.7 The 2no. garages within the site were assessed internally and externally for bats. A summary of this assessment is provided in the table below.

Table No. 10. Preliminary Bat Roost Assessment Results - Buildings

Building Ref	External assessment	Internal assessment	Overall result
B1	Very small one storey garage made of red brick and a corrugated plastic roof. No crevices or opportunities for ingress were identified.	No loft space nor evidence of roosting bats was identified. In constant use, likely deterring bat use.	**Negligible**
B2	The adjacent and connected garage was made of wooden weather boarding with a flat roof. These were in good condition, again with no gaps or crevices observed.	No loft space nor evidence of roosting bats was identified. In constant use, likely deterring bat use.	**Negligible**

Winter Roosting Potential

3.4.8 Given the results of the preliminary roost assessment and in consideration of the absence of hibernation features, the suitability of the surrounding habitat for commuting and foraging, and the absence of known roosts, it was determined that the site offered **negligible** winter roosting potential.

Foraging and Commuting Suitability

3.4.9 The site is dominated by grassland and scrub which is likely to be of little value to any species, especially as the site is so small and lacking in a complex species diversity. The boundary treelines are semi-mature and not well connected to suitable habitat within the wider landscape, as such these habitats overall are considered to be of **low** habitat suitability.

Dormice

Desk Study

3.4.10 Only 2 records for hazel dormice were identified by the records search. Both are located c.1.9km from the works site. The connectivity between the noted records and the works site is poor, with some woodland areas and linear features such as hedgerows present, with large gaps in vegetation present, restricting movement.

Site Assessment

3.4.11 Boundary vegetation does contain species suitable to support dormouse foraging, however these boundaries are defunct and are not functionally connected to areas of suitable habitat in the wider environment. The site is therefore of **negligible** value to this species.

Badgers

Desk Study

3.4.12 [redacted]

3.4.13

Birds

Desk Study

3.4.14 Desk study returned records for species listed on Schedule 1 (Wildlife and Countryside Act, 1981) (as amended), as well as records for species of birds listed on the Birds of Conservation Concern (BoCC) Red List (Stanbury *et al*, 2021). This included records for birds often associated with woodland and scrub areas, such as song thrush (*Turdus philomelos)*, Starling (*Sturnus vulgaris)* and Bullfinch (*Pyrrhula pyrrhula),* in addition to birds of prey such as red kite and various owl species (*Tyto spp., Strix spp).* These records are spread across the entire search radius.

Site Assessment

3.4.15 Generally, the site contains traditional nesting habitat for passerine birds, i.e., tree lines, as well as the individual trees and scrub. Thus, there are habitats on-site that would be suitable to support breeding birds during the nesting season. No nests were observed in or on the garages on site. It is likely that the site is of **moderate** value to nesting birds.

Invertebrates

Desk Study

3.4.16 SxBRC returned numerous records of notable invertebrates from within the search area of 2km surrounding the site. This includes butterflies such as Purple Emperor (*Apatura iris),* Wall butterfly (*Lasiommata megera)* and White admiral (*Limienitis Camilla).* Notable moths include White Ermine (*Spilosoma lubricipeda),* Buff ermine (*Spilosoma lutea)* and Cinnaba (*Tyria jacobaeae).* Other notable invertebrates include Stag beetle (*Lucana cervus)* and Common darter dragonfly (*Sympertrum striolatum).*

Site Assessment

3.4.17 The early successional plants on site did not have a diverse assemblage of species and no particularly notable plants were identified. The scrub on-site is dominated by bramble and there is a significant amount of bindweed, as well as several forbs within the grassland. Therefore, this site is of **low** value to invertebrates.

4.0 ECOLOGICAL CONSTRAINTS AND RECOMMENDATIONS

4.1 Internationally Designated Sites

4.1.1 4no. internationally designated statutory sites were identified within a potential zone of influence of the proposed development site. However, due to the intervening distances, existing habitats on site and small scale of the development, no impacts upon any of these sites are likely to occur.

