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Little Fairseat, Georges Lane, Storrington, West Sussex

Preliminary Ecological Appraisal Report

April 2026

Little Fairseat, Georges Lane, Storrington, West Sussex

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Client:	Life Size Architecture	
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Abbreviations

CEZ	Construction Exclusion Zone
CHS	Conservation of Habitats and Species Regulations 2017 (as amended)
DRV	Designated Road Verge
GCN	Great crested newt
HPI	Habitat of Principal Importance
HSI	Habitat Suitability Index
LWS	Local Wildlife Site
NERC	Natural Environment and Rural Communities Act 2006
NPPF	National Planning Policy Framework
PEA	Preliminary Ecological Appraisal
PCR	Polymerase Chain Reaction
PRF	Potential (bat) Roost Feature
SxBRC	Sussex Biological Records Centre
TN	Target Note
UKHab	UK Habitat Classification
WCA	Wildlife & Countryside Act 1981 (as amended)

0 Executive Summary

0.1 Introduction

- 0.1.1 A Preliminary Ecological Appraisal was undertaken for the site of a proposed residential redevelopment at Little Fairseat, Georges Lane, Storrington, West Sussex. The report was prepared to inform the design process for the proposal, record the ecological baseline and identify key ecological features within and around the Application Site.

0.2 Results

- 0.2.1 There is one nationally designated site within the 1km desk study search area, a National Park, together with one non-statutory Local Wildlife Site and a Designated Road Verge of Ecological Importance. There are records of a range of protected or notable species in the locality, including amphibians, birds, invertebrates, terrestrial mammals, flowering plants and terrestrial reptiles, together with six Priority Habitats: Traditional Orchard, Lowland Heathland, Wood-pasture and Parkland, Open Water, Deciduous Woodland, and Ancient Woodland.
- 0.2.2 The survey area lies to the east of the town of Storrington in the Horsham district of West Sussex. The survey area comprises c.0.23ha (c.2,318m²) of previously developed land, currently dominated by buildings and hardstanding, modified grassland, and introduced shrub, with other mixed woodland, other Scot's pine woodland, mixed scrub, individual trees, bare ground, and hedgerows. The wider landscape is characterised by residential property, large blocks of woodland, pasture land with a network of drainage ditches and hedgerows, and the settlement of Storrington and Heath Common. A former pond lies within the survey area, one pond is within 250m of the survey area, and three further ponds lie within 500m of the survey area.

0.3 Evaluation

- 0.3.1 Table 0.1 presents a summary of ecological constraints and opportunities identified within the survey area.

Table 0.1: Summary of ecological constraints and opportunities

Feature	Detail
<u>Constraints:</u>	
Designated sites	None of the nationally or locally designated sites within the desk-study search zone are likely to be affected by the Proposed Development, considering the size and scale of the proposal and its distance from the designated sites.
Other habitats	The Proposed Development would result in permanent losses of up to c.526.04m ² of modified grassland, introduced shrub and bare ground, depending on the extent and layout of the proposals. These areas are mostly of relatively low ecological value,

Feature	Detail
	however, the woodland should be retained where possible due to its function of providing connectivity in the local landscape.
Great crested newt	Possible permanent loss of suitable terrestrial habitats (woodland, brash/compost piles).
Birds (nesting)	Possible permanent loss of nesting habitats (introduced shrub, woodland, buildings).
Bats (roosting)	Building B1 was assessed as having moderate suitability to support roosting bats and building OB2 was assessed as having low suitability to support roosting bats. Presence/absence surveys for roosting bats within buildings have been undertaken and are reported separately; no roosting bats were recorded. Trees T1, T2 and T3 contained features suitable for roosting bats (e.g. woodpecker holes, lifted bark, dense ivy clad). It is currently anticipated these trees will be retained as part of the proposed development.
Hazel dormouse	Limited loss of nesting and commuting habitat.
Invasive non-native plants	One non-native invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) was recorded in the survey area, rhododendron.
Reptiles	Possible permanent losses of suitable habitats (woodland, brash/compost piles).
<u>Opportunities:</u>	
Habitat creation	Habitat creation and enhancement opportunities include woodland management including removal of invasive species,, and bird/bat boxes.

0.4 Recommendations

- 0.4.1 Recommendations are made for further botanical or protected species surveys, together with preliminary recommendations for the protection of important ecological features to avoid or mitigate ecological impacts, and to enhance the ecology of the survey area post-construction; these are summarised in Table 0.2. It is intended that these recommendations should be considered during future changes to the design of development proposals so that protection of important ecological features is secured and opportunities for ecological enhancement are realised. The recommendations should be reviewed following the completion of further ecological surveys.

Table 0.2: Summary of recommendations

#	Summary of recommendations
<i>Botanical / protected species surveys</i>	
R1	Updated presence/absence surveys for roosting bats within buildings B1 & OB2 undertaken between May and August 2026.
R2	Aerial inspections for roosting bats within tree T1, if affected by the Proposed Development, undertaken between May and August. It is currently understood that this tree will be unaffected by the proposals.

#	Summary of recommendations
Precautionary measures	
R3	Vegetation clearance works will be undertaken during the GCN active season (March to October) and in accordance with a Non-Licensed Method Statement to reduce the risk of killing/injury to GCN.
R4	Removal of nesting bird habitats (including vegetation and buildings) will be undertaken outside of the bird nesting season, which runs from 1 March to 31 August. It will therefore be carried out between September and February, but should be planned and implemented in accordance with the findings of the further ecological surveys recommended above.
R5	If works to fell or lop the PRF-I suitability trees (T2 and T3) are required, they will be undertaken during March-April or September-October to avoid critical maternity and hibernation periods, and in accordance with a Non-Licensed Method Statement to reduce the risk of killing/injury to roosting bats. Any works to fell or lop any trees classified as PRF-I should be compensated for with bat boxes.
R6	Due to the survey area exhibiting connectivity to a large woodland to the north which contains several dormouse records, pre-construction site clearance works to any woodland on site should be undertaken in accordance with a Non-Licensed Method Statement to reduce the risk of killing/injury to hazel dormouse.
R7	If areas of woodland, brash piles (TN4) and compost heaps (TN5) are to be removed to facilitate the works, this should be carried out avoiding the reptile hibernation season as well as the egg laying season for grass snakes (therefore should be undertaken broadly in March-May inclusive).
Ecological protection measures	
R8	Any areas of deadwood habitat found during initial site preparation will be retained and repositioned in the woodland to the south and east, outside of the developable area.
R9	Standard site procedures to prevent impacts on trees will be adhered to during construction.
R10	A method statement will be prepared to ensure adequate control measures are adopted to prevent the spread of invasive rhododendron during construction.
R11	The use of external lighting will be avoided or minimised to prevent impacts to nocturnal species. Lighting should not be directed towards retained woodland or hedgerows.
R12	At the end of each working day excavations will be covered over and open pipework capped to prevent entrapment of mammals, amphibians and other fauna.
Ecological enhancement	
R13	Retained habitats including woodland and grassland will be enhanced through active management to improve structure and native species composition including the removal of rhododendron.
R14	The site's landscaping plans will utilise plant species which encourage bats by providing additional food sources or roosting opportunities.
R15	The value of the survey area for birds will be enhanced by installing a range of artificial nest boxes in new buildings and on retained trees.
R16	The value of the survey area for bats will be enhanced by installing a range of artificial roost boxes onto new buildings and retained trees.

0.5 Conclusions

- 0.5.1 The majority of the survey area is of low/moderate ecological value. Constraints to development were identified including the potential presence of great crested newt, nesting birds, roosting bats, hazel dormouse, and reptiles. Further ecological surveys and impact assessment were carried out to determine the value of the site for these species and to formulate a suitable mitigation strategy. Updated surveys are now recommended for roosting bats.

1 Introduction

1.1 Purpose of this Report

- 1.1.1 This report presents a Preliminary Ecological Appraisal (PEA) for the site of a proposed residential redevelopment at Georges Lane, Storrington, West Sussex (Grid Reference: TQ 11288 14481). The report has been prepared to inform the design process for the proposal, record the ecological baseline and identify key ecological features within and around the Application Site.

1.2 Objectives and Approach of the Study

- 1.2.1 The objectives of the PEA were to:
- ▶ Identify features present on or adjacent to the Application Site which are ecologically significant and which may act as constraints or opportunities to the Proposed Development;
 - ▶ Consider the need for further ecological surveys which may be necessary; and
 - ▶ Make preliminary recommendations for the protection of important ecological features, to avoid or mitigate ecological impacts, and to enhance the Application Site for wildlife following construction.
- 1.2.2 The approach to establishing the ecological baseline found within this report has been achieved through:
- ▶ A desk study involving a review of statutory and non-statutory nature conservation sites, and records of habitats and species from the local area;
 - ▶ A UK Habitat Classification (UKHab) survey identifying the main habitats on and adjacent to the Application Site, and the presence of, or potential for, protected and/or notable species; and
 - ▶ A PEA of the effects of development proposals with respect to the nature conservation value of the site.

1.3 Survey Area

- 1.3.1 The Application Site boundary is expected to be the same as the survey area boundary.
- 1.3.2 The survey area lies to the east of the town of Storrington in the Horsham district of West Sussex. The survey area comprises c.0.23ha (c.2,318m²) of previously developed land, currently dominated by buildings and hardstanding, modified grassland, and introduced shrub, with other mixed woodland, other Scot's pine woodland, mixed scrub, individual trees, bare ground, and hedgerows.

- 1.3.3 The survey area is bounded to the north, east and west by residential property with gardens and to the south by woodland. The extent of the survey area is outlined in red on Figure 1.1.
- 1.3.4 The wider landscape is characterised by residential property, and large blocks of woodland with pasture land with a network of drainage ditches and hedgerows, and the settlement of Storrington and Heath Common. One former pond lies within the survey area, one is within 250m of the survey area, and three further ponds lie within 500m of the survey area. The pond plan is included at Appendix II.

1.4 Proposed Construction Activities

- 1.4.1 Planning consent is being sought to demolish the existing buildings and to erect one dwelling, together with a garage, parking, access, landscaping and associated facilities. Figure 1.2 illustrates the proposed site layout.

Georges Lane, Storrington, West Sussex

 Survey area

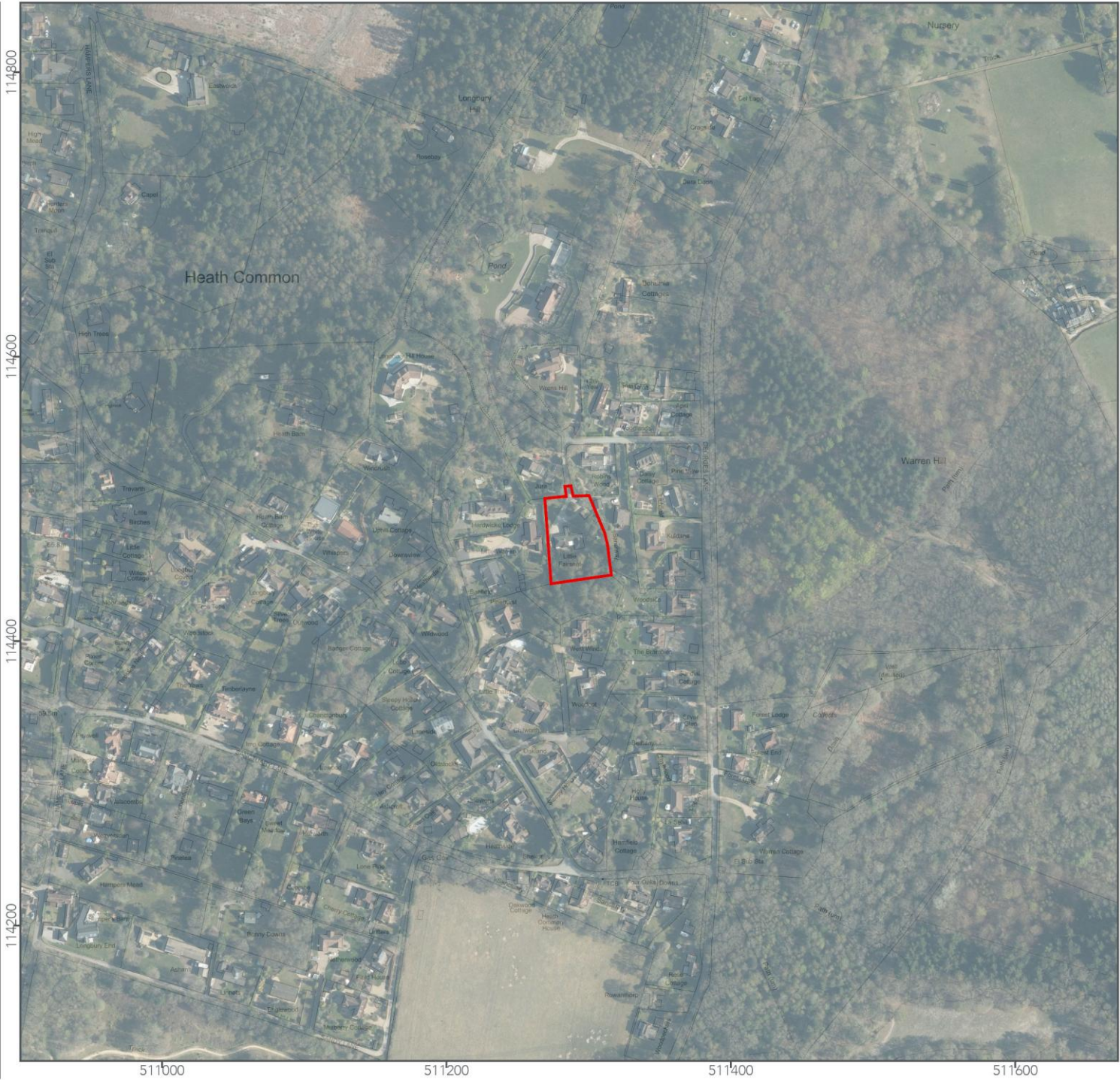
Figure 1.1: Survey area



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Ordnance Survey 0100031673

Scale (at A4): 1:4,000 Created by: EM
Date: Jul 2024 Reviewed by: NP
Drawing number:

UE0690ECO-GeorgesLaneStorrington:Site location



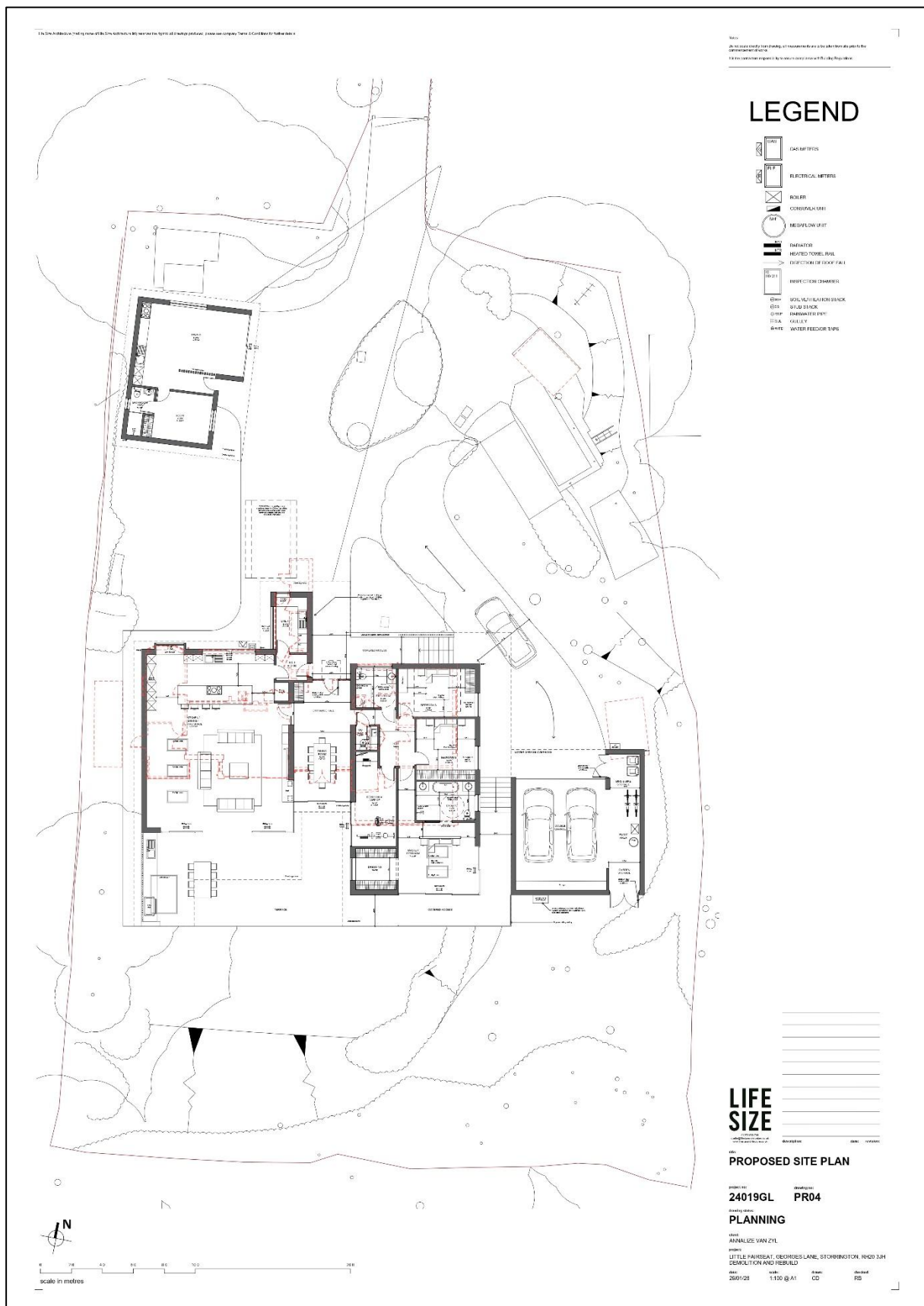


Figure 1.2: Proposed site plan

2 Survey Methodology

2.1 Desk Study

- 2.1.1 A desk-based study was undertaken to examine published information and biological records from within the search area (survey area centroid plus 5km for internationally designated sites, 2km for bats, and 1km for all other data). The desk study established the presence of designated sites of nature conservation interest, or records of protected/notable habitats/species within and surrounding the survey area. This information was collected from the following sources:
- ▶ The 'MAGIC' (Multi-agency Geographic Information for the Countryside) website: www.magic.gov.uk; and
 - ▶ Sussex Biological Records Centre (SxBRC).

