Ecological Impact Assessment

Land West of Hulbert Road, Havant

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Report	Ecological Impact Assessment
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Executive Summary

Ecosupport Ltd was instructed by BRiCS Development to undertake an updated Ecological Impact Assessment (EcIA) of a parcel of land at Land West of Hulbert Road, Havant. This was required in order to identify any potentially important ecological features that may be affected by the proposed development. Previously, an Ecological Appraisal followed by several Phase II surveys were undertaken between 2018 – 2020, with the following surveys undertaken:

- Ecological Appraisal (WYG, 2019)
- Bat Trapping Surveys (undertaken in 2018 & 2019 - WYG, 2021)
- Bat Activity Surveys (undertaken 2019 & 2020 - WYG, 2021)
- Reptile Surveys (undertaken in 2019 – WYG, 2019)
- Hazel Dormouse Surveys (undertaken in 2019 & 2020 – WYG 2021)

As part of the updated assessment, the following surveys were undertaken:

- Updated data request from Hampshire Biodiversity Information Centre (Dec, 2024)
- Updated walkover survey with UK Habs habitat assessment (Dec, 2024 & May, 2025)
- Ground Level Tree Assessment (GLTA) of trees on site (Dec, 2024)
- Updated Habitat Suitability Index survey (May, 2025)
- Updated Hazel Dormouse surveys (2025)

The following important ecological features were identified on site following the conclusion of the above survey work and may be subject to adverse impacts in the absence of suitable mitigation / compensation:

- Zone of influence for Chichester and Langstone Harbours SPA / The Solent SPAs
- Neville's Park West Wood SINC & Hulbert Road Meadow SINC on site
- Priority habitat (lowland mixed deciduous woodland) on site
- Potential roosting features identified in several trees (further assessment required)
- Regional level of significance for commuting and foraging bats with Annex II Species Barbastelle present (based on previous survey work)
- Potential for commuting and foraging Badger & Hedgehog
- Likely absence of common reptiles
- Man-made Ditch on site offering 'average' suitability to support Great Crested Newts, likely absence of Great Crested Newts
- Confirmed presence of Hazel Dormice on site
- Moderate potential for breeding and nesting birds

In the absence of any mitigation measures, the proposed development is anticipated to result in, ***certain adverse impacts.*** In addition to this, measures are outlined within **Section 6.0** of this document, including recommendations for updated phase II surveys, to mitigate where impacts been identified as well as provide targeted ecological enhancements.

1.0 INTRODUCTION

1.1 Brief

Ecosupport Ltd was instructed by BRiCS Development to undertake an updated Ecological Impact Assessment (EcIA) of a parcel of land at Land West of Hulbert Road, Havant (here after referred to as 'the site'). The purpose of this survey was to assess any ecological impacts that may arise as a result of the proposed development. The objectives of the survey were as follows:

- Identify and classify any priority habitats;
- Assess the ecological value of the site;
- Identify any signs of protected species and potential features that may support them
- Make recommendations for further survey work as necessary;
- Make recommendations for any necessary ecological avoidance and mitigation where possible at PEA stage.

NB: If the works do not take place within 18 months of this report[1] then the findings of this survey will no longer be considered valid and may require updating.

1.2 Site Description & Location

The site comprises a parcel of a parcel of land located to the west of Hulbert Road, Havant (centred on OS grid reference SU 69445 08150). The site adjoined the A3(M) Motorway to the west and the B2150 Hulbert Road to the east, with Neville's Park West Wood SINC at the north of the site and Hulbert Road Meadow SINC at the south. Within the wider environment, the site is encompassed by woodland, however the surrounding habitats are predominantly urban with the town of Havant to the south-east and Waterlooville to the north-west.

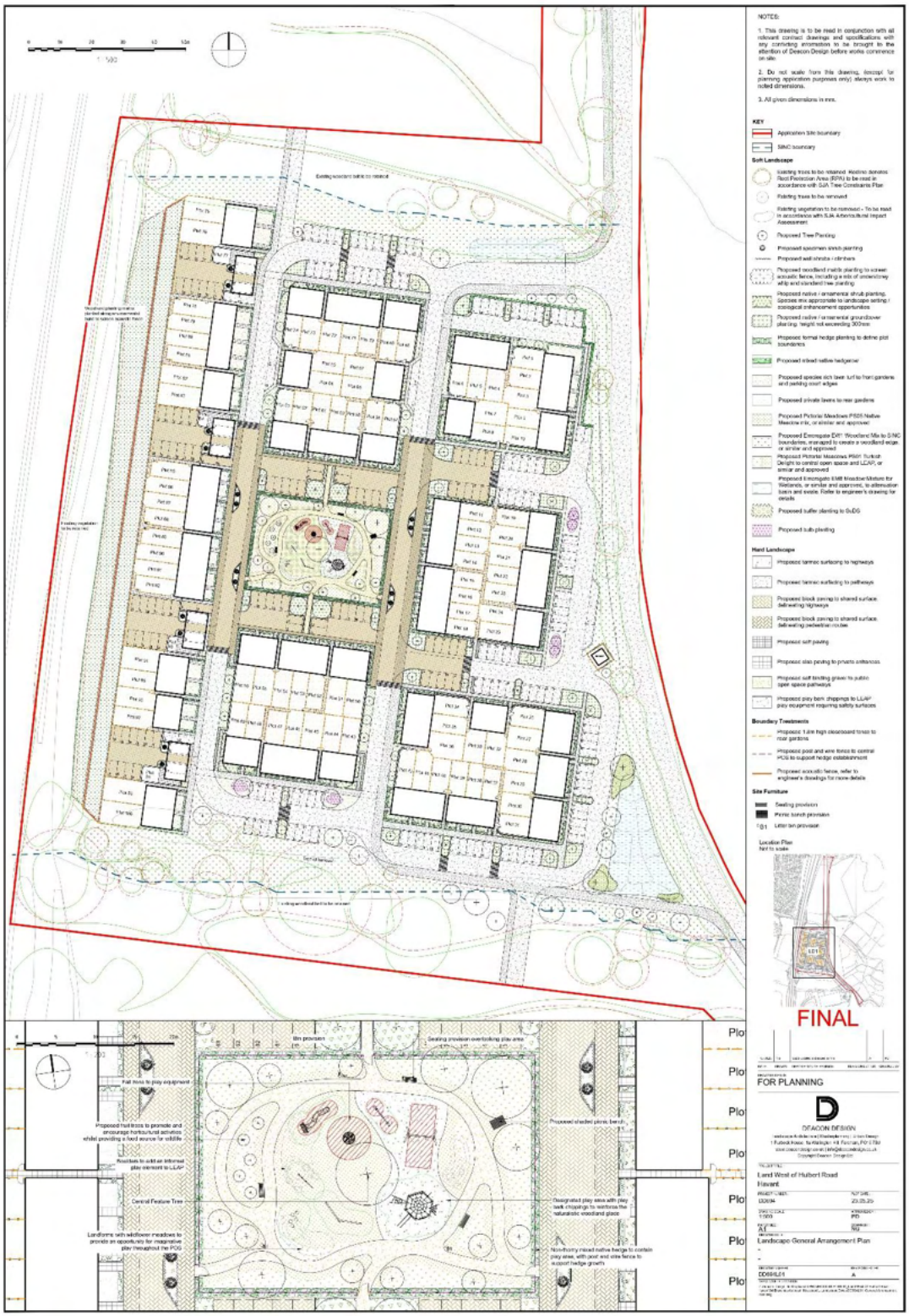
Figure 1. Approximate redline boundary of the site (Google Satellite, 2025).

[1] https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf

1.3 Proposed Development

Reserved matters application for 100 dwellings and improved site access, landscaping, footpaths, SuDS and other associated works. Matters relating to appearance, landscaping, layout and scale to be considered (**Fig 2**).

Figure 2. The Landscape General Arrangement Plan (Deacon Design, 2025. Drawing no. DD694L01 Revision A).



2.0 RELEVANT LEGISLATION AND POLICY

2.1 Legislation

2.1.1 The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations (2019)
This instrument makes changes to the three existing instruments which transpose the Habitats and Wild Birds Directives so that they continue to work (are operable) upon the UK's exit from the European Union (EU). These include The Conservation of Habitats and Species Regulations 2017 and The Conservation of Offshore Marine Habitats and Species Regulations 2017. This instrument also amends section 27 of the Wildlife and Countryside Act 1981 to ensure existing protections continue. The intention is to ensure habitat and species protection and standards as set out under the Nature Directives are implemented in the same way or an equivalent way when the UK exits the EU.

This transposes the EU Habitats Directive (Council Directive 92/43/EEC) into UK domestic law. It provides protection for sites and species deemed to be of conservation importance across Europe. It is an offence to deliberately capture, kill or injure species listed in Schedule 2 or to damage or destroy their breeding sites or shelter. It is also illegal to deliberately disturb these species in such a way that is likely to significantly impact on the local distribution or abundance or affect their ability to survive, breed and rear or nurture their young.

In order for activities that would be likely to result in a breach of species protection under the regulations to legally take place, a European Protected Species (EPS) licence must first be obtained from Natural England.

2.1.2 The Wildlife and Countryside Act (1981) (as amended)
This is the primary piece of legislation by which biodiversity if protected within the UK. Protected fauna and flora are listed under Schedules 1, 5 and 8 of the Act. They include all species of bats, making it an offence to intentionally or recklessly disturb any bat whilst it is occupying a roost or to intentionally or recklessly obstruct access to a bat roost. Similarly, this Act makes it an offence to kill or injure any species of British reptiles and also makes it an offence to intentionally kill, injure or take any wild bird or to take, damage or destroy their eggs and nests (whilst in use or being built).

The Wildlife & Countryside Act (1981) states that it is an offence to 'plant or otherwise cause to grow in the wild' any plant listed in Schedule 9 art II of the Act. This list over 30 plants including Japanese Knotweed (*Fallopia japonica*), Giant Hogweed (*Heracleum mantegazzianum*) and Parrots Feather (*Myriophyllum aquaticum*).

2.1.3 The Countryside and Rights of Way Act (2000)
This Act strengthens the Wildlife & Countryside Act by the addition of "reckless" offences in certain circumstances, such as where there is the likelihood of protected species being present. The Act places a duty on Government Ministers and Departments to conserve biological diversity and provides police with stronger powers relating to wildlife crimes.

2.1.4 Natural Environment and Rural Communities Act (2006)

The Natural Environment and Rural Communities (NERC) Act 2006 requires that public bodies have due regard to the conservation of biodiversity. This means that Planning authorities must consider biodiversity when planning or undertaking activities. Section 41 of the Act lists species found in England which were identified as requiring action under the UK Biodiversity Action Plan and which continue to be regarded as conservation priorities under the *UK Post – 2010 Biodiversity Framework.*

2.1.5 Protection of Badgers Act

The Protection of Badgers Act (1992) relates to the welfare of Badgers (*Meles meles*) as opposed to nature conservation considerations. The Act prevents:

- The wilful killing, injury, ill treatment or taking of Badgers and / or
- Interference with a Badger sett
- Damaging or destroying all or part of a sett
- Causing a dog to enter a set and
- Disturbing a Badger while it is occupying a sett

Provisions are included within the Act to allow for the lawful licensing of certain activities that would otherwise constitute an offence under the Act.

2.1.6 The Environment Act (2021)

The Environment Act 2021 is the UK's new legislation for environmental protection in the UK, which includes protection of water quality, clean air, and biodiversity among other key protections. This Act provides the government power to set targets to reach long-term aims relating to the environment, which will be periodically reviewed and updated. This legislation also establishes a new environmental watchdog organisation, the Office for Environmental Protection (OEP), which will hold the government accountable on environmental issues.

The legislation also includes updates to existing environmental legislation, such as the NERC Act 2006, to strengthen biodiversity enhancement rather than just conservation and includes a requirement for local, or relevant, authorities to publish biodiversity reports. Further, The Environment Act places a requirement on responsible authorities to prepare local nature recovery strategies, which will outline nature conservation sites and priorities and opportunities for recovering or enhancing biodiversity within the local area. Within England, the legislation also provides Natural England with the power to publish 'species conservation strategies' and 'protected site strategies' to identify activities that may affect a species or site's status and outline their opinions on measures that would be appropriate to avoid, mitigate or compensate any adverse impacts.

