

Hillview Manor Park, Eastleigh

PRELIMINARY ECOLOGICAL APPRAISAL

November 2024

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1 SUMMARY

This Preliminary Ecological Appraisal (PEA) included a desk study of designated sites and ecological data, and a detailed walkover survey of the site considering habitats and species.

This report is considered to be sufficient to draw robust and reliable conclusions to give the local authority confidence that all ecological constraints are to be avoided, mitigated and compensated for, and ecological enhancements are proposed. (See section 5.3)

Reasonable Avoidance Methods (RAMs) will be implemented to safely ensure that residual impacts to species such as 'other' terrestrial mammals, badgers, common amphibians, breeding birds and bats are reduced.

Further documentation should be submitted as a condition of planning approval for ongoing management of landscape features within an LEMP, to reduce the impact of construction related activities in a CEMP and to provide long-term ecological enhancements within a Biodiversity Protection Plan.

A Biodiversity Net Gain (BNG) assessment has been undertaken, for each distinct planning application, by Weddles and submitted as part of the planning application. This ensures an adequate habitat compensation strategy can be produced which allows for (minimum) 10% net gain as per the Environmental Act 2021.

An executive summary of recommendations is provided overleaf within Table 1.

Ecological Receptor / Constraint	Timescales
Designated Sites Natural England should be consulted regarding advice on potential impacts to the River Itchen SSSI Risk Zone.	Prior to planning approval.
Breeding Birds Pre-commencement check and Reasonable Avoidance Methods (RAMs) to be undertaken. Enclosed within CEMP. Mitigation and enhancements to be secured within Ecological Enhancement Plan.	Prior to and during construction Secured through appropriately worded condition of planning.
Badgers Pre-commencement check and Reasonable Avoidance Methods (RAMs) to be undertaken. Enclosed within CEMP.	Prior to construction. Secured through appropriately worded condition of planning.
Amphibians Reasonable Avoidance Methods (RAMs) to be undertaken. Enclosed within CEMP.	During construction Secured through appropriately worded condition of planning.
Trees Existing trees should be protected in line with BS5837:2012.	Prior to and during construction
Foraging and Commuting Bats Soft-lighting strategy to be implemented during the construction phase and post-development use. Soft-lighting plan to be prepared by a competent lighting professional	Prior to and during construction Secured through appropriately worded condition of planning.
Roosting Bats If tree T2 is to be felled it should be subject to a 'soft-felling' strategy. Enclosed within CEMP.	Prior to construction. Secured through appropriately worded condition of planning.
Invasive Species A management plan should be put in place to remove areas of Japanese Knotweed	Prior to and during construction. Secured through appropriately worded condition of planning.
'Other' terrestrial mammals Reasonable Avoidance Methods (RAMs) to be undertaken. Enclosed within CEMP. Enhancements to be secured within LEMP.	Prior to construction Secured through appropriately worded condition of planning.

Table 1: Executive Summary of Ecological recommendations

2 INTRODUCTION

2.1 Background

Weddles were commissioned by WPS Developments LTD. to undertake a Preliminary Ecological Appraisal for the site at Hillview Manor Park, Eastleigh.

This Preliminary Ecological Appraisal aims to:

- Identify any likely ecological constraints
- Propose any necessary design changes
- Identify any further ecological surveys required to enable an Ecological Impact Assessment (EclA) to be carried out
- Propose any ecological enhancements

This report has been prepared in line with BS 42020:2013 Biodiversity: Code of practice for planning and development and the CIEEM Guidance for Preliminary Ecological Appraisal (2017), Ecological Report Writing (2017) and Ecological Impact Assessment (2022).

2.2 Site Description

The redline application site is approximately 1.31ha in extent, comprising two distinct sites. The northern site is primarily swathes of scrub and grassland, with some associated lodges and caravans. The southern site is a sealed car park. The site is located within Hillview Manor Park along the Winchester Road in Eastleigh, at Survey grid reference SU 48807 20517.

The site is positioned alongside the western boundary of the B3354, surrounded predominantly by woodland and agricultural land intersected by frequent hedgerows and ditches. A large commercial fishery, Fisher's Pond, situated within an ancient semi-natural woodland, is located approximately 580m north of the site. Hill Copse, Fair Oak and Horton Heath, an area of ancient semi-natural woodland designated as a Local Wildlife Site (LWS), is located directly adjacent to the northwest boundary of the site - marking the beginning of Stoke Park 'Priority area for nature recovery', a 254ha area formally identified in the 'Eastleigh Borough Council Biodiversity Strategy 2024-34'.

The connective habitat to the west of the site is suitable for terrestrial and aerial commuting, comprising predominantly arable farmland, ditches, ancient hedgerows and ancient woodland, ending abruptly at the town of Eastleigh. To the east, the B3354 likely acts as a significant barrier to species dispersal - as does the town of Fair Oak to the south.



Figure 1: OS Map showing site location

2.3 The Proposals

Three planning applications are proposed:

1. A full planning application for the development of 9 new holiday lodges with associated access and parking situated on the main body of the site (Figure 2).
2. A full planning application for an additional 6 lodges to be built on an existing residential lodge site abutting the eastern boundary of the application site (Figure 3).
3. A full planning application for the demolition and replacement of an existing residential dwelling in the southwestern corner of the site (Figure 4).

2.4 Planning Status

The site is in Eastleigh under the development control of Eastleigh Borough Council.

2.5 Report Validity

The information provided within this PEA Report is considered to be valid for a period of 24 months from the date the survey was undertaken.

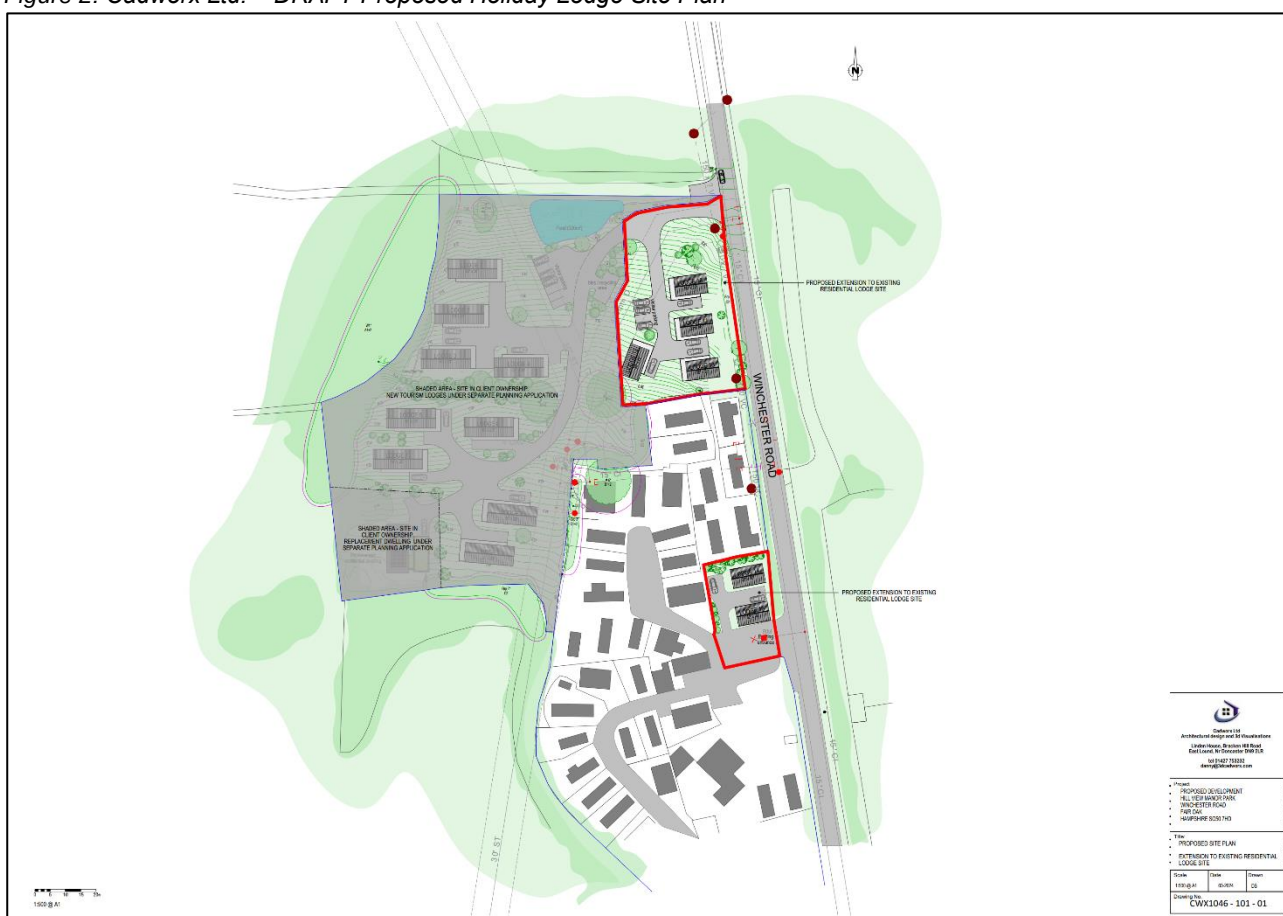




Figure 4: Cadworx Ltd. – DRAFT Proposed Replacement Dwelling Site Plan

3 METHODOLOGY

3.1 Desk Study

A desk study was undertaken to collate any existing ecological data for the site and its surroundings. As part of the desk study process, the following sources of record have been considered:

- Natural England Magic website for geographic information on key environmental schemes and designations. www.magic.gov.uk, October 2024 (see Appendix C).
- Hampshire Biodiversity Information Centre data at OS grid reference SU 48800 20500. Received on 18/09/2024 (see Appendix D – full data set available on request). Field Surveys

3.1.1 Habitat Survey

Habitat surveys were carried out in accordance with the UK Habitat Classification¹ (Professional Edition) at a minimum of Level 4 and at a Minimum Mapping Unit of 25m²/5 linear m. The survey was undertaken within the optimum period for Habitat Field Surveys, between March and October.