2.2 Preliminary Ecological Appraisal

- 2.2.1 The PEA (compliant to British Standard BS42020:2013) is based on a survey of the site undertaken on 19 July 2024 by an experienced ecologist and an assistant ecologist. Weather conditions were warm (c.24°C) and dry with no wind or cloud cover.
- 2.2.2 An update survey was undertaken on the 24 February 2026 by an experienced ecologist. Weather conditions during the survey were mild (13°C) and dry with light air (Beaufort Scale 1), 50% cloud cover and no precipitation.
- 2.2.3 Within the survey area every parcel of land was classified, recorded and mapped using standard colour codes, in accordance with the habitat types specified within the methodology for UKHab survey (UKHab Ltd, 2023). This allows rapid visual assessment of the extent and distribution of different habitat types. The UKHab System comprises a five-level Primary Habitat Hierarchy and a list of Secondary Codes. Each recorded habitat parcel is allocated a single Primary Habitat Code. Secondary Codes are associated with habitat parcels, where it is relevant to the whole parcel. UKHab guidance recommends that secondary codes are added to habitat parcels to:
- ▶ confirm the identity of habitat mosaic and complexes,
 - ▶ add information about habitat origin and modifications; and
 - ▶ add information on environmental context, management and land use in a consistent manner.
- 2.2.4 The divergence from this methodology is in relation to individual trees, whereby these features are recorded and mapped separately from the baseline habitat that they sit within; and hedgerows/line of trees which follow the classification methodology outlined within *The Statutory Biodiversity Metric User Guide* (Natural England, 2024).
- 2.2.5 No Minimum Mapping Unit (MMU) has been applied to the survey area and professional judgement has been used to define notable habitat parcels. Target notes were used to provide

supplementary information on features which are of particular interest, significant to specific construction proposals, too small to map or to provide additional details, for example relating to species composition and structure.

- 2.2.6 This basic methodology was extended to provide more detail in relation to habitats with potential to support rare or protected fauna, as described by the Chartered Institute of Ecology and Environmental Management's *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017b). The assessment of habitat suitability for protected, rare or priority species is based on current good practice guidance such as that presented in the *Herpetofauna Workers' Manual* (Gent and Gibson, 2003) and *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins (ed.), 2023). Where a species/group is not specifically evaluated, this indicates that no habitat of potential value for the species was identified during the survey.

Scope of the survey

- 2.2.7 The buffer zone for the desk study was set at 1km from the centre of the survey area (2km for bats and 5km for internationally designated sites) – a distance within which any notable ecological features likely to be affected by the Proposed Development would be identified.
- 2.2.8 All habitats within the survey area as indicated on Figure 1.1 were included in order to identify any ecological constraints that would be likely to apply to the scheme from within this zone. Adjacent habitats were also surveyed where appropriate in order to identify constraints falling outside of the Application Site and to place the survey area in its ecological context.

Evaluation criteria

- 2.2.9 Important ecological features were evaluated to the extent possible under the survey methods used, and in relation to a geographical frame of reference, i.e. international/European value being most important, then national, regional, metropolitan/county/district/borough, and lastly local (based on CIEEM, 2018).
- 2.2.10 Value judgements are based on various characteristics that contribute to the importance of ecological features. These include site designations (such as Sites of Special Scientific Interest, or for undesignated features, the extent, naturalness, conservation status (local or national importance and so on), and quality of the ecological resource. Quality can refer to habitats (for instance if they are particularly diverse, are a good example of a specific habitat type, or provide for the requirements of important species or assemblages), other features (such as connectivity provided by wildlife corridors or mosaics of habitats) or the richness and abundance of species populations or assemblages.

2.3 Habitat Suitability Index

- 2.3.1 The Habitat Suitability Index (HSI; Oldham et al, 2000) is a tool used to assess ponds on the basis of their suitability to support breeding great crested newt *Triturus cristatus*. The HSI incorporates ten suitability indices which are considered to affect great crested newt distribution. These are:
- ▶ Location (in Britain);

- ▶ Pond area;
- ▶ Desiccation rate (years out of ten that pond dries);
- ▶ Water quality (subjective assessment);
- ▶ Percentage of pond shaded (% of pond margin shaded 1m from the bank);
- ▶ Number of waterfowl;
- ▶ Fish population (subjective assessment);
- ▶ Number of ponds within 1km;
- ▶ Terrestrial habitat quality; and
- ▶ Percentage macrophyte cover.

2.3.2 The results of the HSI calculation can then be compared to categorised HSI scores used by the National Amphibian and Reptile Recording Scheme (Oldham et al, 2000) to identify the probability of a pond supporting great crested newt, as detailed in Table 2.1.

Table 2.1: Habitat quality of a pond for great crested newt in relation to HSI score

Habitat Quality	HSI Score
Poor	Below 0.5
Below Average	0.5 – 0.59
Average	0.6 – 0.69
Good	0.7 – 0.79
Exceptional	Above 0.8

2.3.3 The HSI gives an indication of whether a pond is suitable for breeding great crested newts, however, it should be noted that a low score does not preclude the possibility that great crested newt are using the pond. A survey of ponds carried out to test the HSI (ARG UK, 2010) found that 20% of ponds which were scored as 'below average' still contained great crested newts, although this increased to an occupation rate of 93% for those ponds scored as 'excellent'. Another important consideration when using the HSI is that pond scores can vary at different times of year, for example, if emergent vegetation is not present (and therefore under recorded) at the time of the HSI assessment.

2.4 eDNA Survey

2.4.1 The objective of the survey was to establish the presence or likely absence of great crested newts within accessible ponds within 500m of the survey area which provide potentially suitable breeding habitat. The eDNA water sampling followed the methodology set out in Natural England's 'Technical advice note for field and laboratory sampling of great crested newt environmental DNA' (Biggs et al., 2014), which is provided as an appendix of the research report published by Defra into environmental DNA testing for great crested newts.

2.4.2 A single visit to pond P1 was made between 15 April and 30 June. The following methodology for the sampling procedure for eDNA analysis was applied in the field in accordance with the survey protocol (Biggs et al., 2014):

- ▶ At each pond, 20 samples of 30ml each were taken from around the perimeter of the pond, as equally spaced as possible. The locations of the samples were chosen to sample the entire margin with specific effort made to target areas where there may be newt egg laying and/or displaying activities.
- ▶ The sample ladle was stirred gently in the pond before the sample was retrieved in order to mix the water column, with care being taken not to stir up the sediment.
- ▶ All 20 samples were emptied as they were collected into a Whirl-Pack bag, which was then sealed and shaken for 10 seconds to mix the samples.
- ▶ Upon mixing, and using a sterile pipette, exactly 15ml of the sample was transferred from the Whirl-Pack bag into each of the six sterile tubes, which contained 35ml of ethanol. The sample was stirred between filling each tube to homogenize the water.
- ▶ Once filled to 50ml, each tube was mixed for 10 seconds to mix the sample and preservative.
- ▶ Samples were returned to the office and either dispatched at ambient temperature immediately for analysis or stored at 2-4°C in a refrigerator dedicated for this purpose.

2.4.3 The following precautions were adhered to, which ensured that no cross-contamination of samples occurred:

- ▶ Sterile gloves were worn by all surveyors at all times during the sampling process;
- ▶ Gloves were replaced with a new pair of gloves between sample collection from the pond and pipetting into the sterile preservation tubes; and
- ▶ Samples were collected without the surveyor entering the water (i.e. the surveyors stood on the pond bank or edge).

2.4.4 The laboratory used for analysis of the samples was Nature Metrics which is participating in the Natural England proficiency testing scheme. Sampling kits were received from Nature Metrics on 10 May 2024. Water samples from each pond were collected using these kits on 25 June 2024 and stored in refrigerated conditions. The samples were returned to the laboratory on 2 July 2024 via a 24hr courier service. The result date was 15 July 2024.

Evaluation criteria

2.4.5 A positive result means that great crested newts are present in the water or have been present in the water in the recent past (eDNA degrades over around 7-21 days).

2.4.6 A negative result means that great crested newt DNA was not detected and great crested newt are likely to be absent from the waterbody.

2.4.7 On rare occasions an inconclusive result is issued. This occurs where great crested newt DNA has not been detected but the controls have indicated that the sample has been degraded or

the polymerase chain reaction (PCR) inhibited in some way. This may be due to undefined components in the water chemistry or may be due to the presence of high levels of sediment or algae in the sample. A re-test could be performed but a fresh sample would need to be obtained, and if water chemistry was the cause of the indeterminate then a re-test would most likely also return an inconclusive result.

- 2.4.8 Sediment content of each sample is visually recorded in the lab and reported on the results document. Inhibition and degradation results are also noted. If the result is recorded as evidence of decay (meaning that the degradation control was outside of accepted limits) or evidence of residual inhibition (meaning that the PCR reaction was inhibited) any negative result is recorded as indeterminate.

2.5 Daytime Bat Walkover

- 2.5.1 Buildings and trees within/adjacent to the survey area were subject to an external and where possible internal inspection for potential bat roost features (subject to safe access). All observable features potentially suitable for bats were noted and the overall suitability of the structure/tree for roosting bats was classified with reference to Table 2.2 and Table 2.3.

Preliminary Roost Assessment

- 2.5.2 External building inspections from ground-level focused on access points and potential roosting features (PRF) such as lifted lead flashing, broken, lifted or missing roof or ridge tiles, cracks in the render or gaps between exterior cladding and weatherboards, soffits or fascias. The internal inspection included a search for live animals and other signs that give an indication of past or present occupancy. In the case of bats, typical indicators include droppings (which are characteristic and are often indicative of species), signs of fur oil staining, urine splashing, characteristic odours, and accumulations of discarded prey remains. It also assessed the overall suitability of the structure for roosting bats focusing particularly on the interior roof spaces and cellars (subject to safe access). The objective was to establish whether each feature was of negligible, low, moderate or high roosting bat suitability, or a confirmed roost based on the presence of bats or their droppings.

Table 2.2: Potential suitability of structures for roosting bats (after Collins, J (ed.), 2023)

Suitability	Roosting habitats
None	No habitat features on site likely to be used by any roosting bats at any time of year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
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 potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable

Suitability	Roosting habitats
	for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats).
Moderate	A structure with one or 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 (with respect to roost type only, such as maternity or hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).
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. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.
Confirmed roost	Bats or unequivocal evidence of bats found, i.e. bat droppings. Suitability categories are irrespective of the presence of a roost. Accordingly, if a roost is confirmed then the categorisation still stands and 'confirmed roost' should be added.

Ground Level Tree Assessment

- 2.5.3 Trees were assessed from ground level for PRFs such as woodpecker holes, cavities, cracks or splits in major limbs (e.g. hazard beams, rot holes, frost cracks, knot holes, occlusions, flush cuts, tear-outs, cankers or butt-rots), loose platey bark, aerial deadwood and dense ivy or epicormic growth.

Table 2.3: Potential suitability of trees for roosting bats (after Collins, J (ed), 2023)

Suitability	Roosting habitats
None	No habitat features on site likely to be used by any roosting bats at any time of year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

- 2.5.4 The surveys were carried out with the aid of the following equipment: high-powered searchlight fitted with a red filter to search dark areas for signs of bats; close-focusing binoculars to view areas inaccessible on foot; and digital camera with flash to record any evidence of bats or features suitable for use by bats.
- 2.5.5 Two experienced surveyors undertook the inspections over a period of approximately 3hrs with the aid of the following equipment: telescopic ladders to gain safe access; full spectrum bat detector to record and identify the calls of any bats present; high-powered searchlight fitted with a red filter to search dark areas for signs of bats; Hawke Sport Optics 10x42 close-focusing

binoculars to view areas inaccessible on foot; and digital camera with flash to record any evidence of bats or features suitable for use by bats.

2.6 Limitations

- 2.6.1 Biological records gathered during the desk study can provide an indication of the likely presence of a species on or adjacent to a site, however, the absence of records for protected species does not equate to evidence of their absence from the locality. Data search accuracy is variable and records are often georeferenced to the nearest 1km grid square.
- 2.6.2 Time of year when the survey was carried out and other variations will influence the results of the survey. Botanical species vary considerably in their flowering, seeding and fruiting periods, and surveys outside of these periods can confound accurate species identification. Where this is the case plants have been identified to lowest possible taxonomic group, normally genus. The possibility nonetheless exists for other species to be present within the survey area which were not recorded or otherwise indicated by the survey. Ornamental species are not included in botanical listings.
- 2.6.3 The survey reported herein was carried out in mid-summer, during the flowering period for many botanical species, and the timing of the survey is not considered to be a significant limitation to meeting the objectives of the survey.
- 2.6.4 There were no difficulties in gaining access to habitats within the survey area and assess protected species suitability. However, the adjacent residential gardens to the north, east and west could not be surveyed for signs of species such as badger *Meles meles* due to access restrictions.
- 2.6.5 Four ponds within 500m of the survey area were identified during the PEA (see Appendix II), however, access for survey was only granted for pond P1 which was subsequently targeted for environmental DNA (eDNA) survey. The off-site ponds P2, P3 and P4 could not be assessed for amphibian suitability as they lie on private land.
- 2.6.6 One former pond was identified within the survey area during the site verification visit on 24 February 2026. The pond was artificially made, and was dug into the unsealed stone patio and surrounded by artificial stone paving. It was positioned at building B1's southern aspect, approximately 3m² and heavily overgrown. It was likely missed during the initial PEA survey due to its size and dense overgrown vegetation, which completely obscured the pond from view. The pond has since been removed and filled in with gravel, and therefore no longer exists.
- 2.6.7 Part of the roof space could not be accessed to search for roosting bats. The area of roof space that was accessed (the eastern portion) contained no signs of roosting bats; however, it was covered with felt sarking and therefore the area between the felt and the roof tiles could not be searched.
- 2.6.8 This report aims to provide general advice on the ecological constraints associated with development proposals for the survey area and includes recommendations for further survey where appropriate. Where impacts are likely or further ecological surveys are recommended, a more detailed Ecological Impact Assessment (EclA) of the effects of the Proposed Development

should be carried out based on the results of recommended surveys. The EcIA will include detailed advice on ecological avoidance, mitigation, enhancement and/or compensation measures. This is in line with the latest guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017a, 2017b, 2018).

- 2.6.9 The details of this report will remain valid for a period of 18 months from the date of the survey (January 2026), after which the validity of this assessment should be reviewed to determine whether further updates are necessary (CIEEM, 2019). Note that the recommendations within this report should be reviewed (and reassessed if necessary) should there be any changes to the Application Site boundary or the Proposed Development upon which this report was based.
- 2.6.10 See Appendix VII for general Legal and Technical Limitations which apply to this document.