2.2 Policy

2.2.1 National

The National Planning Policy Framework (NPPF) (2024) sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced.

Chapter 15 'Conserving and enhancing the natural environment' states that planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing sites of biodiversity, the wider benefits from natural capital and ecosystem services, minimising impacts on and minimising impacts on and providing net gains for biodiversity including by incorporating features which support priority or threatened species such as swifts, bats and hedgehogs.

The NPPF states that plans should distinguish between the hierarchy of international, national and locally designated sites and land should be allocated with the least environmental or amenity value and take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure for the enhancement of natural capital at a catchment or landscape scale.

To protect and enhance biodiversity, plans 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.

The NPPF states determining planning applications, local planning authorities should apply the following principles:

a) 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;

b) development on land within or outside a SSSI, 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 SSSIs;

c) 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;

d) 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.

Potential SPAs and possible SACs, listed or proposed Ramsar sites and sites required as compensatory measures for the previous should be given the same protection as habitats sites.

2.2.2 Local – Havant Borough Council

Part of the 'Vision for Havant Borough in 2026' is to protect and enhance biodiversity. Policy 'CS11: Protecting and Enhancing the Special Environment and Heritage of Havant Borough' states that planning permission will only be granted when development protects and where possible enhances the borough's statutory and non-statutory designated habitats and features of biological interest. and features of biological interest and prevents the fragmentation of existing habitats.

The strategy states that protection and enhancement will be achieved by appropriate adaptation and mitigation measures. It also has particular regard for nature conservation designations with international designations given the highest regard and supports an ongoing programme of surveys of habitats and species and designations of SINCs.

The proposed Local Plan 2036 was withdrawn after examination and therefore the above Local Plan will remain in place until a new Havant Borough Local Plan is adopted.

Furthermore, Policy 'DM24: Recreational Disturbance to Special Protected Areas (SPAs) from Residential Development' outlined within the Havant Borough Local Plan (Allocations) (2014), states that planning permission will be granted for residential developments that avoid or mitigate a likely significant effect on the SPAs, caused by recreational disturbance through the in-combination effect of net additional dwellings (via a financial contribution, and /or package of measures to avoid or mitigate adverse impacts upon the SPAs).

Additionally, Havant Borough Council are currently consulting a new draft local plan (Draft Building a Better Future Plan) (Havant Borough Council, 2025) with seven Natural Environment policies. New policies of relevance comprise Policy 21: The Local Ecological Network and Policy 24: Protected and Notable Species.

Policy 21: The Local Ecological Network states that where impacts to the local ecological network are likely, planning permission will be granted where:

'a) Development proposals assess impacts to the Local Ecological Network, taking into account the role of local designated sites, Irreplaceable Habitats, Priority Habitats, non-designated ecological features, and the Local Nature Recovery Strategy in supporting biodiversity; and

b) Impact assessments are demonstrably guided by the mitigation hierarchy; and

c) Development avoids the fragmentation of the Local Ecological Network, including across administrative boundaries; and

d) A mitigation, compensation and enhancement strategy is provided and approved and includes provision for ongoing management and maintenance.'

This policy also states that development proposals should not result in the loss of or damage to SINCs. The expectation is that development proposals impacting SINCs will not be permitted unless in wholly exceptional circumstances, justified by robust evidence and where appropriate avoidance, mitigation or compensatory measures are secured.

Policy 24: Protected and Notable Species states that development must protect and conserve populations of protected and notable species. Where there is a reasonable likelihood of protected or notable species occurring and being harmed or negatively affected by development, planning permission will only be granted where:
'a) An assessment of potential impacts to protected and notable species has been carried out by a suitably qualified ecologist using recognised appropriate assessment methods;
b) A mitigation, compensation and enhancement strategy is provided and approved; and
c) Impact assessments are demonstrably guided by the mitigation hierarchy of 'avoid-mitigate-compensate'.'

This policy also encompasses further detail on protected of Bechstein's bat, where development will impact woodland, parkland, hedgerows, wetlands, or pasture within 3km of known Bechstein's roosts. If the presence of Bechstein's Bat is confirmed or suspected on site or within the predicted zone of influence of a development, applicants must implement:

i. *'Assessment of the impacts on Bechstein's Bat breeding habitat (i.e. impacts to roost sites and/or habitat supporting roost sites);*
ii. *ii. Assessment of the impacts to habitat used for foraging, commuting and social activities;*
iii. *iii. The provision of appropriate buffers to woodlands, trees, hedgerows, and other flight corridors, considering the location of roosts and foraging/commuting habitats; and iv. The need for appropriate and proportionate mitigation, compensation and enhancement measures.'*

3.0 METHODOLOGY

3.1 Desk Study

3.1.1 Waterbodies

Any ponds located within 500m of the proposed development were searched for using Ordnance Survey maps and available aerial images.

3.1.2 Data Request

A data request was submitted to the Hampshire Biodiversity Information Centre (HBIC) to ascertain any records held of nature conservation designations and protected species within 2km of the boundary of the site and bat records within 4km of the site.

The data search covered:

- Statutory designated sites.
- Non-statutory designations such as Local Wildlife Sites.
- Records of protected and notable species.

3.2 Field Survey

3.2.1 Habitats

A habitat assessment was undertaken by WYG (2019) Senior Ecologist John Simper MCIEEM on the 26th August 2019, during dry sunny weather conditions. The field survey work which forms the basis of the findings of this report was carried out by Project Ecologist with Ecosupport Ltd Darla Brown BSc (Hons) and Assistant Ecologist with Ecosupport Ltd Grace Roberts MSci on the 11th December 2024 and 1st May 2025.

Habitats on site pre-development were identified in accordance with the categories specified for a UK Habitats survey, using Habitat Definitions Version 2.0 (UKHab Ltd., 2023). Where appropriate primary habitat codes were used although for some habitat types, the use of secondary habitat codes was necessary as well.

3.2.2 Badger

The site was thoroughly searched for evidence of use by Badgers (*Meles meles*), with the specific aim of identifying the presence and location of any setts. In accordance with the *Badgers and Development: A Guide to Best Practice and Licensing* (Natural England, 2011) guidance, the survey accounted for a 30m from the site's boundary (observed where possible i.e. does not conflict with private dwellings). Evidence of Badgers could include latrines, dung pits, feeding remains and foraging evidence, trails and setts.

3.2.3 Bats

3.2.3.1 Ground Level Tree Assessment

A non-exhaustive Ground Level Tree Assessment (GLTA) assessment of any notable trees on site was undertaken by Darla Brown of Ecosupport in December 2024 (working under Dean Swensson NE class level 2 bat licence number 2015-13211-CLS-CLS). This followed BCT (Collins

(ed) 2023) best practice survey which includes aiming to identify the following Potential Roost Features (PRFs)

- PRFs formed by disease and decay: woodpecker holes, squirrel holes, knot holes, pruning cuts, tear outs, wounds, cankers, compression, forks, butt rots
- PRFs formed by damage: lighting strikes, hazard beams, subsidence cracks, shearing cracks, transverse snaps, welds, lifting bark, desiccation features, frost cracks; and
- PRFs formed by association: fluting Ivy.

The presence or absence of any of the features listed above are then feed into the classification of the tree which is as follows (**Table 1**). Any PRFs accessible at ground level were inspected via an endoscope.

Table 1. Guidelines for assessing the suitability of trees on proposed development sites for bats, to be applied using professional judgement (Collins (ed) 2023).

Suitability	Description
None	Either no PRFs in the tree or highly unlikely to be any
FAR	Further Assessment Required (FAR) to establish if any PRFs are present in the tree
PRF	A tree with at least one PRF present.

3.2.4 Great Crested Newts

3.2.4.1 Assessment of Waterbodies

A Habitat Suitability Index (HSI) was carried out on the ponds within 500m site following the guidance provided with ARG (2010). This considers the following factors when calculating the waterbodies suitability to support GCN (Great Crested Newts):

- Location of Waterbody,
- Surface Area,
- Permanence,
- Water Quality,
- Shade,
- Presence of Waterfowl and Fish,
- Number of Ponds within 1km,
- Quality of Terrestrial Habitat,
- Macrophyte Cover

These criteria are used to calculate a score according to ARC Guidelines (ARC 2010) using the Oldham (2000) calculation formulae.

This gives a score between 0 and 1 of the suitability of the waterbody for GCN with:

0.40 – 0.50: Poor suitability for GCN

0.51 – 0.59: Below average suitability for GCN
0.60 – 0.69: Average suitability for GCN
0.70 – 0.79: Good suitability for GCN
0.80 – 1.00: Excellent suitability for GCN

3.2.4.2 Environmental DNA Analysis

Following the results of the HSI Assessment of the ditch on site, it was recommended that the ditch is subject to an eDNA test. As such, a site visit was undertaken to conduct an eDNA test on the ditch during May 2025. During the eDNA test, 20 evenly spaced sample sites were identified around the ditch's perimeter, and one ladle of water was collected from each of the pre-identified sites. The samples were then mixed along with preservative following guidance from SureScreen Scientifics and sent for eDNA analysis.

3.2.5 Hazel Dormouse

WYG (2021) undertook a series of phase II Hazel Dormouse surveys to identify the presence / absence of this species between August 2019 – April 2020. The surveys concluded presence of Hazel Dormice, and as such updated surveys are presently being undertaken in order to inform updated information to apply for a European Protected Species Licence from Natural England.

Methodological guidance for Dormouse surveys is provided in the *Dormouse Conservation Handbook* (Bright *et al* 2006) whereby a minimum of 50 tubes is recommended to be used per site, at a spacing of 20m. A total of 50 tubes were deployed on site in March 2025 with the approximate locations of the areas covered are shown in **Figure 3**.

The *Dormouse Conservation Handbook* uses an "index of probability" to assess the likelihood of a survey detecting Dormice. This assigns a score for each month which nest tubes are on a site (see **Table 2**) and recommends that a total of 20 points is necessary. The surveys will be carried out between April - September 2025 to ensure that all key parts of the season were covered and sufficient survey effort was achieved. The tubes were / are being checked by Katalin Balasz – licenced ecologist at Ecosupport Ltd.

Table 2. Index of probability of finding Dormice present in nest tubes in any one month. From the Dormouse conservation handbook (Bright et al 2006).

Month	Points	Month	Points
April	1	**August**	5
May	4	**September**	7
June	2	**October**	2
July	2	**November**	2

Figure 3. Areas of the site covered by the Dormouse nest tube surveys in 2025 with 50 tubes set out.

3.3 Assessment Methodology

3.3.1 Introduction

The methodology for the assessment of the likely ecological effects of the proposed development is based on CIEEM's *Guidelines for Ecological Assessment in the UK* (CIEEM 2018). Although this assessment does not constitute a formal Ecological/ Environmental Impact Assessment, the CIEEM guidelines provide a useful framework for assessing ecological impacts at any level.

3.3.2 Valuation

Features of ecological interest are valued on a geographic scale. Value is assigned on the basis of legal protection, national and local biodiversity policy and cultural and/or social significance.

3.4 Limitations

3.4.1 Habitats

There were not considered to be any major limitations during the survey work undertaken on site, with the survey carried out at the appropriate time of year, during suitable weather conditions and with all areas of the site to be impacted upon accessible. This survey does not constitute a full site assessment for invasive species, such as Japanese Knotweed (*Fallopia japonica*).

3.4.2 Phase II Surveys

3.4.2.1 Bats

Pre-existing ecological survey data and records have identified the site as holding high value to bats, including Annex II species Barbastelle (*Barbastella barbastellus*), Bechstein's (*Myotis bechsteinii*), and Greater Horseshoe (*Rhinolophus ferrumequinum*) bats. However, previous the previous bat surveys undertaken on site are now considered out of date following the Bat Survey Guidelines.

Notwithstanding this, using the existing ecological data and records, a bat mitigation strategy has been outlined within this report, including retention and enhancement of high value habitats and a robust lighting strategy, to ensure there are no adverse impacts to bats, particularly Annex II species, within the local area. It is expected that undertaking additional survey work would not materially change the mitigation required or value of the site for foraging and commuting bats (which is already at the highest value with mitigation outlined to enhance the site for Annex II species), as well as minimise the risk of disturbance through trapping techniques.

