



PRELIMINARY ECOLOGICAL APPRAISAL

Charwood House, Wilberforce Way, Southwater

On behalf of: Vail Williams LLP

Client:	Vail Williams LLP			
Project:	Charwood House, Wilberforce Way, Southwater			
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Validity:

This report is valid for 18 months from the date of the site visit. 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.



Table Of Contents

Summary	1
1.0 Introduction	3
2.0 Scope of The Assessment	4
3.0 Methodology	5
4.0 Results	12
5.0 Ecological Constraints and Recommendations	28
6.0 Opportunities For Ecological Enhancements	34
7.0 Conclusions	35
8.0 References	37

FIGURES

Figure No. 01 – Site Habitat Plan

APPENDICES

Appendix A – Planning Policy and Legislation



SUMMARY

Lizard Landscape Design and Ecology (LLDE) has been commissioned by Vail Williams LLP to undertake a Preliminary Ecological Appraisal (PEA) of the proposed development at Charwood House, Wilberforce Way, Southwater (located around central grid reference: *TQ 16087 27612* – hereafter referred to as ‘the site’). This report presents the results of an initial scoping survey which was undertaken on the 23rd of April 2026 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 c. 0.79ha site lies within an industrial estate on the northern edge of Southwater and comprises a commercial building, hardstanding, modified grassland, mixed scrub, individual trees and two tree groups. Habitats were generally of low ecological value, with the greatest interest associated with the trees, scrub and tree groups L01 and L02.

No internationally, nationally or locally designated sites are likely to be affected. Although the site falls within the Impact Risk Zone of St. Leonard’s Forest SSSI, the proposals do not trigger consultation with Natural England.

The site offers negligible suitability for amphibians, reptiles, dormice, roosting bats and notable invertebrates. Low suitability was identified for commuting and foraging bats and common mammals, while trees and scrub provide limited nesting opportunities for birds. No further protected species surveys are required, subject to standard precautionary measures.

A separate Biodiversity Net Gain assessment has been undertaken to quantify habitat impacts and demonstrate the required minimum 10% gain. Existing trees, tree group L01 and retained landscaping should be protected where practicable, with losses compensated through replacement planting and enhanced landscaping. Any shortfall should be addressed through off-site biodiversity units if necessary.

Overall, no significant ecological constraints have been identified, subject to appropriate design and mitigation.

Table No. 01 - Summary of Recommendations

Ecological Receptor	Recommendations	Time Constraint
Biodiversity Net Gain and habitats	Finalise the BNG assessment and landscape proposals to demonstrate the mandatory minimum 10% gain and compliance with applicable trading rules. Any residual shortfall should be addressed through registered off-site biodiversity units.	Design and planning stage
Individual trees and tree groups	Retain and protect existing individual trees and tree group L01 wherever practicable. Replace unavoidable tree losses with native or fruit- and seed-bearing species of wildlife value.	Prior to and during construction
Great crested newts and other amphibians	Register the development under an appropriate District Level Licensing scheme or implement a detailed Reasonable Avoidance Measures Strategy during site clearance and construction.	Prior to and during construction
Bats and lighting	No further bat surveys are required. Avoid lighting retained trees, mixed scrub and soft landscaping. Where lighting is necessary, reduce light spill onto these habitats to the lowest practicable level.	Detailed design stage
Nesting birds	Undertake vegetation clearance outside the main nesting bird season where practicable. Where clearance is required between March and August inclusive, undertake a nesting bird check immediately prior to works.	March to August inclusive
Protected species surveys	No further targeted surveys are required for amphibians, reptiles, bats, dormice, birds or notable invertebrates, subject to the precautionary measures outlined herein.	None
Ecological enhancements	Incorporate bird and bat boxes, native and fruit- or seed-bearing tree planting, flowering shrub or lawn planting and suitable invertebrate habitat features.	Detailed design stage

1.0 INTRODUCTION

- 1.1 Lizard Landscape Design and Ecology (LLDE) has been commissioned by Vail Williams LLP to undertake a Preliminary Ecological Appraisal (PEA) of proposed land at Charwood House, Wilberforce Way, Southwater (located around central grid reference: *TQ 16087 27612* – hereafter referred to as ‘the site’).
- 1.2 The purpose of this report is to establish the site’s suitability 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 c. 0.79ha and consists of a roughly square-shaped plot and is located within an existing industrial estate. The site itself comprises an existing commercial building with associated car parking, access roads and soft landscaped areas. The immediate surrounding area is characterised by further industrial and commercial buildings, offices and associated hardstanding. To the immediate east of the site lies an active construction site, comprising largely bare and disturbed ground. Further south lies the northern edge of Southwater, whilst fields are present to the west of the wider industrial estate. The site itself does not form part of any statutory or non-statutory ecological designation.

Surrounding Landscape

- 1.4 The site is located within a semi-rural setting on the northern edge of Southwater, c. 5.0km south of Horsham. The surrounding landscape is primarily urban and residential in character, associated with Southwater and the nearby road network, although areas of open space and agricultural land are present within the wider landscape. The site is located south of the roundabout connecting Worthing Road / B2237 with the A24. The site is relatively isolated from semi-natural habitats in the wider landscape by surrounding industrial development and active roads, including the A24 to the east, Worthing Road to the west and Southwater Street to the south.

Development Proposals

- 1.5 It is understood that the proposals are for amendments to the existing parking provision at the site, including an increase in the number of car parking spaces, primarily within the underground car park, with additional parking also proposed at surface level.

2.0 SCOPE OF THE ASSESSMENT

- 2.1 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 (EclA); and
 - Identify the opportunities offered by a project to deliver ecological enhancement.

3.0 METHODOLOGY

3.1 Desk Study

- 3.1.1 The Multi-Agency Geographical Information Centre (MAGIC) website 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.

- 3.1.2 Given the quantum of development proposed and broad low ecological value of the site and the surrounding area, a local biological records centre search has not been provided. This is an approach in line with current guidance (CIEEM, 2020).
- 3.1.3 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.