2.7 Personnel

- 2.7.1 The survey was carried out by Becci Bond BSc(Hons) MCIEEM, a Principal Ecologist with 14 years' professional consultancy experience in ecological field survey for a wide range of sites and development projects. Becci holds Natural England Class Licences to survey for great crested newt (WML-CL08), dormouse (WML-CL10a) and bats (WML-CL17). Becci was assisted on site by Ed Peters BSc(Hons) MSc Qualifying member of CIEEM, Assistant Ecologist with one years' professional consultancy experience. The report was extensively reviewed by Nick Pincombe BA(Hons) MSc CEnv MISEP MCIEEM, Director of Urban Edge Environmental Consulting, who has nineteen years' experience in leading survey and impact assessment teams for a wide range of ecology and environmental planning projects. Nick holds Natural England Class Licences to survey for bats (WML-CL18) and great crested newt (WML-CL08).

3 Results

3.1 Desk Study

Statutory and non-statutory site designations

- 3.1.1 There is one nationally designated site within the 1km desk study search area, a National Park, together with one non-statutory Local Wildlife Site (LWS) and a Designated Road Verge of Ecological Importance (RVEI). There were no sites of international importance recorded within the 5km search zone. The information provided by SxBRC regarding these sites is presented in Table 3.1, while Figure 3.1 and Figure 3.2 show their locations in relation to the survey area.

Table 3.1: Nature conservation sites within the desk study search area

Site name	Location*	Description
National statutory sites		
South Downs National Park	c.110m east	Comprising of 630 square miles, the South Downs National Park contains many UK priority habitats, including chalk downland, lowland heath, deciduous woodland, and priority wetland, farmland, coastal and marine habitats. As a result, it also contains a number of protected species, including the Adonis blue <i>Lysandra bellargus</i> , burnt orchids <i>Neotinea ustulata</i> , sand lizards <i>Lacerta agilis</i> , brown trout <i>Salmo trutta</i> and the barbastelle bat <i>Barbastella barbastellus</i> .
Non-statutory sites		
Heath Common (LWS)	c.580m west	This site has moderately rich remnants of wet and dry heath, several ponds and some relics of ancient base-rich woodland rich in lichens and ferns.
Rock Road (DRV)	c.670m north-west	Designated Road Verge due to ecological importance. No further description was given.

* Approximate distance and bearing from the survey area

Priority Habitats

- 3.1.2 Priority Habitats include those listed on local Biodiversity Action Plans and Habitats of Principal Importance (HPI) listed under section 41 of the Natural Environment and Rural Communities Act 2006 (NERC). SxBRC and a search of the MAGIC database returned the following data on priority and other habitats within the desk study search area: Open Water, Lowland Heathland, Deciduous Woodland, Ancient Woodland, Traditional Orchards and Wood-pasture and Parkland. None of these are shown as present within the survey area; see Figure 3.3.

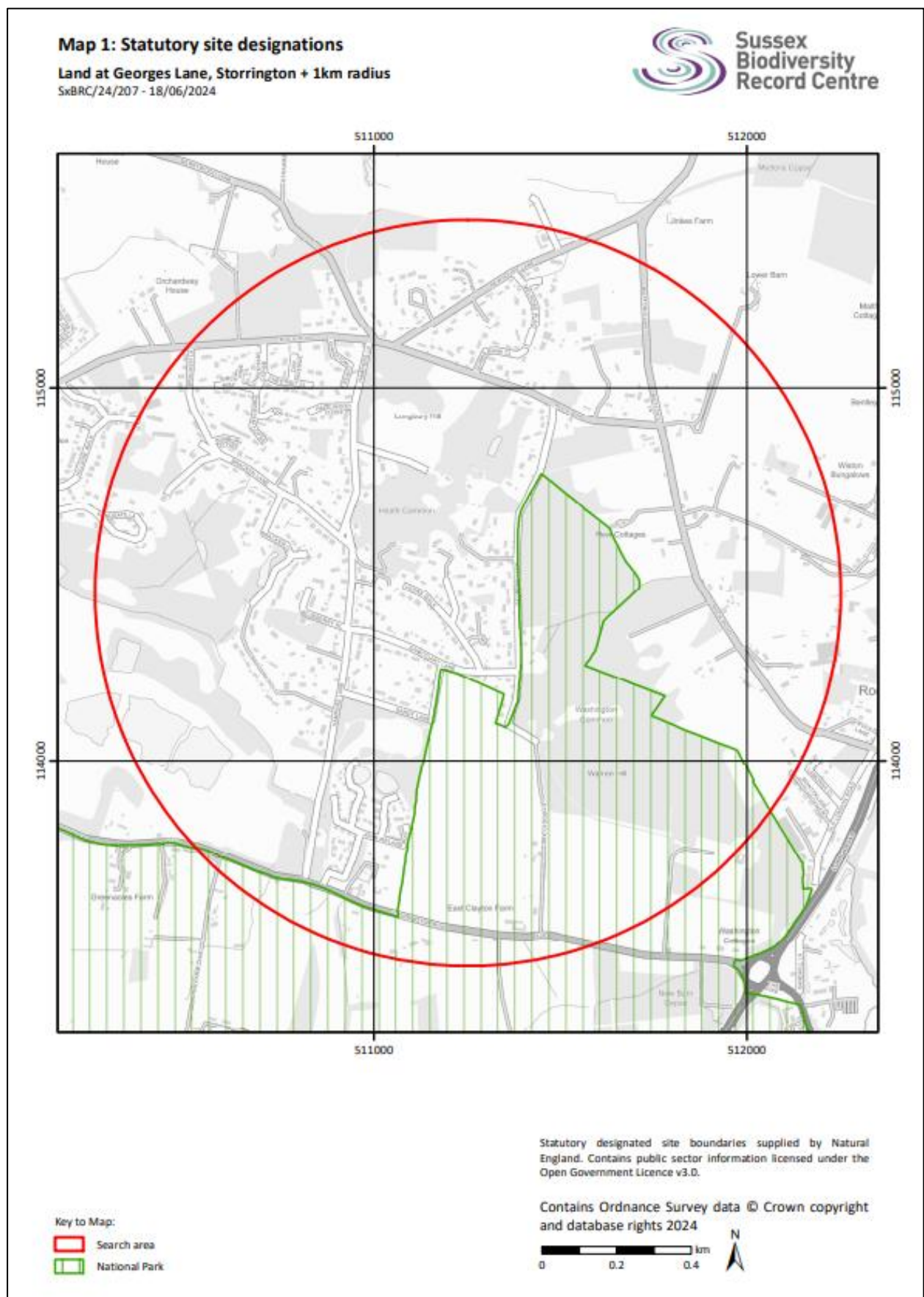


Figure 3.1: Statutory nature conservation sites within the desk study search area

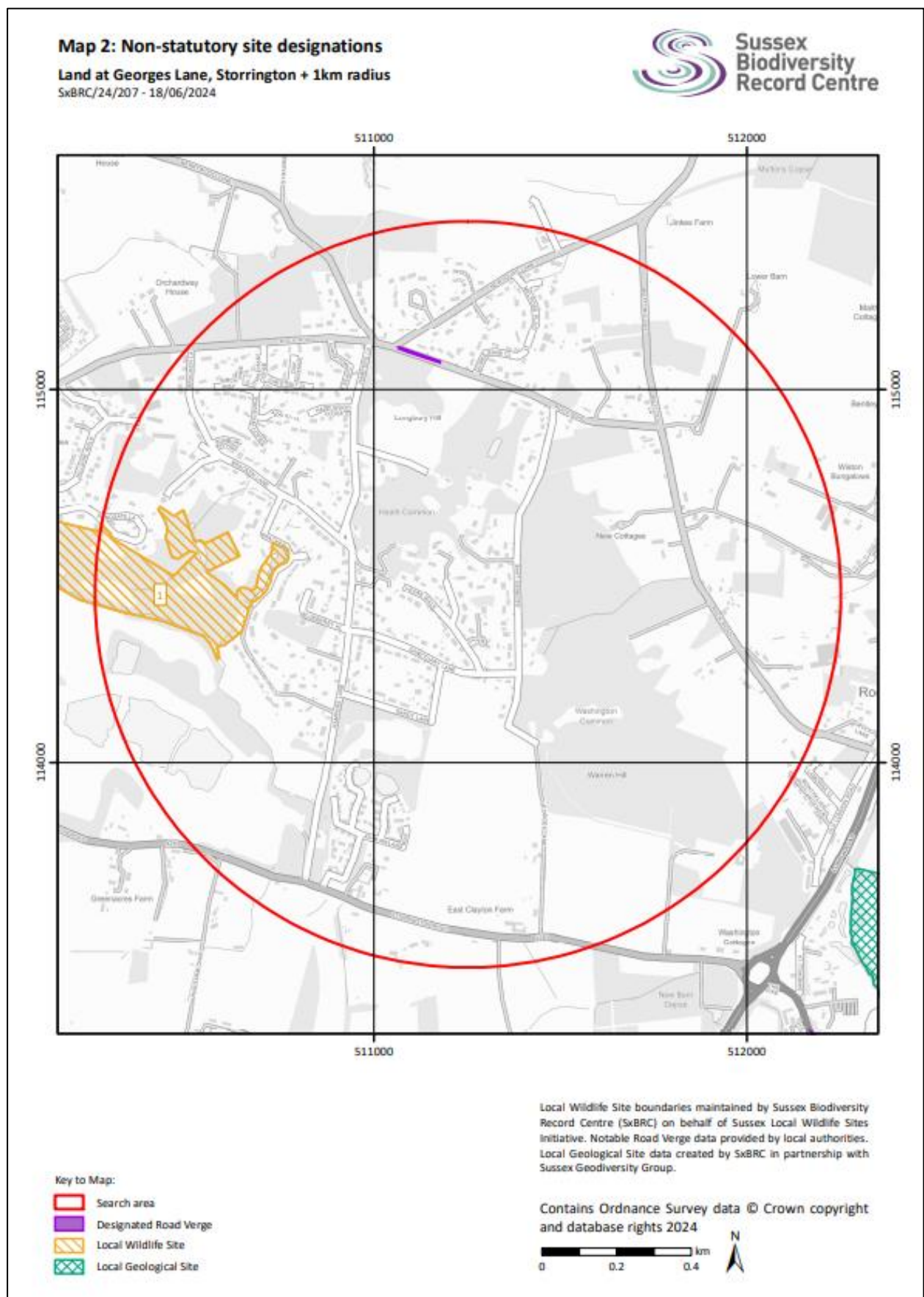


Figure 3.2: Non-statutory nature conservation sites within the desk study search area

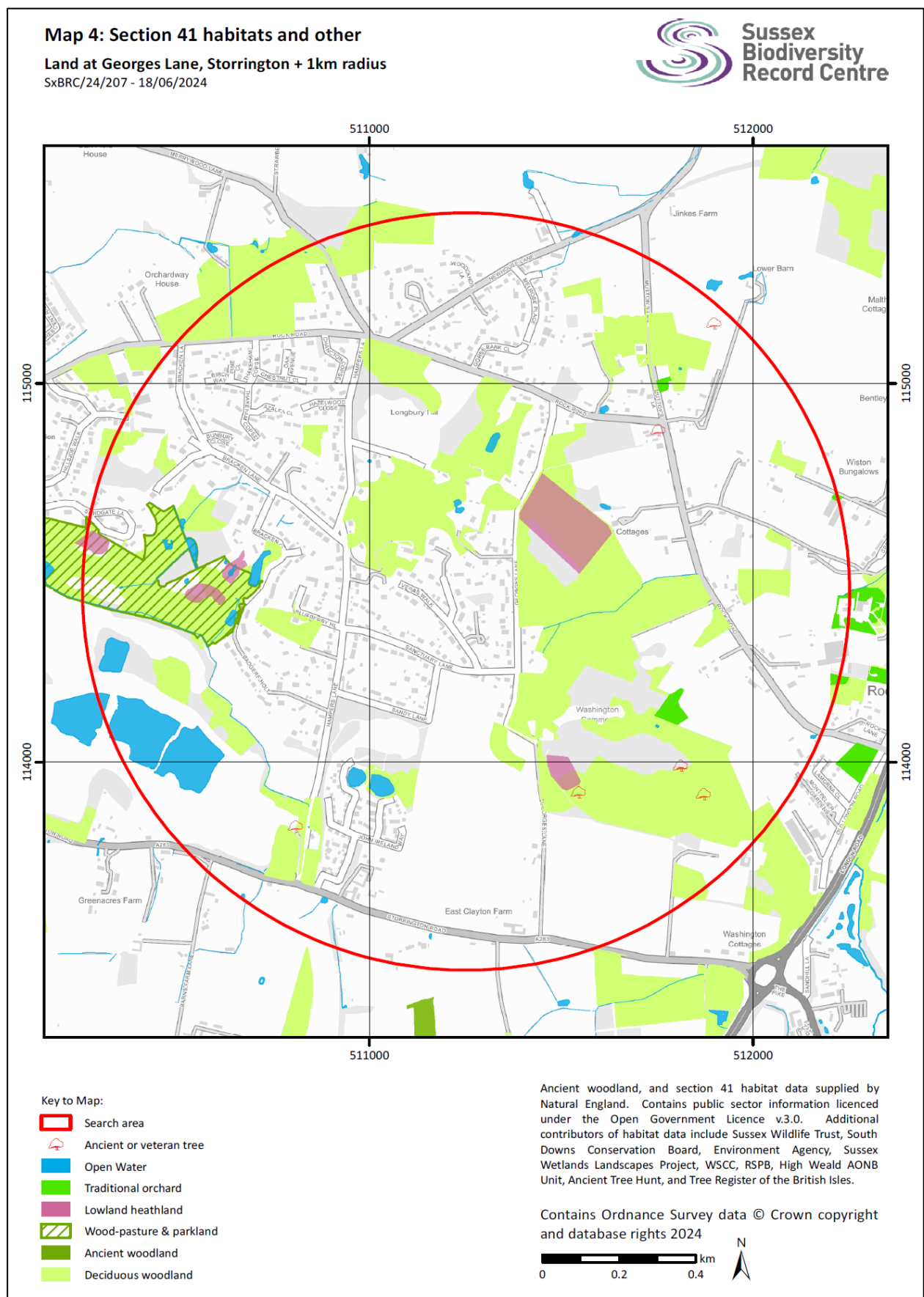


Figure 3.3: Priority Habitats within the desk study search area

Records of protected, rare and notable species

3.1.3 Biological records were obtained from SxBRC for the desk study search area and are summarised in Table 3.2.

Table 3.2: Records of protected, rare & notable species within the desk study search area

Group	Species	Designation
Amphibians	Great crested newt	Habs.Dir.2&4, CHS Sch.2, WCA Sch.5 full, NERC s41
	Common toad <i>Bufo bufo</i>	WCA Sch.5 part, NERC s41
	Smooth newt <i>Lissotriton vulgaris</i> , Common frog <i>Rana temporaria</i>	WCA Sch.5 part
Birds (note: species may appear more than once)	Kingfisher <i>Alcedo atthis</i> , Red kite <i>Milvus milvus</i> , White-tailed eagle <i>Haliaeetus albicilla</i>	Birds Dir.1
	White-tailed eagle, Red kite, Little ringed plover <i>Charadrius dubius</i> , Kingfisher, Hobby <i>Falco subbuteo</i> , Crossbill <i>Loxia curvirostra</i> , Firecrest <i>Regulus ignicapilla</i> , Barn owl <i>Tyto alba</i>	WCA Sch.1
	Skylark <i>Alauda arvensis</i> , Cuckoo <i>Cuculus canorus</i> , Yellowhammer <i>Emberiza citrinella</i> , Reed bunting <i>Emberiza schoeniclus</i> , Corn bunting <i>Emberiza calandra</i> , Lesser spotted woodpecker <i>Dendrocopos minor</i> , Dunnock <i>Prunella modularis</i> , Linnet <i>Linaria cannabina</i> , House sparrow <i>Passer domesticus</i> , Grey partridge <i>Perdix perdix</i> , Wood warbler <i>Phylloscopus sibilatrix</i> , Marsh tit <i>Poecile palustris</i> , Bullfinch <i>Pyrrhula pyrrhula</i> , Turtle dove <i>Streptopelia turtur</i> , Starling <i>Sturnus vulgaris</i> , Song thrush <i>Turdus philomelos</i> , Lapwing <i>Vanellus vanellus</i>	NERC s41
	Red kite, Swift <i>Apus apus</i> , Lapwing, Woodcock <i>Scolopax rusticola</i> , Turtle dove, Cuckoo, Grey partridge, Skylark, Corn bunting, Yellowhammer, Reed bunting, Linnet, House martin <i>Delichon urbicum</i> , Nightingale <i>Luscinia megarhynchos</i> , Marsh tit, House sparrow, Wood warbler, Starling, Mistle thrush <i>Turdus viscivorus</i> , Lesser spotted woodpecker	RL
	White-tailed eagle, Mallard <i>Anas platyrhynchos</i> , Shelduck <i>Tadorna tadorna</i> , Lapwing, Stock dove <i>Columba oenas</i> , Kestrel <i>Falco tinnunculus</i> , Reed bunting, Bullfinch, Meadow pipit <i>Anthus pratensis</i> , Grey wagtail <i>Motacilla cinerea</i> , Willow warbler <i>Phylloscopus trochilus</i> , Dunnock, Whitethroat <i>Curruca communis</i> , Song thrush	AL
Invertebrates	Stag beetle <i>Lucanus cervus</i>	Habs.Dir.2, WCA Sch.5 part, NERC s41
	Purple emperor <i>Apatura iris</i> , Adonis blue, Chalk hill blue <i>Polyommatus coridon</i> , White-letter hairstreak <i>satyrium w-album</i> , Brown hairstreak <i>Thecla betulae</i>	WCA Sch.5 part
	Knot grass <i>Acronicta rumicis</i> , Grey dagger <i>Acronicta psi</i> , Green-brindled crescent <i>Allophyes oxyacanthae</i> , Ear moth <i>Amphipoea oculatea</i> , Brown-banded carder-bee <i>Bombus humilis</i> , Minor	NERC s41