As such, not updating bat surveys is not considered to be a major limitation of the survey effort.

3.4.2.2 Great Crested Newts

Several visits were undertaken to water samples for the eDNA survey. Upon each visit, the ditch was dry. As such, the eDNA survey was unable to be completed. Notwithstanding this,

the Habitat Suitability Index assessment has been updated to reflect the ditch drying, and mitigation strategy outlining a precautionary approach to ensure protection of Great Crested Newts has been set out within this report. As such, this is not considered to be a major limitation of the survey effort.

4.0 ECOLOGICAL BASELINE

4.1 Data Request

4.1.1 Statutory Designated Sites

HBIC identified no statutory designated sites within 2km of the site (**Fig 4**). It is worth noting however, that the site is situated inside the zone of influence for the Chichester and Langstone Harbours SPA (approximately 2.66km south of the site), and the site lies within the nutrient neutrality catchment area for The Solent designated sites. Furthermore, the Solent Maritime SAC lies approximately 2.66km south.

4.1.2 Non-Statutory Designated Sites

The non-statutory designated sites within 2km identified by HBIC are shown in **Fig 4** with a summary of these sites presented in **Table 3.** Two SINCs are located on site (shown in red in **Table 4**) on the northern and southern boundaries. Additionally, two SINCs are located adjacent to the site on the eastern boundary (Neville's Park East Wood and Neville's Park Areas 4-10), however these are separated by B2150 Hulbert Road.

At the north of the site is Neville's Park West Wood (map ref 29), the SINC criteria met is 1B (Other woodland where there is a significant element of ancient semi-natural woodland surviving or supporting some characteristics of ancient woodland), with one notable species recorded (Bluebell, *Hyacinthoides non-scripta*), and two priority habitats present (Wet Woodland (assessed to be other broadleaved woodland) and Lowland Mixed Deciduous Woodland). The site is described as a plantation on ancient woodland with mature conifers dominating and fairly poor ground flora, but with woodland indicators present. A total of 29 ancient woodland indicators were noted, with the site last surveyed in 2013.

At the south of the site is Hulbert Road Meadow (map ref 31), this is a designated SINC (under private ownership) meeting SINC Criteria 2D*/5B (2D - Grasslands which have become impoverished through inappropriate management, but which retain sufficient elements of relic unimproved grassland to enable recovery and 5B - Fens, flushes, seepages, springs and inundation grasslands of floodplains that support a flora and fauna of less-improved wet conditions (seasonal or permanent)). Notable species on site include Bluebell (*Hyacinthoides non-scripta*) and Lesser Spearwort (*Ranunculus flammula*). The site is described as a species rich semi-natural grassland with old meadow indicators, which has been overgrown with scrub and woodland with 13 ancient woodland indicators, with the site last surveyed in 2001.

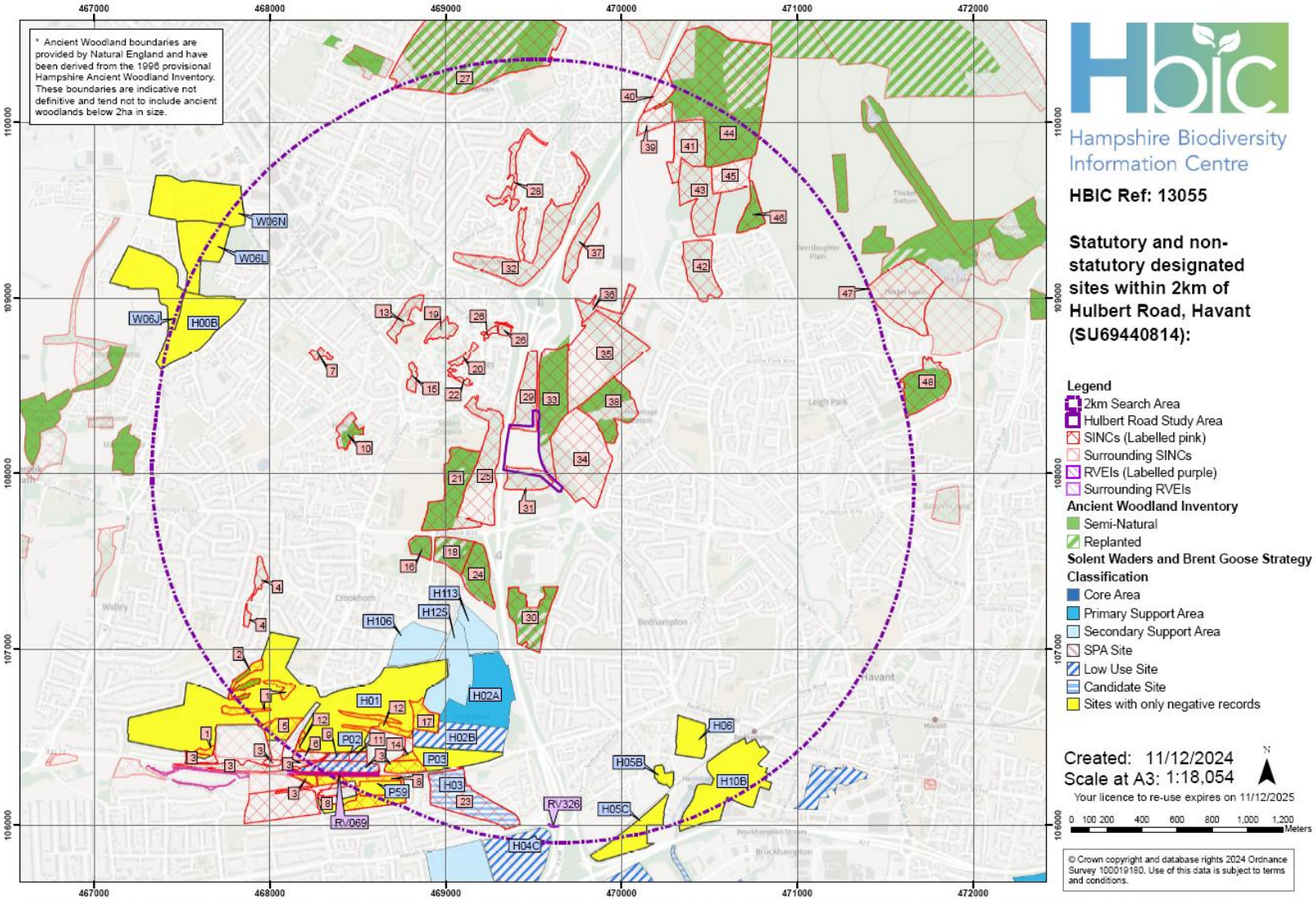
Table 3. Summary of SINCs within 2 km of the site as provided by HBIC and shown in **Fig 4** below.

Map Label	SINC Ref	SINC Name	SINC Criteria	Area (ha)	Distance from Site
1	HV0002	Portsmouth Golf Course West	2B/2D*	2.02	1.75 km SW
2	HV0004	Purbrook Park Wood	1A	1.51	1.78 km SW
3	PO0009	Land to the north of Portsdown Hill Road	2B/6A	8.67	1.8 km SW
4	HV0005	Sandy Dell	1A	1.29	1.5 km SW
5	HV0006	Fort Purbrook Paddock 1 (Havant)	2B/6A	2.77	1.87 km SW

Map Label	SINC Ref	SINC Name	SINC Criteria	Area (ha)	Distance from Site
6	HV0007	Fort Purbrook Paddock 2 (Havant)	2B	0.85	1.96 km SW
7	HV0009	Stakes Coppice Remnant 1	1B	0.47	1.1 km NW
8	PO0019	East and West of Gillman Road	2Aiii/2B/6A	11.21	1.87 km SW
9	HV0143	Fort Purbrook Paddock 3 (Havant)	2B	0.60	1.88 km SW
10	HV0010	Newlease Copse, Havant	1A	1.74	0.85 km W
11	HV0142	Fort Purbrook Paddock 4 (Havant)	2Aiii	0.49	1.83 km SW
12	HV0011	Portsmouth Golf Course East	2B/2D*	1.91	1.61 km SW
13	HV0013	Frank's Coppice	1B	1.78	0.85 km NW
14	HV0014	Field East of Farlington Redoubt (North)	2B	0.78	1.72 km SW
15	HV0015	Stakes Coppice Remnant 2	1B	0.66	0.59 km W
16	HV0016	Gundymoor Wood (West)	1A/1Cii	1.37	0.59 km SW
17	HV0017	Portsmouth City Golf Course Copse	1B/6A	1.99	0.46 km SW
18	HV0020	Gundymoor Wood (Main)	1A	3.24	0.44 km SW
19	HV0021	Stakes Coppice Remnant 4	1B	1.27	0.63 km NW
20	HV0023	Stakes Coppice Remnant 5	1A	0.54	0.47 km NW
21	HV0025	Johnston's Coppice	1A/1B/6A	8.07	0.16 km W
22	HV0026	Stakes Coppice Remnant 6	1A	0.33	0.33 km NW
23	HV0027	Fields off Havant Road	6A	8.11	1.86 km S
24	HV0029	Littlepark Wood (West)	1A/1Cii/6A	4.11	0.44 km SW
25	HV0030	Meadow Adjacent to Johnston's Copse	1A/1B/2B/5B/6A	9.18	0.05 km W
26	HV0031	Stakes Coppice Remnant 7	1A	0.77	0.54 km N
27	HV0032	The Queen's Inclosure	1A	40.27	1.95 km N
28	HV0139	Hurst Wood, Havant	1A	2.03	1.27 km N
29	***HV0033***	***Neville's Park West Wood***	***1B***	***4.51***	***0 km***
30	HV0034	Littlepark Wood (East)	1A/1Cii	5.87	1.27 km N
31	***HV0035***	***Hulbert Road Meadow***	***2D*/5B***	***2.83***	***0 km***
32	HV0036	Outhurst/Inhurst/Beech Woods	1A	10.75	0.84 km N
33	HV0037	Neville's Park East Wood	1A	8.87	0.01 km E
34	HV0038	Neville's Park Areas 4-10	1B/1Cii/2A/2D*	13.35	0.01 km E
35	HV0039	Neville's Park Areas 2 & 3	2A	14.16	0.26 km E
36	HV0040	Cherry Tree Row	1A	1.93	0.63 km NE
37	HV0041	Beech Wood East	1A/1B	2.85	0.87 km NE
38	HV0042	Bushy Lease	1A	6.40	0.27 km E
39	HV0045	Dunsbury Hill - Areas 5 & 6	2A	2.16	1.78 km NE
40	HV0046	Dunsbury Hill - Area 1	2A	1.68	1.98 km NE
41	HV0048	Meadow by Bells Copse	2A/2D*	4.94	1.62 km NE
42	HV0049	The Warren, Havant	1B/1Cii	5.04	1.19 km NE
43	HV0050	Dunsbury Hill Wood	1Cii	6.70	1.44 km NE
44	HV0051	Bell's Copse	1A/1B	33.29	1.79 km NE
45	HV0136	Dunsbury Hill Grassland 2	2B	3.52	1.71 km NE

Map Label	SINC Ref	SINC Name	SINC Criteria	Area (ha)	Distance from Site
46	HV0052	Cabbagefield Row	1A	2.10	1.64 km NE
47	HV0070	Thicket Lawn	2B/5B	10.56	1.96 km E
48	HV0077	Great Copse, Havant	1A	5.71	1.99 km E

Figure 4. Statutory & non-statutory designated sites located within 2km of the site as provided by HBIC.