4.2 Nationally and Locally Designated Sites

4.2.1 Several nationally and locally designated areas were identified within a potential zone of influence of the site. However, none exist within or directly adjacent to the site, so would not be likely to be directly impacted by proposals.

4.3 On Site Habitats

4.3.1 The following section provides an evaluation of the potential impacts of proposals on the habitats on site and outlines any recommendations required in order to ensure proposals accord with planning policy and legislation (see *Appendix* A), and to maximise opportunities to deliver net gains for biodiversity. Where identified, any potential impacts should be addressed in line with the mitigation hierarchy (BSI, 2013) (CIEEM, 2022) and where possible, mitigation should be embedded in the scheme design as this gives assurance of delivery.

Biodiversity Net Gain Statement

4.3.2 As of 12th of February 2024, Biodiversity Net Gain is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). The scheme does not appear to qualify under any exemption and as such shall be subject to the standard biodiversity gain planning condition.

Evaluation and Recommendations

4.3.3 Overall, the habitats on site were assessed as being of broad low ecological value. The existing areas of modified grassland and hardstanding are highly suitable for development, and the loss of these habitats could be compensated for within the scheme.

4.3.4 The greatest ecological interest at the site associated with scattered trees and line of trees. Proposals should aim to retain and protect these areas wherever practicable through the inclusion of suitable semi-natural buffers within the scheme.

4.3.5 Areas of bramble and mixed-species scrub on site are likely to require removal to facilitate development proposals. These habitats are of medium distinctiveness and consideration must be given as to how the loss of these areas could be compensated for within the scheme, likely by securing off-site credits. Furthermore, it is strongly advised that all existing trees are retained and protected during construction and operation, where possible.

4.4 Protected and Notable Species

4.4.1 Varying levels of legal protection are afforded to certain protected animals, certain species of conservation importance and broader biodiversity (see *Appendix A – Planning Policy and Legislation*). Therefore, in order to ensure proposals accord with statutory legislation further surveys for these taxa may be required to determine their presence and, if present, to devise an appropriate mitigation strategy. Any protected / notable species assessed as having negligible potential to exist on site during the possible presence assessment were scoped out of further assessment at this stage.

Amphibians

4.4.2 The protected species assessment identified that the site and adjacent habitats offered low potential to support GCN and as the site is not functionally linked to any suitable habitat in the wider environment and only contains minimal suitable habitat on-site, it is likely that GCN will not be affected by this development. Upon completion of the Rapid Risk Assessment Tool, denoting that 0.1ha of land less than 250m from a breeding pond would be lost, an offence is 'Highly Unlikely', and so a mitigation license is unlikely to be required. However, the following RAMs should be implemented during construction:

- Works limited to daytime hours only.
- Scrub cut to 150mm and left for 3 nights in suitable weather for amphibians to disperse.
- Footings and trenches backfilled on the same day, covered overnight or have a shallow ramp fitted.
- Footings and trenches to be checked each morning before the start of works.
- Loose materials to be stockpiled on areas of existing hardstanding or short grassland, well away from any scrub.
- Any common amphibian found during the works is to be carefully moved by hand to an area adjacent to the south of the site.
- In the highly unlikely event that any GCN is found on site all works shall cease while a qualified ecologist is contacted for advice.

Reptiles

4.4.3 The protected species assessment identified that the site and adjacent habitats offered moderate potential to support reptiles. As reptiles are protected from reckless killing and injury (Wildlife and Countryside Act, 1981), a suite of seven reptile presence / absence surveys should be completed, to begin between mid-March to September inclusive, in line with current guidance (Froglife, 1999). Should reptiles be present then the survey data would be used to provide information on distribution and, ultimately, to inform a mitigation strategy, which would likely need to include translocation to a suitable off-site area.