Information regarding the assessment is provided in the table below:

Survey date / time	Surveyors present	Temperature (°C)	Humidity (%RH)	Windspeed (Beaufort)	Cloud cover (Okta)
27 th September 2024 / 09:00am	Chris Braine BA (Hons) MLA MCIHort CMLI	14.5	75	1	5

Table 2: Survey Details

This appraisal includes a:

- Description of each habitat including a general list of species and assessment of general management.
- Condition assessment for each habitat, carried out following the condition criteria of The Statutory Biodiversity Metric Condition Sheets².
- Identification of UK BAP Priority Habitats under S41 of NERC Act and Habitats Directive Annex I habitat types.

A UK Habitats Plan of the site showing the various identified habitats is provided in Appendix E.

3.1.2 Biodiversity Net Gain – Baseline Assessment

A study of the baseline BNG score for each planning application was carried out using the Statutory DEFRA Biodiversity Metric providing a summary of the onsite habitat types their relevant Distinctiveness, Condition and Strategic Significance. These are multiplied along with other factors to produce three Ecological Baseline Scores, presented in Biodiversity Units (BU). These Baseline Scores can then be used by the applicant to inform an appropriate mitigation strategy to reach 10% Biodiversity Net Gain in accordance with the Environment Act, 2021.

¹ UKHabs (2023) The UK Habitat Classification User Manual, Version 2.01

² DEFRA (2024). The Statutory Biodiversity Metric– Metric Condition Assessments.

https://assets.publishing.service.gov.uk/media/65c60f00cc433b000ca90b33/Statutory_Biodiversity_Metric_Condition_Assessments_-_Feb24.xlsx

3.1.3 Badger Surveys

The site and immediate surroundings (where access was possible), was searched for any evidence of Badger (*Meles meles*) in accordance with Surveying Badgers³ as part of the walkover survey. During the walkover the site was searched for evidence of badger including setts, paths and prints, latrines, dung pits, snuffle holes, foraging signs, and hairs caught on wire fencing.

3.1.4 Ground Level Tree Assessment (GLTA)

Trees within the site were inspected from ground level using binoculars and elevated survey by ladder if safe to search for any field signs of bats or potential roost features (PRF's). The survey was undertaken as part of the walkover survey for all accessible trees.

Each tree was searched for features including; hollows, woodpecker holes, occlusions. 'Damage' features including – for example: lightning strikes, hazard beams, subsidence cracks; shearing cracks, transverse snaps and splits; welds, lifting bark, desiccation features and frost cracks. 'Association' bat roosting features including fluting and ivy were also assessed where present.

Each tree was then assigned a suitability, as detailed in the table below:

Suitability	Description
None	No PRFs identified and no further action required.
PRF-I	PRF is only suitable for individual bats or very small numbers of bats due to size of lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

Table 3: Categorisation of trees with PRFs for bats

3.1.5 Bat Preliminary Roost Assessment of Buildings

A thorough internal and external inspection of any buildings to look for evidence of bats and assess bat roosting potential was undertaken as part of the walkover survey. Evidence of bats may take the form of droppings, urine stains, feeding remains, live bats, dead bats, grease mark stains, fur and claw marks made by bats regularly roosting in the same location.

During the external survey any roof and walls were inspected from ground level (using binoculars to aid visibility where required) and elevated survey by ladder if safe to search for gaps and voids that would allow bats access to suitable roost sites.

Each building was assigned a roost suitability as defined BCT Good Practice Guidelines, as detailed in the table below:

³ Cresswell, Harris & Jefferies (1989) Surveying Badgers, The Mammal Society.

Potential Suitability	Description of Roosting Habitats
High suitability	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.
Moderate suitability	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 – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
Low suitability	A structure with one or more potential roost sites that could be used by individual bats opportunistically. 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 for maternity or hibernation).
Negligible suitability	No obvious habitat features onsite 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
None	No habitat features onsite 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

Table 4: Classification of building suitability for bats

3.1.6 Day Bat Walking (DBW)

Habitat features onsite are assessed for their suitability to support foraging and commuting bat activity. This assessment is independent from the suitability of the site to support roosting bats and provides information on the likeliness of bat foraging activity within the local environment, and the dependence of individuals on these features for commuting to alternative roosting sites, foraging and migration.

The site was assigned a habitat suitability as defined BCT Good Practice Guidelines, as detailed in the table below:

Potential Suitability	Description of Habitat
High suitability	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge High-quality habitat that is well connected to the wider landscape that is likely to be used foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site that is close to and connected to known roosts.
Moderate suitability	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as treelines and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
Low suitability	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Negligible suitability	No obvious habitat features onsite likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour

None	No habitat features onsite likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provoke continuous lines of shade/protection for flight-lines, or generate /shelter insect populations)
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Table 5: Suitability Assessment Criteria for foraging and commuting bats

3.1.7 Breeding Birds

Assessment of the sites overall suitability to support breeding and nesting birds was undertaken. The sites habitat composition, geographic locality and association with designated sites are all relevant considerations. Where habitats are suitable to support locally or nationally protected species, breeding individuals or populations of birds further breeding or wintering bird surveys may be required to understand the impact from a proposed scheme.

3.1.8 Reptiles

An assessment of the onsite habitats was undertaken in order to evaluate the suitability of the habitats to support either episodically occurring or resident populations of reptiles. Habitats such as grasslands, heathland, dunes, brownfields, golf courses are all considered suitable, as are sites featuring a mosaic of habitats with south facing slopes or decreased levels of disturbance. Reptiles can be highly dispersive, so an assessment is also made of the suitability of the connective habitat to additional optimal habitats.

3.1.9 Invasive Species

As part of the walkover survey the site and immediate surroundings were searched for any evidence of invasive non-native plant species (INNS) listed on Schedule 9 of the Wildlife and Countryside Act 1981.

The species which are often encountered are Japanese Knotweed (*Fallopia japonica*), Himalayan Balsam (*Impatiens glandulifera*), Giant Hogweed (*Heracleum mantegazzianum*), *Cotoneaster sp.*, *Rhododendron sp.*, and Variegated Yellow Archangel (*Lamium galeobdolon subsp. argentatum*).

3.2 Limitations

The survey was carried out during September, when vegetation levels, particularly within areas of bramble (*Rubus fruticosus*) dominated scrub were high and these areas could not be thoroughly inspected due to dense or inaccessible vegetation. The offsite adjacent woodland to the west was also inaccessible due to vegetation.

4 BASELINE ECOLOGICAL CONDITION

4.1 Statutory Designations

The site is located approximately 1.4km northwest of the South Downs National Park boundary and approximately 1.92km southeast of the River Itchen SSSI / River Itchen SAC boundary.

Due to the application site lying within the River Itchen SSSI Risk Zone, and the proposal including infrastructure development, Natural England should be consulted for advice on the nature of the potential impacts and how these might be avoided or mitigated.

4.2 Non-Statutory Designations

Within the 2km search area, there are 13 Local Wildlife Sites (LWS) designations, the nearest being Hill Copse, Fair Oak and Horton Heath located directly adjacent to the northwest boundary of the application area.

Name	Distance	Description	Designation
Hill Copse, Fair Oak and Horton Heath (EA0090)	0.00km NW	4.16ha area of ancient semi-natural woodland.	LWS
Fielders Farm Meadows (Eastleigh) (EA0097)	0.12km NE	2.27ha area of seasonally wet grassland supporting Tubular Water Dropwort (<i>Oenanthe fistulosa</i>), a Hampshire Notable Species.	LWS
Fielders Farm Meadows (Winchester) (WC0682)	0.2km NE	2.88ha area of seasonally wet grassland supporting Tubular Water Dropwort (<i>Oenanthe fistulosa</i>), a Hampshire Notable Species.	LWS
The Mount, Fair Oak and Horton Heath (EA0098)	0.235km W	1.08ha area of ancient semi-natural woodland.	LWS
Upper Barn Copse (EA0082)	0.37km W	19.33ha area of woodland where there is a significant element of ancient semi-natural woodland surviving or supporting some characteristics of ancient woodland.	LWS
Fishers Pond Wood (WC0101)	0.41km NE	6.4ha area of ancient semi-natural woodland.	LWS
Chestnut Gully Wood (EA0102)	0.55km SE	9.06ha area of ancient semi-natural woodland.	LWS
Crowdhill Copse (EA0089)	0.64km S	9.36ha area combining ancient semi-natural woodland and woodland where there is a significant element of ancient semi-natural woodland surviving or supporting some characteristics of ancient woodland.	LWS
Golden Common Wood and Blacknell's Copse (WC0095)	0.65km NE	11.95ha area of ancient semi-natural woodland.	LWS
Park Hills Wood (WC0116)	0.8km SE	32.67ha area of ancient semi-natural woodland.	LWS
Blacknell's Copse Paddock (WC0092)	0.93km NW	0.88ha area of agriculturally unimproved grassland which is not of recent origin.	LWS