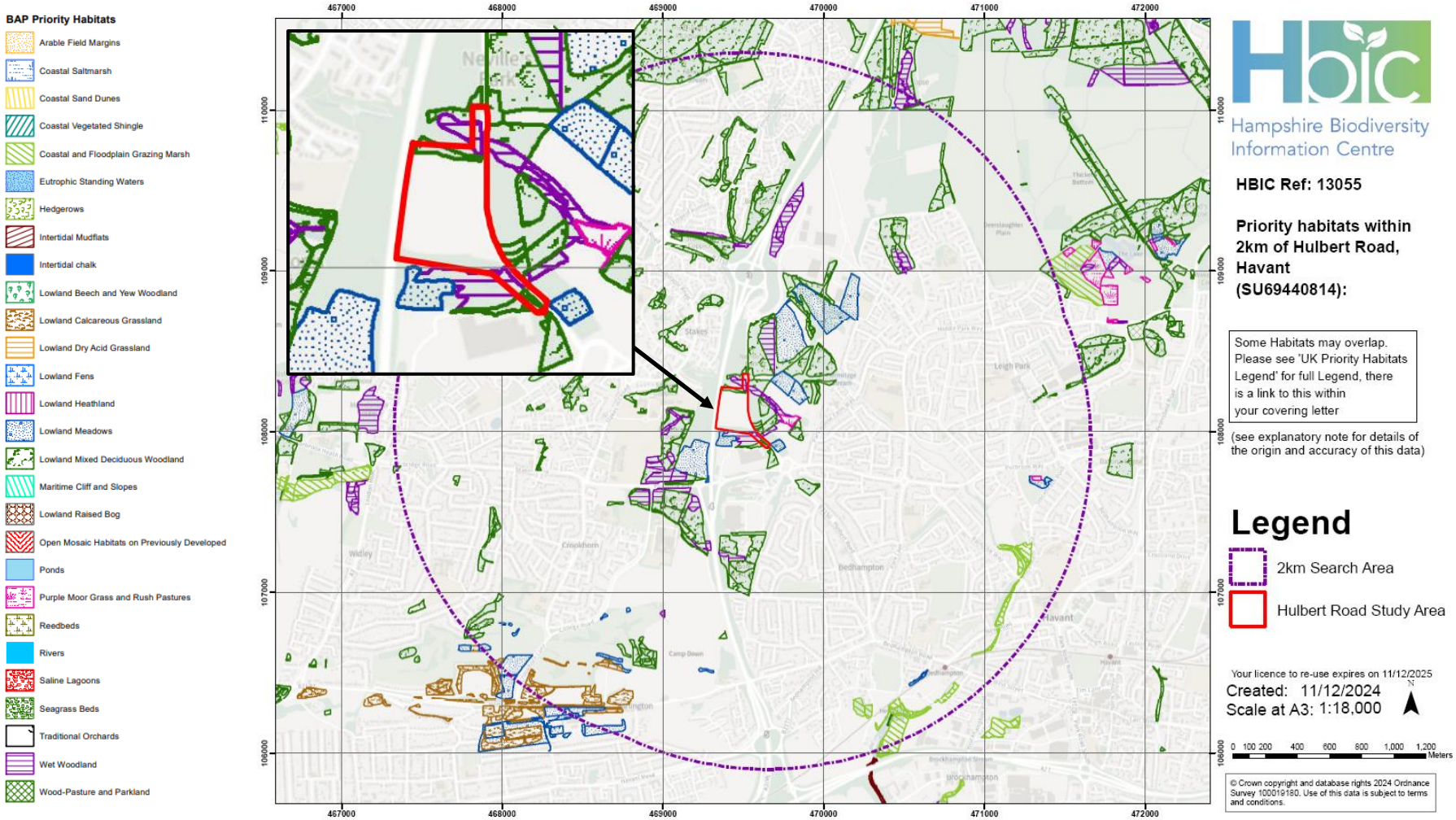


Please note: The boundaries for statutory sites have been provided as digital data from Natural England (NE); this digital data is indicative not definitive. Paper maps produced by NE at the time the sites were designated show the official site boundaries.

4.1.3 Priority Habitat

The priority habitat within 2km of the site as identified by HBIC is shown in **Fig 5**. There are two priority habitats located within the site, these are lowland mixed deciduous woodland (dark green in **Fig 5**) and wet woodland (purple in **Fig 5**), with both habitats located on both the northern and southern boundaries within the aforementioned SINCs. During the updated walkover in 2024 by Ecosupport ltd, the wet woodland was noted to comprise predominantly other broadlaved woodland (**Section 4.2.7**). Additionally, there is lowland meadow (blue in **Fig 5**) located adjacent to the southern border.

Figure 5. Priority habitat within 2km of the site as provided by HBIC.



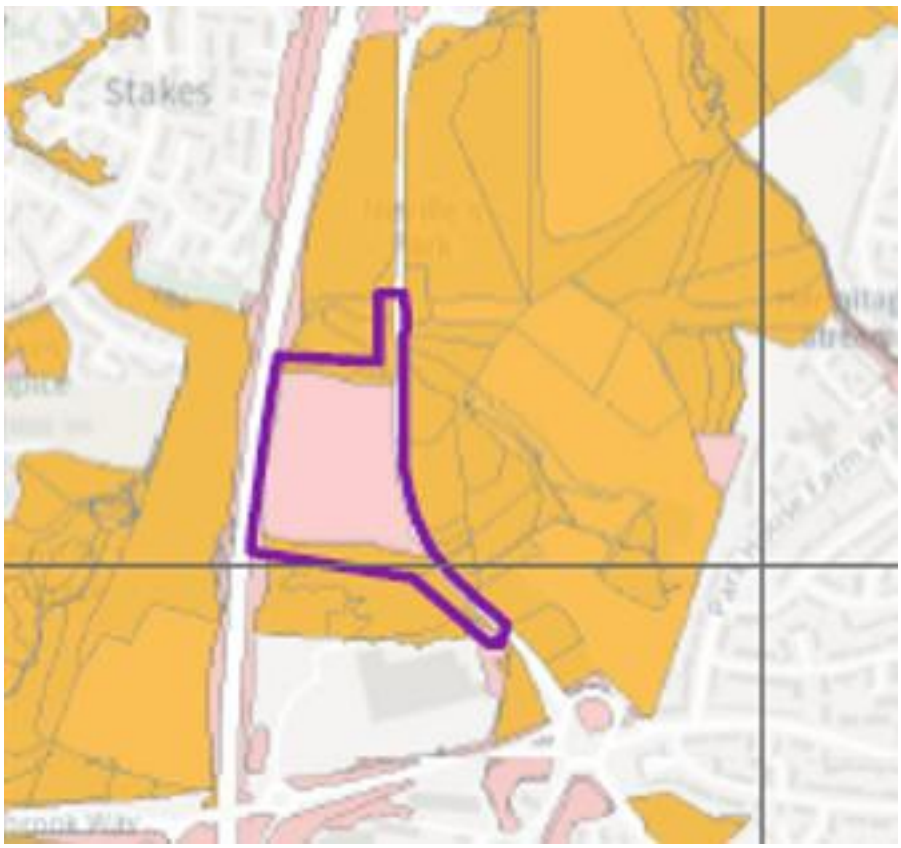
4.1.4 Ecological Network

HBIC includes the provision of information about the local Ecological Network designations. An ecological network is a group of habitat patches that species can move easily between maintaining ecological function and conserving biodiversity. Through appropriate management, ecological networks can provide a connected collection of refuges for wildlife. Establishing the network will enable biodiversity to recover from recent declines and create a more resilient natural environment. The aims of the network are to:

- Improve the quality of current wildlife sites by better habitat management;
- Increase the size of existing wildlife sites
- Enhance connections between sites, either through physical corridors or through 'stepping stones'
- Create new sites; and
- Reduce pressure on wildlife by improving the wider environment.

For this scheme, habitats included within the network within a 2 km radius are shown in **Fig 6** below. The site lies within a network opportunities area, with areas of core non-statutory sites on the northern and southern boundaries within the SINCs.

Figure 6. Map of the ecological network of the site as provided by HBIC. This shows the entirety of the site falling within the pink 'network opportunities' classification and the SINCs bordering site falling within the orange 'core non statutory' classification.



4.2 Vegetation Survey Results

The vegetation within the site has been described below using the UK Habs Habitat Definitions Version 2.0 (UKHab Ltd., 2023). The below species noted should not be considered an exhaustive list and instead refer to dominant, characteristic and other noteworthy species associated with each community within the survey area. The habitat types on site comprise:

- Other neutral grassland (g3c) – scattered scrub (10), ruderal (81)
- Modified grassland (g4) – scattered bracken (12)
- Mixed scrub (h3h)
- Bramble scrub (h3d)
- Gorse scrub (h3e)
- Lowland mixed deciduous woodland (w1f) – line of trees (33), semi natural woodland (30), & 50 (ditch)
- Other broadleaved woodland (w1g) – semi natural woodland (30)
- Sparsely vegetated urban land (u1f) – bare ground (510)
- Other standing water (r1g)
- Developed land; sealed surface (u1b)

The habitats identified on site were largely similar to those identified in 2019 (WYG, 2019), with a similar species composition identified.

4.2.1 Other Neutral Grassland (g3c) with secondary habitat code scattered scrub (10) & ruderal (81)

The dominant habitat on site comprises of Other Neutral Grassland (g3c) which has been left unmanaged, allowing for areas of scattered scrub and tall ruderal (secondary habitat codes 10 & 81) species to dominate (**Fig 7**). Species noted on site included Creeping Thistle *(Cirsium arvense)*, Gypsywort *(Lycopus europaeus)*, Broadleaved Dock *(Rumex obtusifolius)*, Teasel *(Dipsacus fullonum)*, Creeping Buttercup *(Ranunculus repens)*, Meadow Buttercup *(Ranunculus acris)*, Common Vetch *(Vicia sativa)*, Ribwort Plantain *(Plantago lanceolata)*, Ragwort *(Senecio jacobaea)*, Common Fleabane *(Pulicaria dysenterica)*, Yorkshire Fog *(Holcus lanatus)*, Cock's-foot *(Dactylis glomerata)*, and Cat's-ear *(Hypochaeris radicata)*. Scrub species noted included Bramble *(Rubus fruticosus)* and Dog-rose *(Rosa canina)*.

HBIC returned a botanical survey of the other neutral grassland on site undertaken in 2001, in which identified no priority habitats or notable species within this habitat. The HBIC report describes the grassland as "*gently undulating semi-improved permanent pasture field with scattered scrub, heavily grazed by ponies. Although two old meadow indicators are common, the grassland is not particularly species rich and has limited structural diversity*". A similar species composition was noted within the HBIC 2001 survey, WYG 2019 survey, and Ecosupport Ltd 2024 survey.

Figure 7. Other neutral grassland identified on site (taken December, 2024).

4.2.2 Modified Grassland (g4) with secondary habitat code scattered bracken (12)

Small parcels of modified grassland (g4) were identified around the sparsely vegetated land pathways on site, with areas of scattered Bracken *(Pteridium aquilinum)* (secondary habitat code 12), at the west of the site (**Fig 8**). A low number of species were noted including grasses, Willowherb *(Epilobium sp.)*, Broadleaved Dock, Yarrow *(Achillea millefolium)*, Ribwort Plantain, Meadow Buttercup, Purple Toadflax *(Linaria purpurea)*, Yorkshire Fog, and Autumn Hawkbit *(Scorzoneroides autumnalis)*.

Figure 8. Modified grassland identified on site (taken December, 2024).

4.2.3 Mixed Scrub (h3h)

Several areas of mixed scrub (h3h) are present scattered throughout the site, and forming a buffer between the grassland and southern woodland SINC (**Fig 9**). Species noted within the parcels comprise of Bramble, Blackthorn *(Prunus spinosa)*, Goat Willow *(Salix caprea)*, Hawthorn *(Crataegus monogyna)*, Gorse *(Ulex europaeus)*, and Dog-rose.

Figure 9. Mixed Scrub identified on site (taken December, 2024).

4.2.4 Bramble Scrub (h3d)

Dense Bramble scrub (h3d) was identified in several areas on site, most notably to the north of the standing water ditch and forming a scrub barrier between the grassland and southern woodland SINC (**Fig 10**).

Figure 10. Bramble Scrub identified on site, north of the standing water ditch (taken December, 2024).

4.2.5 Gorse Scrub (h3e)

Dense Gorse scrub (h3e) was identified at the south-west of the site, bordering the sparsely vegetated land (**Fig 11**).

Figure 11. Gorse Scrub identified at the south-west of the site (taken December, 2024).