Group	Species	Designation
	shoulder-knot <i>Brachylomia viminalis</i> , Mottled rustic <i>Caradrina Morpheus</i> , Small heath <i>Coenonympha pamphilus</i> , Sallow <i>Cirrhia icteritia</i> , Small phoenix <i>Ecliptopera silaceata</i> , Dingy skipper <i>Erynnis tages</i> , Dot moth <i>Melanchra persicariae</i> , Grizzled skipper <i>Pyrgus malvaen</i> Shaded broad-bar <i>Scotopteryx chenopodiata</i> , Buff Ermine <i>Spilosoma lutea</i> Blood-vein <i>Timandra comae</i> , Cinnabar <i>Tyria jacobaeae</i> , Dark-barred twin-spot Carpet <i>Xanthorhoe ferrugata</i> , Scarce Four-dot Pin-palp <i>Bembidion quadripustulatum</i> , Oak Lutestring <i>Cymatophorina diluta hartwegi</i> , Shoulder-striped Wainscot <i>Leucania comma</i>	
Mammals (terrestrial)	Barbastelle	Habs.Dir.2&4, CHS Sch.2, WCA Sch.5 full, NERC s41
	Noctule <i>Nyctalus noctula</i> , Hazel dormouse <i>Muscardinus avellanarius</i> , Soprano pipistrelle <i>Pipistrellus pygmaeus</i> , Brown long-eared <i>Plecotus auritus</i>	Habs.Dir.4, CHS Sch.2, WCA Sch.5 full, NERC s41
	Serotine <i>Eptesicus serotinus</i> , Daubenton's bat <i>Myotis daubentonii</i> , Brandt's bat / Whiskered <i>Myotis brandtii</i> / <i>mystacinus</i> , Natterer's bat <i>Myotis nattereri</i> , Leisler's bat <i>Nyctalus leisleri</i> , Nathusius' pipistrelle <i>Pipistrellus nathusii</i> Common pipistrelle <i>Pipistrellus pipistrellus</i> .	Habs.Dir.4, CHS Sch.2, WCA Sch.5 full
	Water vole <i>Arvicola amphibius</i>	WCA Sch.5 full, NERC s41
	Hedgehog <i>Erinaceus europaeus</i> .	NERC s41
Plants	Bluebell <i>Hyacinthoides non-scripta</i> .	WCA Sch.8
Reptiles (terrestrial)	Slow worm <i>Anguis fragilis</i> , Grass snake <i>Natrix helvetica</i> , Adder <i>Vipera berus</i> , Common lizard <i>Zootoca vivipara</i> .	WCA Sch.5 part, NERC s41

Birds.Dir.1	Wild Birds Directive 2009/147/EC Annex 1
Habs.Dir.2/4	Habitats Directive 92/43/EEC Annex 2 or 4
CHS Sch.X	Conservation of Habitats & Species Regulations 2017 Schedules 2 (EPS animals) or 5 (EPS plants)
WCA s1/Sch.X	Wildlife and Countryside Act 1981 Section 1 / Schedules 1, 5 (fully or partially protected), 6 or 8
NERC s41	Natural Environment & Rural Communities Act 2006 Section 41 Species of Principal Importance
RL/AL	Red/Amber Listed (IUCN or Birds of Conservation Concern 5 (Stanbury <i>et al.</i> , 2021))

3.2 Habitats

3.2.1 The following UKHab habitats were identified within or adjacent to the survey area and are shown on the UKHab habitats plan at Appendix I. The habitats are described below broadly in the order of their extent, and Table 3.3 provides the area/length of each habitat type recorded within the survey area.

Table 3.3: Area / Lengths of habitat types recorded within the survey area

Habitat type	Measurement
Area habitats	
Developed land; sealed surface	647.46m ²
Modified grassland	601.70m ²
Introduced shrub	683.81m ²
Other woodland; mixed; mainly broadleaved	248.00m ²
Other Scot's Pine woodland	81.30m ²
Mixed scrub	21.01m ²
Bare ground	31.87m ²
Individual trees	-
Linear habitats	
Hedgerows	53.12m

Developed land; sealed surface

- 3.2.2 Developed land; sealed surface was recorded in the north of the survey area. This was formed of compacted stone creating the driveway area as well as pathways into the bungalow. To the west and south of the bungalow were areas of concrete patio forming pathways and seating areas. A lean too was recorded between outbuildings OB2 and OB3 which contained an area of concrete slabs below it.

Buildings

- 3.2.3 A single storey bungalow (B1) was located centrally within the survey area. Four outbuildings (OB1-OB4) were also located within the survey area, OB1 to the west, OB2 & 3 to the north-east and OB4 to the east of B1. A full description of the buildings is located within Table 3.4.

Modified grassland

- 3.2.4 Several areas of modified grassland were recorded within the survey area; one in the north-west, one north, one east and one south of building B1, and one east of building OB3. The grassland was subject to regular mowing and was generally below 5cm. Grass species included abundant perennial rye-grass *Lolium perenne*, with frequent cock's-foot *Dactylis glomerata*. A range of herbaceous species typically associated with gardens was recorded, including frequent daisy *Bellis perennis*, ground ivy *Glechoma hederacea*, creeping thistle *Cirsium arvense* and dandelion *Taraxacum* sp.; and occasional wood sorrel *Oxalis acetosella*, yarrow *Achillea millefolium* and moss *Brachythecium rutabulum*. A green house was recorded within the grassland to the north-west of the survey area (TN1).

Introduced shrub

- 3.2.5 Several areas of introduced shrub were recorded across the survey area. A circular section of introduced shrub was recorded adjacent to the entrance to the survey area, where a tree stump

was recorded (TN2) measuring 1m in diameter. A large area of introduced shrub was recorded within the south-west of the survey area, the dominant species was rhododendron *Rhododendron ponticum* (TN3). This non-native invasive species is listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended; WCA).

Other woodland; mixed; mainly broadleaved

- 3.2.6 Woodland within the south-east of the survey area comprised of frequent rowan *Sorbus aucuparia*, silver birch *Betula pendula*, Scot's pine *Pinus sylvestris*, pedunculate oak *Quercus robur*, with rare occurrences of sweet chestnut *Castanea sativa* and a holly *Ilex aquifolium* and yew *Taxus baccata*, understorey. The ground flora was sparse with rare occurrences of bracken recorded. The woodland contained a number of mature specimens with a dense understorey in places. The Scot's pines were all 20m in height with the silver birches, oaks and sweet chestnuts 10-12m in height. Many of the oaks and rowans were young in age. Trees T2 and T3 within this woodland were recorded to contain matted ivy as potential roosting features for bats (further information on trees with roosting bat potential can be seen at Table 3.5).

Other Scot's pine woodland

- 3.2.7 The woodland further north on the eastern boundary contained eight mature Scot's pine over 20m in height. The understorey was made up of a few holly trees and some laurel *Prunus laurocerasus*, but was mostly sparse. A brash pile measuring 1.5m l x 1.5m w x 80cm h was recorded in the north of this area (TN4).

Mixed scrub

- 3.2.8 A strip of mixed scrub was recorded along the eastern boundary in the north of the survey area. Species included hazel *Corylus avellana* and holly. These species were early mature in age.

Individual trees

- 3.2.9 Six individual trees were recorded, three of these trees were located within the survey area and three were recorded overhanging the northern boundary of the site. A semi-mature pedunculate oak measuring 12m in height was recorded in the north-east of the site, east of outbuilding OB3. A twin stemmed mature silver birch measuring 15m in height was recorded within the garden to the south of B1 (T1). A semi-mature common fig *Ficus carica* was recorded at the south-eastern corner of building B1. Two mature silver birches measuring 10-12m and one Scot's pine measuring 15m were recorded overhanging the northern boundary of the survey area. Five of these trees were classed as medium trees (30cm-90cm Diameter at breast height (DBH)) whilst one tree (common fig) was classed as small (<30cm Diameter at breast height (DBH)).

Bare ground

- 3.2.10 A small area of bare ground was recorded east of building B1 adjacent to the eastern boundary of the survey area. Within this area were five compost heaps; two contained within plastic butts (TN5).

Fence

- 3.2.11 Wooden fencing was recorded along the length of the western survey area boundary, measuring 1.5m in height. Wooden fencing was also recorded along part of the northern boundary in the east. Wire fencing was recorded delineating the southern boundary, measuring 1m in height.

Hedgerows

- 3.2.12 A total of two non-native hedgerows were recorded within the survey area.
- 3.2.13 H1 was a non-native hedgerow of entirely Leyland cypress *Cupressus x leylandii*, which was recorded in the east of the survey area between modified grass and bare ground. The hedgerow measured c.11.5m in length, c.1.5m in width, and c.2m in height.
- 3.2.14 H2 was a non-native hedgerow of entirely cherry laurel which formed the majority of the western boundary of the survey area. The hedgerow measured c.37.8m in length, and c.2m in width, and c.3m in height.



Short mown modified grassland in the north-west.



Short mown modified grassland in the north-west, with introduced shrub borders. Compacted stone of driveway to the north of the site.



Short mown modified grassland in the north-west with green house (TN1).



Short mown modified grassland in the east.



Former pond in March 2026 after filling with gravel, view looking east.



Compacted stone driveway in the north.



Introduced shrub and tree stump (TN2).



Introduced shrub along northern boundary.



Rhododendron in the south (TN3).



Other Scot's Pine woodland in the east.



Other woodland; mixed; mainly broadleaved in the south-east.



Brash pile in the east measuring 1.5m l x 1.5m w x 80cm (TN4).



Five compost heaps in the east (TN5).



H1: non-native hedgerow of entirely Leyland cypress recorded in the east of the survey area.



H2: non-native hedgerow of entirely laurel recorded along the western boundary of the survey area.

Daytime Bat Walkover

Preliminary Roost Assessment

3.2.15 Table 3.4 provides a full assessment of the suitability of buildings on site for roosting bats.

Table 3.4: Preliminary Roost Assessment of buildings within the survey area

Preliminary Roost Assessment of buildings	
B1: Bungalow	
<i>External description</i>	
A single-storey, L-shaped bungalow consisting of bay windows to the north. All windows were a mix of uPVC and metal frames. All in good condition. Brickwork was in good condition with some rendering to the north and one chimney, also in good condition. Roof: Concrete tiles all tight, although some had a few gaps underneath, potential access for roosting bats. There was a vent on the north side, but too small for bat access.	
<i>Internal description</i>	
Access to western half of the loft space but no access to eastern half or central area. Floor to ceiling – 2.5 metres mostly, down to 1.5 metres in central area. Western area: felt lined with a few gaps between felt and ridge tiles. There was a rip in felt at western end ridge. Overall, there were a few gaps at eaves for potential bat access.	
<i>Evidence of bats</i>	
None	
<i>Potential roost features (PRF)</i>	
Rips in felt, gaps in eaves and gaps under ridge beam.	
<i>Overall suitability for roosting bats</i>	
Moderate potential due to gaps under ridge and felt lining. Surrounding habitat is also highly suitable.	
OB1: Wooden shed to the west	
<i>External description</i>	
Wooden, single glaze window. Tight-fitting and cobwebbing at eaves areas. No access for bats.	
<i>Internal description</i>	
No access	
<i>Evidence of bats</i>	
None	
<i>Potential roost features (PRF)</i>	
None	
<i>Overall suitability for roosting bats</i>	
Negligible potential for roosting bats.	
OB2: Garage to the north-east	
<i>External description</i>	
Pebble-dashing on walls, with an asbestos roof. Gaps could be seen above a metal door on the northern side. Wooden fascia, gaps on south and east side.	
<i>Internal description</i>	
Wooden baton along eastern roof area – potential roost site for a single bat.	
<i>Evidence of bats</i>	
None	

Preliminary Roost Assessment of buildings	
<i>Potential roost features (PRF)</i>	
Wooden baton on eastern roof area.	
<i>Overall suitability for roosting bats</i>	
Low potential for roosting bats.	
OB3: Wooden shed to north-east	
<i>External description</i>	
Tight wooden panels with a flat roof. No entry holes for bats.	
<i>Internal description</i>	
No access	
<i>Evidence of bats</i>	
None	
<i>Potential roost features (PRF)</i>	
None	
<i>Overall suitability for roosting bats</i>	
Negligible potential for roosting bats.	
OB4: Wooden shed to the east	
<i>External description</i>	
Flat felt roof, with cobwebbing on both sides. No entry for bats.	
<i>Internal description</i>	
No access	
<i>Evidence of bats</i>	
None	
<i>Potential roost features (PRF)</i>	
None	
<i>Overall suitability for roosting bats</i>	
Negligible potential for roosting bats.	



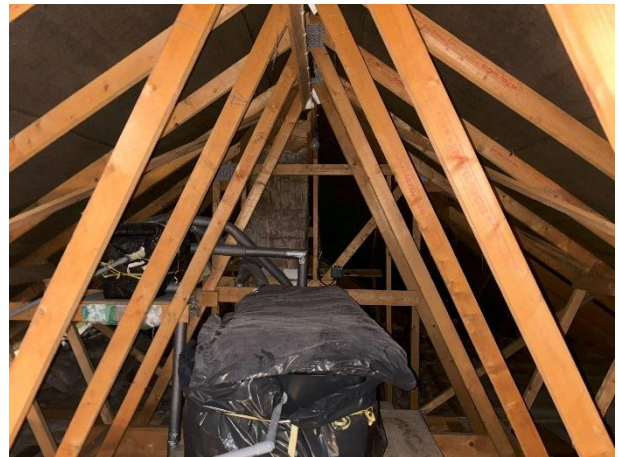
B1 (main house) northern aspect.



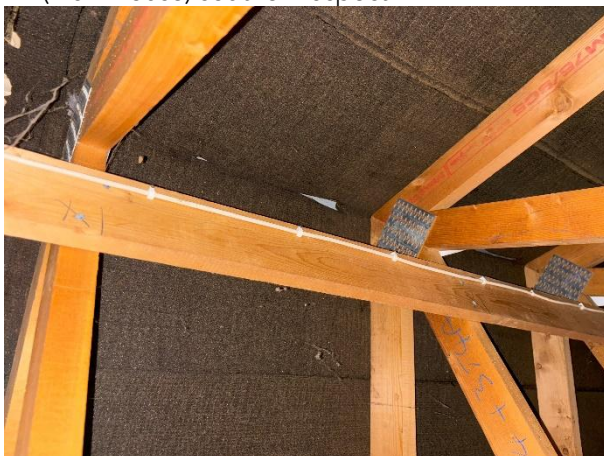
B1 (main house) northern aspect showing porch flat roof extension.



B1 (main house) southern aspect.



B1: Internal view of roof, western end.



B1: Internal view of roof, ripped felt.



OB1: flat roofed shed adjacent to western side of B1.



OB2: flat roofed garage north-east of B1.



OB2: internal view of garage.



OB2: potential bat roosting area at south-east corner of garage.



OB3: flat roofed shed north-east east of building OB2.