Bats

4.4.4 The protected species assessment identified that the line of trees on-site offered low potential to support roosting bats, and although no PRFs were observed, these may be obscured by the ivy present. Any trees along the northern border, scheduled for removal, major tree surgery works or subject to disturbance through excessive noise and vibration should have the ivy removed first, before any limb removal under supervision of an ecological clerk of works (ECoW).

4.4.5 The protected species assessment also identified that the site and adjacent habitats would be likely to be of low value to commuting and foraging bats in the area. Given its small size, the site is unlikely to support a notable assemblage of foraging / commuting bats and therefore, bat activity surveys are not required. However, proposals should be mindful of the potential for bats to occur in the area by ensuring that the line of trees is protected from inappropriate nocturnal lighting, and by limiting the need for nocturnal lighting in the first instance. Any external lighting designs should comply with best practice standards in regard to external lighting and bats (BCT & ILP, 2023).

Birds

4.4.6 The protected species assessment identified that the site and adjacent habitats offered habitats of low value to wild birds. Any habitat suitable to support nesting birds scheduled for removal, i.e., scattered trees and scrub, should be cleared outside of the main bird nesting season (March – August inclusive) or first be subject to a bird nesting check prior to removal, to be conducted by suitably qualified ecologist or arborist.

4.4.7 As detailed in *BS 42021:2022 Integral nest boxes* (BSI, 2022), integral nest boxes should be installed in all new developments, at a rate equal to the number of dwellings. This could comprise integrated bird boxes targeted for a range of species, such as swifts, as well as sparrows and starlings. Boxes should be installed to the north-facing aspect of the new buildings, avoiding areas above windows and doors.

Invertebrates

4.4.8 The protected species assessment identified that the site and adjacent habitats offered low potential to support a notable invertebrate assemblage. All valuable invertebrate habitat, such as the scattered trees should be retained within the scheme.

Hedgehogs

4.4.9 All new closed board fencing or walls should include a 13x13cm access gap to the base to allow the free movement of hedgehogs around the site. The gaps should be signed 'hedgehog highway' or similar to make their purpose clear and avoid accidental closure by future residents. Information on these access gaps should also be provided within the new homeowners welcome pack.

5.0 OPPORTUNITES FOR ECOLOGICAL ENHANCMENT

5.1 In addition to any requirement to deliver +10% Biodiversity Net Gain outlined by the Environment Act (2021), net gains for biodiversity are a requirement outlined in National Planning Policy Framework (Department for Levelling Up, Housing & Communities, 2023) and local planning policy guidance. Opportunities for ecological enhancements which could be incorporated into the scheme design are provided below:

- Installation of integrated bird and bat boxes into new buildings, and
- Installation of 'bug hotels', bird and bat boxes to mature trees;
- Installation of invertebrate boxes in both sunny and sheltered locations to cater for a range of species.
- Planting of new native species-rich hedging to the boundaries of the site.

6.0 CONCLUSIONS

6.1 The site covers an area of 0.1ha and is located to the west of Westergate, Chichester. The site consists of modified grassland and bramble scrub, with a line of trees and individual trees along the southern border. Agricultural farmland and residential properties lie to the north, south, east and west of site. The greatest ecological interest at the site is associated with the line of trees which should be retained and protected throughout proposals, wherever practicable.

6.2 The habitats within and adjacent to the site were found suitable to support reptiles. Therefore, a suite of 7no. reptile surveys will need to be carried out within the survey season, to assess the population. As the presence, or potential presence, of protected species is a material consideration in the planning process these surveys shall need to be undertaken before determination of the planning application. The site also will likely support bats, small mammals and nesting birds and so RAMs have been outlined within this report.

6.3 Proposals have negligible potential to impact upon any statutory designations identified within a potential zone of influence of development. Therefore, further assessment in regard to the *Habitat Regulations (2017)* or site-specific mitigation would not be required.