3.2 Field Survey

- 3.2.1 The field survey was undertaken on the 23rd of April 2026 by a Suitably Qualified Ecologist (William Brand, 2 years professional experience). Weather conditions were mild (c.17°C), with a low south-westerly wind (Beaufort Scale 1-2), 10% cloud cover.
- 3.2.2 The field survey comprised a walkover inspection of the site, immediately adjacent land and boundary 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 25m² / 5m length was used and habitats were identified to at least level 4 wherever practicable. Habitat categories were slightly amended to be consistent with those used as part of Biodiversity Net Gain calculations.
- 3.2.3 A list of plant species noted was compiled, together with an estimate of relative abundance made according to the DAFOR scale. In addition, Target Notes were used to provide supplementary information where necessary on any features encountered which were notable, relevant to the assessment or too small to map.

3.3 Evaluation of Ecological Features

- 3.3.1 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, 2024), this was assessed in 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.

- 3.3.2 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	<i>Great Crested Newt Conservation Handbook</i> (Langton <i>et al</i> , 2001) & <i>Evaluating the Suitability of Habitat for the Great Crested Newt</i> (Oldham <i>et al</i> , 2000)
Reptiles	<i>Herpetofauna Workers' Manual</i> (Gent and Gibson, 2003)
Bats	<i>Bat Surveys for Professional Ecologists: Good Practice Guidelines</i> (4 th edition) (Collins, 2023)
Dormice	<i>Hazel Dormice Mitigation Handbook</i> (Wells <i>et al.</i> , 2025).
Water Vole	<i>The Water Vole Mitigation Handbook</i> (Dean <i>et al</i> , 2016)
Birds	<i>Guidance for Bird Surveys in Relation to Development</i> (NE, 2022)
Invertebrates	<i>Considering Terrestrial Invertebrates in Preliminary Ecological Appraisals</i> (Jukes, 2021) and <i>Organising Surveys to Determine Site Quality for Invertebrates</i> (English Nature, 2005)

- 3.3.3 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.

3.4 Daytime Bat Walkover Survey

- 3.4.1 A Daytime Bat Walkover (DBW) survey was undertaken as part of the field survey assessment by the suitably experienced surveyor William Brand (accredited agent under 2023-11422-CL18-BAT).
- 3.4.2 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.

- 3.4.3 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.
- 3.4.4 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.

- 3.4.5 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.
- 3.4.6 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.

Potential Suitability	Description
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.

- 3.4.7 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.

3.5 Great Crested Newts – Habitat Suitability Assessment

- 3.5.1 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.
- 3.5.2 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.

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4.0 RESULTS

4.1 Desk Study

Pond Study

- 4.1.1 Ten ponds were identified within 500m of the site based on OS mapping, satellite imagery and observations made during the field survey. Where access was not possible, the ponds were assessed from publicly accessible land and available mapping. The ponds are summarised in Table No. 07 below.

Table No. 07 – EPSMLs within Potential Zone of Influence

Pond Ref.	Description / Notes	Distance and Direction from Site
P01	The pond was located within an active construction site and could not be directly accessed. From the available viewpoint, the pond appeared to have little or no immediately surrounding vegetation.	c. 30m west
P02	The pond could not be accessed or adequately viewed due to dense surrounding vegetation.	c. 15m south-west
P03	A large pond surrounded by residential properties. The pond was separated from the site by Southwater Street and several intervening residential buildings.	c. 150m south-east
P04	A pond associated with a drainage feature and surrounded by trees. The pond was inaccessible at the time of the survey.	c. 140m north
P05	A pond surrounded by trees. The pond was inaccessible at the time of the survey.	c. 200m north-east
P06	A pond connected to a drainage feature and situated within an urban area. The pond was separated from the site by Worthing Road and intervening residential development.	c. 340m north-west
P07	A pond situated within a copse. The pond was separated from the site by Worthing Road and several intervening residential properties.	c. 400m west-south-west

P08	The pond was separated from the site by the A24, which represents a significant barrier to amphibian movement.	c. 400m north-east
P09	The pond was separated from the site by several roads and intervening residential properties.	c. 460m south-west
P10	The pond was situated beyond several intervening residential buildings, which reduced connectivity with the site.	c. 360m north

Priority Habitats

- 4.1.2 In accordance with the MAGIC dataset, within a 2.0km search radii of the site there were UKBAP Priority Habitats (NERC, 2006) of Wood-pasture and Parkland, Traditional Orchards, Ancient and Semi-Natural Woodland, and Lowland Mixed Deciduous Woodland (much of which was ancient).

European Protected Species Mitigation Licence (EPSML) Search

- 4.1.3 In accordance with the MAGIC dataset, 21no. records for existing European Protected Species Mitigation Licences (EPSMLs) were identified within a 2.0km radius of the site. These are summarised in Table No. 08 below.

Table No. 08 – EPSMLs within Potential Zone of Influence

Date	Species	Licence Permission	Distance and Direction from Site
16/04/20	Great crested newt <i>Triturus cristatus</i>	Destruction of a resting site	c. 0.1km W
21/04/20	Dormouse <i>Muscardinus avellanarius</i>	Destruction of breeding and resting sites	c. 0.1km W
05/08/20	Great crested newt	Destruction of a resting site	c. 0.1km NE
11/09/20	Dormouse	Destruction of breeding and resting sites	c. 0.1km W
23/03/18	Dormouse	Destruction of a resting site	c. 0.2km W
21/06/18	Great crested newt	Destruction of a resting site	c. 0.2km W
17/04/19	Great crested newt	Destruction of a resting site	c. 0.2km W

Date	Species	Licence Permission	Distance and Direction from Site
22/11/13	Dormouse	Destruction of breeding and resting sites	c. 0.3km N
09/02/16	Brandt's bat <i>Myotis brandtii</i> , Common pipistrelle <i>Pipistrellus pipistrellus</i> Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	Destruction of breeding and resting sites	c. 0.3km N
28/04/15	Common pipistrelle and soprano pipistrelle	Destruction of a breeding site	c. 0.6km NE
24/10/12	Great crested newt	Destruction of a resting site	c. 0.9km NE
19/10/13	Dormouse	Destruction of breeding and resting sites	c. 0.9km NE
12/02/15	Great crested newt	Damage to a resting site	c. 0.9km NE
11/10/17	Brown long-eared bat <i>Plecotus auritus</i> and common pipistrelle	Destruction of a resting site	c. 1.0km NW
20/10/17	Great crested newt	Damage to a breeding site and destruction of a resting site	c. 1.1km N
15/11/17	Great crested newt	Damage to a breeding site and destruction of a resting site	c. 1.1km N
12/02/18	Great crested newt	Damage to a breeding site and destruction of a resting site	c. 1.1km N
15/11/13	Common pipistrelle and brown long-eared bat	Destruction of a resting site	c. 1.5km NW
01/04/15	Brown long-eared bat and common pipistrelle	Destruction of a resting site	c. 1.5km NW

Date	Species	Licence Permission	Distance and Direction from Site
02/04/15	Brown long-eared bat and common pipistrelle	Destruction of a resting site	c. 1.5km NW
15/05/15	Brown long-eared bat and common pipistrelle	Destruction of a resting site	c. 1.5km NW

Local Non-Statutory Designated Areas

- 4.1.4 No non-statutory designated areas were identified within 2.0km of the site.