OB4: flat roofed shed east of building B1.



OB4: flat roofed shed east of building B1.

Ground Level Tree Assessment

- 3.2.16 No observable PRFs were identified on the majority of trees located within the survey area. However, PRFs were identified upon the mature silver birch, and an English oak and Scot's pine located in a small glade just east of the main building (see Table 3.5).

Table 3.5: Classification of trees with bat roosting suitability

Tree #	Suitability	Species	Grid reference	Potential roosting features
T1	PRF-M	Silver birch	TQ112144	Flaky bark. Tear-out wound in stem at 7m facing west.
T2	PRF-I	English oak	TQ113144	Mature tree. Dense ivy with some matting present.
T3	PRF-I	Scot's Pine	TQ113144	Mature tree. Dense ivy with some matting present.



T1: Semi-mature twin stemmed silver birch tree



T1: PRF-M Tear-out wound at 7m facing west



T2: English oak with PRF-I, exhibiting matted ivy



T3: Scot's pine with PRF-I, exhibiting matted ivy

4 Evaluation

4.1 Introduction

- 4.1.1 This section evaluates the survey area in terms of the habitats and species present or potentially present on site or its immediate vicinity, in the context of relevant legislation and planning policy. See Appendix VI for a review of the legislation and planning context.

4.2 Designated Sites

- 4.2.1 None of the nationally or locally designated sites within the desk-study search zone are likely to be directly affected as a result of the development of the site. This is due to the size and scale of the proposal and the distance from the designated sites; the closest designation is c.590m west (Heath Common LWS).

4.3 Habitats

Evaluation

- 4.3.1 Table 4.1 presents a preliminary evaluation of the habitats recorded within or adjacent to the survey area, with reference to the criteria defined at section 2.2.9. It is important to note that these preliminary evaluations may be updated following completion of more detailed botanical or protected species surveys.

Table 4.1: Preliminary evaluation of habitats within the survey area

Habitat	Evaluation	Rationale
Other woodland; mixed; mainly broadleaved	Negligible	Contains mature and semi-mature, native trees, but is not considered to provide intrinsic value for biodiversity beyond the survey area.
Other Scot's Pine woodland	Negligible	Contains mature and semi-mature, native trees but is not considered to provide intrinsic value for biodiversity beyond the survey area.
All other habitats	Negligible	These habitats are common, widespread and poor-quality examples, none of which are HPI.

Priority Habitats

- 4.3.2 There are no Priority Habitats within the survey area which could be affected by the development proposals.

Other habitats

- 4.3.3 The Proposed Development would result in permanent losses of up to c.526.04m² of modified grassland, introduced shrub and bare ground, depending on the extent and layout of the proposals. These areas are mostly of relatively low ecological value, however, the woodland should be retained where possible due to its function of providing connectivity in the local landscape.

4.4 Species

Amphibians (excluding great crested newt)

- 4.4.1 The short mown semi-improved grassland, introduced shrub and woodland provide suitable terrestrial habitat for common and widespread amphibian species such as common toad, which have been recorded in the desk-study search zone. However, the surrounding grassland was largely sub-optimal due to its relatively short sward height and managed condition, and larger quantities of similarly suitable habitat were present within the surrounding area. In addition, the former pond was removed and no suitable aquatic habitat remained within the survey area. Therefore, common amphibians are not considered to present a constraint to the Proposed development.

Great crested newt

- 4.4.2 SxBRC returned nine records of great crested newt from within the desk-study search zone, mostly from 2002 but with one record from both 1995 and 1992. The closest record was located c.750m south-west of the survey area, and the most recent records were over 950m south of the survey area.
- 4.4.3 The survey area contains predominantly sub-optimal terrestrial habitat for GCN, comprised mainly of buildings, hardstanding, introduced shrub and mown modified grassland with a short sward height and little structural variation. Grasslands of this nature are occasionally used by foraging or dispersing GCN but contain few shelter habitats and are unlikely to support high numbers. However, there are patches of better habitat for this species, including the woodlands in the south, one area of scrub in the north-east, and species-poor non-native hedgerow, which together provide small sections of potential foraging, shelter and hibernation habitats. The brash pile (TN5), compost heaps (TN6) and building foundations provide additional shelter and hibernation habitats.
- 4.4.4 The analysis of Ordnance Survey maps and aerial photography additionally indicated that one pond was present within 250m and a total of four were present within 500m of the survey area; see Appendix II for a pond plan. P1 was accessible and assessed for its suitability to support breeding great crested newts using field observations supported by a Habitat Suitability Index (HSI; Oldham et al, 2000). Pond P1 achieved an HSI value of 0.47, making it of poor suitability for breeding great crested newt. Although the HSI showed this pond to be in poor condition, the eDNA survey for Pond P1 came back as positive for great crested newt; the full results are shown at Appendix IV.

- 4.4.5 Ponds P2 to P4 were all >250m from the survey area boundary. Research undertaken by Natural England (Cresswell & Whitworth, 2004) suggests GCN will rarely move further than 200-250m from a breeding pond, with much reduced distances recorded where adjacent habitats are of good quality. Jehle (2000) also determined a terrestrial zone of 63m, within which 95% of summer GCN refuges were located. In addition, following the breeding season, Jehle and Arntzen (2000) recorded 64% of newts within 20m of the pond edge. Ponds P2 to P4 were scoped out.
- 4.4.6 In conclusion, GCN may be present within the patches of suitable terrestrial habitat which are present within the survey area. Although the majority of the surrounding habitat is unsuitable, pond P1 is relatively well-connected to suitable habitat on-site in relation to the wider area, and therefore the presence of GCN cannot be confidently ruled out. Construction works would likely involve site clearance, creation of access tracks and materials storage compounds, vehicle movements and groundworks, which together could result in destruction of GCN habitats or present a risk of killing, injury or disturbance for GCN if present during the works. Works undertaken within these patches of suitable terrestrial habitat should be undertaken in accordance with a Non-Licensed Method Statement to reduce the risk of killing/injury to GCN, as recommended at section 5.3.

Birds (nesting)

- 4.4.7 SxBRC returned records of 41 notable bird species from within the desk-study search zone during a date range of 1980 to 2023. The boundary hedgerow, trees, woodland and scrub within the survey area are suitable for nesting birds such as wren *Troglodytes troglodytes*, dunnock (an Amber-listed bird of conservation concern (BoCC5); Stanbury *et al.*, 2021), robin *Erithacus rubecula* and chaffinch *Fringilla coelebs*, while the garage (OB2) provides some limited suitability for species such as house sparrow (BoCC5 Red-listed), and swallow *Hirundo rustica*. The modified grassland is unlikely to support ground-nesting species such as skylark (BoCC5 Red-listed) under its currently intensive management regime due to the short sward height and poor structural form.
- 4.4.8 Woodland habitats are of particular importance for species such as blackcap *Sylvia atricapilla*, great spotted woodpecker *Dendrocopos major*, green woodpecker *Picus viridis*, treecreeper *Certhia familiaris*, and lesser spotted woodpecker and cuckoo (NERC s41 and Red-listed (BoCC5)). The majority of woodland habitat within the survey area will be retained as part of the Proposed Development; proposal 4.1 does not affect any woodland at all. Precautionary measures for nesting birds are recommended at section 5.3.

Invertebrates

- 4.4.9 SxBRC returned records of 27 species of protected invertebrate from within the desk-study search zone, during a date range of 1981 to 2023, principally of Lepidoptera (moths and butterflies) but also including stag beetle (NERC s41 species of principal importance).
- 4.4.10 The buildings, hardstanding and improved grassland which dominate the survey area are largely unsuitable for invertebrates and are unlikely to support a diverse or abundant invertebrate fauna in general. The introduced shrub provides some limited opportunities for a range of common and widespread invertebrates. These habitats are abundant within the wider landscape, and thus

the limited losses within the site resulting from redevelopment proposals are not considered likely to significantly affect invertebrate communities.

- 4.4.11 Woodland habitats are likely to provide moderate value for a common and widespread range of invertebrates. Any deadwood within the woodland also provides potential habitat for saproxylic species such as stag beetle. There are a high number of stag beetle records (38) within 1km of the survey area, the nearest was located within the garden to the east of the survey area in 2021. Any deadwood habitats (standing or fallen) within the development zone should not be removed from site, as recommended at section 5.4, and works within the woodland habitat should be avoided where possible.

Mammals (terrestrial)

Badger

- 4.4.12 SxBRC does not supply badger records for animal welfare reasons.
- 4.4.13 The survey area provides suitable foraging and sett creation habitat for badger. A search for badger setts and signs of their presence was undertaken within a 30m radius of the survey area boundary, but did not include the adjacent private property to the east, north and west. Sett building habitats were restricted to the pockets of woodland in the south and east of the site and the hedgerow features making up some of the east and west boundaries. Following an extensive search no evidence of badger activity was observed within or around the survey area, such as badger paths, footprints, latrines, dung pits, or badger hairs caught at fence lines. Badger is not considered to present a constraint to the development proposals and no further surveys for this species are required. General ecological protection measures for badgers and other mammals are advised in section 5.4.

Bats

- 4.4.14 SxBRC returned 187 records of nine species of bat from within 2km of the survey area, during a date range of 1980 to 2020, including barbastelle, serotine, Daubenton's bat, whiskered, Natterer's bat, noctule, common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle and brown long-eared bats. The majority of these records were of bats in flight but included 53 roost sites; the closest European Protected Species Licence for bats to the survey area is located c.810m south-west in 2013 (species: whiskered bat, Daubenton's bat and Natterer's bat).
- 4.4.15 The Preliminary Roost Assessment concluded that building B1 (main house) was of moderate suitability for roosting bats and OB2 (garage) was of low suitability based on internal and external inspections, and their possible use by roosting bats cannot be ruled out. Significant alteration or demolition of these buildings could result in destruction of a bat roost or present a risk of killing, injury or disturbance if bats are present during the works. Further surveys for bats roosting in buildings are recommended at section 5.2.
- 4.4.16 The rest of the buildings within the survey area were considered to have negligible suitability to support roosting bats based on external and where possible internal inspections. No further survey for buildings OB1, OB3 and OB4 are required.

- 4.4.17 The Preliminary Roost Assessment concluded that the mature silver birch tree at T1 was of PRF-M suitability for roosting bats due to the range of PRFs exhibited and its proximity to good foraging and commuting habitat. Felling or arboricultural works to T1, if required to facilitate the proposals, could result in destruction of a bat roost or present a risk of killing, injury or disturbance if bats are present during the works. It is understood that this tree will not be affected by the development proposals, however, further surveys for bats roosting in trees are recommended at section 5.2 in case this changes.
- 4.4.18 Two trees within the survey were of PRF-I suitability for roosting bats and contained potential roost features; T2 and T3. Felling or arboricultural works to these trees, if required to facilitate the proposals, could result in destruction of a bat roost or present a risk of killing, injury or disturbance if bats are present during the works. PRF-I trees are not required to undergo further surveys, instead tree works should be undertaken in accordance with a Non-Licensed Method Statement to reduce the risk of killing/injury to bats, as recommended at section 5.3. Additionally, appropriate compensation for the loss of trees assessed as having PRF-I suitability to support roosting bats, will be provided to maintain the roost resource within the survey area. It is understood that these trees will not be affected by the development proposals.
- 4.4.19 The intensively mown modified grassland habitat which dominates the development area is unlikely to host an abundant invertebrate fauna due to the lack of diversity in forb and flowering plant species and is considered to be of low suitability as foraging habitat for bats. The boundary hedgerows to the east and west may serve as navigation routes or foraging features for bats and are of moderate suitability but it is anticipated that these will be retained and protected during the works. The woodland within the survey area also offers roosting and foraging habitat, but it is anticipated that the woodlands will be largely unaffected by the development. However, it is possible that the boundary hedgerows and woodland will experience an increase in artificial lighting following development, which may render them less suitable for foraging/commuting in future. Given the scale of Proposed Development, the small area of woodland to be directly affected (c.13.28 m²/c.26.91m²/none – depending on which proposal), and the Proposed Development's position away from potential commuting features, significant impacts to foraging/commuting bats are unlikely. Further bat activity surveys are not required.

Hazel dormouse

- 4.4.20 SxBRC returned eight records of hazel dormouse within the desk study search area, all from 2021, the nearest record being located c.470m north.
- 4.4.21 The hedgerows on site are considered to be largely sub-optimal as they are species poor non-native, frequently cut, and unlikely to provide sufficient year-round food availability. However, they do have connectivity to areas of mature woodland in the wider landscape. The hedgerows are to be retained under the Proposed Development.
- 4.4.22 The woodland blocks within the survey area contain a largely underdeveloped or sparse understorey and limited food resources. However, there are some areas of a more developed understorey and dormice could potentially use the woodlands and hedgerows as dispersal routes. The woodlands within the survey area will be retained if Proposal Plan 4.1 is implemented and a small area will be removed if Proposal Plan 2.1 or 3.1 is implemented.

- 4.4.23 Due to the survey area exhibiting connectivity to the woodland which contains several dormouse records, pre-construction site clearance works to any woodland on site should be undertaken in accordance with a Non-Licensed Method Statement to reduce the risk of killing/injury to hazel dormouse, as recommended at section 5.3.

Water vole and otter

- 4.4.24 SxBRC returned one record of water vole from within the desk study search area, in 2019. SxBRC does not supply records of otter *Lutra lutra*.
- 4.4.25 There are no riparian habitats running through or adjacent to the survey area, nor in the wider landscape, making it unlikely that either species would be present. Neither species is considered to present a constraint to Proposed Development and further surveys are not required.

Plants, native

- 4.4.26 SxBRC returned 48 records of one protected plant species from within the desk-study search zone during a date range of 1989 to 2023.
- 4.4.27 No rare or protected species of flora were recorded within the survey area and, based on the and past and current management regimes, it is considered unlikely that these are present. Plant species are not considered to present a constraint to the Proposed Development and no further surveys for this group are required.

Plants – invasive non-native species and injurious weeds

- 4.4.28 An area of rhododendron an invasive non-native species listed on Schedule 9 of the WCA, was noted south of the survey area at TN3. Recommendations with respect to this are given at section 5.4. No other schedule 9 plants were recorded.
- 4.4.29 No significant stands of injurious weed species were noted (ragwort *Senecio jacobea*, spear thistle *Cirsium vulgare*, creeping thistle *Cirsium arvense*, curled dock *Rumex crispus*, and broad-leaved dock *Rumex obtusifolius*).

Reptiles (terrestrial)

- 4.4.30 SxBRC returned 124 records of terrestrial reptile species from within the desk-study search area, during a date range of 1990 to 2023. All four widespread species have been recorded in the vicinity; slow worm, grass snake, common lizard, and adder.
- 4.4.31 The survey area contains predominantly sub-optimal habitat for reptiles, comprised mainly of buildings, hardstanding and mown modified grassland with a short sward height and little structural variation. Grasslands of this nature contain few shelter habitats and are unlikely to support high numbers, although if this habitat is left unmanaged it could become more suitable for reptiles. Small areas of potentially suitable habitat are present including shrubs and woodland, which provide shelter and foraging opportunities. Other patches of reptile habitat include hedgerows and scrub, which are potentially suitable for shelter, hibernation or dispersal but are proposed to be retained. Brash piles and compost heaps provide additional shelter and

hibernation habitat, but it is understood these habitats would be retained on site. Works within the woodlands and the removal of any brash or compost piles should be undertaken in accordance with a Precautionary Working Method Statement to reduce the risk of killing/injury to reptiles, as recommended at section 5.3.

Other protected, rare or notable species

- 4.4.32 SxBRC returned eight records of hedgehog from within the desk-study search zone during a date range of 2005 to 2023. The closest to the site was located c.275m west in 2023. The survey area contains habitats suitable for this species, including grassland, hedgerow and scrub. Hedgehog is listed as a species of principal importance under the NERC and is undergoing a significant population decline. Measures should be taken to continue accommodating this species within the survey area post-development (see section 5.4).

5 Recommendations and Conclusions

5.1 Introduction

- 5.1.1 With regard to the objectives of this PEA, recommendations are made for further botanical and/or protected species survey where necessary. Preliminary recommendations are also made for the protection of important ecological features, and/or to avoid or mitigate ecological impacts, and to enhance the survey area for wildlife following construction. It is intended that these recommendations should be considered during future changes to the design of development proposals so that protection of important ecological features is secured and opportunities for ecological enhancement are realised. The recommendations should be reviewed following the completion of further ecological surveys.