Hardings Lane Wooded Bank (EA0149)	0.916km S	0.16ha area of ancient semi-natural woodland.	LWS
Finches Copse (WC0086)	0.9.18km NW	1.69ha area of ancient semi-natural woodland.	LWS
River Itchen UK0012599 / 2000227	1.92km W	From River Itchen SAC citation⁴: The river's vegetation is dominated by higher plants, and the aquatic flora is exceptionally species rich with many of the typical chalk stream plants present in abundance. Most species are present throughout the system and downstream changes are less than in most other rivers. The Itchen valley contains areas of fen, swamp and meadow supporting vegetation with diverse plant communities, some typically species rich. Meadow ditches support strong populations of southern damselfly (<i>Coenagrion mercuriale</i>). The numbers recorded place the site amongst the most important in Britain for this species. Notably the designated site supports River Water-Crowfoot (<i>Ranunculus fluitans</i>), Southern Damselfly (<i>Coenagrion mercuriale</i>), Freshwater Crayfish (<i>Austropotamobius pallipes</i>), Brook Lamprey (<i>Lampetra planeri</i>), Atlantic Salmon (<i>Salmo salar</i>), Bullhead (<i>Cottus gobio</i>), European Otter (<i>Lutra lutra</i>).	SAC / SSSI

Table 6: Summary of designated sites within 2km of the site boundary

Natural England Magic website indicates that within a 1km radius there are seven types of Priority Habitat Inventory (PHI) allocations, listed in order of proximity to site: 'Ancient and Semi-Natural Woodland' PHI, 'Deciduous Woodland' PHI, 'Ancient Replanted Woodland' PHI, 'Good Quality Semi-improved grassland' PHI, 'Coastal and Floodplain Grazing Marsh' PHI, 'No Main Habitat' PHI, 'Traditional Orchard' PHI.

4.1.1 Effects on Designated Sites

The introduction of residential dwellings and holiday lodges could result in an increase in recreational pressure on surrounding public rights of way. While this should not directly impact on the identified statutory sites, recreational pressure should be minimised by onsite public open space and play provision.

4.3 Habitats and Flora

4.3.1 Flora Records

HBIC provided 11 relevant records across 9 notable species within the 2km search area. The nearest record was for Lesser Spearwort (*Ranunculus flammula*) located approximately 1.33km southwest of the application site.

No rare or notable plants were recorded during the site walkover

4.3.2 Invasive Non-Native Species

HBIC provided no invasive non-native species records for the site. Within the 2km search area 17 individual records were provided for 7 species, pertaining to Japanese Knotweed (*Fallopia japonica*), Three-cornered Garlic (*Allium triquetrum*), Himalayan Cotoneaster (*Cotoneaster simsonii*), Canadian Waterweed (*Elodea canadensis*), Rhododendron (*Rhododendron ponticum*), Giant Hogweed (*Heracleum mantegazzianum*) and Variegated Yellow Archangel (*Lamium galeodolom argenteum*). The nearest record was for Giant Hogweed, approximately 0.25km north of the application site.

⁴ WOOD, A., WAKE, H. and MCKENDRICK-SMITH, K. 2022. River Itchen Special Area of Conservation – Evidence Pack. Accessed at: <https://publications.naturalengland.org.uk/publication/6005400246943744>

3 stands of Japanese Knotweed (*Fallopia japonica*) were recorded at grid references SU 48781 20509, SU 48823 20497 and SU 48836 20520 respectively.

4.4 Field Survey

The table below summarises the habitats present within and immediately adjacent to the site, and their relevant inclusion as a National Habitat of Principal Importance and / or within the Local Biodiversity Action Plan⁵.

Primary Habitat Code	Secondary Code (Where required)	UKHab	NHPI	LBAP	EBS 2024-2034 ⁶	N/A
g3c	13 (scattered dwarf shrubs); 14 (scattered rushes); 16 (tall forbs)	Other neutral grassland			✓	
h3h	11 (hedgerow with trees) 16 (tall forbs)	Mixed Scrub			✓	
g4	106 (mown); 517 (recent management);	Modified grassland				✓
u1b5	n/a	Buildings				✓
u1b	800 (road); 804 (car park)	Developed land; sealed surface				✓
u1c	-	Artificial unvegetated unsealed surface				✓
u1f	16 (tall forbs)	Sparsely vegetated land				✓
u1	-	Vegetated garden				✓
h2a	11 (hedgerow with trees)	Native hedgerow		✓	✓	
h2b	847 (introduced shrub)	Non-native and ornamental hedgerow				
-	33 (Line of trees) 523 (Non-native)	Line of Trees		✓	✓	
-	522(Native); 523 (Non-native)	Individual Trees – Rural				✓

Table 7: UKHabs Habitat Types and their relevant inclusion in NHPI or LBAP

⁵Eastleigh Borough Council Biodiversity Action Plan (BAP).

Accessed at: <https://www.eastleigh.gov.uk/media/8124/biodiversity-action-plan-2012-22.pdf>

⁶ Eastleigh Borough Council Biodiversity Strategy (EBS).

Accessed at: <https://www.eastleigh.gov.uk/media/13940/588161-biodiversity-strategy-2024-2034-v7.pdf>

4.4.1 g3c 13, 14, 16 – Other Neutral Grassland (0.105 ha)

South of the gravel access track approximately halfway along the sites length is a patch of unmanaged neutral grassland, comprising scattered areas of dwarf shrub; scattered areas of rushes and patches of tall forbs. A stand of Japanese Knotweed is also present just south of the habitats centre.

Species recorded within this habitat include, but are not limited to, Spear Thistle (*Cirsium vulgare*), Bramble, Pendulous Sedge (*Carex pendula*), Common Fleabane (*Pulicaria dysenterica*), St John's Wort (*Hypericum perforatum*), Common Rush (*Juncus effusus*), Wild Teasel (*Dipsacus fullonum*), Common Ragwort (*Senecia jacobaea*), Photinia 'Red Robin' (*Photinia x fraseri*).

Grassland Condition Assessment (Medium/ High distinctiveness)	Pass / Fail
A. The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland habitat type are consistently present. Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	Fail
B. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Pass
C. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Pass
D. Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%	Fail
E. Combined cover of species indicative of sub-optimal condition² and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA4) are present, this criterion is automatically failed.	Fail
Additional Criterion for all non-acid grassland types	
F. There are 10 or more vascular plant species per m² present, including forbs that are characteristic of the habitat type. Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	Fail
Condition Score	Poor

Table 8: Grassland Condition Assessment (Medium / High distinctiveness)



Figure 5: A small parcel of g3c grassland along the southern boundary of the main application site.

4.4.2 g4 - Modified Grassland (0.2574ha)

Unimproved grassland is the dominant habitat type onsite, with parcels at the north of the site, labelled g4 (2), being of a higher quality than those at the south and east of the site, labelled g4 (2) and g4 (3) respectively. The species recorded within this habitat include, but are not limited to, Creeping Bent (*Agrostis stolonifera*), White Clover (*Trifolium repens*), Creeping Buttercup (*Ranunculus repens*), Cleavers (*Galium aparine*), Ribwort Plantain (*Plantago lanceolata*), False Oat-grass (*Arrhenatherum elatius*), Spear Thistle (*Cirsium vulgare*), Common Rush (*Juncus effusus*), Common Fleabane (*Pulicaria dysenterica*), Moth Mullein (*Verbascum blattaria*) and Bramble.

Grassland Condition Assessment	g4(1)	g4(2)	g4(3)
A. There are 6-8 vascular plant species per m ² present, including at least 2 forbs. Note - this criterion is essential for achieving Moderate or Good condition.	Fail	Pass	Fail
B. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	Fail	Pass	Pass
C. Any scrub present accounts for less than 20% of the total grassland area. (Some scrub such as bramble <i>Rubus fruticosus</i> agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Pass	Pass	Pass
D. Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Fail	Fail	Fail
E. Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)2.	Fail	Fail	Fail
F. Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Pass	Pass	Pass

G. There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA4).	Pass	Pass	Fail
Condition Score	Poor	Moderate	Poor

Table 9: Low Distinctiveness Grassland Condition Assessment



Figure 6: g4 (2) located within northern parcel



Figure 7: g4 (1) located within southeastern parcel

4.4.3 h2a – Native Hedgerows (44m)

One native hedgerow (H3) was recorded within the application boundary, considered historic. The hedge was primarily Blackthorn (*Prunus spinosa*), with sporadic Bramble, and had become overgrown through a lack of management.

The hedgerows generally had a strip of undisturbed perennial ground vegetation at the base, with the vegetation indicating some improvement from the management of the site. The ground flora included Nettle (*Urtica dioica*), Dock (*Rumex sp.*), Cleavers and Bramble.

Hedgerow Description				UKBAP Priority Habitat >20m Long and <5m wide. >80% of at least 1 UK native woody species
ID	Length	Management	Species Composition	
H3	44m	Largely unmanaged	Blackthorn, Bramble	Yes

Table 11: Hedgerow Descriptions

Hedgerow Condition Assessment			H3
A1	Height	>1.5m average along length	Pass
A2	Width	>1.5m average along length	Pass
B1	Gap – Hedge base	Gap between ground and base of canopy <0.5m for >90% length	Pass
B2	Gap - Hedge Canopy Continuity	Gaps make up <10% of total length and no canopy gaps >5m	Fail
C1	Undisturbed Ground and perennial vegetation	>1m width of undisturbed ground with perennial herbaceous vegetation for >90% of length and is present on at least one side of hedge at least	Pass

C2	Undesirable perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of area of undisturbed ground	Fail
D1	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA3) and recently introduced species.	Fail
D2	Current Damage	>90% of hedgerow of undisturbed ground is free of damage caused by human activities	Fail
E1	Tree Class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	N/A
E2	Tree health	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	N/A
Condition Score			Poor

Table 12: Hedgerow Condition Assessment table

4.4.4 h2b – Other Hedgerows (129m)

H1 is a 22m Cherry Laurel (*Prunus laurocerasus*) hedge screening the southernmost application site from existing residential developments; similarly, H2 is a 48m Leyland Cypress (*Cupressus x leylandii*) hedgerow screening the northeastern section of the main application site (used primarily for storage) from the remainder of the application site.