Statutory Designated Sites

- 4.1.5 No Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites were identified within 10.0km of the site. No Local Nature Reserves (LNRs), National Nature Reserves (NNRs) or Sites of Special Scientific Interest (SSSIs) were identified within 2.0km of the site. The closest designated site was 4.8km to the north east.
- 4.1.6 The site is located within the Impact Risk Zone of St. Leonard's Forest SSSI but development proposals do not meet the criteria which would require the LPA to consult with Natural England regarding potential impacts.

4.2 Existing Habitat Assessment

Site Assessment

- 4.2.1 Habitats within and adjacent to the site include:
- Modified grassland;
 - Mixed scrub;
 - Developed land; sealed surface;
 - Individual trees; and
 - Tree groups.

Modified Grassland

- 4.2.2 Three parcels of modified grassland were present within the site (G1–G3), as shown on Figure No. 01 – Site Habitat Plan. The sward was generally short and managed, with areas of bare ground comprising up to c. 30–40% in places. The grassland was dominated by perennial ryegrass *Lolium perenne*, with frequent moss and common daisy *Bellis perennis*. Other species recorded included dandelion *Taraxacum officinale* agg., white clover *Trifolium repens*, crane's-bill *Geranium* sp. and selfheal *Prunella vulgaris*. Overall, the modified grassland was species-poor, regularly managed and of low ecological value. It was therefore assessed as being of **site** value only.



Photograph No's: 1 and 2 – Modified grassland parcels G1 and G3, including areas of short managed sward, scattered bare ground and associated individual trees / mixed scrub planting.

Mixed Scrub

- 4.2.3 Areas of mixed scrub were present within the site. Species recorded included leatherleaf mahonia *Mahonia bealei*, cotoneaster *Cotoneaster* sp., hazel *Corylus avellana*, wild cherry *Prunus avium*, blackthorn *Prunus spinosa*, goat willow *Salix caprea*, native dogwood *Cornus sanguinea*, hawthorn *Crataegus monogyna*, viburnum *Viburnum* sp. and ivy *Hedera helix*. Hawthorn, native dogwood and viburnum saplings were also present within the scrub, together with additional cherry and dogwood individuals. Although some ornamental and non-native species were present, the scrub supported a sufficient proportion of native woody species to be classified as mixed scrub. These areas were limited in extent and generally managed in character, although they provided some structural diversity and potential sheltering and foraging opportunities for common wildlife. The mixed scrub was assessed as being of **site** value.



Photograph Nos: 3 and 4 – Mixed scrub areas within the site, including scrub adjacent to G1 and the oak trees, and ornamental shrub planting near the site entrance.

Developed Land; Sealed Surface

- 4.2.4 The site included areas of developed land; sealed surface, comprising existing tarmac hardstanding, access roads, parking areas and the existing building. These areas were unvegetated and provided **negligible** ecological value.



Photograph Nos: 5 and 6 – Developed land; sealed surface within the site, including the southern car parking area, the existing building and the entrance to the underground car park.

Individual Trees

- 4.2.5 A total of 14 individual trees were recorded within the site. These comprised six English oak *Quercus robur*, two Corsican pine *Pinus nigra*, one Scots pine *Pinus sylvestris*, three wild cherry, one field maple *Acer campestre*, one field maple sapling and one native dogwood. The individual trees provided some limited ecological value, including potential nesting opportunities for common birds and foraging resources for invertebrates. However, they were predominantly isolated within areas of hardstanding and managed landscaping and did not support veteran characteristics or Potential Roosting Features suitable for bats. Overall, the individual trees were assessed as being of **site** value.



Photograph Nos: 7, 8 and 9 – Individual trees within the site, including established wild cherry trees, field maple and English oak.

Tree Groups

- 4.2.6 Two groups of planted trees were present within the site, referenced as L01 and L02 on Figure No. 01 – Site Habitat Plan. L01 comprised a group including mountain ash *Sorbus aucuparia*, Scots pine, hornbeam *Carpinus betulus* and whitebeam *Sorbus aria* agg. L02 comprised a group including wild cherry, hornbeam and English oak. Field maple, hazel, wild cherry and hornbeam saplings were also present adjacent to this group. The tree groups were generally managed in character and provided only limited structural connectivity within the site. They were not considered to qualify as priority hedgerow habitat. Overall, the tree groups were assessed as being of **site** value.
- 4.2.7 For the purposes of the Biodiversity Net Gain assessment, L01 and L02 have been treated as groups of individual urban trees rather than as hedgerow or other linear habitat, owing to their location within an urbanised and developed setting.



Photograph Nos: 10 and 11 – L01 and L02 respectively.

4.3 Invasive Species

- 4.3.1 No confirmed Schedule 9 invasive plant species were identified within the site at the time of the survey. *Cotoneaster* *Cotoneaster* sp. was recorded within areas of ornamental shrub planting; however, this was not identified to species level and therefore it could not be confirmed whether this comprised a species listed on Schedule 9 of the Wildlife and Countryside Act 1981. No other invasive or notable non-native plant species were recorded during the survey.

4.4 Protected and Notable Fauna - Likely Presence Assessment

Amphibians

Desk Study

- 4.4.1 The desk study returned records of amphibians from within the search area, including common frog *Rana temporaria*, common toad *Bufo bufo*, palmate newt *Lissotriton helveticus*, smooth newt *Lissotriton vulgaris* and great crested newt (GCN) *Triturus cristatus*. No records of GCN were located within the industrial estate, with the closest amphibian record comprising smooth newt, located c. 200m north of the site.