4.2.6 Lowland Mixed Deciduous Woodland with secondary habitat code line of trees (33, & ditch (50)

Lowland mixed deciduous woodland (priority habitat) was present at the north of the site, forming Neville's Park West Wood SINC (**Fig 12**), with dry ditch present running east to west at the southern aspect of the woodland (secondary habitat code 50). The woodland contained a scrub border, comprising of predominantly Blackthorn and Hawthorn, with intermittent Dog-rose, Bramble, and Buddleia *(Buddleja davidii)*, with species within the woodland also comprising of Ash *(Fraxinus excelsior)*, Oak *(Quercus robur)*, Holly *(Ilex aquifolium)*, Silver Birch *(Betula pendula)*, Hazel *(Corylus avellana)*, Bracken, Ivy *(Hedera helix)*, Creeping Cinquefoil *(Potentilla reptans)*, European Larch *(Larix decidua)*, Spurge Laurel *(Daphne laureola)*, and Herb-robert *(Geranium robertianum)*.

Furthermore, a line of trees (secondary habitat code 33) comprising of aforementioned species were noted along the eastern and western site boundaries (**Fig 13**).

Figure 12. Lowland Mixed Deciduous Woodland at the north of the site (taken December, 2024).

Figure 13. Line of trees (33) identified along the eastern site boundary (taken December, 2024).

4.2.7 Other Broadleaved Woodland (w1g)

Other broadleaved woodland (w1d) (priority habitat) was present at the south of the site, forming part of the Hulbert Road Meadow SINC (**Fig 14 & Fig 15**). Tree species identified included Ash, Silver Birch, Oak, Hawthorn, and Hazel, with the ground flora comprising of Wood Avens *(Geum urbanum)*, Creeping Cinquefoil, Common Nettle *(Urtica dioica)*, Ivy, Bramble, Selfheal *(Prunella vulgaris)*, Ground Ivy *(Glechoma hederacea)*, Sedge *(Carex sp.)*, Broadleaved Dock *(Rumex obtusifolius)*, Dogs Mercury *(Mercurialis perennis)*, Common Rush *(Juncus effusus)*, Horsetail *(Equisetum* sp.*)*, and Fern.

Figure 14. Northern boundary of the broadleaved woodland (taken December, 2024).

Figure 15. Broadleaved woodland at the south of the site (taken December, 2024).

4.2.8 Sparsely Vegetated Urban Land (u1f) with secondary habitat code bare ground (510)

A parcel of u1f was identified at the south-west of the site, comprising of developed land which has succumbed to succession through lack of management (**Fig 16**). Areas of bare ground (secondary habitat code 510) was present with species noted throughout this habitat comprising of young Gorse, Selfheal, Daisy *(Bellis perennis)*, Willow (*Salix* sp.) along the edge of the standing water ditch, Common Nettle, Buddleia, White Poplar *(Populus alba)* saplings, and Cleaver *(Galium aparine)*.

Figure 16. Sparsely Vegetated Urban Land at the south-west of the site (taken December, 2024).

4.2.9 Other Standing Water (r1g)

At the south-west of the site, an artificially lined ditch holding standing water (r1g) borders the Sparsely Vegetated Urban Land Parcel (**Fig 17**). Duckweed *(Lemna minor)* and Reedmace *(Typha latifolia)* were noted within the Standing Water.

Figure 17. r1g at the south-west of the site (taken December, 2024).

4.2.10 Developed Land; Sealed Surface (u1b)

The existing access at the north-east of the site comprised of developed land; sealed surface (u1b).

4.3 Bat Survey Results

4.3.1 Pre-existing Information

4.3.1.1 Data Request

The data request from HBIC returned the following bat records within 4km of the site (**Table 4**). The location of the Annex II species: Barbastelle, Bechstein's, and Greater Horseshoe records are shown below in **Fig 18, Fig 19**, & **Fig 20.**

Table 4. List of bat records within 4km of the site provided by HBIC.

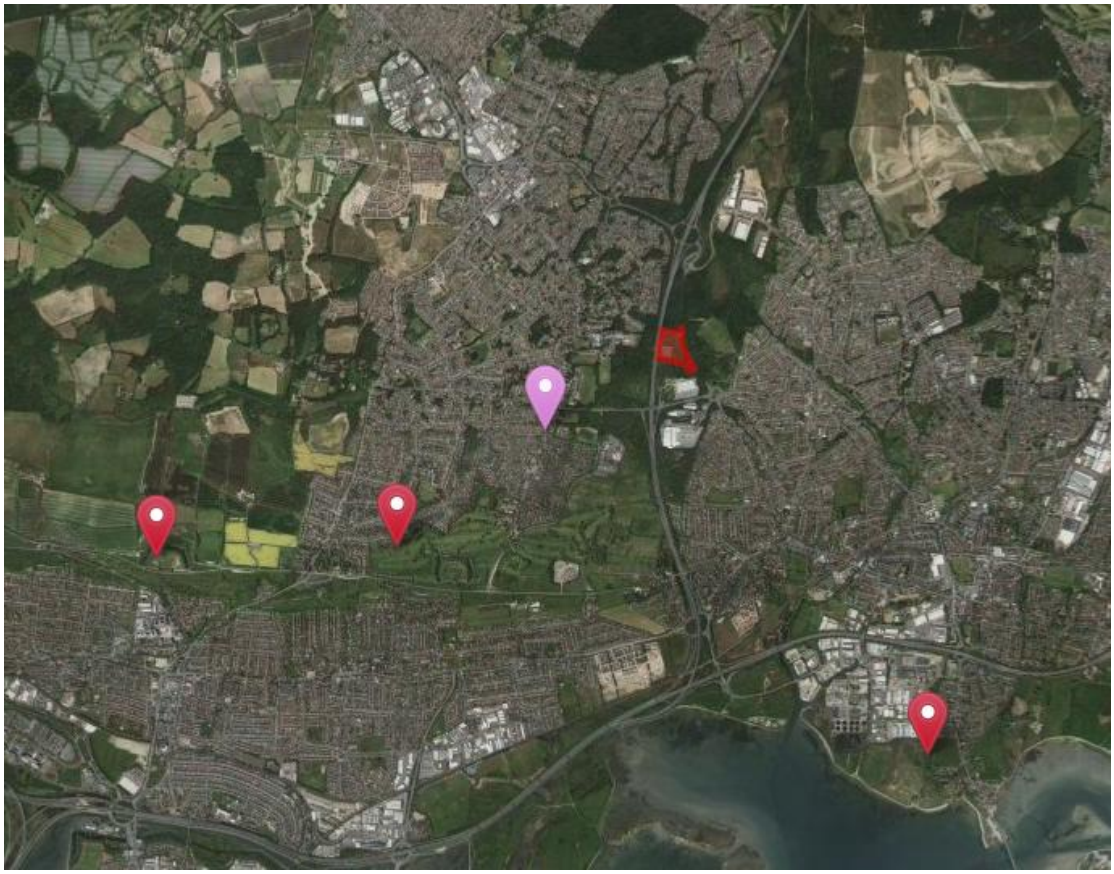
Taxon Name	Species Name	Number of Records	Further Information
Barbastella barbastella	Western Barbastelle	55	Records from various bat detectors, static monitoring, mist netting with acoustic lure, visual ID, and unknown
Chiroptera sp.	Bat	150	Records from bat detectors (time expansion), static monitoring, dawn survey, field record, roost visit, visual ID, and unknown
Eptesicus serotinus	Serotine	1294	Various records from various bat detectors, static monitoring, bat in hand, dawn and emergence surveys, field record, harp trapping with acoustic lure, and roost visit
Myotis sp.	Myotis species	308	Records from various bat detectors, static monitoring, dawn and emergence surveys, field record, visual ID, and unknown
Myotis alcathoe	Alcathoe's	3	Records from mist netting and harp trapping with acoustic lures
Myotis bechsteinii	Bechstein's	201	Records from bat detectors (time expansion), harp trapping and mist netting with acoustic lures, radio tracking, and unknown
Myotis brandtii	Brandt's	5	Records from bat droppings, harp trapping, and mist netting with acoustic lures
Myotis daubentonii	Daubenton's	37	Records from various bat detectors, bat in hand, dawn surveys, roost visit, and harp trapping and mist netting with acoustic lures
Myotis mystacinus	Whiskered bat	49	Records from bat detectors, bat droppings, bat in hand, field record, harp trapping and mist netting with acoustic lures, and unknown

Myotis mystacinus/brandtii	Whiskered/Brandt's	20	Records from bat detector, bat in hand, mist netting, mist netting with acoustic lures, and unknown
Myotis nattereri	Natterer's	129	Records from various bat detectors, static monitoring, bat in hand, emergence surveys, harp trapping and mist netting with acoustic lures, visual ID, and unknown
Nyctalus sp.	Nyctalus	10	Records from static monitoring detectors and dawn surveys
Nyctalus leisleri	Lesser Noctule	26	Records from various bat detectors, static monitoring and dawn surveys
Nyctalus noctula	Noctule	557	Records from various bat detectors, static monitoring, bat in hand, dawn / emergence surveys, field records, mist netting with acoustic lures, roost visits, visual ID, and unknown
Pipistrellus sp.	Pipistrelle species	6108	Records from various bat detectors, bat in hand, dawn / emergence surveys, field records, roost visit, visual ID, and unknown
Pipistrellus nathusii	Nathusius's Pipistrelle	65	All records from bat detectors
Pipistrellus pipistrellus	Common Pipistrelle	2214	Records from various bat detectors, static monitoring, bat in hand, visual ID, dawn / emergence surveys, field records, harp trapping and mist netting with acoustic lures, roost visits, and unknown
Pipistrellus pygmaeus	Soprano Pipistrelle	931	Records from various bat detectors, static monitoring, bat in hand, visual ID, dawn / emergence surveys, field records, harp trapping and mist netting with acoustic lures, roost visits, and unknown
Plecotus sp.	Long-eared species	6	Records from various bat detectors, static monitoring, visual ID, and dawn / emergence surveys
Plecotus auritus	Brown Long-eared Bat	248	Records from various bat detectors, static monitoring, bat in hand, visual ID, field record, harp trapping and mist netting with acoustic lures, roost visit, and unknown
Rhinolophus ferrumequinum	Greater Horseshoe	3	Two records from static monitoring, and one from visual ID
Vespertilio murinus	Parti-coloured Bat	1	Bat in hand

Figure 18. Location of the Barbastelle records within 4km of the site, showing the redline boundary of the site (Grid reference finder, 2025).

Figure 19. Location of the Bechstein's records within 4km of the site, showing the redline boundary of the site (grid reference finder, 2025).

Figure 20. Location of the Greater Horseshoe records (red) and Parti-coloured bat (pink) record within 4km of the site, showing the redline boundary of the site (grid reference finder, 2025).



4.3.1.2 Previous Survey Work

Several Phase II bat surveys have been undertaken on between 2018 and 2020, comprising PRF inspections, activity surveys, and bat trapping surveys (WYG, 2019).

In 2018, Davidson Watts Ecology undertook 5 harp trapping surveys, using a total of 6 traps, between June – October 2018. A low number of bats were recorded comprising Whiskered/Brandt's, Common Pipistrelle, and Brown Long-eared.

Following this, WYG undertook an Ecological Appraisal (2019), which identified the habitats on site with moderate potential to support commuting and foraging bats. Not all trees were assessed for PRFs; however the majority were considered likely to hold suitable roosting features.

Subsequently, WYG (2021) undertook a total of 8 walked transect surveys (August 2019 – October 2019, April – May 2020), static detector surveys utilising two detectors (August – October 2019) and three bat trapping surveys (August – September 2019) using a single harp trap and two mist nets.

The results of the walked transects concluded the presence of at least 6 species of bat, with low numbers of Common Pipistrelle, Soprano Pipistrelle, Serotine, Noctule, and *Myotis* sp. The static detector surveys further identified (a single) Barbastelle, Natterer's, and *Plecotus*

sp. During the bat trapping surveys a total of one bat captured; a female Brown Long-eared. Throughout the surveys, bats were observed foraging and commuting predominantly around the site boundaries, and the site was classified as being of ***Regional Level*** of importance.