5.2 Botanical or Protected Species Surveys

- 5.2.1 The following species/groups (Table 5.1) will require additional surveys prior to refining development designs and formulating a suitable avoidance and mitigation strategy (if required).

Table 5.1: Recommendations for further ecological surveys

#	Recommendations for further ecological survey
R1	Updated presence/absence surveys for roosting bats within buildings B1 & OB2 undertaken between May and August 2026.
R2	Aerial inspections for roosting bats within tree T1, if affected by the Proposed Development, undertaken between May and August. It is currently understood that this tree will be unaffected by the proposals.

Roosting bats

- 5.2.2 Building B1 (main house) was assessed as of moderate suitability for roosting bats but could not be adequately inspected due to felt lining and lack of access to parts of the roof space. Outbuilding OB2 (garage) was assessed as of low suitability for roosting bats. The Proposed Development will require the demolition or alteration of the buildings on site. These works could result in destruction of a bat roost or killing, injury or disturbance to roosting bats, and further surveys are recommended to determine their presence or likely absence with these features. The surveys should follow current guidelines (Collins, 2023), comprising dusk emergence surveys with night vision aids carried out between May and September (May to August is the optimal period). Surveys should begin at least quarter of an hour before dusk and continue for up to 2 hours after sunset. The level of survey effort required is dependent on each feature's suitability for roosting bats, as follows:
- ▶ Moderate suitability: Two separate dusk emergence surveys.
 - ▶ Low suitability: One dusk emergence survey.

5.2.3 The Proposed Development may require felling or arboricultural works to trees T1, T2 or T3. These works could result in destruction of a bat roost or killing, injury or disturbance to roosting bats, and more detailed inspection of these features is recommended for T1 (PRF-M) in line with current guidelines (Collins, 2023) if this tree is to be affected by the works. Aerial inspections aim to closely investigate potential bat roost features, using an endoscope to search for evidence of bats and investigate the depth, extent and quality of PRFs. Aerial inspections must be undertaken/supervised by surveyors licensed to use endoscopes, and are either completed by qualified tree climbers or from a cherry picker. In some cases, aerial inspection will show that a PRF does not extend into a cavity and therefore is not of roosting potential. In such cases the tree may be removed without further constraints. An initial aerial inspection can be undertaken at any time of year and in some cases can rule out the need for further survey. The following survey effort is required:

- ▶ PRF-M: Three aerial inspections, with at least two in the period May to August.
- ▶ PRF-L: No further survey required but compensate for lost PRFs and fell under precautionary methods.

5.2.4 Where aerial access is not possible or features are too extensive to adequately inspect, substitute aerial inspections with emergence surveys as described above.

5.3 Precautionary Measures

5.3.1 The following species/groups (Table 5.2) require specific precautionary measures to be adhered to prior to and during construction to ensure that an offence under the relevant legislation is avoided. These measures may need to be added to or amended following completion of the protected species surveys described above.

Table 5.2: Recommended precautionary measures

#	Recommended precautionary measures
R3	Vegetation clearance works will be undertaken during the GCN active season (March to October) and in accordance with a Non-Licensed Method Statement to reduce the risk of killing/injury to GCN. The Method Statement will specify reasonable avoidance measures including timing restrictions (works to be carried out during the GCN active season, March to October), progressive reduction of vegetation height to displace any newts present into suitable surrounding areas of retained habitat, and will be carried out under the supervision of a suitably qualified ecologist. Once vegetation removal is complete, the survey area will be maintained in unsuitable condition to prevent recolonisation.
R4	Removal of nesting bird habitats (including vegetation and buildings) will be undertaken outside of the bird nesting season, which runs from 1 March to 31 August. It will therefore be carried out between September and February, but should be planned and implemented in accordance with the findings of the further ecological surveys recommended above, as other protected species may still be present outside of the bird breeding season. Any construction works undertaken within the bird breeding season where suitable bird breeding habitat exists will require a site check for nesting birds by a suitably qualified ecologist. This will take place no more than two days prior to works commencing. This is to ensure that no disturbance to active bird nests occurs. If a nest is found it must be cordoned

#	Recommended precautionary measures
	off and works adjacent to the nest must be delayed until such time that the chicks have fledged from the nest. This will be supervised by a suitably qualified ecologist.
R5	If works to fell or lop the PRF-I suitability trees (T2 and T3) are required, they will be undertaken in accordance with a Non-Licensed Method Statement to reduce the risk of killing/injury to roosting bats. The Method Statement will specify reasonable avoidance measures including timing restrictions (works to be carried out during March-April or September-October to avoid critical maternity and hibernation periods), 'soft felling' techniques to enable bats to disperse, and will be carried out under the supervision of a suitably qualified ecologist. Additionally, appropriate compensation for the loss of trees assessed as having PRF-I suitability to support roosting bats will be provided to maintain the roost resource within the survey area. It is currently understood that these trees will be unaffected by the proposals.
R6	Due to the survey area exhibiting connectivity to a large woodland to the north which contains several dormouse records, pre-construction site clearance works to any woodland on site should be undertaken in accordance with a Non-Licensed Method Statement to reduce the risk of killing/injury to hazel dormouse.
R7	If areas of woodland, brash piles (TN4) and compost heaps (TN5) and are to be removed to facilitate the works, this should be carried out avoiding the reptile hibernation season as well as the egg laying season for grass snakes (therefore should be undertaken broadly in March-May inclusive). Grass snakes may lay eggs between June/July and will have hatched by September. Reptiles hibernate between October and March in general in the UK.

5.4 Ecological Protection Measures

5.4.1 The following protection measures (

5.4.2 Table 5.3) will be carried out as part of the Proposed Development scheme alongside any specific measures that are recommended following the protected species surveys described above.

Table 5.3: Recommended ecological protection measures

#	Recommended ecological protection measures
R8	Any areas of deadwood habitat found during initial site preparation will be retained and repositioned in the woodland to the south and east, outside of the developable area. Deadwood habitats provide an important source of food and shelter for a variety of species.
R9	British Standard BS 5837:2012 will be followed at all times during construction when working in close proximity to trees or shrubs which are to be retained. According to BS 5837:2012 the root protection area is 12x diameter of the trunk (diameter is measured around the trunk at a height of 1.5m above ground level), which will constitute the construction exclusion zone (CEZ). The distance is measured from the centre of the trunk to the nearest part of any excavation or other work. If a separate tree survey is carried out for the proposed development, works will be undertaken in accordance with the approved arboricultural method statement.
R10	Rhododendron is present within the survey area to the south. This species is highly invasive and it is inadvisable to have it present in or bordering woodland. A method statement will be prepared to ensure adequate control measures are adopted during construction to prevent it spreading from the site. Control measures can comprise a variety of options including: a cut

#	Recommended ecological protection measures
	stump application whereby herbicide is injected to the surface of a stump on the same day as cutting; foliar regrowth herbicide application; hand pulling of any seedlings; overall foliar herbicide application of small shrubs (below 1.3 m in height); or manual cutting.
R11	The use of external lighting will be avoided or reduced to the minimum required for its intended purpose, during both construction and operation. This will be of benefit to nocturnal species e.g. bats. Where external lighting is to be provided, it will be low-level, directional lighting with minimal spill and glare, and consideration will be given to reduced hours of operation and/or a movement responsive system of control. Use narrow-spectrum bulbs and light sources that emit minimal UV light, avoiding white and blue wavelengths of the spectrum. Use glass lantern covers instead of plastic to filter UV light. Lighting will not be directed towards the boundary hedgerows or woodland.
R12	All excavations left overnight will either be covered over, or provided with a ramp to enable easy escape of badgers, hedgehogs, small mammals, amphibians and other fauna, and inspected each morning prior to recommencement. Open pipework greater than 150mm outside diameter will be blanked off at the end of each working day.

5.5 Recommendations for Ecological Enhancement

- 5.5.1 The following ecological enhancements (Table 5.4) should be considered to improve the value of the survey area for biodiversity after construction, but should be reviewed and specified further following the completion of recommended protected species surveys.

Table 5.4: Preliminary recommendations for ecological enhancement

#	Preliminary recommendations for ecological enhancement
R13	The woodland to be retained around the boundary of the survey area and outside of the developable area, will be enhanced through a more active management regime. Additional tree thinning and the opening up of small rides and glades will provide improved light conditions to benefit the ground flora and understorey. Reduction in extent of stands of non-native shrubs such as rhododendron will help to further enhance the condition of the woodland.
R14	The landscaping plans for the survey area will utilise plant species which encourage bats. The table at Appendix V lists species of plants that can provide benefit for bats either by providing a food source for insects on which bats feed, or providing additional roosting opportunities (Gunnell <i>et al.</i> , 2012). The plant species are predominantly native to Britain, but not all species will be suitable in all situations. The aim is to encourage a diverse range of invertebrate food sources and increased bat roost potential.
R15	The value of the survey area for birds will be enhanced by installing a range of artificial nest boxes. These will be placed on retained mature trees within the development or at the site boundaries, or incorporated within building facades. For instance: ▪ New buildings: nest boxes can be installed under the eaves for birds that utilise buildings for nesting, e.g. house sparrow and swift (compliant to British Standard BS 42021:2022). These species are of principal importance, of conservation concern and/or are notable in Sussex.

#	Preliminary recommendations for ecological enhancement
	▪ Trees: nest boxes with entrance holes suitable for tit species, woodpeckers and nuthatches, and open-fronted boxes suitable for spotted flycatcher <i>Muscicapa striata</i> or song thrush, and treecreeper boxes.
R16	The value of the survey area for bats will be enhanced by installing a range of artificial roost boxes. These will be placed on retained mature trees within the development or at the site boundaries, or incorporated within building facades. Boxes suitable for a range of species should be used, for instance: ▪ New buildings: integral bat tubes can be installed within buildings which face vegetated areas, particularly towards the north and west of the development. Bat tubes can be incorporated into the design of the building so that only the access holes are visible from the exterior of the building. The Schwegler 1FR or 2FR Bat Tube is designed to meet the characteristic requirements of the types of bats that inhabit buildings such as pipistrelles <i>Pipistrellus spp.</i> or serotines. It is designed to be installed on the external walls of buildings, either flush or beneath a rendered surface. ▪ Pipistrelles: bat boxes suitable to install on mature at the edges of the development include the Schwegler 1FF Flat Bat Box, or other manufacturer's equivalent. ▪ Noctules and brown long eared bats: bat boxes suitable to install on mature trees either within or at the edges of the development include the Schwegler 2F General Purpose Bat Box or the 2FN Woodland Bat Box, or other manufacturer's equivalent. Bat boxes on buildings should ideally be located south-facing (between south-east and south-west) and above 4m from ground level. On trees, bat boxes should ideally be located on three aspects of each tree (facing north, south-east and south-west) and at ≥5m from ground level. In both cases they should be installed facing vegetation features such as mature hedgerows or trees, but with a clear line of flight for bats exiting the roost, and away from sources of artificial light. Installation of bat boxes will also offset any removal of PRF-I trees.

5.6 Conclusions

- 5.6.1 The majority of the survey area is of low/moderate ecological value. Constraints to development were identified including the potential presence of great crested newt, nesting birds, roosting bats, hazel dormouse, and reptiles. Further ecological surveys and impact assessment were carried out to determine the value of the site for these species and to formulate a suitable mitigation strategy. Updated surveys are now recommended for roosting bats.

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Appendix I: UKHab Habitats Plan

Georges Lane, Storrington, West Sussex

-  Survey area
-  Modified grassland
-  Mixed scrub
-  Bare ground
-  Developed land, sealed surface
-  Developed land, sealed surface; building
-  Introduced shrub
-  Other Scot's Pine woodland
-  Other woodland; mixed; mainly broadleaved
-  Hedgerow - Non-native
-  Fence
-  Individual tree
-  Target note

TN1 - Green house
 TN2 - Tree stump
 TN3 - Rhododendron
 TN4 - Brash pile
 TN5 - Five compost heaps
 TN6 - Former pond

0 10 20
 Metres



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 Ordnance Survey AC0000808122

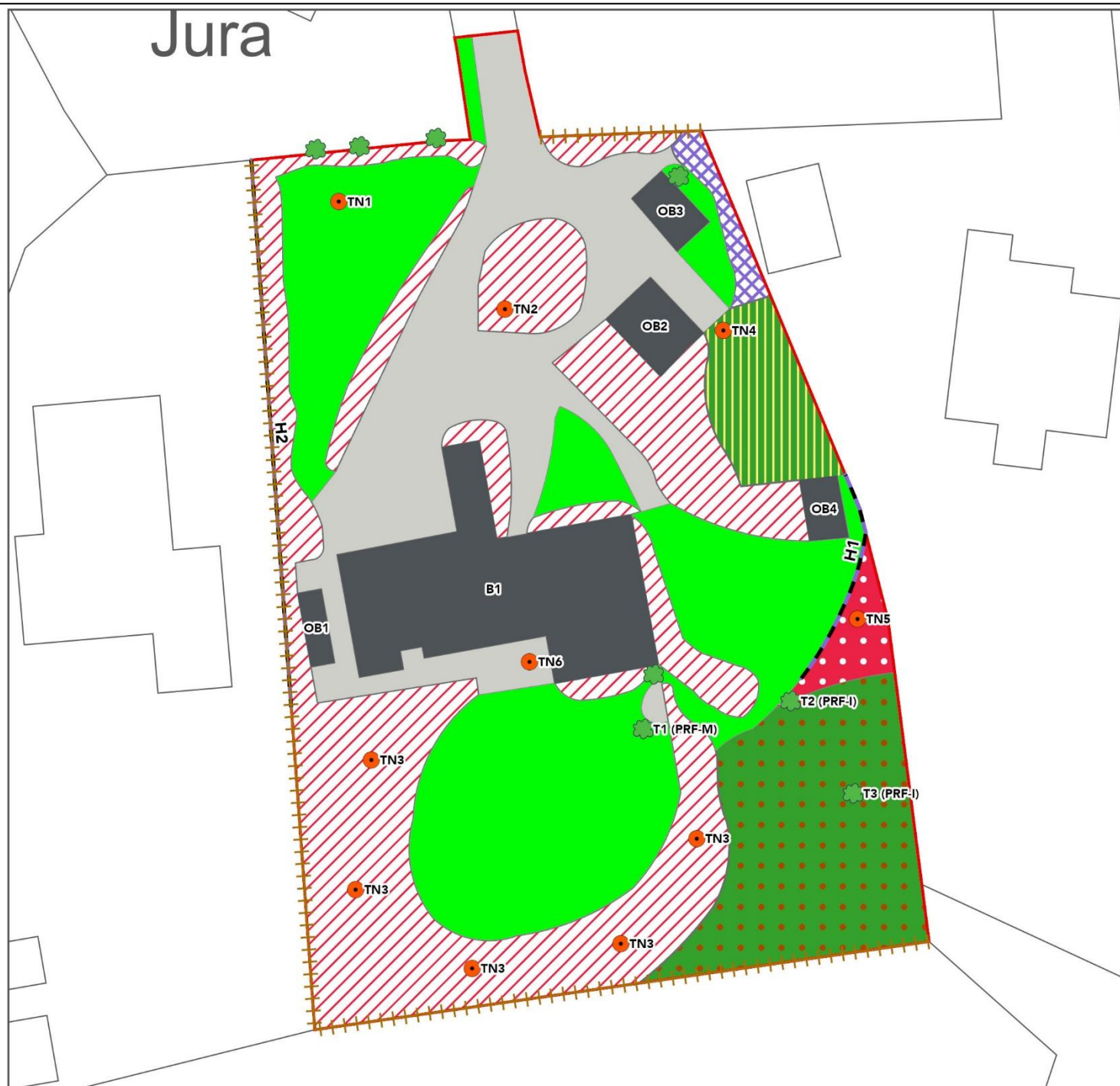
Scale (at A4): 1:400 Created by: MT

Date: Mar 2026 Reviewed by: NP

Drawing number:

UE0690ECO-GeorgesLaneStorrington:Habitats:260323

Jura



Appendix II: Pond Plan

Georges Lane, Storrington, West Sussex

-  Survey area
-  250m buffer
-  500m buffer
-  Pond



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Ordnance Survey 0100031673

Scale (at A4): 1:6,000 Created by: EM

Date: Jul 2024 Reviewed by: NP

Drawing number:

UE0690ECO-GeorgesLaneStorrington:Ponds

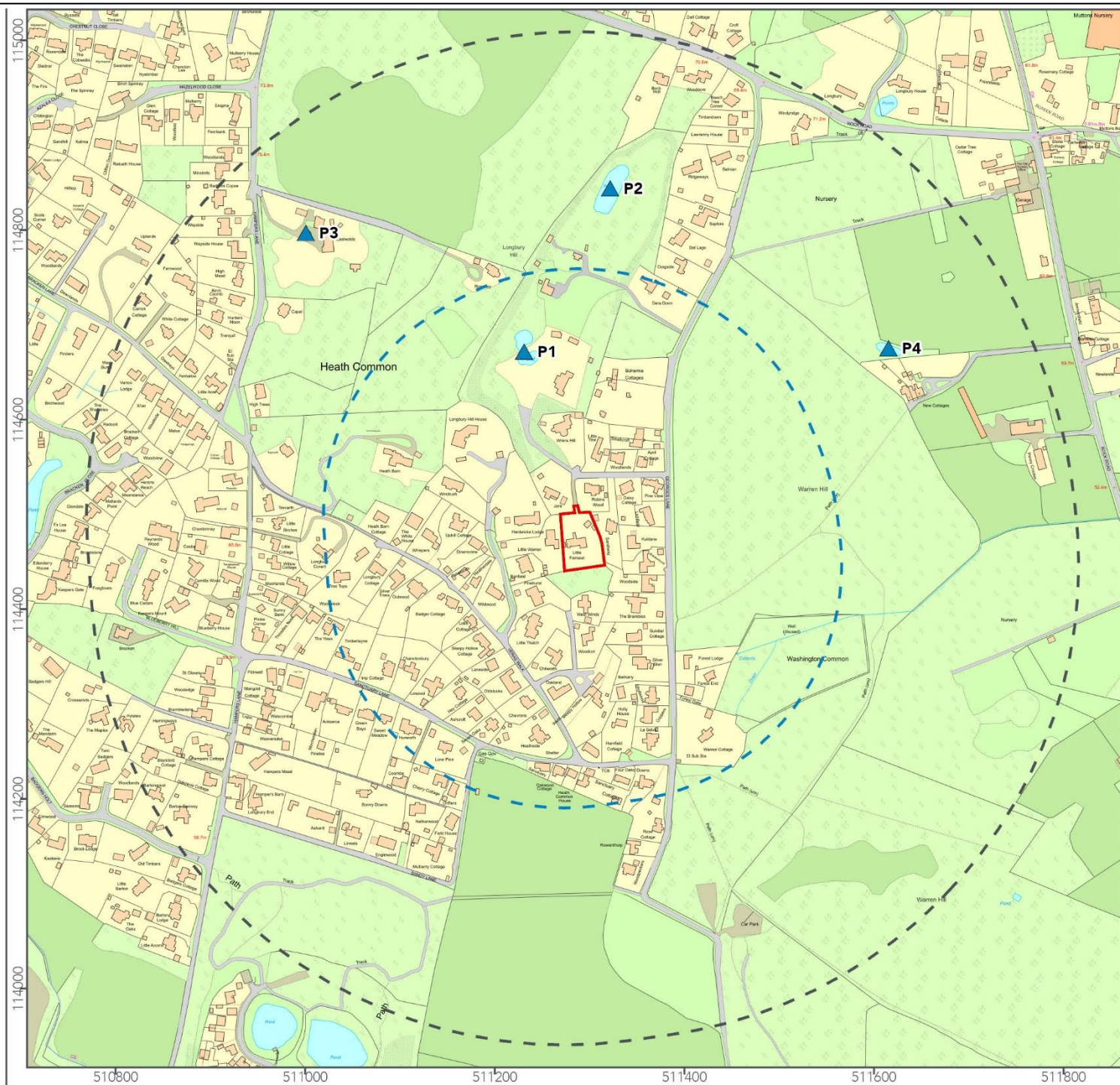


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Appendix III: Habitat Suitability Indices

HSI results and photos for all accessible waterbodies potentially suitable for GCN within 250m of the site are shown below.

Variable	Field score	SI value
	<i>Pond 1</i>	
Location	A	1
Pond area (m2)	534	1
Pond permanence	Never	0.9
Water quality	Poor	0.33
% shaded 1m from bank	60	1
Fowl	Minor	0.67
Fish	Major	0.01
Pond density (per km ²)	8.6	1
Terrestrial habitat	Moderate	0.67
Macrophyte cover %	0	0.4
HSI value		0.47
Suitability		Poor



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Appendix IV: eDNA Results



Thank you for choosing NatureMetrics

Welcome to your report. We are the leading provider of powerful, scalable biodiversity data delivered using environmental DNA.

Your sample(s) have been processed in accordance with the protocol set out in Appendix 5 of Biggs et al. (2014). Results are based on the samples as supplied by the client to the laboratory. Incorrect sampling methodology may affect the results. Note that a negative result does not preclude the presence of GCN at a level below the [limits of detection](#).

A results interpretation guide and a glossary of terms highlighted throughout this report can be found at the end of the report.

GCN Detection Results

Pond ID	Inhibition	Degradation	GCN Score	Result
UEO690/P1	No	No	2	Positive

Sample Information

Pond ID	Kit ID	Sampling Date	Received Date
UEO690/P1	GCN-24-01719	2024/06/25	2024/07/03

Methods

eDNA was precipitated via centrifugation at 14,000 x g and then extracted using Qiagen DNeasy Blood and Tissue extraction kits. qPCR amplification was carried out in 12 replicates per sample, using GCN specific [primers](#) and [probe](#) (developed by Thomsen et al. (2012) and adopted by Biggs et al. (2014)), in the presence of [extraction negative controls](#), [qPCR positive controls](#), and [qPCR negative controls](#). A score is given for the number of positive replicates out of 12.

The [qPCR](#) method follows the recommendations set out by NatureMetrics for Natural England in the qPCR validation project and helps improve the reliability of the interpretation of the data.

Results from the GCN assay are considered to have a [high](#) confidence rating according to our [Validation Scale](#) (Harper et al. 2021).

The quality control methods exceed the requirements outlined in Appendix 5 of Biggs et al. (2014). These consist of the use of [kit blanks](#), additional [extraction negative controls](#), [qPCR negative controls](#), and [qPCR positive controls](#). Using these controls ensures assay performance is as expected and increases confidence in any weak or late amplifications.

The extraction and qPCR negative controls analysed alongside your samples showed no target

Appendix V: Plant Species Which Encourage Bats

Please see following pages which are drawn from Gunnell *et al.* (2012).

Plant Species	Common name	Native	Type	Benefit	Soil	Light	Extensive green roofs	Living walls	Rain Gardens	Hedges/ trees	Beds/ borders
<i>Acer campestre</i>	Field maple	N	T/S	C	Any	Sun / shade				Y	
<i>Acer platanoides</i>	Norway maple		T	S	Well drained / alkaline	Sun / shade				Y	
<i>Acer saccharum</i>	Sugar maple		T	S	Any	Sun / shade				Y	
<i>Achillea millefolium</i>	Yarrow	N	HP	C,F	Well drained	Sun	Y				
<i>Ajuga reptans</i>	Bugle	N	HP	C,F	Any	Sun / shade	Y				
<i>Anthyllis vulneraria</i>	Kidney vetch	N	HP	F	Well drained	Sun	Y				
<i>Aubrieta deltoidea</i>	Aubrieta		H	F	Well drained	Sun / shade		Y			
<i>Betula pendula</i>	Silver birch	N	T	C	Sandy / Acid	Sun				Y	
<i>Cardamine pratensis</i>	Cuckoo-flower	N	HP	F	Moist	Sun / shade					Y
<i>Carpinus betulus</i>	Hornbeam	N	T	C	Clay	Sun				Y	
<i>Centaurea nigra</i>	Common knapweed	N	HP	C,F	Dry, not acid	Sun	Y				Y
<i>Centranthus ruber</i>	Red valerian		HP	F	Well drained / alkaline	Sun	Y				Y
<i>Clematis vitalba</i>	Old man's beard	N	C	F	Well drained / alkaline	Sun				Y	
<i>Corylus avellana</i>	Hazel	N	S	C	Any dry	Sun / shade		Y		Y	
<i>Crataegus monogyna</i>	Hawthorn	N	S	S,C	Any	Sun / shade				Y	
<i>Daucus carota</i>	Wild carrot	N	Bi	S,C,F	Any	Sun	Y				Y
<i>Dianthus spp.</i>	Pinks	N	A-Bi	F	Well drained	Sun	Y	Y			Y
<i>Digitalis purpurea</i>	Foxglove	N	Bi	C	Well drained	Shade / partial shade				Y	Y
<i>Erica cinerea</i>	Bell heather	N	S	F	Sandy	Full sun					Y
<i>Erysimum cheiri</i>	Wallflower		Bi-P	F	Well drained	Sun		Y			
<i>Eupatorium cannabinum</i>	Hemp agrimony	N	H	F	Moist	Sun / shade					Y
<i>Fagus sylvatica</i>	Beech	N	T	C,R	Well drained / alkaline	Sun / shade				Y	
<i>Foeniculum vulgare</i>	Fennel		H	F	Well drained	Sun					Y
<i>Fraxinus excelsior</i>	Common ash	N	T	C,R	Any	Sun / shade				Y	
<i>Hebe spp.</i>	Hebe species		S	F	Well drained	Sun / shade				Y	Y
<i>Hedera helix</i>	Ivy	N	C	F,C	Any	Sun / shade		Y		Y	Y
<i>Hesperis matronalis</i>	Sweet rocket		H	F	Well drained / dry	Sun / shade					Y
<i>Hyacinthoides non-scripta</i>	Bluebell	N	B	F	Loam	Shade / partial shade		Y		Y	Y

Plant Species	Common name	Native	Type	Benefit	Soil	Light	Extensive green roofs	Living walls	Rain Gardens	Hedges/ trees	Beds/ borders
<i>Ilex aquifolium</i>	Holly	N	T	C	Any	Sun / shade				Y	
<i>Jasminum officinale</i>	Common jasmine		C	F	Well drained	Sun		Y			Y
<i>Lavandula</i> spp.	Lavender species		S	F	Well drained / sandy	Sun		Y			Y
<i>Linaria vulgaris</i>	Toadflax	N	HP	C	Well drained / alkaline	Sun	Y				Y
<i>Lonicera periclymenum</i>	Honeysuckle	N	C	F	Well drained	Sun		Y		Y	
<i>Lotus corniculatus</i>	Bird's foot trefoil	N	HP	F	Well drained / dry	Sun	Y				Y
<i>Lunaria annua</i>	Honesty		Bi	F	Any	Sun / partial shade	Y				
<i>Malus</i> spp.	Apple		T	C	Any	Sun				Y	
<i>Matthiola longipetala</i>	Night-scented stock		A	F	Well drained/ moist	Sun			Y		
<i>Myosotis</i> spp.	forget-me-not	N	A	F	Any	Sun	Y	Y			
<i>Nicotiana glauca</i>	Ornamental tobacco		A	F	Well drained/ moist	Sun / partial shade			Y		
<i>Oenothera</i> spp.	Evening primrose species		Bi	F	Well drained/ dry	Sun	Y				
<i>Origanum vulgare</i>	Marjoram	N	HP	F	Well drained/ dry	Sun	Y	Y			
<i>Populus alba</i>	White poplar	N	T	C	Clay loam	Sun				Y	
<i>Primula veris</i>	Cowslip	N	HP	F	Well drained/moist	Sun / partial shade	Y				
<i>Primula vulgaris</i>	Primrose	N	HP	F	Moist	Partial shade	Y	Y		Y	
<i>Prunus avium</i>	Wild cherry	N	T	C	Any	Sun				Y	
<i>Prunus domestica</i>	Plum		T	C	Well drained/ moist	Sun				Y	
<i>Prunus spinosa</i>	Blackthorn	N	S	C	Any	Sun / partial shade				Y	
<i>Quercus petraea</i>	Sessile oak	N	T	C,R	Sandy loam	Sun / shade				Y	
<i>Quercus robur</i>	Common oak	N	T	C,R	Clay loam	Sun / shade				Y	
<i>Rosa canina</i>	Dog rose	N	S	C	Any	Sun			Y	Y	
<i>Salix</i> spp.	Willow species	N	S	S,C	Moist	Sun / shade			Y	Y	
<i>Sambucus nigra</i>	Elder	N	T	C	Clay loam	Sun				Y	
<i>Saponaria officinalis</i>	Soapwort	N	HP	F	Any	Sun					
<i>Saxifraga oppositifolia</i>	Saxifrage	N	HP	C	Well drained	Sun	Y	Y			
<i>Scabiosa columbaria</i>	Small scabious	N	HP	F	Well drained/ alkaline	Sun	Y				
<i>Sedum spectabile</i>	Ice plant		HP	F	Well drained/ dry	Sun	Y				
<i>Silene dioica</i>	Red campion	N	HP	F	Any	Shade / partial shade		Y	Y	Y	

Plant Species	Common name	Native	Type	Benefit	Soil	Light	Extensive green roofs	Living walls	Rain Gardens	Hedges/ trees	Beds/ borders
<i>Sorbus aucuparia</i>	Rowan	N	T	C	Well drained	Sun				Y	
<i>Stachys lanata</i>	Lamb's ears		HP	F	Well drained/dry	Sun	Y				
<i>Symphotrichum</i> spp.	Michaelmas daisies		HP	F	Any	Sun					
<i>Tegetes patula</i>	French marigold		A	F	Well drained/moist	Sun					
<i>Thymus serpyllum</i>	Creeping thyme	N	HP/S	F	Well drained/dry	Sun	Y	Y			
<i>Tilia x europaea</i>	Common lime		Type	C	Any	Sun / shade				Y	
<i>Trifolium</i> spp.	Clover species	N	HP	F	Any	Sun	Y				
<i>Valeriana</i> spp.	Valerian species	N	HP	F	Moist	Sun / partial shade			Y		
<i>Verbascum</i> spp	Mulleins	N	Bi,HP	C	Well drained	Sun	Y				
<i>Verbena bonariensis</i>	Verbena		HP	F	Well drained/moist	Sun					
<i>Viburnum lantana</i>	Wayfaring tree	N	S	C	Any	Sun / shade				Y	
<i>Viburnum opulus</i>	Guelder rose	N	S	C	Moist	Sun / shade			Y	Y	
<i>Viola tricolor</i>	Pansy	N	A	F	Well drained/moist		Y	Y			

The table above is derived from the BCT publication Landscape and Urban Design for Bats and Biodiversity (Gunnell et al., 2012) and lists suggested plant species that can provide benefit for bats either by providing a food source for insects or roost potential. The plants listed are predominately native to Britain. The small group of non-native plants is included for their documented value for wildlife. This list has been checked against Natural England's list of invasive non-native plants.

HP: Herbaceous perennial

T: Tree

A: Annual

Benefit:

Bi: Biennial

S: Shrub

B: Bulb

C: Moth caterpillar food plant

F: Flowers attract adult moths

BiP: Biennial perennial

H: Herb

C: Creeper/climber

S: Sap sucking insects (e.g. whiteflies)

R: Good roost potential

Appendix VI: Legislation and Planning Context

Legislation

General

The main legislative instruments for ecological protection in England and Wales are: the Wildlife and Countryside Act 1981 (WCA; as amended); Countryside and Rights of Way Act 2000 (CRoW; as amended); Natural Environment and Rural Communities Act 2006 (NERC; as amended); the Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations; as amended); and the Environment Act 2021.

WCA 1981 consolidated and amended pre-existing national wildlife legislation in order to implement the Bern Convention and the European Union Wild Birds Directive (Council Directive 2009/147/EC). It complements the Habitats Regulations, offering protection to a wider range of species than the latter. The Act also provided for the designation and protection of nationally important conservation sites of value for their floral, faunal or geological features, termed Sites of Special Scientific Interest (SSSI). Schedules of the act list protected species of flora and fauna, as well as invasive species, and detail the possible offences that apply to these species.

The CROW Act 2000 amended and strengthened existing wildlife legislation detailed in the WCA. It placed a duty on government departments & the National Assembly for Wales to have regard for biodiversity, provided increased powers for the protection and maintenance of SSSI, and created a right of access to parts of the countryside. The Act contained lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

The NERC Act 2006 consolidated and replaced aspects of earlier legislation. Section 40 of the Act places a duty upon all local authorities and public bodies in England and Wales to have regard to the purpose of conserving biodiversity in exercising all of their functions, including by restoring or enhancing habitats and species populations. Sections 41 (England) and 42 (Wales) list habitats and species of principal importance to the conservation of biodiversity (otherwise known as Priority Habitats/species as listed in the now superseded UK Biodiversity Action Plan). These lists supersede Section 74 of the CRoW Act 2000. These species and habitats are a material consideration in the planning process.