Site Assessment

- 4.4.2 No suitable amphibian breeding habitat was present within the site. Ten ponds were identified within 500m, several of which were located within 250m. However, the majority were inaccessible, subject to disturbance or surrounded by extensive areas of built development and other suboptimal terrestrial habitat. The closest ponds were located c. 15m south-west and c. 30m west of the site, although these were either screened by dense vegetation or situated within an active construction site with little surrounding vegetation.

- 4.4.3 The site was assessed as offering **negligible / very low** suitability for amphibians. No ponds, ditches or other aquatic habitats were present, and terrestrial habitat was restricted to short managed grassland, small areas of maintained scrub and isolated trees within extensive areas of hardstanding. No notable refuges, such as log piles, rubble piles, dense ground vegetation or other sheltered features, were identified. Connectivity with suitable habitats in the wider landscape was also poor due to the extent of intervening industrial and residential development, while the A24 represented a significant barrier to movement from habitats to the east. Amphibians, including GCN, are therefore considered unlikely to occur within the site; however, given the proximity of surrounding ponds, and known presence of great crested newt locally, their potential presence on site cannot be completely ruled out.

Reptiles

Desk Study

- 4.4.4 The desk study returned records for three species of reptile from within the search area, including grass snake *Natrix helvetica*, common lizard *Zootoca vivipara* and slow worm *Anguis fragilis*. The majority of records were located more than 1.5km from the site, with the closest record comprising common lizard located c. 200m north.

Site Assessment

- 4.4.5 The site was assessed as offering **negligible** suitability for reptiles. Habitats were dominated by developed land; sealed surface, short regularly managed grassland, ornamental planting and small isolated areas of scrub. The site lacked the varied vegetation structure and habitat mosaic required to provide suitable basking, foraging, refuge and hibernation opportunities. No rubble piles, log piles, compost heaps, tussocky grassland, extensive scrub margins or other suitable refuge features were identified. Reptiles are therefore considered highly unlikely to be present within the site.

Bats

Desk Study

- 4.4.6 The desk study returned records for several bat species from within the search area, including soprano pipistrelle *Pipistrellus pygmaeus*, common pipistrelle *Pipistrellus pipistrellus*, Nathusius' pipistrelle *Pipistrellus nathusii*, noctule *Nyctalus noctula* and brown long-eared bat *Plecotus auritus*. The closest record was for common pipistrelle, located c. 390m north-west of the site. The remaining records were dispersed throughout the wider search area and were not concentrated within the immediate vicinity of the site.

Daytime Bat Walkover - Trees

- 4.4.7 No trees within the site or immediately adjacent accessible habitats were assessed as offering suitability for roosting bats. No suitable cavities, cracks, splits, lifted bark or other Potential Roosting Features were identified during the ground-level assessment. A summary of these features is illustrated in the table below. The tree reference numbers are illustrated on *Figure No. 01 – Site Habitats Plan*.

Table No. 09 – Preliminary Bat Roost Assessment Results - Trees

Tree Ref	Description	Category
T01–T02	Two English oak trees situated within hawthorn planting. Ivy was present around the stems; however, no suitable cracks, cavities, lifted bark or other Potential Roosting Features were identified from ground level.	None
T03–T04	Two Corsican pine trees located near the site entrance. No suitable Potential Roosting Features were identified from ground level.	None
T05	Scots pine tree situated close to the building. No suitable Potential Roosting Features were identified from ground level.	None
T06–T08	Three multi-stemmed wild cherry trees situated at the corner of the site. No suitable Potential Roosting Features were identified from ground level.	None
T09	English oak tree adjoining the car park. No suitable Potential Roosting Features were identified from ground level.	None

T10	English oak tree situated at the edge of the car park. No suitable Potential Roosting Features were identified from ground level.	None
T11	Field maple tree situated near the site entrance. No suitable Potential Roosting Features were identified from ground level.	None
T12–T13	Two English oak trees adjoining the building. Both trees had previously been crown-reduced and ivy was present on the lower stem of T13; however, no suitable Potential Roosting Features were identified from ground level.	None
T14	One goat willow behind the fence of the southern carpark. No suitable Potential Roosting Features were identified from ground level.	None
L01	Group comprising mountain ash, Scots pine, hornbeam and whitebeam along the site frontage. No suitable Potential Roosting Features were identified from ground level.	None
L02	Group comprising wild cherry, hornbeam and English oak, with adjacent field maple, hazel, wild cherry and hornbeam saplings. No suitable Potential Roosting Features were identified from ground level.	None

- 4.4.8 The building (B1) within the site was assessed externally for its potential to support roosting bats. The building was modern in character and no suitable roosting features, such as lifted roof materials, gaps around soffits or bargeboards, raised flashing, crevices or other suitable ingress points, were identified. No internal inspection was undertaken, as no works are proposed to the building itself. Based on the external assessment and the lack of proposed impacts to the building, it was assessed as offering **negligible** suitability for roosting bats.



Photograph Nos: 12 and 13 – B1 north east aspect and southern aspect.

Winter Roosting Potential

- 4.4.9 Given the absence of suitable roosting features within the trees and buildings assessed, and the lack of classic or non-classic hibernation features, the site was assessed as offering **negligible** winter roosting potential for bats.

Foraging and Commuting Suitability

- 4.4.10 The habitats within the site were assessed as offering **low** suitability for commuting and foraging bats. The site comprised predominantly hardstanding, regularly managed grassland, maintained scrub and scattered trees, which may provide limited foraging opportunities for common and widespread bat species. However, no mature hedgerows, woodland edges, watercourses or other significant linear features likely to function as important commuting routes were present. The site is therefore unlikely to support an important assemblage of commuting or foraging bats.

Dormice

Desk Study

- 4.4.11 The desk study returned some records of dormouse *Muscardinus avellanarius* from within the search area. None of these records were located within the immediate vicinity of the site, with the closest comprising a number of records located c. 500m north-west of the site.

Site Assessment

- 4.4.12 The site was assessed as offering **negligible** suitability for dormice. Although the mixed scrub and tree groups contained some potential feeding species, including hazel, hawthorn, blackthorn, dogwood and goat willow, these habitats were limited in extent, regularly managed and lacked the structural complexity and continuous dense canopy typically required by dormice. The habitats were also isolated from substantial woodland, species-rich hedgerows and connected scrub networks in the wider landscape. The site is therefore highly unlikely to support dormice.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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Birds

Desk Study

- 4.4.16 The desk study returned numerous records for a wide range of bird species from within the search area. This included records for species associated with urban and suburban habitats, including house sparrow *Passer domesticus*, starling *Sturnus vulgaris* and swallow *Hirundo rustica*. Several of the species returned are listed on the Birds of Conservation Concern (BoCC) Red List (Stanbury et al., 2021), including house sparrow and starling. The closest bird record was for swallow, located c. 100m south of the site.