H4 and H5 are both Lawson Cypress (*Chamaecyparis lawsoniana*) hedges, 48m and 11m long respectively. H1 screens the existing residential dwelling at the southwest of the site from the adjacent fields, whilst H4 screens the existing section of neutral grassland from the residential development that abuts the majority of the western application boundary.

These hedgerows are defaulted to poor condition.



Figure 8: Lawson cypress hedge in the eastern part of the site, seen from the north-west.

4.4.5 h3h 11, 16 – Mixed scrub (0.2016ha)

The western boundary of the site is almost entirely dominated by dense mixed scrub, extending out to the centre of the site approximately halfway along its length. This scrub is split into two distinct parcels – h3h (1) and h3h (2).

The scrub is dominated by Bramble with other species including Nettle, Pendulous Sedge, Dog Rose (*Rosa canina*), Hedge Bindweed (*Calystegia sepium*) and Hawthorn (*Crataegus monogyna*). Scattered trees are also present, including Goat Willow (*Salix caprea*), White Willow (*Salix alba*), Lawson Cypress, Hazel (*Corylus avellana*), English Oak (*Quercus robur*), Ash (*Fraxinus excelsior*) and Elder (*Sambucus nigra*). A large patch of Japanese Knotweed is also present amongst h3h (2).

Scrub Condition Assessment	h3h (1)	h3h (2)
A. The scrub is a good representation of the habitat type it has been identified as, based on its UKHab description (where in its natural range). The appearance and composition of the vegetation closely matches the characteristics of the specific scrub type. At least 80% of scrub is native, and there are at least three native woody species with no single species comprising more than 75% of the cover (except hazel <i>Corylus avellana</i>, common juniper <i>Juniperus communis</i>, sea buckthorn <i>Hippophae rhamnoides</i> or box <i>Buxus sempervirens</i>, which can be up to 100% cover).	Fail	Pass
B. Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.	Fail	Fail
C. There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA4) and species indicative of sub-optimal condition make up less than 5% of ground cover.	Pass	Fail
D. The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Fail	Pass
E. There are clearings, glades or rides present within the scrub, providing sheltered edges.	Fail	Fail
Condition Score	Poor	Poor

Table 13: Scrub Condition Assessment



Figure 8: h3h along western boundary of application site

4.4.6 u1b – Developed land; sealed surface (0.0746ha)

Comprises an area of parking at the southern application site and the initial portion of road access for the main application site.

There is no condition assessment for this habitat type.

4.4.7 u1b5 – Buildings (0.027ha)

There are nine buildings onsite, distributed fairly evenly across the main application site. Their descriptions and suitability to support protected species are found within section 4.5.3.

There is no condition assessment for this habitat type.

4.4.8 u1c – Artificial unvegetated, unsealed surface (0.629ha)

A large access track running through the centre of the site consisting of a mix of aggregates that have been compacted. The majority of the habitat has no vegetation, with only ephemeral vegetation occurring sparsely on the undisturbed fringes.

Species present include, but are not limited to, Herb Robert (*Geranium robertianum*), Common Ragwort, Common Bent, Cat's Ear (*Hypochaeris radicata*) and nettle.

There is no condition assessment for this habitat type.

4.4.9 u1f – Sparsely vegetated urban land (0.0818ha)

Parcel of land in the southwestern corner of the application site that is largely compacted aggregate with scattered patches of tall forbs and herbaceous ground flora. Species present include, but are not limited to, Ribwort Plantain, Creeping Thistle (*Cirsium arvense*), Bramble, Rosebay Willowherb (*Chamaenerion angustifolium*), Cat's Ear, Spear Thistle and Creeping Buttercup.

Urban Habitat Condition Assessment	Pass / Fail
A. Vegetation structure is varied, providing opportunities for insects, birds and bats to live and breed. A single ecotone (i.e. scrub, grassland, herbs) should not account for more than 80% of the total habitat area.	Pass
B. There is a diverse range of flowering plant species, providing nectar sources for insects. These species may be either native, or non-native but beneficial to wildlife.	Pass
C. Invasive non-native species (Schedule 9 of WCA) cover less than 5% of total vegetated area. NB - To achieve GOOD condition, criterion 3 must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Fail
Condition Score	Moderate

Table 10: Urban Habitat Condition Assessment

4.4.10 u1 - Vegetated garden (0.0111ha)

A small area of vegetated garden associated with a residential lodge in the northeast of the application site.

There is no condition assessment for this habitat type.

4.4.11 Individual Trees 522, 523 (Rural)

Twenty-two trees were recorded within the application site boundary, which were assessed individually. Species within the site assessment area included Yew (*Taxus baccata*), Ash, Field Maple (*Acer campestre*), Western Red Cedar (*Thuja plicata*), English Oak, Leyland Cypress, Lawson Cypress, Monterey Cypress (*Hesperocyparis macrocarpa*), Italian Cypress (*Cupressus sempervirens*) and Goat Willow. The trees displayed varying qualities and conditions: 6 trees were considered to be of 'Poor' condition, 14 were considered to be 'Moderate' and 3 were considered to be 'Good'.

Individual Tree Condition Assessment	Pass / Fail
A. The tree is a native species (or at least 70% within the block are native species).	Fail
B. The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Automatic pass
C. The tree is mature (or more than 50% within the block are mature).	Pass
D. There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Pass
E. Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Fail
F. More than 20% of the tree canopy area is oversailing vegetation beneath.	Pass
Condition Score	Moderate

Table19: Individual Tree Condition Assessment

Condition	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13
A	✓	✓	✓	✓	✓	✓	✓	✓					✓
B	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
C		✓	✓										
D	✓	✓											✓
E		✓											✓
F	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Condition Score	Mod	Good	Mod	Mod	Mod	Mod	Mod	Mod	Poor	Poor	Poor	Poor	Good

Condition	T14	T15	T16	T17	T18	T19	T20	T21	T22
A	✓	✓	✓	✓	✓	✓	✓		
B	✓	✓	✓	✓	✓	✓	✓	✓	✓
C									
D	✓						✓		
E	✓								
F	✓	✓	✓	✓	✓	✓	✓	✓	✓
Condition Score	Good	Mod	Mod	Mod	Mod	Mod	Mod	Poor	Poor

Table 20: Individual Tree Schedule



Figure 9: T2 within the scrub in the middle of the site. And T1 in the eastern middle.

4.4.12 Line of Trees 33, 523 (48m)

A line of Leyland and Lawson Cypress trees along the B3354 at the eastern boundary of the application site.

Line of Trees Condition Assessment	Pass / Fail
A. The tree is a native species (or at least 70% within the block are native species).	Fail
B. The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Pass
C. The tree is mature (or more than 50% within the block are mature).	Pass

D. There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Fail
E. Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Fail
F. More than 20% of the tree canopy area is oversailing vegetation beneath.	Fail
Condition Score	Poor

Table 21: Line of Trees condition assessment



Figure 9: Line of trees on roadside at the eastern boundary seen from the east.

4.5 Fauna

Species legislation is provided in Appendix B.

4.5.1 Amphibians

HBIC provided 11 relevant records⁷ of amphibians across 2 species within the 2km search area. The nearest record related to Common Toad (*Bufo bufo*), located approximately 0.67km northeast of the site. Three records for Great Crested Newt (GCN) (*Triturus cristatus*) were returned, the nearest of which was located 1.36km northwest of the application site.

MAGIC returned one approved EPS licence for the damage of GCN resting place approximately 1.56km north of the site. Additionally, 5 GCN survey records were provided, the nearest being for a terrestrial site 1.34km north of the application site in 2016.

During the walkover survey no waterbodies were identified onsite, one dry ditch was present and assessed for suitability however due to dense vegetation and lack of water the suitability was assessed to be negligible. Should amphibians, including GCN, be present in the wider area the site offers limited terrestrial phase hibernacula in the form of log piles, leaf litter, dense scrub and artificial refugia that could be intermittently used by individuals. Furthermore, the quality of adjacent overwintering habitats decreases the likelihood of amphibians, including GCN, utilising habitats onsite for this phase.

4.5.2 Badger

HBIC provided 11 relevant records for Badger (*Meles meles*) within the 2km search area, the nearest of which was located approximately 0.54km southwest of the application site.

No setts or field signs of badgers were identified onsite.

The site holds reasonable sett-building suitability within the dense scrub abutting the western border, particularly since this backs onto a section of ancient woodland. Additionally, since the large majority of the site is open grassland it holds high suitability for foraging badgers and may form part of a territory.

It is therefore reasonable to assume that even if there is no resident population present, badgers may commute through the application site.

4.5.3 Bats

HBIC provided 148 relevant records of bats across 15 species within the 2km search area, three of which were suspected roosts. The nearest suspected roost, from 2018, pertained to Common Pipistrelle (*Pipistrellus pipistrellus*) and was located approximately 1.39km northwest of the application site. The nearest recorded individual was a single Whiskered Bat (*Myotis mystacinus*), from 2017, located approximately 0.26km northeast of the application site.