The Habitats Regulations 2017 are the principal means by the European Union Habitats Directive (Council Directive 92/43/EEC) was transposed into English and Welsh law, and place a duty upon the relevant authority of government to identify sites which are of importance to the habitats and species listed in Annexes I and II of the Habitats Directive. Those sites which meet the criteria in Europe are designated as Sites of Community Importance by the European Commission, and subsequently identified as Special Areas of Conservation (SAC) by the European Union member states. Since the UK's departure from the European Union the European Commission no longer has a role in designating SACs in the UK. The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 establish a single stage designation process, where the appropriate authority is the decision maker. The selection and designation of SACs is based on the criteria set out in Annex III of the Habitats Directive insofar as it applies to the UK, and having regard to the advice of the appropriate nature conservation body.

The 2019 Amendment Regulations have created a new national site network on land and at sea, including both the inshore and offshore marine areas in the UK. The national site network includes existing SACs, existing Special

Protection Areas (SPA) originally designated as a result of Council Directive 2009/147/EC on the Conservation of Wild Birds, and any new SACs and SPAs designated under the 2019 Regulations. SACs and SPAs in the UK therefore no longer form part of the EU's Natura 2000 ecological network.

The Habitats Regulations also provide for the protection of individual species of fauna and flora of European conservation concern listed in Schedules 2 and 5 respectively (European Protected Species (EPS)). Schedule 2 includes species such as otter and great crested newt for which the UK population represents a significant proportion of the total European population. It is an offence to deliberately kill, injure, disturb or trade in these species. Schedule 5 plant species are protected from unlawful destruction, uprooting or trade under the regulations. Under the Habitats Regulations disturbance includes any activity which is likely to: impair the ability of a EPS to survive, breed, reproduce, or rear/nurture its young; impair the ability of a EPS to migrate or hibernate; or significantly affect the local distribution or abundance of the species.

The Environment Act 2021, among other things: established an Office for Environmental Protection; introduced a mandatory requirement for all new development requiring planning permission to achieve a net gain for biodiversity of at least 10% (although implementation of this is transitional); amended the NERC Act duty to conserve biodiversity by explicitly adding a duty to enhance; and requires local authorities to produce local nature recovery strategies.

Great crested newt (*Triturus cristatus*; GCN) (and natterjack toad *Bufo calamita*)

GCN is fully protected by the WCA and the Habitats Regulations. The legislation makes it an offence, *inter alia*, to:

- ▶ Intentionally kill, injure or take a GCN (including its eggs).
- ▶ Possess or control a live or dead GCN, any part of, or anything derived from a GCN.
- ▶ Intentionally or recklessly damage, destroy or obstruct access to any structure or place that a GCN uses for shelter or protection.
- ▶ Intentionally or recklessly disturb a GCN while it is occupying a structure or place that it uses for shelter or protection.

Wild birds

Wild birds are protected by the Wildlife and Countryside Act, 1981 (as amended). This legislation makes it an offence to intentionally kill, injure or take away any wild bird. It is also an offence to take, damage or destroy the nest of any wild bird while it is in use or being built or to take or destroy the egg of any wild bird. In addition, certain species are listed on Schedule 1 of the WCA (such as kingfisher). This makes it an additional offence to intentionally or recklessly disturb the adults while they are in and around their nest or intentionally or recklessly disturb their dependent young. Such species are considered to be in greater need of legal protection or of high nature conservation priority.

Birds of Conservation Concern (BoCC5) are included on Red and Amber lists (Stanbury *et al.*, 2021). Birds on the Red list are those of highest conservation priority due significant and sustained population decreases and/or range contractions (e.g. house sparrow and starling). Birds on the Amber list are the next most critical group and include species whose population/range have shown moderate declines, or which have recovered to some extent from historical decline, such as dunnoek.

Badger (*Meles meles*)

Badgers are listed under Schedule 6 of the Wildlife and Countryside Act which grants them partial protection. This protection is extended by the Protection of Badgers Act 1992 (Badger Act) which makes it an offence to take, injure or

kill a badger, interfere with a sett, sell or possess a live badger, or mark or ring a badger without a licence. Under the Act disturbance is illegal without a licence. Natural England has published guidelines to be adopted when determining whether an activity is 'disturbing' i.e. a licence is required when, for example, using heavy machinery (generally tracked vehicles) within 30m of any entrance to an active sett. Licences are not normally issued during the badger breeding season (December – June inclusive).

Bats (*Chiroptera*)

Bats and their roosts are fully protected by protected by the WCA and the Habitats Regulations, and seven species of bats are species of principal importance. The legislation makes it an offence, *inter alia*, to:

- ▶ Intentionally kill, injure or take a bat.
- ▶ Possess or control a live or dead bat, any part of a bat, or anything derived from a bat.
- ▶ Intentionally or recklessly damage, destroy or obstruct access to any structure or place that a bat uses for shelter or protection. This is taken to mean all bat roosts whether bats are present or not.
- ▶ Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection.
- ▶ Make a false statement in order to obtain a licence for bat work.

Under the Habitats Regulations disturbance includes any activity which is likely to:

- ▶ Impair the ability of a bat to survive, breed, reproduce, or rear/nurture its young.
- ▶ Impair the ability of a bat to migrate or hibernate.
- ▶ Significantly affect the local distribution or abundance of the species.

Eurasian beaver (*Castor fiber*)

From October 2022 Eurasian beavers are protected under the Conservation of Habitats and Species Regulations 2017 (as amended). Under this legislation it is an offence to:

- ▶ Deliberately disturb a beaver – this includes any action likely to impair their ability to survive, breed or rear their young.
- ▶ Deliberately injure, capture or kill a beaver.
- ▶ Damage or destroy the breeding site or resting place of a beaver.

It is also an offence to:

- ▶ Possess, control or transport a beaver.
- ▶ Sell or exchange a beaver.
- ▶ Offer a beaver for sale or exchange.

This applies whether the beaver is alive or dead and includes beaver parts and derivatives.

The Wildlife and Countryside Act 1981 (as amended) prohibits the release of beavers into the wild except with a licence. It also makes it an offence to use any trap or snare for the purpose of killing, taking or restraining beavers. It is also an offence to set a trap or snare in place to cause injury to a beaver.

Some management activities near or in a site of special scientific interest may need permission from Natural England under this legislation.

Beavers are protected from unnecessary suffering and cruel treatment under the Animal Welfare Act 2006 and the Wild Mammals (Protection) Act 1996.

Hazel dormouse (*Muscardinus avellanarius*)

Dormouse is fully protected by the WCA and the Habitats Regulations. The legislation makes it an offence, *inter alia*:

- ▶ Intentionally kill, injure or take a dormouse.
- ▶ Possess or control a live or dead dormouse, any part of, or anything derived from a dormouse.
- ▶ Intentionally or recklessly damage, destroy or obstruct access to any structure or place that a dormouse uses for shelter or protection.
- ▶ Intentionally or recklessly disturb a dormouse while it is occupying a structure or place that it uses for shelter or protection.

Otter (*Lutra lutra*)

Otter is fully protected by the WCA and the Habitats Regulations. The legislation makes it an offence, *inter alia*, to:

- ▶ Intentionally kill, injure or take an otter.
- ▶ Possess or control a live or dead otter, any part of, or anything derived from an otter.
- ▶ Intentionally or recklessly damage, destroy or obstruct access to any structure or place that an otter uses for shelter or protection.
- ▶ Intentionally or recklessly disturb an otter while it is occupying a structure or place that it uses for shelter or protection.

Water vole (*Arvicola amphibious*)

Water vole is fully protected by the WCA. The legislation makes it an offence, *inter alia*, to:

- ▶ Intentionally kill, injure or take a water vole.
- ▶ Possess or control a live or dead water vole, any part of, or anything derived from a water vole.
- ▶ Intentionally or recklessly damage, destroy or obstruct access to any structure or place that a water vole uses for shelter or protection.
- ▶ Intentionally or recklessly disturb a water vole while it is occupying a structure or place that it uses for shelter or protection.

Reptiles

The four common species (slow-worm *Anguis fragilis*, common lizard *Zootoca vivipara*, adder *Vipera berus* and grass snake *Natrix helvetica*) are partially protected under the WCA. They are protected, *inter alia*, against intentional killing and injuring. The handling and translocation of these reptiles does not require a licence.

Smooth snake *Coronella austriaca* and sand lizard *Lacerta agilis* are fully protected by the WCA and the Habitats Regulations. The legislation makes it an offence, *inter alia*, to:

- ▶ Intentionally kill, injure or take a smooth snake or sand lizard.
- ▶ Possess or control a live or dead smooth snake or sand lizard, any part of, or anything derived from a smooth snake or sand lizard.
- ▶ Intentionally or recklessly damage, destroy or obstruct access to any structure or place that a smooth snake or sand lizard uses for shelter or protection.
- ▶ Intentionally or recklessly disturb a smooth snake or sand lizard while it is occupying a structure or place that it uses for shelter or protection.

Weeds Act 1959 / Ragwort Control Act 2003

This legislation provides for orders to be made for control where notifiable weed species such as ragwort are said to be a problem. The act does not make it illegal to have ragwort (or other weed species) on your land, make it illegal to allow ragwort to spread, or force landowners automatically to control it. However, if DEFRA is satisfied that there are injurious weeds to which this Act applies growing upon any land it may serve upon the occupier of the land a notice in writing requiring them, within the time specified in the notice, to take such action as may be necessary to prevent the weeds from spreading.

Planning context

National Planning Policy Framework (Section 15: Conserving and enhancing the natural environment)

The National Planning Policy Framework (NPPF), published in December 2024, outlines the Government's commitment to the conservation of wildlife and natural features. It is concerned with:

- ▶ Protecting and enhancing valued landscapes, sites of biodiversity or geological conservation value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- ▶ Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- ▶ Maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- ▶ Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current & future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;
- ▶ Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- ▶ Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

The NPPF requires that local plans should “distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value...; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries”.

To protect and enhance biodiversity and geodiversity, the NPPF states that planning policies should:

- ▶ Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- ▶ Promote the conservation, restoration and enhancement of Priority Habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

When determining planning applications, local planning authorities should aim to protect and enhance biodiversity by applying the following principles:

- ▶ if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- ▶ development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- ▶ 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; and
- ▶ development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

The following wildlife sites should be given the same protection as habitats sites:

- ▶ potential Special Protection Areas and possible Special Areas of Conservation;
- ▶ listed or proposed Ramsar sites; and
- ▶ sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site. The policies within the NPPF (and additional guidance contained within Circular 06/2005) are a material planning consideration.

UK/Local Biodiversity Action Plan Designations and Birds of Conservation Concern and Red Data Book Listings

Note that BAP designations and status as RSPB Birds of Conservation Concern or Red Data Book species does not offer any further legal protection, but planning authorities are required to prevent these species from being adversely affected by development in accordance with National Planning Policy and the CROW and NERC Acts. The United Kingdom Biodiversity Action Plan (UKBAP), first published in 1994 and updated in 2007, was a government initiative designed to implement the requirements of the Convention of Biological Diversity to conserve and enhance species

and habitats. The UKBAP contained a list of Priority Habitats and species of conservation concern in the UK, and outlined biodiversity initiatives designed to enhance their conservation status.

However, as a result of devolution, and new country-level and international drivers and requirements, much of the work previously carried out by the UK BAP is now focussed at a country-level rather than a UK-level, and the UK BAP was succeeded by the 'UK Post-2010 Biodiversity Framework' in July 2012. The UK lists of Priority Habitats and species nonetheless remain an important reference source and were used to draw up statutory lists of Priority Habitats and species in England, Northern Ireland, Scotland and Wales. The Priority Habitats and species correlate with those listed on Section 41 and 42 of the NERC Act.

The UKBAP required that conservation of biodiversity be addressed at a County level through the production of Local BAPs. These are targeted towards species of conservation concern characteristic of each area. In addition, a number of local authorities and large organisations have produced their own BAPs. Where they exist, Local BAP targets with regard to species and habitats are a material consideration in the planning process.

Local Planning Policy

The following policies relating to wildlife and biodiversity are contained within the Henfield Neighbourhood Plan 2017-2031 (Horsham District Council, 2021):

Policy 10: Green Infrastructure & Biodiversity

P10.1 Development proposals that would directly affect historic commons, ancient woodlands ponds and copses or which would indirectly affect such features should ensure that they are protected, maintained and where practicable enhanced.

P10.2 Development proposals will be supported, provided their design seeks to maintain or increase biodiversity, in particular: a. retains existing Local Wildlife Sites, green corridors and other wildlife habitats; and takes any opportunity to provide a green corridor and achieve ecological connectivity between wildlife habitats and between open countryside and an existing wildlife habitat; b. includes design features which provide for the conservation of wildlife, particularly declining species such as swift, swallow, barn owl, nightingale and bats; c. retains where possible, existing hedgerows, scrub, trees and ponds to support and encourage wildlife. Where removal is essential they should be replaced appropriately and with indigenous species. d. retains trees in Categories A and B as defined in BS5837:2005 wherever possible. Where it is not possible to retain a Category A or B tree, a replacement is planted; including trees without Tree Preservation Orders and trees outside the Henfield Conservation Area.

P10.3 Development proposals will be supported, provided their layout and landscape schemes comply with the following principles as appropriate: a. the amenity value of the existing landscape including hedgerows, scrub, trees and ponds is maintained; and the proposals result in positive visual and landscape impact b. the amenity value of trees is maintained including those trees without Tree Preservation Orders and trees outside the Henfield Conservation Area; c. landscape schemes enhance the site and its surroundings, and positively contribute to the landscape character of the area, including providing for their ongoing maintenance and utilise native plants especially in public areas and on boundaries; and d. the views identified in paragraph 5.81 of this Plan into and out of the area of the Parish, with particular regard to Henfield and Small Dole villages in particular, are preserved.

This policy seeks to maintain and increase diversity within the green infrastructure of the Parish by encouraging the use of indigenous species and avoiding inappropriate replacement such as with coniferous hedging.

The countryside surrounding the Parish of Henfield is gently undulating except for the flat flood plain to the south west. This land is a mosaic of large and small fields arable and pasture land, woods, copse hedgerows and a scattering of ponds. There are three historic commons within the Parish, ancient open land and a significant network of footpaths and byways. Both Small Dole and the village of Henfield have a number of open spaces and playing fields that should be protected for future generations. Policies 10.2 and 10.3 provide a context within which developers should submit planning applications which may affect existing biodiversity in the Parish. Larger developments of more than 2 hectares or 50 dwellings (whichever is the smaller) should provide a Green Infrastructure plan as part of their proposals. Such plans should aim to deliver net biodiversity gain.

Appendix VII: Legal and Technical Limitations

- This report has been prepared by Urban Edge Environmental Consulting Ltd (UEEC Ltd) with all reasonable skill, care and diligence within the terms of the contract made with the Client to undertake this work, and taking into account the information made available by the Client. No other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us.
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- The advice provided in this report does not constitute legal advice. As such, the services of lawyers may also be considered to be warranted.
- Unless otherwise stated in this report, the assessments made assume that the sites and facilities that have been considered in this report will continue to be used for their current planned purpose without significant change.
- All work carried out in preparing this report has utilised and is based upon UEEC Ltd's current professional knowledge and understanding of current relevant UK standards and codes, technology and legislation. Changes in this legislation and guidance may occur at any time in the future and may cause any conclusions to become inappropriate or incorrect. UEEC Ltd does not accept responsibility for advising the Client or other interested parties of the facts or implications of any such changes;
- Where this report presents or relies upon the findings of ecological field surveys (including habitat, botanical or protected/notable species surveys), its conclusions should not be relied upon for longer than a maximum period of two years from the date of the original field surveys. Ecological change (e.g. colonisation of a site by a protected species) can occur rapidly and this limitation is not intended to imply that a likely absence of, for instance, a protected species will persist for any period of time;
- This report has been prepared using factual information contained in maps and documents prepared by others. No responsibility can be accepted by UEEC Ltd for the accuracy of such information;
- Every effort has been made to accurately represent the location of mapped features, however, the precise locations of features should not be relied upon;
- Populations of animals and plants are often transient in nature and a single survey visit can only provide a general indication of species present on site. Time of year when the survey was carried out, weather conditions and other variables will influence the results of an ecological survey (e.g. it is possible that some flowering plant species which flower at other times of the year were not observed). Every effort has been made to accurately note indicators of presence of protected, rare and notable species within and adjacent to the site but the possibility nonetheless exists for other species to be present which were not recorded or otherwise indicated by the survey;
- Any works undertaken as a consequence of the recommendations provided within this report should be subjected to the necessary health & safety checks and full risk assessments.

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