Site Assessment

- 4.4.17 The site was assessed as being of low value to birds. Habitats present included areas of hardstanding, regularly managed grassland, ornamental shrub planting and scattered trees, which may provide limited nesting and foraging opportunities for common and widespread species associated with urban and suburban environments. However, the site lacked extensive areas of dense scrub, mature hedgerow, woodland, wetland or other habitats likely to support a notable assemblage of breeding, wintering or migratory birds. The trees and shrubs within the site had some limited potential to support nesting birds during the breeding season. However, given the restricted extent and managed character of these habitats, the site is unlikely to be of more than **site-level** value for birds.

Invertebrates

Desk Study

- 4.4.18 The desk study returned many records for protected and notable invertebrates from within the search area. Notable species included brown hairstreak *Thecla betulae*, white ermine *Spilosoma lubricipeda*, blood-vein *Timandra comae*, rustic *Hoplodrina blanda* and small heath *Coenonympha pamphilus*. These records were associated with a range of habitat types within the wider landscape, including grassland, scrub, hedgerows and woodland edge habitats.

Site Assessment

- 4.4.19 The site was assessed as being of **low** value for invertebrates. Habitats present included hardstanding, regularly managed grassland, ornamental shrub planting and scattered trees, which may provide limited opportunities for common and widespread invertebrate species. However, the site lacked the range of semi-natural habitats, structural diversity, mature deadwood, species-rich grassland, bare ground mosaics or wetland features typically associated with notable invertebrate assemblages. Overall, the site is negligible to support a significant assemblage of protected or notable invertebrates.

5.0 ECOLOGICAL CONSTRAINTS AND RECOMMENDATIONS

5.1 Internationally Designated Sites

- 5.1.1 No Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites were identified within 10.0km of the site. Given the absence of internationally designated sites within the potential zone of influence, and the small-scale nature of the proposals within an existing developed site, no impacts upon internationally designated sites are anticipated.

5.2 Nationally and Locally Designated Sites

- 5.2.1 No Local Nature Reserves (LNRs), National Nature Reserves (NNRs), Sites of Special Scientific Interest (SSSIs) or non-statutory designated sites were identified within the relevant potential zones of influence of the site. The site is located within the Impact Risk Zone of St. Leonard's Forest SSSI; however, the proposed development does not meet the criteria which would require the Local Planning Authority to consult Natural England regarding potential impacts. No impacts upon nationally or locally designated sites are therefore anticipated.

5.3 On Site Habitats

- 5.3.1 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

- 5.3.2 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 current exemption and as such shall be subject to the standard biodiversity gain planning condition.

Evaluation and Recommendations

- 5.3.3 Overall, the habitats within the site were assessed as being of broad low ecological value and comprised predominantly developed land; sealed surface, modified grassland, mixed scrub, individual trees and two tree groups. The developed land; sealed surface provided negligible ecological value, while the modified grassland was species-poor and regularly managed. These habitats do not represent significant ecological constraints to development.
- 5.3.4 The greatest ecological interest within the site was associated with the individual trees, mixed scrub and tree groups L01 and L02, which provided limited structural diversity and potential nesting, sheltering and foraging opportunities for common and widespread wildlife. No priority habitats, ancient woodland, veteran trees, species-rich hedgerows or other irreplaceable habitats were identified within the site.
- 5.3.5 It is understood that proposals are likely to primarily impact areas of modified grassland and mixed scrub, in addition to a number of individual trees and group of trees habitat. This includes field maple, wild cherry, oak trees, Scots pine and group of trees L02. The loss of modified grassland and mixed scrub is likely to be capable of being offset through the provision of replacement and enhanced soft landscaping within the scheme. However, the loss of individual trees and line of trees habitat may require additional compensatory planting or habitat enhancement measures to ensure the scheme achieves the required level of Biodiversity Net Gain.
- 5.3.6 Where practicable, existing trees and groups of trees should be retained and protected during construction in accordance with an appropriate arboricultural method statement and tree protection plan in accordance with best practice (BSI, 2012). Where tree removal is unavoidable, replacement tree planting should be incorporated into the landscape design, using species of known value to wildlife, such as native or fruit / seed-bearing species. New planting should be designed to provide long-term habitat value and contribute towards the scheme's Biodiversity Net Gain requirements.

- 5.3.7 No confirmed Schedule 9 invasive plant species were identified within the site at the time of the survey. *Cotoneaster* *Cotoneaster* sp. was recorded within areas of ornamental shrub planting; however, this was not identified to species level and therefore could not be confirmed as a species listed on Schedule 9 of the Wildlife and Countryside Act 1981. Should cotoneaster require removal, it should be handled appropriately to avoid the accidental spread of any potentially invasive material.

5.4 Protected and Notable Species

- 5.4.1 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.

Great Crested Newts and Other Amphibians

- 5.4.2 Although the site itself was assessed as offering negligible / very low suitability for great crested newts and other amphibians, several ponds were identified within close proximity, and records of great crested newt mitigation licences were returned from within 250m of the site. Their occasional presence within areas of terrestrial habitat cannot therefore be entirely excluded.
- 5.4.3 Prior to the commencement of works, the development should either be registered under an appropriate District Level Licensing scheme for great crested newts, where available and applicable, or be undertaken in accordance with a detailed precautionary Reasonable Avoidance Measures Strategy prepared by a suitably qualified ecologist.
- 5.4.4 Where works proceed under Reasonable Avoidance Measures, the following measures should be implemented:
- Construction materials, plant and spoil should be stored on existing hardstanding and positioned away from retained vegetation;

- Grassland within the construction area should be maintained as a short sward to discourage amphibians from entering the working area;
- Any scrub requiring removal should be cleared using a phased approach, with vegetation initially reduced to approximately 150mm above ground level before being reduced to ground level following a suitable interval;
- Scrub clearance should be undertaken outside the amphibian hibernation period wherever practicable;
- Vegetation clearance should proceed directionally towards retained suitable habitat, allowing any amphibians present to disperse away from the working area;
- Trenches, excavations and footings left open overnight should be securely covered or provided with a suitable means of escape;
- Open excavations should be checked each morning before works recommence;
- Open pipework should be capped when unattended; and
- Site personnel should be briefed on the potential presence of great crested newts and the measures to be followed if one is encountered.