6.4 Opportunities for ecological enhancement have been provided to allow the ecological value to the site to be maximised. A Biodiversity Net Gain Feasibility assessment has been completed to provide recommendations on how best to achieve BNG, which are detailed herein. In summary, the site while not particularly ecologically valuable will not be able to achieve onsite BNG due to the lack of space for compensatory habitats within the current proposals. To ensure the layout of the scheme would comply with the +10% mandate in the *Environment Act (2021),* off-site options, such as purchasing credits credits will need to be explored.

6.5 Subject to a sensitively designed scheme, which gives due consideration to the survey and mitigation requirements outlined herein, no major ecological constraints have been identified which would preclude the provision of a well-designed development.

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Table No. 11 – Species List for Habitat Parcels

Modified Grassland

Common Name	Scientific Name	DAFOR
Annual Meadowgrass	*Poa annua*	**F**
Arrow Bamboo	*Pseudosasa japonica*	**R**
Bristly Oxtongue	*Helminthotheca echioides*	**O**
Broadleaf Plantain	*Plantago major*	**O**
Chickweed	*Stellaria media*	**O**
Cleavers	*Gallium aparine*	**LF**
Clover	*Trifolium repens*	**F**
Cocks-foot	*Dactylis glomerata*	**D**
Comfrey	*Symphytyum officinale*	**R**
Common Ivy	*Hedera helix*	**F**
Common Vetch	*Vicia sativa*	**R**
Creeping Buttercup	*Ranunculus repens*	**A**
Curled Dock	*Rumex crispus*	**F**
Dandelion	*Taraxacum officinale*	**O**
Foxglove	*Digitalis purpurea*	**R**
Greater Hairy Willowherb	*Epilobium hirsutum*	**R**
Hogweed	*Heracleum sphondylium*	**O**
Nettle	*Urtica dioica*	**D**
Ox-eye Daisy	*Leucanthemum vulgare*	**R**
Pendulous Sedge	*Carex pendula*	**O**
Rigwort Plantain	*Plantago lanceolata*	**A**
Rye Grass	*Lolium perenne*	**A**
Teasel	*Dipsacus fullonum*	**R**
Thistle	*Circium sp.*	**O**
Yorkshire Fog	*Holcus lanatus*	**D**

Bramble Scrub

Common Name	Scientific Name	DAFOR
Bramble	*Rubus fruticosus*	**D**
Hairy Bindweed	*Calystegia x pulchra*	**D**

Line of Trees and Scattered Trees

Common Name	***Scientific Name***	***DAFOR***
Ash	*Fraxinus excelsior*	***D***
Field Maple	*Acer campestre*	***D***
Hawthorn	*Crataegus monogyna*	***O***
Oak	*Quercus robur*	***A***
Associated shrub		
Privet	*Ligustrum ovalifolium*	***O***
Bramble	*Rubus fruticosus*	***D***
Rose Hip	*Rosa rugosa*	***O***
Hairy Bindweed	*Calystegia x pulchra*	***D***
Ivy	*Hedera helix*	***D***
Nettle	*Urtica dioica*	***F***

D – Dominant; A – Abundant; F – Frequent; O – Occasional; R – Rare; L – Locally

Appendix A – Site Photographs

Image 01: View of scattered trees and modified grassland.

Image 02: View of bramble scrub.

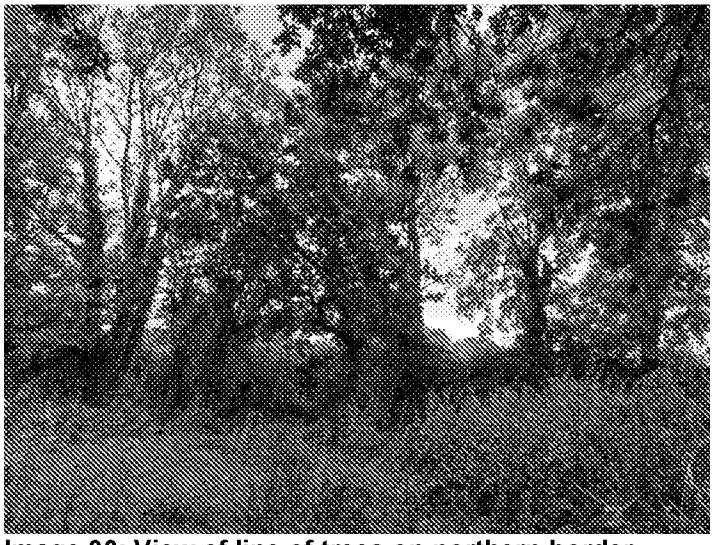


Image 03: View of line of trees on northern border.