4.3.2 Ground Level Tree Assessment

The majority of trees within the red-line boundary were subject to a ground level tree assessment (GLTA) at the time of the walkover. The majority of the trees, both young and old particularly within the woodland, were noted to contain PRFs ranging from woodpecker holes, knot holes, tear outs, and wounds, with PRFs accessible from ground level holding potential to support roosting bats (**Fig 21**). Upon provision of a tree removal plan, ***further assessment will be required (FAR)***, with an updated GLTA in order to establish the presence / likely absence of roosting bats.

Figure 21. Example of potential roosting features on site. Left image – Hazel in the lowland mixed deciduous woodland and Silver Birch in the broadleaved woodland (right) (taken December, 2024).

4.3.3 Foraging and Commuting Habitat

The habitats on site comprise a mosaic of grassland and scrub variety, with linear features forming the eastern and western boundaries, and woodland edges / woodland to the north and south. These habitats would support a rich supply of invertebrates for local foraging bats. Similarly, the site is offers connectivity to further suitable habitat, of particular note ancient and semi-natural woodland, within the wider environment. As such, in line with pre-existing survey work, the site is considered to offer ***moderate – high potential*** for commuting and foraging bats, with the site considered to be of ***Regional Level*** of importance in 2021 (WYG).

It is also worth noting Policy 15, from the withdrawn Havant Local Plan 2036, in which defines a 'Bechstein's Bat Area' (Havant Local Plan 2016). The site falls within this area and lies within close proximity to a known Bechstein's maternity roost, with suitable habitat on site to support commuting and foraging Bechstein's.

4.4 Badgers & Other Terrestrial Mammals

4.4.1 Pre-existing Information

4.4.1.1 Data Request

HBIC returned 2 records of Badger (*Meles meles*) within 2km of the site, in addition to 63 records of Hedgehog (*Erinaceus europaeus*) within 2km of the site.

4.4.1.2 Previous Survey Work

WYG (2019) identified suitable habitat on site to support commuting and foraging Badger, and classified the site as holding ***Moderate potential.*** No evidence of Badger was found during the survey.

4.4.2 Site Assessment

During the walkover no Badger setts or evidence of Badgers was noted on site, however, several mammal trails were identified throughout the grassland and woodland on site. Deer droppings and prints were identified along one mammal trail throughout the centre of the site. The site comprises suitable habitat to support both commuting and foraging Badger. Due to the connectivity of the site to suitable habitat in the surrounding landscape, the site is considered to provide ***potential*** for foraging and commuting Badgers, as well as other small mammals such as Hedgehogs.

4.5 Reptiles

4.5.1 Pre-existing Information

4.5.1.1 Data Request

HBIC returned 65 records of Slow-worm (*Anguis fragilis*), 13 records of Grass Snake (*Natrix Helvetica*), 10 records of Adder (*Vipera berus*), and 24 records of Common Lizard (*Zootoca vivipara*) within 2km of the site.

4.5.1.2 Previous Survey Work

WYG (2019) undertook a series of Phase II Reptile surveys on site throughout September 2019, after identifying the site as offering potential to support widespread and common species of reptiles.

A total of 50 reptile refugia were placed on site, with seven visits between 2nd and 23rd September 2019 during suitable weather conditions with no reptiles were recorded.

4.5.2 Site Assessment

The majority of the site comprises of unmanaged grassland with areas of Bramble and mixed scrub, offering the structure and heterogeneity favoured by reptiles (Edgar et al., 2010). Furthermore, the woodland has the potential to provide suitable hibernation habitat, with several areas of deadwood. Notwithstanding this, the site and immediate environment are considered to be somewhat isolated from the wider environment due to the A3 to the west, Hulbert Road to the east, and Purbrook way to the south. Reptile surveys were undertaken in 2019 in which concluded the ***likely absence*** of common reptiles on-site. However, since the

site has been left unmanaged since the previous survey effort, there is a risk reptiles have established on site and as such a ***low potential*** for reptiles to be present.

4.6 Great Crested Newts

4.6.1 Pre-existing Information

4.6.1.1 Data Request

HBIC returned 1 records of Great Crested Newts (*Triturus cristatus*) within 2km of the site, approximately 1.99km north-west (**Fig 22**).

Figure 22. The location of the GCN record from within 2km of the site as provided by HBIC (grid reference finder, 2025).

4.6.1.2 Previous Survey Work

WYG (2019) undertook a Habitat Suitability Index on the waterbody (ditch) on site on the 26th August 2019. The HSI returned a score of 0.58 (below average) and all other waterbodies were considered to be separated from the site by major barriers. As such, no further surveys were undertaken regarding Great Crested Newts. The results are summarised in **Table 5**, below.

Table 5. Results of the HSI assessment undertaken on the ditch on site (WYG, 2019) (as per ARG 2010).

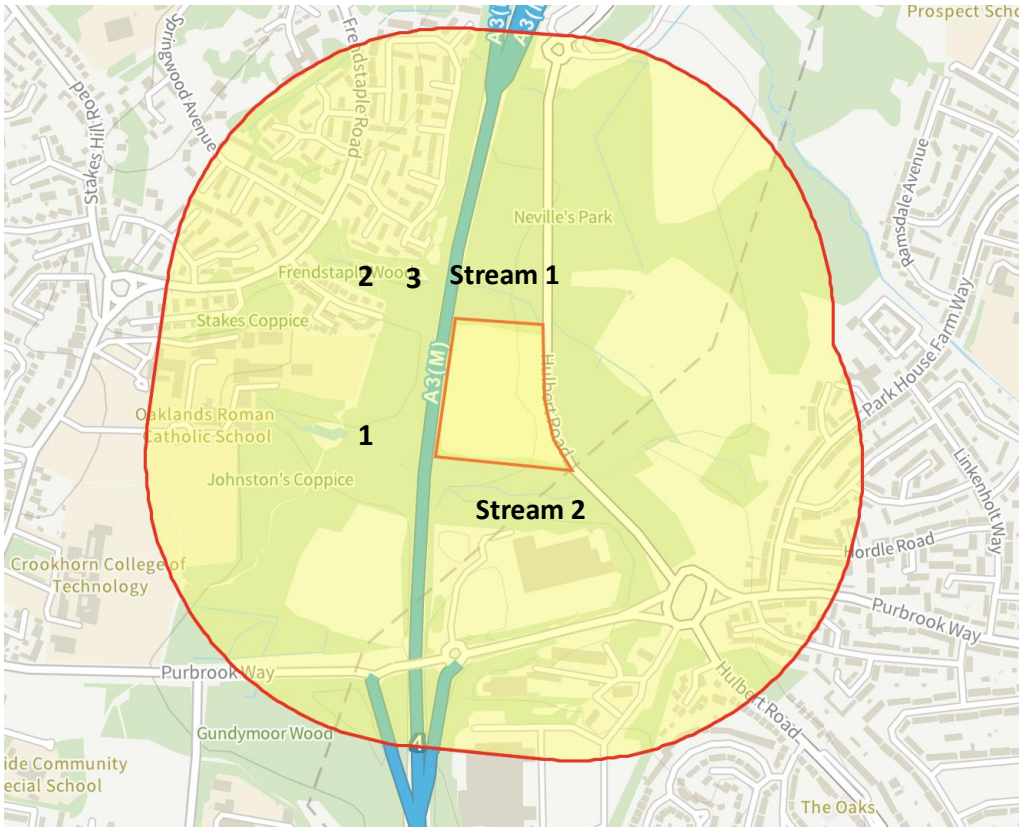
Suitability Indices	Score Awarded
Location	1
Pond area	0.5
Pond drying	0.5
Water quality	0.67

Shade	1
Water fowl	1
Fish	1
Ponds within 1 km	0
Terrestrial habitat quality	1
Macrophytes	0.31
HSI score – 0.58 (Below Average)	

4.6.2 Waterbodies

Using freely available online resources, three waterbodies were located within 500m of the site, all three waterbodies are located to the west separated by a significant barrier of dispersal (A3 (M)). Additionally, two streams run west to east 50m north, and 48m south of the site (**Fig 23**). On site, one ditch is present bordering the hardstanding to the south-west corner, shown in the appended map.

Figure 23. Waterbodies within 500 m of the site (Magic Maps, 2024).



4.6.3 Updated HSI of Ditch

Although subject to a HSI assessment in 2019, due to the age of the survey data, the ditch was subject to an updated HSI assessment in December 2024 and updated during the GCN breeding season in May 2025. As detailed in **Table 6**, below, the survey resulted in a score of 0.56 (below average), due to the suitability of the ditch, in-ditch vegetation, and terrestrial vegetation increasing from lack of management over the years. The ditch has been assessed

as drying annually, due to being completely dry during the GCN survey season between April – June 2025.

Table 6. Results of the updated HSI assessment undertaken on the ditch on site (as per ARG 2010).

Suitability Indices	Criteria Selected	Score Awarded	Notes
Location	A	1	-
Pond area	500-700m^2	1	Measured 491m^2 and rounded to nearest option
Pond drying	Dries annually*	0.1	*Updated to reflect evidence that the ditch is dry between April – June.
Water quality	Poor	0.33	No aquatic invertebrates noted
Shade	0 - 60%	1	Southern aspect shaded by woodland during early morning / late afternoon
Water fowl	Absent	1	No water fowl or evidence of water fowl seen
Fish	Absent	1	Absent
Ponds within 1 km	0	0.1	-
Terrestrial habitat quality	Good	1	-
Macrophytes	55-60%	0.9	-
HSI score – 0.5588 (Below Average)			

4.6.4 Environmental DNA Analysis

Throughout April – June 2025, the ditch on site has been consistently dry. As such, water samples were not able to be collected in order to undertake the eDNA survey.

4.6.5 Site Assessment

Similar to reptiles, the unmanaged grassland and woodland on site provides suitable commuting, foraging, and hibernation habitat, offering a varying range of habitat structure preferred by Great Crested Newts. Notwithstanding this, the ditch on site was assessed as being '***Below Average***', there is an absence of ponds within the local area that are not separated by a major barrier, such as the A3, preventing dispersal of GCN onto the site, and only one record was identified within 2km of the site. As such, the site was considered to offer ***low potential*** to support GCN.

4.7 Hazel Dormouse

4.7.1 Pre-existing Information

4.7.1.1 Data Request

HBIC returned 16 records of Hazel Dormouse (*Muscardinus avellanarius*) within 2km of the site (**Fig 24**).

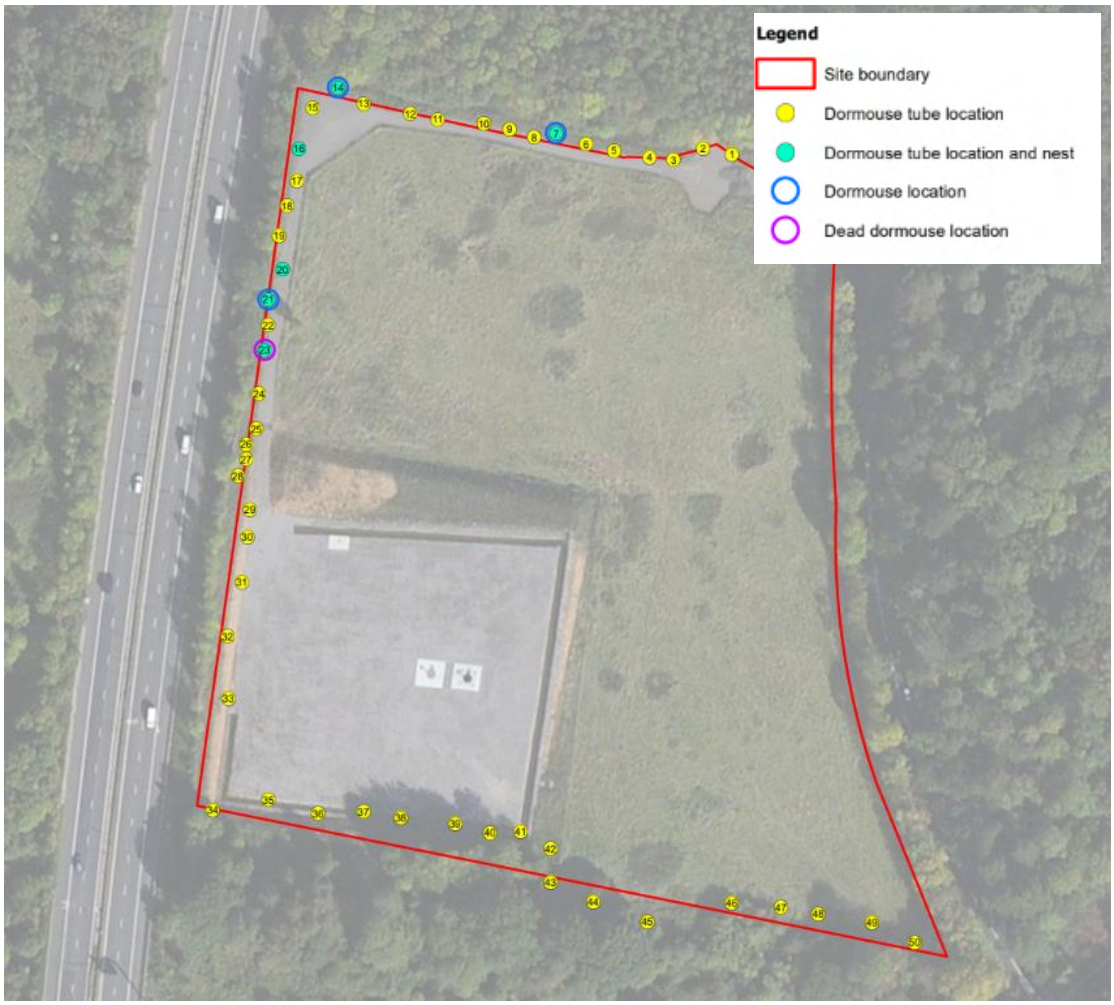
Figure 24. The locations of the Hazel Dormouse records from within 2km of the site provided by HBIC (grid reference finder, 2025).