5.4.5 If a great crested newt is encountered during works, activities within the immediate area should cease and the animal should not be handled unless by an appropriately licensed ecologist. Advice should be sought from a suitably qualified ecologist before works recommence.

Reptiles

5.4.6 The protected species assessment identified that the site offered negligible suitability for reptiles. Reptiles are therefore considered highly unlikely to be present, and no further reptile surveys or species-specific mitigation measures are required. Should a reptile nevertheless be encountered during works, works within the immediate area should temporarily cease and a suitably qualified ecologist should be contacted for advice.

Bats

5.4.7 No Potential Roosting Features were identified within the individual trees or tree groups during the ground-level assessment. Building B1 was modern in character and did not support suitable roosting features or potential ingress points. Furthermore, no works are proposed to B1. The trees and building were therefore assessed as offering negligible suitability for roosting bats, and no further bat roost surveys are required.

5.4.8 The site was assessed as offering low suitability for commuting and foraging bats. The limited areas of grassland, mixed scrub and tree planting may provide some foraging opportunities for common and widespread species; however, the site did not support mature hedgerows, woodland edges, watercourses or other significant linear features likely to function as important commuting routes. Given the limited extent and managed character of the habitats present, no bat activity surveys are required.

5.4.9 Any new external lighting should be designed in accordance with current best-practice guidance (BCT & ILP, 2023). Lighting of retained trees, tree group L01, mixed scrub and other soft landscaped areas should be avoided. Where lighting is necessary, luminaires should be directional and positioned to prevent upward light and reduce light spill onto retained habitats to the lowest practicable level. Consideration should also be given to the use of low-level, warm-spectrum lighting and timers or motion sensors where appropriate.

5.4.10

[REDACTED]

5.4.11

[REDACTED]

5.4.12 Areas of mixed scrub, grassland and tree planting may provide limited opportunities for hedgehogs and other common mammals. Vegetation clearance should therefore be undertaken carefully, with dense vegetation, accumulated cuttings and other potential refuges checked before removal. Where clearance is undertaken using mechanical equipment, vegetation should initially be reduced in a controlled manner to allow any animals present an opportunity to move away from the working area.

- 5.4.12 If a hedgehog [REDACTED] or other mammal is encountered during works, works within the immediate area should temporarily cease and the animal should be allowed to move away without harm. Where an animal is injured, trapped or otherwise unable to leave safely, advice should be sought from a suitably qualified ecologist.

Birds

- 5.4.13 Individual trees, mixed scrub and tree groups within the site provide suitable nesting habitat for common and widespread bird species. No further breeding bird surveys are required due to the restricted extent and managed character of these habitats.
- 5.4.14 Where practicable, the removal of trees, scrub or other suitable nesting habitat should be undertaken outside the main nesting bird season, which generally runs from March to August inclusive. Where clearance during this period cannot be avoided, the affected vegetation should be inspected by a suitably qualified ecologist immediately prior to works.
- 5.4.15 Where an active nest is identified, an appropriate exclusion zone should be established around the nest and retained until the young have fledged and the nest is no longer in use. The extent of the exclusion zone should be determined by the ecologist, taking into account the species present, the location of the nest and the nature of the proposed works.

Invertebrates

- 5.4.16 The protected species assessment identified that the site offered low suitability for notable invertebrates. Habitats within the site were dominated by hardstanding, regularly managed grassland, ornamental planting, scattered trees and short lines of trees, and lacked the structural diversity, species-rich grassland, mature deadwood, wetland features or varied microhabitats typically associated with notable invertebrate assemblages. No further invertebrate surveys are required. Opportunities to provide habitat for common invertebrates should be incorporated into the landscape design where practicable, such as native flowering shrub planting, log piles or insect boxes.

6.0 OPPORTUNITIES FOR ECOLOGICAL ENHANCEMENTS

6.1 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, 2024) and local planning policy guidance. Opportunities for ecological enhancements which could be incorporated into the scheme design are provided below:

- Installation of bird boxes on suitable retained mature trees, targeted towards common urban and suburban species;
- Installation of bat boxes on suitable retained mature trees, located away from areas subject to high levels of artificial lighting;
- Planting of native and fruit / seed-bearing tree species, such as cherry, rowan, birch, hawthorn and crab apple, to provide foraging resources for birds and invertebrates;
- Enhancement of retained scrub and soft landscaped areas through the planting of native flowering shrub species of value to pollinating insects; and
- Installation of invertebrate boxes, log piles or similar habitat features within retained or newly created soft landscaping, particularly adjacent to scrub and tree planting.

7.0 CONCLUSIONS

- 7.1 The site covers an area of c. 0.79ha and is located within an existing industrial estate on the northern edge of Southwater, c. 5.0km south of Horsham. The site comprises an existing commercial building with associated hardstanding, parking areas, modified grassland, mixed scrub, individual trees and two tree groups. The surrounding area is characterised predominantly by industrial, commercial and residential development, with agricultural land present beyond the wider industrial estate.
- 7.2 The habitats within the site were assessed as being of broad low ecological value. The greatest ecological interest was associated with the individual trees, mixed scrub and tree groups L01 and L02, which provided limited nesting, sheltering and foraging opportunities for common and widespread wildlife. No priority habitats, ancient woodland, veteran trees, species-rich hedgerows or other irreplaceable habitats were identified.
- 7.3 The proposals would result in the loss of areas of modified grassland, mixed scrub and individual urban tree habitat, including tree group L02. Retained individual trees, tree group L01 and remaining soft landscaping should be protected throughout construction. Unavoidable habitat losses should be compensated for through replacement tree planting and the creation or enhancement of suitable soft landscaping as part of the scheme's Biodiversity Net Gain strategy.
- 7.4 The site was assessed as offering negligible suitability for reptiles, dormice, roosting bats and protected or notable invertebrates. Low suitability was identified for commuting and foraging bats [REDACTED] and other common mammals, while trees and scrub provided limited nesting opportunities for common birds. Low suitability was also identified for amphibians; however, precautionary measures or registration under an appropriate District Level Licensing scheme will be required due to the proximity of ponds and local great crested newt records. No further targeted protected species surveys are required. However, precautionary measures relating to external lighting, nesting birds and terrestrial mammals should be implemented during the detailed design and construction stages.