MAGIC Maps provided four granted EPS applications within the 2km radius, the nearest of which allowed for the destruction of a Common Pipistrelle resting place in 2013, 1.03km north-west of site. Two additional licenses were granted for the destruction of resting places: One for Common Pipistrelles, Soprano Pipistrelles (*Pipistrellus pygmaeus*), and Brown Long-eared bats (*Plecotus auritus*) 1.7km north-west of site in 2015; and one for Common Pipistrelles, Serotine bats (*Eptesicus serotinus*) and Brown Long-Eared bats 1.93km north-west of site in 2013. More recently, a license was granted for the destruction of a Common Pipistrelle breeding site and resting place in 2017, approximately 1.46km north of the site.

⁷ 'Relevant' records relate to records from the last 10 years.

GLTA

All trees within the application site and located along the site’s boundaries were assessed from ground level for their suitability to support roosting bats. Features were identified such as splits, cracks, hollows, woodpecker holes, occlusions etc. Of the scattered mature trees recorded throughout the site, 1 individual tree and 1 tree edge were assessed to have ‘**PRF-I**’ suitability to support roosting bats which are discussed in greater detail in the table below.

The remaining mature trees onsite were considered to support ‘Negligible’ suitability to support roosting bats.

Tree sp./ ID	Grid ref.	Potential Roosting Features, Evidence and Suitability	Suitability
Oak / T2	SU 48778 20506	Extensive deadwood, peeling bark, ivy cover to lower stem. Pruning wound minor cavities, No large cavities / knot-holes	PRF-I
Woodland edge to northern part of west boundary	SU 48757 20550	Ivy covered stems, mature trees with possible cavities (unconfirmed)	PRF-I

Table 22 Roosting Bat assessment for trees:



Figure 2: PRF-I located on Oak T2



Figure 3: PRF-I woodland edge trees on northern west boundary

Roosting Bats – Buildings

All buildings within the application site were externally and internally visually assessed for PRFs. This is summarised below

Building No.	Building Description	Potential Roosting Features, Evidence and Suitability	Suitability
B1	B1 is a prefabricated lodge set on a brick base with a timber deck to the northern aspect. Elevations are timber paneling and PVC windows. Tile roof in sound condition with timber soffits and PVC guttering. Shallow roof space with insulation. All is well sealed with no opportunities for bats.	None	Negligible
B2	B2 is a prefabricated lodge elevated and in temporary position. Walls are PVC and well-sealed. The tiled roof and timber soffits are all well sealed. There are two roof vents that are well sealed. Access was not possible however the building is well sealed with no opportunities for bats.	None	Negligible
B3	B3 is a single skin timber shed / stable building with corrugated concrete panel roof. It is in dilapidated state which much of the roof fallen through. There are no roosting opportunities for bats.	None	Negligible
B4	B4 is a timber lean-to structure with corrugated steel roof and timber frame. There are no roosting opportunities for bats.	None	Negligible

Table 23: Roosting Bat assessment for Buildings



Figure 4: B1 viewed from the east.



Figure 5: B1 viewed from the north-west.



Figure 6: B1 internal space, ceiling.



Figure 7: B1 roofspace with insulation.



Figure 8: B2 viewed from the north-west.



Figure 9: B2 viewed from the east.



Figure 10: B2 viewed from the north-west.



Figure 11: B2 viewed from the north-west.



Figure 12: Some small timber shed / caravans / horse boxes across the site. Pictured in south-west corner.



Figure 13: B4 lean to shelter viewed from the north-west.

4.5.4 Day Bat Walk

The combination of habitats present within the application site such as woodland, scrub, grassland and scattered tall forbs are likely to provide a good foraging resource, with the boundary vegetation providing good commuting structure for bats known to be in the local area. Tree canopies, hedgerows and woodland edges provide a valuable resource for foraging bats which may provide a continuous commuting corridor to the wider landscape. As such, the application site is considered to support **'Moderate'** suitability to support foraging and commuting bats.

4.5.5 Birds

HBIC provided 173 relevant records across 23 species, listed on the BoCC Red List and/or Schedule 1 of the Wildlife and Countryside Act, within the 2km search area. Notable protected species include Barn Owl (*Tyto alba*), Kingfisher (*Alcedo atthis*), Firecrest (*Regulus ignicapilla*), Marsh Tit (*Poecile palustris*), Merlin (*Falco columbarius*), Greenfinch (*Carduelis chloris*), Redwing (*Turdus iliacus*), Goshawk (*Accipiter gentilis*). The nearest record was for Fieldfare (*Turdus pilaris*), a Red List species, located approximately 0.31km west of the site.

The site provides extensive foraging, cover and nesting opportunities for birds, especially within the hedgerows, trees and dense scrub located onsite. No nests were noted during the site walkover, but given the suitability of the site it is likely that they are present – particularly within the scrub and hedgerows. Additionally, the nearby areas of ancient woodland are identified in the 'Eastleigh Borough Council Biodiversity Strategy 2024-34' as being locally important for woodland bird assemblages, supporting 'key species for nature recovery' like Marsh Tit and Firecrest.

The taller swards of grassland onsite – where thatch is greater than 7cm in depth – represent good foraging habitat for birds of prey known to be in the area such as Barn Owl and Buzzard (*Buteo buteo*).

The buildings recorded within the site hold some additional suitability for holding nests for species such as Swallow (*Hirundo rustica*) and House Martin (*Delichon urbicum*).

4.5.6 Invertebrates

HBIC provided 98 relevant records for protected invertebrates across 15 species within the 2km search area. The nearest record was for White Admiral (*Limenitis camilla*), located approximately 0.55km south of the site.

The onsite grassland, scrub hedgerow habitats provide a good resource for invertebrate species; hedgerows and scrub in particular provide breeding areas for UK butterflies and moths, and commuting lines for a range of invertebrates. Notably, the presence of bramble scrub (for feeding) and oak (for breeding) onsite, as well as the nearby woodlands, represent ideal habitat for Silver-washed Fritillary (*Argynnis paphia*) - an LBAP species. The mature trees, dead wood and refugia onsite, coupled with the nearby stands of ancient broad-leaved woodland, also provide ideal habitat for Stag Beetle (*Lucanus cervus*) (and other *Coleoptera*) – a WCA Schedule 5 Species that has been frequently recorded in the area.

The diversity of nectar-producing plants, refugia, bare earth and mature native trees onsite provide suitable resources to support small populations of both common and locally important invertebrate assemblages, particularly species in the orders *Coleoptera* and *Lepidoptera*. Potential mitigation for these species is discussed further in section 5.1.5.

4.5.7 'Other' terrestrial mammals

HBIC provided 34 relevant records across 2 species for 'other' terrestrial mammals within the 2km search area, pertaining to European Hedgehog (*Erinaceus europaeus*) and Polecat (*Mustela putorius*). The nearest record was for an individual European Hedgehog, from 2017, located approximately 0.2km south of the application site.

No incidental sightings were made and no specific field signs of small mammals were noted during the site walkover.

The site provides extensive cover and foraging within the scrub, hedgerows and field margins for Hedgehog and therefore they will likely occur onsite. Similarly, the open grassland, farmland, hedgerows and broad-leaved woodland habitats on and near the site are suitable for Polecats, which are present in the local area and forage over large areas, meaning they too may occur onsite.

4.5.8 Riparian mammals

No records of Otter (*Lutra lutra*) or Water Vole (*Arvicola amphibius*) were returned by HBIC and no evidence of water vole or otter was identified during the site walkover.

4.5.9 Reptiles

HBIC provided 10 relevant records across 3 species within the 2km search area. The nearest record was for Grass Snake (*Natrix helvetica*), from 2020, located approximately 0.59km southeast of the application site.

Although Grass Snake are present in the local area, the prevalence of nearby ponds and ditches and the lack of water onsite makes any regular use of the application site unlikely. Whilst the site does offer some limited suitability for overwintering reptiles in the form of scrub, log piles, leaf litter and artificial refugia, it is likely that the site is only intermittently used by individuals.

5 ECOLOGICAL CONSTRAINTS AND OPPORTUNITIES

5.1 Ecological Constraints

Avoidance, mitigation and/or compensation measures are required for the following constraints:

5.1.1 Amphibians

Despite GCN records within the area, and suitable habitat surrounding the site, the lack of onsite ponds and suitable foraging habitats renders the presence of GCN onsite unlikely. The site does offer some limited suitability to support GCN during their terrestrial phase and this should be considered before undertaking the initial site clearance.

There is also a possibility that amphibians such as Toads and Frogs (*Rana temporaria*) may be intermittently encountered within the application area during the initial site clearance, particularly within the scrub onsite. In order to minimise the risk of killing or injury a precautionary site clearance method will be implemented – which is detailed below:

- Any suitable habitat such as brash, log piles, grass cuttings will be carefully searched by hand. Any amphibians found during the search will be relocated to an area of retained habitat.
- Vegetation clearance will be undertaken in a phased approach (from south to the north-east) allowing any amphibians the time to disperse.
- Trenches or excavations left uncovered overnight will have a suitable means of escape (such as wooden plank).

5.1.2 Badger

While no badger setts, or evidence of badgers, were identified onsite, it was considered likely that badgers intermittently pass through the application site as part of their foraging and dispersal patterns. Additionally, it is worth noting that a large portion of the application site that holds suitability for badgers was inaccessible during the walkover survey (namely the scrub buffer along the western boundary). Resultantly, the following precautionary approach should be implemented:

- A check for badger evidence should be undertaken alongside the scrub and grassland clearance prior to commencement of any development to establish if any badger setts are present and / or have been dug in the intervening period.
- Ensure excavations or trenches left overnight are covered or have an escape route such as a shallow gradient at one or both ends.
- Ensure excavations or trenches are inspected each morning and evening to ensure no badgers have become trapped.
- Open pipework with a diameter of more than 120mm should be properly covered or capped at the end of the working day to prevent badgers from entering and becoming trapped.
- During the work, the storage of any chemicals should be contained in such a way that they cannot be accessed or knocked over by any roaming badgers.
- The storage of topsoil or other “soft” building materials within the site should be given careful consideration. Badgers will readily adopt such mounds and dig setts which would then be afforded the same protection as established setts. To avoid the adoption of such mounds, they should be subject to daily inspections before work commences or alternative measures put in place, such as being fenced off (for higher-risk areas).