4.7.1.2 Previous Survey Work

In 2019, WYG identified suitable habitat on site to support Hazel Dormice, including dense scrub, scattered scrub, bracken, semi-natural mixed woodland and semi-natural broadleaved woodland. Subsequently, WYG (2021) undertook a series of phase II Hazel Dormouse surveys to identify the presence / absence of this species between August 2019 – April 2020.

The surveys identified Dormice nests within a total of 6 tubes, along with individual Dormice identified in tube 7, tube 14 and tube 21. Furthermore, a single dead juvenile Dormouse was identified within tube 23. The results are shown below in **Fig 25**.

Figure 25. Results of the phase II Hazel Dormouse surveys (WYG, 2021).



4.7.2 Interim Dormouse Survey Results

Table 7, below, indicates the dates in which the tubes were checked to date and any findings within the tubes. The surveys are still on-going until September 2025 to ensure enough data is gathered in order to apply for a European Protected Species Licence from Natural England. Additional findings can be sent to the Local Planning Authority upon request.

Table 7. Results of the Phase II Dormouse surveys to date between April – June 2025.

Survey No	Date	Time	Temp (°C)	Wind (Beaufort)	Cloud Cover (%)	Other Occupancy	Dormice				Dormice Evidence
							GEC	***GEO***	***Juvenile***	***Adult***	
1	09/04/2025	09:00	11°C	0	0	N/A	-	-	-	-	Tube 5 – Dormouse nest
2	01/05/2025	08:00	14°C	0	0	N/A				5	Tube 1 – 1 male and 1 female in 1 nest Tube 5 – 2 x Dormice Tube 11 – Dormouse nest Tube 31 – Dormouse nest Tube 44 – Male Dormouse in nest
3	04/06/2025	09:00	15°C	2	30	N/A	-	-	-	3	Tube 1 – Dormouse nest Tube 2 – Dormouse nest Tube 3 – Torpid Dormouse in nest Tube 5 – Dormouse nest Tube 31 – Dormouse in nest Tube 44 – Male Dormouse in nest

Dormouse nest identified in April 2025.

Female Hazel Dormouse identified in Tube 1 during the May 2025 check.

4.7.2 Evaluation of Results

The site comprises of several habitats considered to offer excellent foraging resources all year round, as well as suitable habitat for hibernation, with further mixed and broadleaved woodland within the immediate wider environment.

The interim results of the survey findings between April to June 2025 can be found in **Figure 26** below. Due to the presence of Hazel Dormouse pairs within multiple survey tubes during the May survey, it is anticipated that Hazel Dormice are breeding on site. The surveys are still on-going until September 2025 to ensure enough data is gathered in order to apply for a European Protected Species Licence from Natural England. Additional findings can be sent to the Local Planning Authority upon request.

Figure 26. Results of the Phase II Dormouse Surveys between April – June 2025.

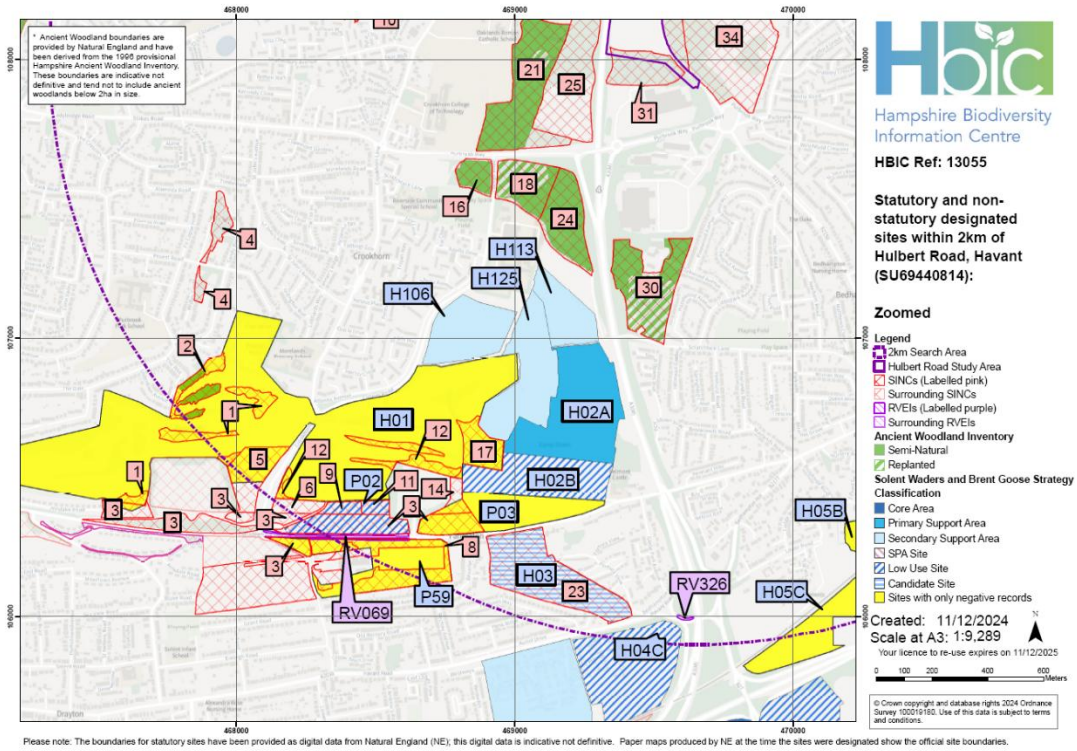
4.8 Notable and Birds of Conservation Concern (BoCC)

4.8.1 Pre-existing Information

4.8.1.1 Data Request

HBIC returned a variety of records of birds of conversation concern within 2km of the site (the list has not been reproduced here due to high quantity of records). Furthermore, HBIC returned a total of 19 Solent Wader & Brent Goose sites from within 2km of the site (**Fig 27**).

Figure 27. Close-up of Solent Wader & Brent Goose sites from within 2km of the site as provided by HBIC (***NB the bottom part of the site is located at the very top of this image***).



4.8.1.2 Previous Survey Work

WYG undertook an Ecological Appraisal in 2019 which identified records of both red and amber listed birds of conservation concern (BoCC), however, the habitats present to be impacted (grassland and hardstanding) were considered unlikely to support notable species and as such, further surveys were not recommended.

4.8.2 Site Assessment

4.8.2.1 Breeding and Nesting Birds

Several habitats are present on site ranging from unmanaged grassland, scrub, woodland, and a ditch, providing ideal habitat for a variety of bird species. The site is situated within a surrounding environ that provides an ideal mosaic of habitats, including semi-natural and ancient woodland and grassland providing ideal foraging habitat for any nesting or breeding birds using the site. Disused birds' nests were noted within mature trees within the SINC woodlands during the walkover survey, however these areas will not be directly impacted upon by the works. Notwithstanding this, given the habitats present and the surrounding environment, the site has a ***moderate potential*** for breeding and nesting birds.

4.8.2.2 Wintering Birds

The site lies approximately 2.6km north from the Chichester and Langstone Harbours SPA, and approximately 850m north-west of the nearest designated area for Solent Waders and Brent Geese (SW&BG) (H113 – Secondary Support Area). The habitats on site comprise predominantly of unmanaged dense grassland, which is considered to offer limited suitability for wintering birds.

The Chichester and Langstone Harbours SPA, in which the nearest SW&BG site lies, is designated for several overwintering and breeding bird species. Due to the low number of

records and distance from the SPA and SW&BG sites, the site is considered to offer ***negligible potential*** for wintering birds.

4.9 Otter & Water Vole

4.9.1 Pre-existing Information

4.9.1.1 Data Request

HBIC did not return any records of either of these species within 2km of the site.

4.9.1.2 Previous Survey Work

WYG (2019) identified no suitable habitat present for either species on site.

4.9.2 Site Assessment

Two small streams were identified within close proximity of the site, with one within the SINC woodland to the north, and one within the SINC woodland to the south (**Fig 23** in **Section 4.6.2**), both of which are culverted beneath Hulbert Road. No evidence of either species was identified, and the surrounding habitat was not considered to provide suitable habitat with a lack of ground flora that could be used for foraging along the stream banks. In addition, no records of Water Vole (*Arvicola amphibius*) or Otter (*Lutra lutra*) was identified within 2km of the site. As such, the site is considered to be of ***negligible potential*** for these species.

5.0 LIKELY ECOLOGICAL IMPACTS IN ABSENCE OF MITIGATION

5.1 Introduction

The CIEEM guidelines (CIEEM 2018) require that the potential impacts of the proposals should be considered in absence of mitigation. In order for a significant adverse effect to occur, the feature being affected must be at least of local value. However, in some cases, features of less than local value may be protected by legislation and/or policy and these are also considered within the assessment. Although significant effects may be identified at this stage of the assessment, it is often possible to provide appropriate mitigation.

5.2 Site Preparation and Construction

5.2.1 Impacts to Habitats

The proposals will predominantly involve the loss of the areas of other neutral grassland, mixed and scattered scrub, bramble scrub, gorse scrub, ditch (standing water), sparsely vegetated land, and developed land; sealed surface, with these habitats considered to be of value at ***site – local level*** of significance. The likely development works would also take place adjacent to the retained line of trees along the site boundaries considered to be of ***local level*** of significance, and therefore the trees within could be damaged by machinery and particularly by root zone compaction or lost. Furthermore, it is understood that works will be required to the lowland mixed deciduous woodland and broadleaved woodland (both designated as SINCs) for management purposes, considered to be of ***county level*** significance. The loss of habitat and potential indirect effects would have a ***moderate adverse impact*** to habitats of ***site – county*** value.

5.2.2 Impacts to Wildlife

Several trees located along the site boundaries, lowland mixed deciduous woodland, and broadleaved woodland on site were noted to contain PRFs. Although it is likely that these trees are to be retained, any tree removal or remedial works may lead to the damage and destruction of bat roosts, should they be present. Therefore, in the absence of mitigation ***an adverse impact is possible*** (scale unable to be determined without species confirmation).

The proposed works will result in the loss of suitable commuting and foraging habitat utilised by a range of bat species. The site has been identified as supporting a total of at least 7 species, including Annex II species Barbastelle. As such, in the absence of mitigation ***an adverse impact is certain*** at the ***regional level***.

The proposed works may involve groundworks and the creation of some excavations. This may lead to the potential for Badgers, Hedgehogs and other terrestrial mammals becoming trapped or injured during the works. Therefore, in the absence of mitigation ***an adverse impact is possible*** at the ***Local level***.