- 7.5 No internationally, nationally or locally designated sites were identified within the relevant potential zones of influence of the site which are likely to be impacted by the proposals. The site is located within the Impact Risk Zone of St. Leonard's Forest SSSI; however, the proposed development does not meet the criteria which would require the Local Planning Authority to consult Natural England. Therefore, no further assessment in regard to the Habitat Regulations (2017), or site-specific mitigation for designated sites, is required.
- 7.6 Opportunities for ecological enhancement have been provided to allow the ecological value of the site to be maximised. These include the installation of bird and bat boxes on suitable retained mature trees, native and fruit / seed-bearing tree planting, enhancement of retained scrub and soft landscaping with native flowering species, and the provision of invertebrate boxes, log piles or similar habitat features to try to ensure the layout of the scheme would comply with the +10% mandate in the *Environment Act (2021)*.
- 7.7 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.

8.0 REFERENCES

BCT & ILP. (2023). *Guidance Note 08/23. Bats and artificial lighting at Night. Bats and the Built Environment series*. Institution of Lighting Professionals Regent House, Regent Place, Rugby, Warwickshire.

BSI. (2012). *BS 5837:2012 Trees in relation to design, demolition and construction: Recommendations*. London: BSI - British Standards Institution.

BSI. (2013). *BS 42020:2013 Biodiversity – Code of practice for planning and development*. London: BSI - British Standards Institution.

CIEEM. (2017). *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM. (2020). *Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition*. Chartered Institute of Ecology and Environmental Management. Winchester.

CIEEM. (2024). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. version 1.3*. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins., J. (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition.)* The Bat Conservation Trust, London. ISBN-978-1-7395126-0-6.

Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016). *The Water Vole Mitigation Handbook* (The Mammal Society Mitigation Guidance Series). Eds Fiona Mathews and Paul Chanin. The Mammal Society, London.

DEFRA (2025)., *Multi-Agency Geographic Information for the Countryside (MAGIC). Interactive Map. [online]*. Available at <https://www.magic.gov.uk/>

Department for Levelling Up, Housing & Communities. (2024). *National Planning Policy Framework*. December 2024. Fry Building, 2 Marsham Street, London.

English Nature. (2001). *Great Crested Newt Mitigation Guidelines*. Peterborough.

Gent, T., & Gibson, S. (2003). *Herpetofauna Workers' Manual*. Joint Nature Conservation Committee. Monkstone House, City Road, Peterborough, Cambs, PE1 1JY.

Harris, S., Cresswell, P. and Jefferies, D. (1989). *Surveying Badgers*. An occasional publication of the mammal society – No. 9. Baltic Exchange Buildings, 21 Bury St, London, EC3 5AU.

Jukes, A. (2021). *Considering Terrestrial Invertebrates in Preliminary Ecological Appraisals*. In Practice. 40-45, Issue 111. CIEEM.

Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001). *Great Crested Newt Conservation Handbook*. Froglife, Halesworth.

NE. (2022) *Guidance. Wild Birds: Advice for making planning decisions*. Published by Natural England, 14th January 2022. Available online: <https://www.gov.uk/guidance/wild-birds-advice-for-making-planning-decisions#survey-methods>.

NE. (2023). *The Statutory Biodiversity Metric – Technical Annex 1: Condition Assessment Sheets and Methodology*. Natural England. Available online: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>.

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, 143–155.

Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. (2021). *The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain*. British Birds 114: 723-747. Available online: <https://britishbirds.co.uk/content/status-our-bird-populations>.

UKHabs Ltd. (2023). *UK Habitat Classification Version 2.0*. Available online:
<https://ukhabs.org>.

Wells, D., Chanin, P., and Gulbert, L. (2025). *Hazel Dormouse Mitigation Handbook*. The Mammal Society. ISBN: 978-1-0687982-2-1.

Table No. 10 – Species List for Habitat Parcels**Modified Grassland**

Common Name	Scientific Name	DAFOR
Common daisy	<i>Bellis perennis</i>	A
Dandelion	<i>Taraxacum officinale</i> agg.	F
Perennial rye-grass	<i>Lolium perenne</i>	D
Moss	<i>Bryophyte</i> spp.	A
White clover	<i>Trifolium repens</i>	F
Crane's-bill sp.	<i>Geranium</i> sp.	A
Selfheal	<i>Prunella vulgaris</i>	O

Mixed Scrub

Common Name	Scientific Name	DAFOR
Leatherleaf mahonia	<i>Mahonia bealei</i>	O
Wild cherry	<i>Prunus avium</i>	O
Cotoneaster	<i>Cotoneaster</i> sp.	O
Hazel	<i>Corylus avellana</i>	F
Blackthorn	<i>Prunus spinosa</i>	O
Goat willow	<i>Salix caprea</i>	O
Native dogwood	<i>Cornus sanguinea</i>	F
Ivy	<i>Hedera helix</i>	O

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

Appendix A – 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, 2024) 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.