- Litter, tools and potentially dangerous materials onsite should be cleared at the end of the working day. Care should be taken that there are no sharp metal objects or pointed protrusions on the ground which could seriously injure a badger due to their poor eyesight.

5.1.3 Bats

GLTA

One tree (T2 at the centre of the site) and the woodland edge were assessed to provide 'PRF-I' suitability to support roosting bats. The current site plans show these tree to remain, however if the trees are to be removed to allow for the development footprint, they should be subject to a Roost Resource Approach where a Working Method Statement following a 'soft-felling' strategy to be fully enclosed within a CEMP which may include the following instructions:

- Soft felling only to be undertaken during the transitional period (March – April and September – October inc.)
- Limbs are to be removed slowly and methodically and lowered to the ground
- Limbs and removed dead-wood left overnight to allow any individuals to disperse
- Limbs to be removed from the application site the following morning.

As part of a Roost Resource Approach, appropriate compensation should be secured for all PRFs to ensure the roosting resource is not reduced as a result of the proposed tree removal works:

- Eco Kent Crevice Bat Box located at least 5m from the ground level in a location free of climbing vegetation and out of reach of domestic animals

Day Bat Walking

The application site was considered to support 'Moderate' suitability to support foraging and commuting bats due to the onsite mature vegetation and surrounding environmental context. The development will see the majority of trees within the site retained and the existing scrub enhanced, therefore retaining the long-term suitability for the site to support foraging and commuting bats.

However, artificial lighting during the construction phase of the development and in-use may result in short-term impacts to foraging and commuting individuals.

A sensitive low-level lighting scheme will be prepared by a lighting engineer to ensure no mature vegetation is impacted by the development. The lighting strategy should follow best practice as dictated by the Bat Conservation Trust⁸:

- Consider employing a competent lighting designer who will apply the principals of providing the right light, in the right place, at the right time and controlled by the right system.
- Minimise the spread of light to at, or near horizontal and ensure that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required.
- Avoid light spill onto scrub, hedgerows and trees where possible to minimise disturbance to foraging and commuting bats.

⁸ Buglife (2011) A review of the impact of artificial light on invertebrates. Buglife.
 Royal Commission on Environmental Pollution (2009) Artificial light in the environment. London, HMSO
 CPRE (2014) Shedding Light: A survey of local authority approaches to lighting in England.

- Consider the height of lighting columns. It should be noted that a lower mounting height is not always better. A lower mounting height can create more light spill or require more columns.
- Column height should be carefully considered to balance task and mitigation measures.
- Limit the times that lights are on to provide some dark periods. The task being lit often varies, for example roads are less used after 23.00hrs and car parks are empty. A lighting designer can vary the lighting levels as the use of the area changes reducing lighting levels or perhaps even switching installations off after certain times. This use of adaptive lighting can tailor the installation to suit human health and safety as well as wildlife needs.

In addition, apply technical specifications:

- Use narrow spectrum light sources to lower the range of species affected by lighting.
- Use light sources that emit minimal ultra-violet light
- Lights should peak higher than 550 nm
- Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue short wavelength content they should be of a warm / neutral colour temperature <4,200 kelvin.

5.1.4 Breeding Birds

No active or historic nests were recorded within the application area during the preliminary walkover assessment. However, the vegetation onsite was considered to provide suitable nesting habitat for birds and has the potential to support populations of birds of local and national interest such as Tree sparrow (*Passer montanus*) or House sparrow (*Passer domesticus*) which may be directly injured or disturbed during the breeding season via nest abandonment.

Onsite Reasonable Avoidance Methods (RAMs) should be followed by all onsite staff during the construction phase of the development and enclosed within a CEMP. The RAMs will include, but not limited to, the following safe working guidance, in order for the works to proceed in a legal and ecologically sensitive manner:

- Vegetation clearance / Ground preparation should only be undertaken outside of the recognised breeding birds' season, which runs between March – September inclusive.
- If this is unachievable a Breeding Birds Check should be carried out by a qualified ecologist within 24hrs prior to the onset of works. If nesting birds are recorded within any vegetation due for removal, the area and surrounding 5m radius of the nest will be protected until the birds have fledged.
- If it is not possible to fully observe or inspect all the vegetation to be cleared, the ecologist will be required to supervise the clearance.

Foraging and nesting opportunities should be designed into the development through appropriate scrub enhancement and tree planting.

5.1.5 Invertebrates

The majority of broad-leaved trees onsite are to be retained, scrub onsite is to be enhanced and a new section of neutral grassland with suitable food plants is to be created. Insecticides and pesticides should not be used onsite and any overmature trees/standing dead wood should be retained to accommodate any Stag Beetle using the site.

5.1.6 Invasive Species

A management plan for the complete removal/eradication of Japanese Knotweed should be put in place as part of the development.

5.1.7 Trees

Trees should be retained if possible as part of the development.

Retained trees should be protected in line with BS5837:2012 '*Trees in relation to Design, Construction and Demolition -recommendations*'.

5.1.8 Reptiles

As mentioned in Section 4.5.8, although some habitats onsite provide suitable refugia/hibernacula for reptiles such as Grass Snake, a lack of ecological corridors/network of waterways to the site mean that dispersal of Grass Snakes onto the site is unlikely. Other reptiles, such as Slow Worm (*Anguis fragilis*) may be intermittently present onsite, utilising corrugated sheeting and other artificial refugia in a similar manner. There are limited opportunities for foraging onsite within denser, taller swards of grasses. Therefore, it is recommended that a precautionary site clearance method be implemented.

- Site clearance should be undertaken in a phased manner where grassland habitats are strimmed to a height of 15cm from the centre to the peripheries to allow individuals to disperse naturally. Grassland and vegetation may then be removed from the application with any arisings removed as soon as possible.
- Any suitable habitat such as brash or log piles will be carefully searched by hand. Any individuals found during the search will be relocated to an area of retained habitat.
- Trenches or excavations left uncovered overnight will have a suitable means of escape (such as wooden plank).

5.1.9 'Other' terrestrial mammals

To minimise the risk of killing or injury to 'other' terrestrial mammals, a precautionary site clearance method, detailed below, will be implemented:

- Site clearance should be undertaken in a phased manner where grassland habitats are strimmed to a height of 15cm from the centre to the peripheries to allow individuals to disperse naturally. Grassland and vegetation may then be removed from the application with any arisings removed as soon as possible.
- Any suitable habitat such as brash or log piles will be carefully searched by hand. Any mammals found during the search will be relocated to an area of retained habitat.
- Trenches or excavations left uncovered overnight will have a suitable means of escape (such as wooden plank).
- Opportunities for hedgehogs should be included in the development design, including holes at least 13cm in size retained in the boundary walls or fencing allowing hedgehogs continued passage around the site and suitable planting to provide foraging and shelter for the species.

5.1.10 Biodiversity Net Gain

As the site is the subject of three separate planning applications, habitat and hedgerow units for each application are detailed across three distinct BNG reports.

5.2 Summary of Recommendations

The below information will be required, either to support the planning application or form part of a planning condition:

Ecological Receptor / Constraint	Timescales
Designated Sites Natural England should be consulted regarding advice on potential impacts to the River Itchen SSSI Risk Zone.	Prior to planning approval.
Breeding Birds Pre-commencement check and Reasonable Avoidance Methods (RAMs) to be undertaken. Enclosed within CEMP. Mitigation and enhancements to be secured within Ecological Enhancement Plan.	Prior to and during construction Secured through appropriately worded condition of planning.
Badgers Pre-commencement check and Reasonable Avoidance Methods (RAMs) to be undertaken. Enclosed within CEMP.	Prior to construction. Secured through appropriately worded condition of planning.
Amphibians Reasonable Avoidance Methods (RAMs) to be undertaken. Enclosed within CEMP.	During construction Secured through appropriately worded condition of planning.
Trees Existing trees should be protected in line with BS5837:2012.	Prior to and during construction
Foraging and Commuting Bats Soft-lighting strategy to be implemented during the construction phase and post-development use. Soft-lighting plan to be prepared by a competent lighting professional	Prior to and during construction Secured through appropriately worded condition of planning.
Roosting Bats If tree T2 is to be felled it should be subject to a 'soft-felling' strategy. Enclosed within CEMP.	Prior to construction. Secured through appropriately worded condition of planning.
Invasive Species A management plan should be put in place to remove areas of Japanese Knotweed	Prior to and during construction. Secured through appropriately worded condition of planning.
'Other' terrestrial mammals Reasonable Avoidance Methods (RAMs) to be undertaken. Enclosed within CEMP. Enhancements to be secured within LEMP.	Prior to construction Secured through appropriately worded condition of planning.