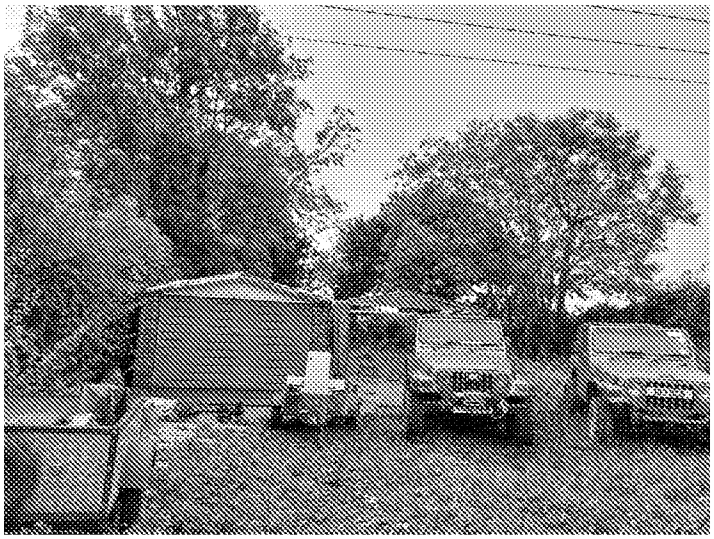


Image 04: View of site looking east.

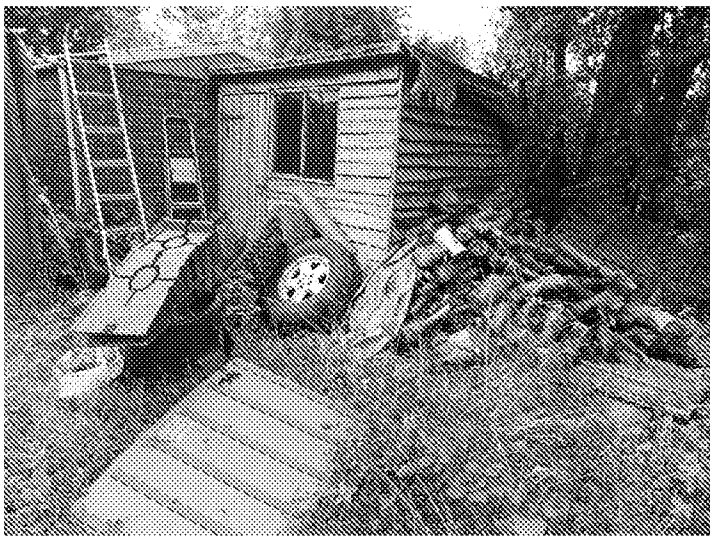
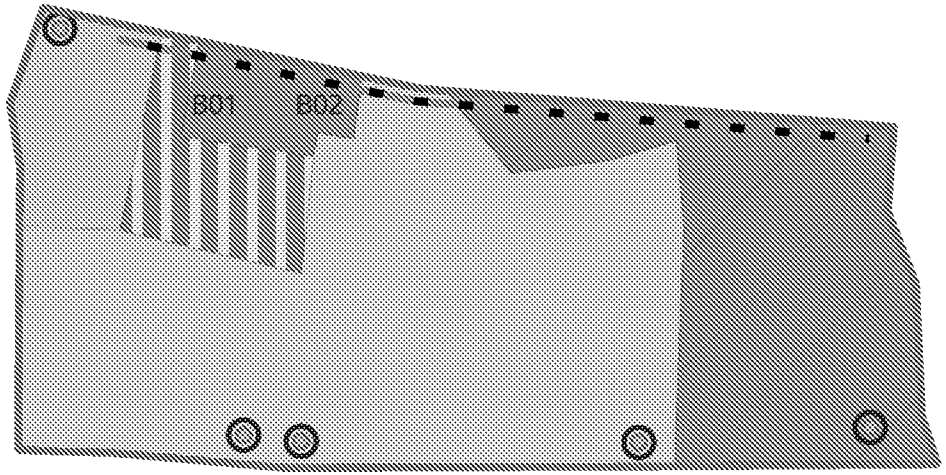