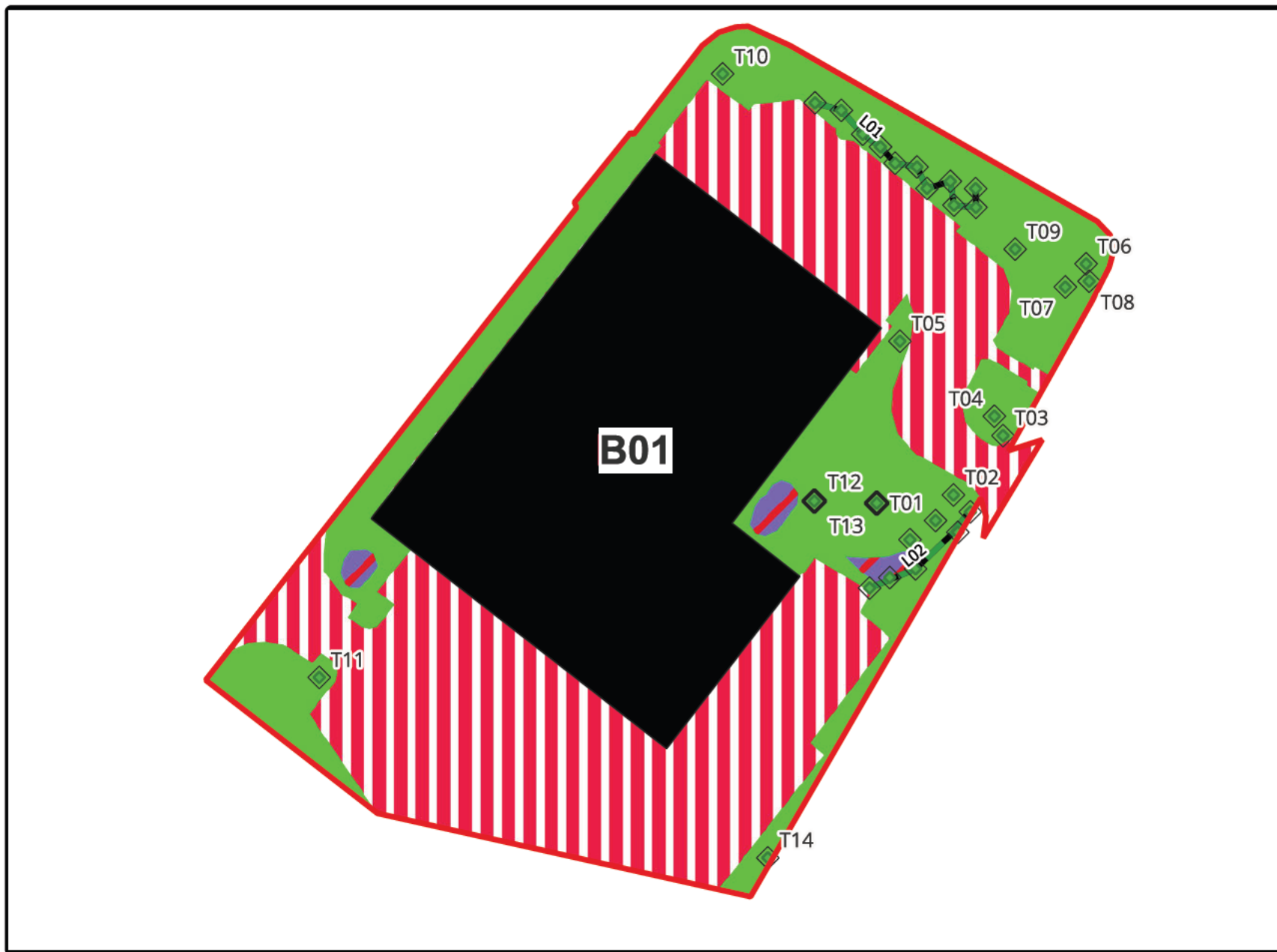
Ecological Constraint	Rationale
Wild mammals (rabbits, foxes, water vole, otter, hedgehog, badger)	It is an offence under the Wild Mammals (Protection) Act 1996 to inflict unnecessary suffering to any wild mammal with intent.
Nesting birds	It is an offence under the Wildlife and Countryside Act 1981 (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, 2024) 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, 2024) 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 is mandatory under the Environment Act (2021). There are exemptions for development below a 25m ² 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 Horsham District Planning Framework (Horsham District Council, 2015) 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 2 – Strategic Policy: Strategic Development	To maintain the district's unique rural character whilst ensuring that the needs of the community are met through sustainable growth and suitable access to services and local employment, the spatial strategy to 2031 is to: 12. Retain and enhance natural environmental resources, including landscapes and landscape character, biodiversity, and retaining and enhancing environmental quality including air, minimises energy and resource use and provides flood mitigation.
Policy 25 – Strategic Policy: The Natural Environment and Landscape Character	The Natural Environment and landscape character of the District, including the landscape, landform and development pattern, together with protected landscapes and habitats will be protected against inappropriate development. The Council will support development proposals which: 1. Protects, conserves and enhances the landscape and townscape character, taking into account areas identified as being of landscape importance, the individual settlement characteristics, and maintains settlement separation. 2. Maintain and enhances the Green Infrastructure Network and addresses any identified deficiencies in the District. 3. Maintains and enhances the existing network of geological sites and biodiversity, including safeguarding existing designated sites and species, and ensures no net loss of wider biodiversity and provides net gains in biodiversity where possible. 4. Conserve and where possible enhance the setting of the South Downs National Park.
Policy 31 – Green Infrastructure and Biodiversity	1. Development will be supported where it can demonstrate that it maintains or enhances the existing network of green infrastructure. Proposals that would result in the loss of existing green infrastructure will be resisted unless it can be demonstrated that new opportunities will be provided that mitigates or compensates for this loss, and ensures that the ecosystem services of the area are retained. 2. Development proposals will be required to contribute to the enhancement of existing biodiversity, and should create and manage new habitats where appropriate. The Council will support new development which retains and/or enhances significant features of nature conservation on development sites. The Council will also support development which makes a positive contribution to biodiversity through the creation of green spaces, and linkages between habitats to create local and regional ecological networks. 3. Where felling of protected trees is necessary, replacement planting with a suitable species will be required. 4. a) Particular consideration will be given to the hierarchy of sites and habitats in the district as follows: i. Special Protection Area (SPA) and Special Areas of Conservation (SAC) ii. Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs) iii. Sites of Nature Conservation Importance (SNCIs), Local Nature Reserves (LNRs) and any areas of Ancient woodland, local geodiversity or other irreplaceable habitats not already identified in i & ii above.

Policy Reference	Policy Text
	b) Where development is anticipated to have a direct or indirect adverse impact on sites or features for biodiversity, development will be refused unless it can be demonstrated that: i. The reason for the development clearly outweighs the need to protect the value of the site; and, ii. That appropriate mitigation and compensation measures are provided. 5. Any development with the potential to impact Arun Valley SPA or the Mens SAC will be subject to a HRA to determine the need for an Appropriate Assessment. In addition, development will be required to be in accordance with the necessary mitigation measures for development set out in the HRA of this plan.



Legend

- Red Line Boundary
- Existing Large Urban Tree
- Existing Medium Urban Tree
- Existing Small Urban Tree
- Line of trees
- Developed land; sealed surface
- Mixed scrub
- Modified grassland



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Client

Vail Williams LLP

Project Title & Location

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Wilberforce Way,
Southwater

Drawn by	Approved by	Rev	Date
WB	CO	00	09/07/26

Figure No. 01 - Site Habitat Plan

25 50 m

N
1:800