Table 24: Summary of Ecological recommendations

5.3 Ecological Enhancement Opportunities

The following ecological enhancements should be incorporated into the proposed development:

- Suitable bird nesting habitat should be incorporated into the design plans. All nesting provision placed onto buildings will be positioned, generally, at least 3m from the ground level, ideally on the western or eastern elevations, and be free of climbing vegetation and out of reach of domestic animals:

Nest box type and specification	Species supported	Recommendation details
Open Nest Box – targeting song thrush (locally present). https://www.nhbs.com/vivara-pro-barcelona-woodstone-open-nest-box	Song thrush (<i>Turdus philomelos</i>)	Can be installed on trees or buildings. Height from the ground should be about 3 metres — avoid sites where foliage obscures the entrance hole - a clear flight path is important. Shelter your box from the weather — the front of the nest box should be angled vertically or slightly downwards to prevent rain from entering the nest box. It should be sheltered from prevailing wind, rain and strong sunlight.
Starling box (45mm entrance hole) https://www.nhbs.com/vivara-pro-woodstone-starling-nest-box	Starlings (<i>Sturnus vulgaris</i>)	As above. Must be more than 1 box grouped together to encourage occupancy.
Non-specific boxes; Small nest box(es) with hole (28mm and 32mm). https://www.nhbs.com/vivara-pro-seville-28mm-woodstone-nest-box https://www.nhbs.com/vivara-pro-seville-32mm-oval-woodstone-nest-box	Small passerines such as tree sparrows (<i>Passer montanus</i>), house sparrows (<i>Passer domesticus</i>), great tits (<i>Parus major</i>), nuthatches (<i>Sitta europaea</i>), coal tits (<i>Periparus ater</i>) and pied flycatchers (<i>Ficedula hypoleuca</i>).	Can be installed on trees or buildings. Height from the ground should be about 3 metres — avoid sites where foliage obscures the entrance hole - a clear flight path is important. Shelter your box from the weather — the front of the nest box should be angled vertically or slightly downwards to prevent rain from entering the nest box. It should be sheltered from prevailing wind, rain and strong sunlight.

Table 25: Summary of suggested nest boxes

- Wood pile habitats should be provided for overwintering amphibians and reptiles, ideally located within existing retained areas of mature vegetation and within the understorey of thickets of mature scrub habitats.
- Bug hotels and areas of dead wood can be introduced into planting areas to provide important habitats for a range of important invertebrates, for example *Coleoptera*. Leaf litter collected by gardeners should be retained where possible.
- Mature vegetation such as scattered individual trees and scrub habitat provides good quality habitat for nesting birds, small mammals and holds biodiversity value in its own right. Where possible, this habitat should be further enhanced with additional native planting and incorporated into the plans for the development site.
- Areas of rough grassland with a minimum 7cm thatch layer should be established to support barn owls, small mammals and insects. See here for further details < <https://www.barnowltrust.org.uk/how-to-manage-land-for-barn-owls/>>

5.4 Mechanism to secure Mitigation and Enhancement

The mitigation measures and enhancement opportunities set out above can be secured through appropriately worded planning conditions as part of any planning consents granted.

6 CONCLUSION

This Preliminary Ecological Appraisal has identified a number of ecological constraints as defined within section 5 and specific avoidance, mitigation and compensation measures have been provided.

Avoidance is required for the following ecological constraints and will need to be included in the development of the site layout:

- Retention of trees T2 with bat roost potential. If not this should be addressed in a CEMP.

No further survey work is considered to be necessary to establish the ecological baseline of the site.

Ecological enhancements have been proposed within section 5.

This PEA report (PEAR) is considered to be sufficient to support the planning application and no further impact assessment is required as the mitigation and enhancement opportunities can either be incorporated into the site layout design or secured through appropriately worded planning conditions and/or legal agreement as part of any planning consents granted.

It is anticipated that planning conditions would be used to secure:

- A Construction Environmental Management Plan (CEMP) covering species and habitat reasonable avoidance measures, to be submitted and approved prior to construction commencing;
- Soft-lighting Strategy
- Ecological Enhancement Plan.
- Invasive Species Management Plan

APPENDIX A – SPECIES LIST

Common Name	Latin Name
Spear Thistle	<i>Cirsium vulgare</i>
Bramble	<i>Rubus fruticosus</i> agg.
Pendulous Sedge	<i>Carex pendula</i>
Common Fleabane	<i>Pulicaria dysenterica</i>
St John's Wort	<i>Hypericum perforatum</i>
Common Rush	<i>Juncus effusus</i>
Wild Teasel	<i>Dipsacus fullonum</i>
Common Ragwort	<i>Senecio jacobaea</i>
Photinia 'Red Robin'	<i>Photinia x fraseri</i>
Creeping Bent	<i>Agrostis stolonifera</i>
White Clover	<i>Trifolium repens</i>
Creeping Buttercup	<i>Ranunculus repens</i>
Cleavers	<i>Galium aparine</i>
Ribwort Plantain	<i>Plantago lanceolata</i>
False Oat-grass	<i>Arrhenatherum elatius</i>
Moth Mullein	<i>Verbascum blattaria</i>
Blackthorn	<i>Prunus spinosa</i>
Nettle	<i>Urtica dioica</i>
Dock	<i>Rumex</i> sp.
Dog Rose	<i>Rosa canina</i>
Hedge Bindweed	<i>Calystegia sepium</i>
Hawthorn	<i>Crataegus monogyna</i>
Goat Willow	<i>Salix caprea</i>
White Willow	<i>Salix alba</i>
Hazel	<i>Corylus avellana</i>
English Oak	<i>Quercus robur</i>
Ash	<i>Fraxinus excelsior</i>
Elder	<i>Sambucus nigra</i>
Yew	<i>Taxus baccata</i>
Field Maple	<i>Acer campestre</i>
Western Red Cedar	<i>Thuja plicata</i>
Italian Cypress	<i>Cupressus sempervirens</i>
Monterey Cypress	<i>Hesperocyparis macrocarpa</i>
Cherry Laurel	<i>Prunus laurocerasus</i>
Leyland Cypress	<i>Cupressus x leylandii</i>
Lawson Cypress	<i>Chamaecyparis lawsoniana</i>
Herb Robert	<i>Geranium robertianum</i>
Cat's Ear	<i>Hypochaeris radicata</i>
Creeping Thistle	<i>Cirsium arvense</i>
Rosebay Willowherb	<i>Chamaenerion angustifolium</i>

APPENDIX B – KEY SPECIES LEGISLATION

Bats

Bats are European Protected Species (EPS) listed on Annex IV of the Habitats Directive 1992 which is transposed into UK law by the Conservation (Natural Habitats &c) Regulations 1994 or “Habitats Regulations” and consolidated within The Conservation of Habitats and Species Regulations 2017. Bats are also protected through Schedules 5 and 6 of the Wildlife and Countryside Act (WCA) 1981 (as amended). Certain species are also listed in Section 41 of the NERC Act 2006, as species which are of principal importance for the conservation of biodiversity in England. A number of Bat species are listed as a Biodiversity Action Plan (BAP) priority species on the UK BAP.

European Otter (*Lutra lutra*)

Otters are an EPS listed on Annex IV of the Habitats Directive 1992 which is transposed into UK law by the Conservation (Natural Habitats &c) Regulations 1994 or “Habitats Regulations” and consolidated within The Conservation of Habitats and Species Regulations 2017. Otters are also a UK BAP priority species and listed as a species of principal importance for the conservation of biodiversity in England under Section 41 of the NERC Act 2006. Otters are also protected through Schedules 5 and 6 of the WCA 1981 (as amended).

European Water Vole (*Arvicola amphibious*)

Water Vole is protected under Schedule 5 of the WCA 1981 (as amended) and is listed as a species of principal importance for the conservation of biodiversity in England under Section 41 of the NERC Act 2006. Water Voles are also listed as a UK BAP priority species.

Eurasian Badger (*Meles meles*)

Badgers are protected in the UK under the Protection of Badgers Act 1992 which protects both the individual animals and their setts. However, habitats used for any other purpose are not afforded any form of protection under this or other legislation. This species is also listed on Schedule 6 of the Wildlife and Countryside Act 1981 (as amended) which outlaws certain methods of taking and killing when this is necessary.

Hazel Dormouse (*Muscardinus avellanarius*)

Hazel Dormouse is an EPS included on schedule 2 of the Habitats Regulations, and on Schedule 5 of the WCA 1981 (as amended). Dormouse is listed as a species of principal importance for the conservation of biodiversity in England under Section 41 of the NERC Act 2006 and is also listed as a UK BAP priority species.

Polecat (*Mustela putorius*)

Polecats are protected under Schedule 4 of the Habitats Regulations and Schedule 6 of the WCA 1981 (as amended). Polecat are also listed as a UK BAP priority species.

Harvest Mouse (*Micromys minutus*)

Harvest mouse is listed as a species of principal importance for the conservation of biodiversity in England under Section 41 of the NERC Act 2006 and is also listed as a UK BAP priority species.

European Hedgehog (*Erinaceus europaeus*)

Hedgehog are listed as a species of principal importance for the conservation of biodiversity in England under Section 41 of the NERC Act 2006 and is also listed as a UK BAP priority species.

Birds

All bird species including their eggs and nests, are protected from harm during the breeding season under the WCA 1981 to varying degrees. Some bird species are also included on Schedule 1 of the WCA 1981 (as amended) and inclusion on this schedule makes it an offence to intentionally or recklessly disturb these birds at, on or near an ‘active’ nest. A number of birds are listed as species of

principal importance for the conservation of biodiversity in England under Section 41 of the NERC Act 2006.

Reptiles

Widespread reptiles; Adder (*Vipera berus*), Grass snake (*Natrix natrix*), Common lizard (*Lacerta vivipara*) and Slow-worm (*Anguis fragilis*) are protected against killing, injuring and sale under UK legislation through their inclusion in Appendix III of the Bern Convention (1979), Schedule 5 of the WCA 1981 (as amended).

Sand Lizard (*Lacerta agilis*) and Smooth snake (*Coronella austriaca*) are also EPS listed on Annex IV of the Habitats Directive 1992 which is transposed into UK law by the Habitats Regulations, and on Schedule 5 of the WCA 1981 (as amended).