Image 05: View of small wooden garage.

Image 06: View of site looking west.



Legend

- Red Line Boundary
- Line of trees
- Bramble scrub
- Developed land; sealed surface
- Modified grassland
- Vacant or derelict land
- Building
- Existing tree

25 50 m

N 1:350

Figure No. 02 - Pre-Development Site Habitat Plan

LIZARD
Landscape Design and Ecology
The Old Bank, 34 South Street, Tarring, Worthing, West Sussex, BN14 7EH
T. 01903 215055 E. office@lizardlandscapes.co.uk W. lizardlandscapesecology.com

Client
Mr. O'Halloran

Project Title & Location
Land Adjacent to Elm Cottages, Hook Lane, Chichester

Drawn by	Approved by	Rev	Date
FB	COR	00	23/10/2024

ARUN DISTRICT COUNCIL BN/40/25/OUT

Appendix B – Planning Policy and Legislation

Legislation

Legislation relating to wildlife and biodiversity of particular relevance to this report includes:

- *The Conservation of Habitats and Species Regulations 2017;*
- *The Wildlife and Countryside Act 1981 (as amended);*
- *The Natural Environment and Rural Communities (NERC) Act 2006; and*
- *The Environment Act 2021.*

This above legislation has been addressed, as appropriate, in the production of this report. Further details of legislation relating to the protection of particular ecological receptors are provided in the table below:

Ecological Constraint	Rationale
SACs (Special Area of Conservation), SPAs (Special Protection Areas) and Ramsars (Wetlands of International Importance)	Under the Conservation of Habitats and Species Regulations 2017 places a duty on the competent authority to maintain the favourable conservation status of designated SAC, SPA and Ramsar sites. Therefore, where it appears to the appropriate nature conservation body that a notice of a proposal relates to an operation which is, or forms, part of a plan or project which is likely to have a significant effect on a European site (either alone or in-combination with other plans or projects), and (b) is not directly connected with or necessary to the management of that site, it must make an appropriate assessment of the implications for that site in view of that site's conservation objectives. In the light of the conclusions of the assessment, it may give consent for the operation only after having ascertained that the plan or project will not adversely affect the integrity of the site.
European protected species (bats, otters, dormice, water voles, great crested newts)	It is an offence under the Conservation of Habitats and Species Regulations 2017 to deliberately kill or injure a European protected species, to destroy breeding/resting sites, or to deliberately disturb these species and affect their ability to survive, rear young, breed, or hibernate.
Nationally protected species (bats, water vole, otter)	It is an offence under the Wildlife and Countryside Act 1981 (as amended) to intentionally or recklessly disturb a species listed on Schedule 5 whilst it is in a place of shelter, or to obstruct access to a place for shelter.
Nationally protected species (reptiles)	It is an offence under the Wildlife and Countryside Act 1981 (as amended) to kill or injure common species of reptiles.
National conservation priority species (white-clawed crayfish, fish, common toad, reptiles, noctule, water vole, otter, hedgehog), i.e., UKBAPs	Section 41 of the NERC Act 2006 requires the Secretary of State to publish a list of species and habitats that are of principal importance for the conservation of biodiversity, and to take, and promote others to take, such steps to further the conservation of these habitats and species. These species and habitats will be considered by Planning Authorities in regard to the National Planning Policy Framework (Ministry of Housing, Communities & Local Government, 2021) to conserve and enhance the natural environment.
Badgers	It is an offence under the Protection of Badgers Act 1992 to damage or destroy a badger sett; obstruct any entrance of a badger sett; and disturb a badger whilst it is occupying a badger sett.

Ecological Constraint	Rationale
Wild mammals (rabbits, foxes, water vole, otter, hedgehog, badger)	It is an offence under the Wild Mammals (Protection) Act 1996 to inflict unnecessary suffering to any wild mammal with intent.
Nesting birds	It is an offence under the Wildlife and Countryside Act 1981 (as amended) to damage or destroy a bird's nest whilst it is in use, and to kill or injure a bird or destroy an egg.
Non-statutory designated sites (SNCI's, LWS, LNR's, etc.)	LNRs are designated under Section 21 of the National Parks and Access to the Countryside Act 1949, which was amended by the Natural Environment and Rural Communities Act 2006. The value for biodiversity of LNRs and LWSs are recognised, and the sites and surrounding buffers are protected by the Local Plan.
Biodiversity	Section 40 of the NERC Act 2006 states that each public authority "must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity." This legislation makes it clear that planning authorities should consider impacts to biodiversity when determining planning applications. Chapter 15 of the National Planning Policy Framework (Ministry of Housing, Communities & Local Government, 2021) states that the planning system and policies should minimise impacts on and provide net gains for biodiversity, and that, if significant harm to biodiversity would result from a development, then development should be avoided (through locating on alternative sites with less harmful impacts).
Irreplaceable habitats (ancient woodland, veteran trees, lowland meadows)	Chapter 15 of the National Planning Policy Framework (Ministry of Housing, Communities & Local Government, 2021) states that 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.
Biodiversity Net Gain	+10% Biodiversity Net Gain (BNG) for new developments will be mandatory under the Environment Act (2021), although this deadline will be extended to April 2024 for small sites and there are exemptions for development below a 25m2 threshold, and for householder applications and self-builds. BNG means that proposals must result in more and/or better-quality natural habitats than there were before development. This also requires that any proposed habitats within the scheme would be necessary to manage for at least 30 years, which would be sought through the provision of S106 legal agreements or conservation covenants.

Local Planning Policy

The Arun district council local plan (2018) sets out the planning policies for development in the district in relation to biodiversity. Those of potential relevance to this assessment are highlighted in the table below:

Policy Reference	Policy Text
Policy ENV SP1 Natural Environment	Arun District Council will encourage and promote the preservation, restoration and enhancement of biodiversity and the natural environment through the development process and particularly through policies for the protection of both designated and non-designated sites.Where possible it shall also promote the creation of new areas for habitats and species. In relation to designated sites, development will be permitted where it protects sites listed in Tables 17.1-17.7 that are recognised for the species and habitats contained within them.
Policy ENV DM1 Designated Sites of biodiversity or geological importance	a. Proposed development likely to have an adverse effect on land with the designated features of any Site of Biodiversity or Geological Importance as listed in Tables 17.1 - 17.7 or any subsequently designated sites (either individually or in combination with other developments), will not normally be permitted. Consideration will be given to the exact designated features present on the site, their scarcity/rarity and recognition of the protection offered by their existing status. Development on wildlife sites with the highest value will only be permitted exceptionally where the following can be demonstrated: i. There is no alternative solution (which shall be adequately demonstrated by the developer). ii. There are reasons of public health or public safety or iii. There are benefits of primary importance to the environment or iv. There are imperative reasons of overriding public interest. Notwithstanding the above however, the presumption in favour of sustainable development does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined. b. In determining any planning application affecting Sites of Biodiversity or Geological Importance the Council will ensure that the intrinsic natural features of particular interest are safeguarded or enhanced having regard to; i. The European, National or Local status and designation of the site; ii. The nature and quality of the site's features, including its rarity value; iii. The extent of any adverse impacts on the notified features of interest; iv. The need for compensatory measures in order to re-create remaining features of habitats on or off the site.