All reptiles are listed as UK BAP Priority species and are also listed as a species of principal importance for the conservation of biodiversity in England under Section 41 of the NERC Act 2006.

Amphibians

Widespread amphibians; Smooth newt (*Triturus vulgaris*), Palmate newt (*Triturus helveticus*), Common frog (*Rana temporaria*) and Common toad (*Bufo bufo*) are only protected from sale under Schedule 5 of the WCA 1981 (as amended). Common toad is also listed as a UK BAP Priority species.

Great crested newt (*Triturus cristatus*) and Natterjack toad (*Bufo calamita*) are also EPS listed on Annex II and IV and Annex IV respectively of the Habitats Directive 1992 which is transposed into U.K law by the Habitats Regulations, and on Schedule 5 of the WCA 1981 (as amended). Both are also listed as a UK BAP Priority species and GCN are also listed as a species of principal importance for the conservation of biodiversity in England under Section 41 of the NERC Act 2006.

Invertebrates

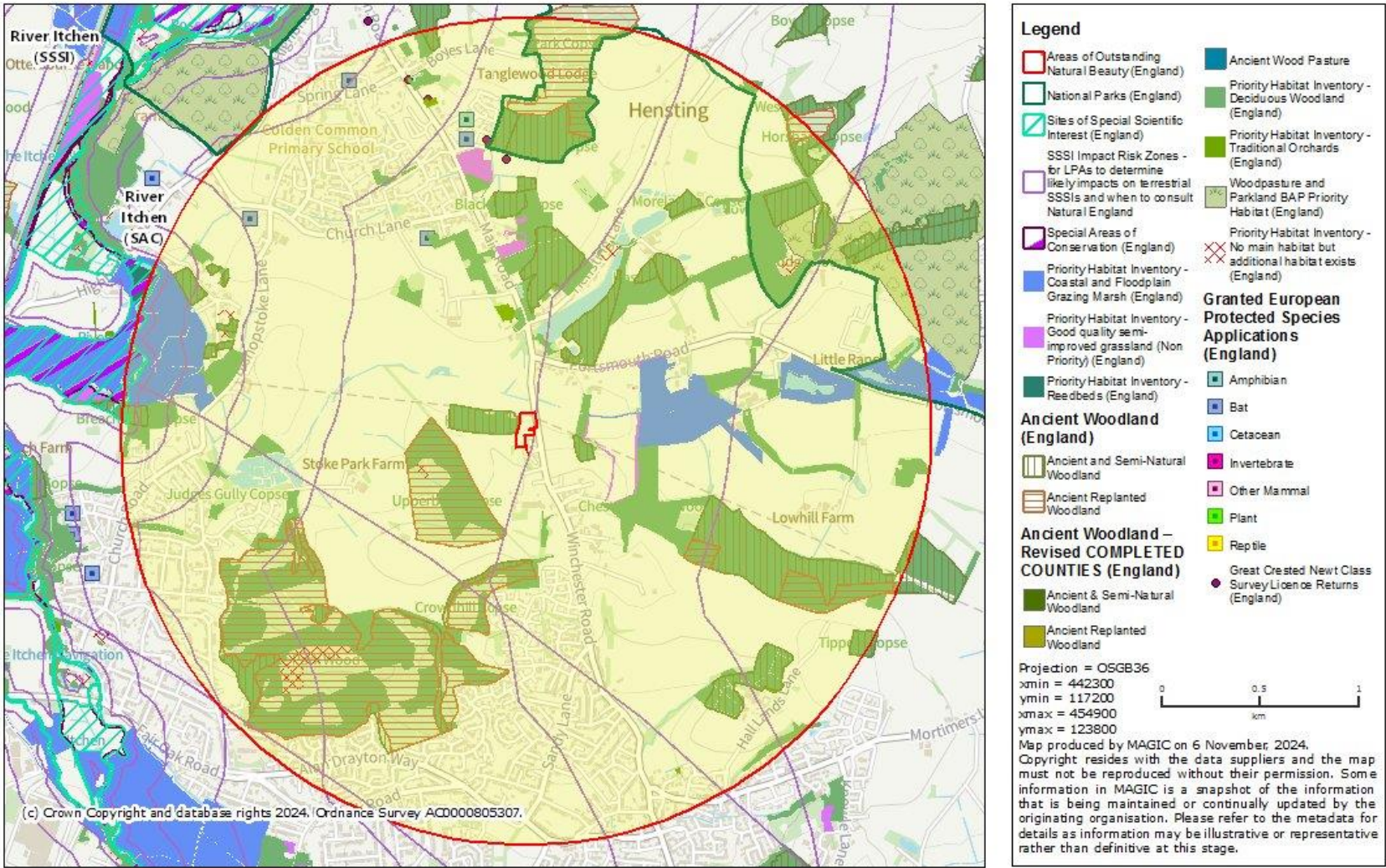
A large number of British invertebrates are protected under Schedule 5 of the WCA 1981 (as amended). Different species are protected under one, some or all of the parts of Section 9. Hundreds of invertebrate species are of principal importance for the conservation of biodiversity in England under Section 41 of the NERC Act 2006. Similarly, several hundred are also listed as a UK BAP priority species.

White-clawed crayfish (*Austropotamobius pallipes*)

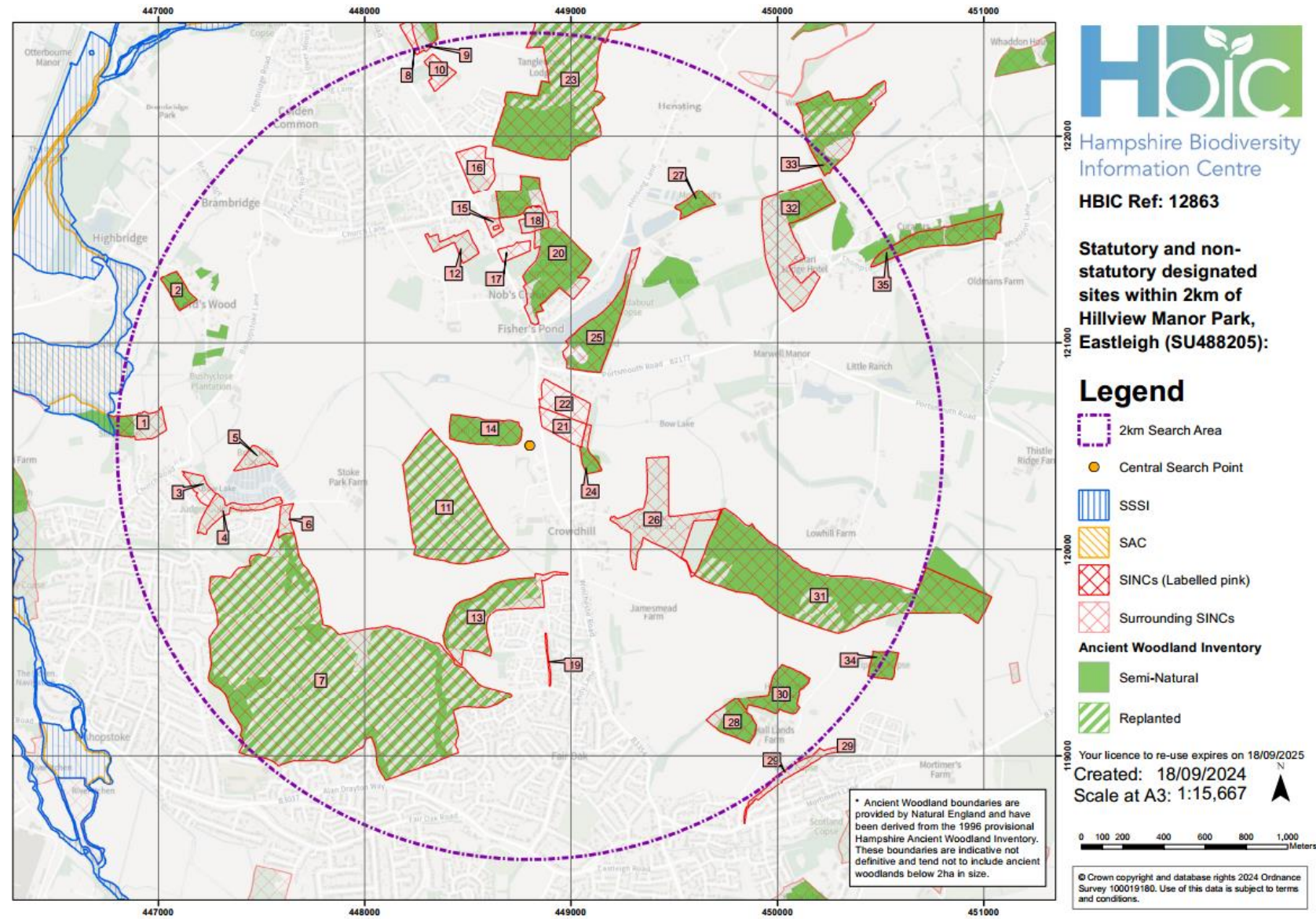
White-clawed crayfish is listed in Appendix III of the Bern Convention, and Annexes II and IV of the EC Habitats Directive, and is protected under Schedule 5 of the WCA 1981 (as amended) in respect of taking from the wild and sale. White-clawed crayfish is a species of principal importance for the conservation of biodiversity in England under Section 41 of the NERC Act 2006 and is also listed as a UK BAP priority species.

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Hillview Manor Park, Eastleigh



APPENDIX D – LWS SITES



WEDDLES

Hillview Manor Park, Eastleigh
Preliminary Ecological Appraisal Report - November 2024