Policy Reference	Policy Text
	c. Where appropriate the Council will ensure the effective management of designated sites through the imposition of planning conditions or Section 106 agreements as appropriate.
Policy ENV DM3 Biodiversity Opportunity Areas	Development shall: a. a. Retain and sympathetically incorporate locally valued and important habitats, including wildlife corridors and stepping stones b. b. Be designed in order to minimise disturbance to habitats Development proposals that do not reasonably address opportunities for enhancing these through their design, layout and landscaping or access/management shall not be permitted. Where a development scheme would result result in a habitat loss, mitigation measures will be proposed as part of the proposed scheme and such measures agreed with the Local Planning Authority prior to the determination of any planning application. Within Biodiversity Opportunity Areas (BOAs) identified on the Policies Maps or where likely to have an impact on species or habitats within the BOAs, any application for planning permission shall include a properly conducted survey of the presence of that species and habitat and impact(s) that development may have on the BOA.
Policy ENV DM4 Protection of trees	Development will be permitted where it can be demonstrated that trees protected by a Tree Preservation Order(s), (TPO) identified as Ancient Woodland, in a Conservation Area or contributing to local amenity, will not be damaged or destroyed now and as they reach maturity, unless development: a. Would result in the removal of one or more trees in the interests of good arboricultural practice. This shall be demonstrated by the developer following the advice of a suitably qualified person which shall be guided by BS 5837 (2012). Details of any advice received having regard to BS 5837 (2012) shall be submitted, in writing, as part of a planning application; or b. Would enhance the survival and growth prospects of other protected trees; c. c. The benefits of the proposed development in a particular location outweigh the loss of trees or woodland, especially ancient woodland. Where planning permission is granted in any of the above instances, conditions shall be used to ensure that, for any trees which are removed as part of a development, at least an equivalent number of a similar species and age (where practical) are planted on the proposed development site. Sufficient space for replacement trees to mature without causing future nuisance or damage shall be provided. The planting of new trees shall form an integral part of the design of any development scheme. Proper provision must be made for the protection and management of trees or areas of woodland on-site when undertaking development. A management plan shall be provided as part of a planning application in accordance with BS 5837 (2012) in order to ensure that trees are adequately protected during development and appropriately maintained in the future. Conditions for the continued protection of trees on sites shall be included in any planning permission given. Where there are existing trees on or adjacent to a development site, developers shall be required to provide:

Policy Reference	Policy Text
	d. Land and tree surveys e. A tree constraints plan f. An arboricultural impact assessment to include a tree protection plan and arboricultural method statement These will ensure that development is planned to take a comprehensive view of tree issues at an early stage in the design process and that development works do not have a negative impact on existing trees.
Policy ENV DM5 Development and biodiversity	Development schemes shall, in the first instance, seek to achieve a net gain in biodiversity and protect existing habitats on site. They shall also however incorporate elements of biodiversity including green walls, roofs, bat and bird boxes as well as landscape features minimising adverse impacts on existing habitats (whether designated or not). Development schemes shall also be appropriately designed to facilitate the emergence of new habitats through the creation of links between habitat areas and open spaces. Together, these provide a network of green spaces which serve to reconnect isolated sites and facilitate species movement. Where there is evidence of a protected species on a proposed development site, planning applications shall include a detailed survey of the subject species, with details of measures to be incorporated into the development scheme to avoid loss of the species.This involves consideration of any impacts that will affect the species directly or indirectly, whether within the application site or in an area outside of the site, which may be indirectly affected by the proposals. All surveys shall be carried out at an appropriate time of year and shall be undertaken by a qualified and, where appropriate, suitably licensed person. All developments shall have regard to Natural England's standing advice for protected species.