The proposed plans will involve the loss of habitat on site which has been assessed as offering suitable habitat for reptiles. This has the potential to cause harm, or even death of common reptile species which may be present on site. Therefore, in the absence of mitigation an ***adverse impact is possible*** at the ***local level***.

The proposed plans would involve the removal of suitable habitat present on site which has been assessed as offering low suitability for GCN due to the low suitability of the ditch (standing water) to be removed. This has the potential to cause harm, or even death of GCN which may be present on site. Therefore, in the absence of mitigation an ***adverse impact is possible*** at the ***local level***, if GCN are present.

The presence of Dormice was established on site and some areas of suitable habitat (in the form of scrub will require removal in order to deliver the development. Without mitigation procedures put in place, this would result in the direct harm of individuals and a reduction in the local population. This would therefore be contrary to the provisions of the Conservation of Species and Habitats Regulations (2019). This will have a ***moderate adverse impact*** at the ***Local*** level of significance.

Any works on the tree lines, areas of scrub, trees, and woodland on site could result in the disturbance of nesting birds and damage to their nests if conducted during the nesting season. As such, removal of suitable habitat without adequate mitigation could potentially constitute an offence under the W&CA, 1981 Therefore, in the absence of mitigation ***an adverse impact is possible*** at the ***site level***.

5.2.3 Impacts to Designated Sites

5.2.3.1 Neville's Park West Wood SINC & Hulbert Road Meadow SINC

Neville's Park West Wood SINC & Hulbert Road Meadow SINC both lie within the site boundary, supporting semi-natural woodland and priority habitats (Lowland Mixed Deciduous Woodland). Both SINCs will be retained as part of the proposals, with minimal removal requested to provide access for management, maintenance, and enhancement of the SINCs. In the absence of mitigation, it is likely that the SINCs will be impacted by an increase in water and air pollution during the construction phase. Therefore, it is considered likely that there will be a ***significant adverse impact*** at the ***county level***.

5.3 Site Operation

5.3.1 Impacts to Wildlife

The development will result in an increase in lighting within the general area from external lights accompanied with the proposed development. This can affect the behaviour, particularly foraging, of nocturnal wildlife. Therefore, an ***adverse impact is likely*** on Badgers, nocturnal birds, and bats, particularly light-adverse species such as Barbastelle and Bechstein's.

5.3.2 Impacts to Designated Sites

5.3.2.1 Neville's Park West Wood SINC & Hulbert Road Meadow SINC

Two SINCs are present on site comprising of semi-natural woodland and priority habitats. Although the SINCs will be retained and remain inaccessible to the public, it is likely that the SINCs would be subject to hydrological changes from altered run-off regimes, lighting impacts, changes in air quality, and trespassing. Therefore, in the absence of mitigation, it is considered likely that there will be a ***significant adverse impact*** on sites at the ***county level***.

5.3.2.2 Chichester and Langstone Harbours SPA

The site lies within the recreational buffer zone of the Chichester & Langstone Harbours SPA and there is a risk of disturbance from an increase in visitor numbers and recreational disturbance to these designated sites as a result of the erection of residential units. A s.106 legal agreement was signed for this application prior to Outline Planning Permission being issued (APP/20/0041) and as such, further mitigation towards recreational pressure is not required.

The site lies within a nutrient impact area where Nitrogen has been identified as having an impact on the Solent designated sites. Nutrient mitigation for the proposed development was secured under Outline planning application APP/20/00441, but this has to be revisited as part of the reserved matters application.

As such, as mitigation has been secured, the operational phase of the development would have a ***negligible effect*** on sites of ***International Value***.

6.0 RECOMMENDATIONS

6.1 Introduction

The below sections outline recommendations, including Phase II surveys where considered necessary, proposed mitigation and compensation appropriate and proportionate. In addition to this, measures are outlined to protect the existing features of value and provide enhancements post development.

6.2 Protection of Retained Habitats

All existing trees, woodland, scrub, and other habitats that will be retained will be protected from damage during the works. All the site boundaries outside the area of impact will be fenced using Heras fencing or similar, with a tarpaulin screen to prevent the spread of dust and prevent access by machinery, including the eastern boundary line of trees. Where large mature trees are present, they will be protected using standard arboricultural tree protection measures which include protection of the canopy and prevents root compaction. Access will not be permitted behind this fencing by construction personnel. This will protect the SINCs and Dormouse habitat from direct damage/disturbance and dust.

Protection of the SINCs and woodland priority habitat post-development are described in **Section 6.9**.

6.3 Bats

Pre-existing ecological survey data and records have identified the site as holding high value to bats, including Annex II species Barbastelle (*Barbastella barbastellus*), Bechstein's (*Myotis bechsteinii*), and Greater Horseshoe (*Rhinolophus ferrumequinum*) bats. However, previous the previous bat surveys undertaken on site are now considered out of date following the Bat Survey Guidelines.

Notwithstanding this, using the existing ecological data and records, a bat mitigation strategy has been outlined within the following sections including retention and enhancement of high value habitats and a robust lighting strategy, to ensure there are no adverse impacts to bats, particularly Annex II species, within the local area. It is expected that undertaking additional survey work would not materially change the mitigation required or value of the site for foraging and commuting bats (which is already at the highest value with mitigation outlined to enhance the site for Annex II species), as well as minimise the risk of disturbance through trapping techniques.

6.3.1 Updated Ground Level Tree Assessment & PRF Inspections

6.3.1.1 GLTA & Initial PRF Inspections

A number of trees were identified as supporting several potential roost features on site within the woodland. Should any further trees require removal or remedial works, an updated Ground Level Tree Assessment will be undertaken on the subjected trees.

Following this, a single PRF inspection survey will be required for each tree (BCT, 2023) to record characteristics of the PRFs and categorise them according to **Table 8** below. This can be conducted at any time of year by a suitably qualified ecologist and entails a more detailed

assessment of the likely suitability of a PRF for roosting bats as well as searching for evidence of bats (e.g. droppings) within the PRF via an endoscope. Access equipment (such as ladders, MEWPS or scaffold towers) may be required to gain access to PRFs.

Table 8. Categorisation of PRFs (from Table 6.2, BCT 2023).

Suitability	Description
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.

6.3.1.2 Follow Up Survey Work

For those trees noted to only possess PRF-Is, the Roost Resource Approach will be followed in which no further surveys are required and a precautionary working method statement will be adhered to (BCT, 2023).

For those trees noted to possess PRF-Ms, the Further Surveys Approach will be followed in which a total of three PRF inspection surveys will be required between May – September (with at least two between May – August), with these visits spaced at least 3 weeks apart (BCT, 2023).

6.3.2 Sensitive Lighting for Nocturnal Species

Surveys undertaken by WYG between 2019 & 2020 concluded the boundary habitats and woodland SINCs act as an important commuting corridor for bats. As such, a sensitive lighting scheme is being prepared (with liaison with Ecosupport Ltd), particularly focusing on no / minimal lighting along the site boundaries and woodland SINCs. SLR The guidance set out in **Section 6.3.2.2** will be incorporated into the lighting design.

6.3.2.1 During Construction

In order to avoid any disturbance to bats (and other potential nocturnal wildlife) construction works should be limited to daylight hours and should not be undertaken 30 minutes prior to dusk through to dawn. All lighting should be sensitive to the use of the site by nocturnal wildlife, for example by including low-level downward-facing / hooded lights that are sensor-operated where possible.

No lighting will be facing the boundaries of the site (particularly the northern and southern woodland SINCs).

6.3.2.2 During Operation

It is recommended that any lighting complies with the following the published *Guidance Note 08/23 Bats and Artificial Lighting at night* (ILP / BCT, 2023) produced via a collaboration between the Institute of Lighting Professionals (ILP) and the Bat Conservation Trust (BCT), which outlines the latest recommendations to minimise the impacts of increased artificial lighting on bats.

Furthermore, it is recommended that no lighting shall be incorporated onto the back of residential dwellings or within the residential gardens. This can be secured under a Conservation Covenant. As detailed below, low level lighting ***MUST*** be used at the entrance of the site, along with along the woodland SINC boundaries, should lighting be necessary here.

Any lighting required around the cycle / footpath adjacent to the dark corridor will comprise of either low level bollard solar lights or wildlife friendly in-ground lighting (such as the SolarEye – Wildlife and environmentally friendly Residential In-ground light), designed to minimise impacts on foraging and commuting bats and other protected species such as Hazel Dormice and nocturnal birds that may be using the site boundaries.

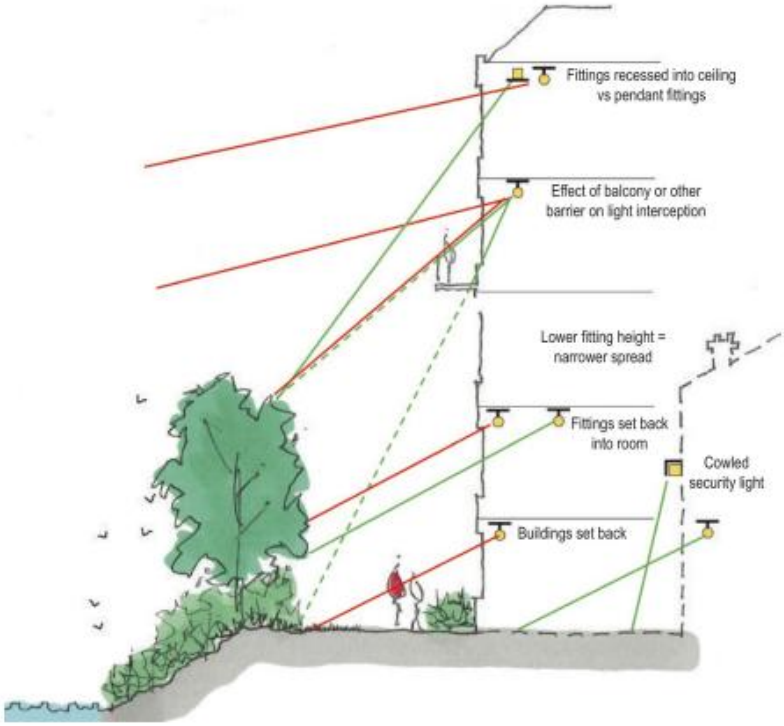
The key recommendations within the *Guidance Note 08/23 Bats and Artificial Lighting at night* (ILP / BCT, 2023) document have been outlined below and will be implemented as far as is practicable:

'Light sources, lamps, LEDs and their fittings come in a myriad of different specifications which a lighting professional can help to select. However, the following should be considered when choosing luminaires and their potential impact on Key Habitats and features:

- *All luminaires will lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used*
- *LED luminaires will be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability*
- *A warm white light source (2700Kelvin or lower) will be adopted to reduce blue light component*
- *Light sources will feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012)*
- *Internal luminaires can be recessed (as opposed to using a pendant fitting - See **Fig 28**) where installed in proximity to windows to reduce glare and light spill*
- *Waymarking inground markers (low output with cowls or similar to minimise upward light spill) to delineate path edges (see Case Study 1)*
- *Column heights will be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards*
- *Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered - See ILP GN01*
- *Luminaires will always be mounted horizontally, with no light output above 90° and/or no upward tilt*
- *Where appropriate, external security lighting will be set on motion sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate*
- *Use of a Central Management System (CMS) with additional web-enabled devices to light on demand Use of motion sensors for local authority street lighting may not be feasible unless the authority has the potential for smart metering through a CMS*

- *The use of bollard or low-level downward-directional luminaires is strongly discouraged. This is due to a considerable range of issues, such as unacceptable glare, poor illumination efficiency, unacceptable upward light output, increased upward light scatter from surfaces and poor facial recognition which makes them unsuitable for most sites. Therefore, they should only be considered in specific cases where the lighting professional and project manager are able to resolve these issues. See Case Study 6*
- *Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed. However, due to the lensing and fine cut-off control of the beam inherent in modern LED luminaires, the effect of cowls and baffles is often far less than anticipated and so should not be relied upon solely'*

Figure 28. Internal lighting mitigation options (ILP 2023).



6.3.3 Site Design

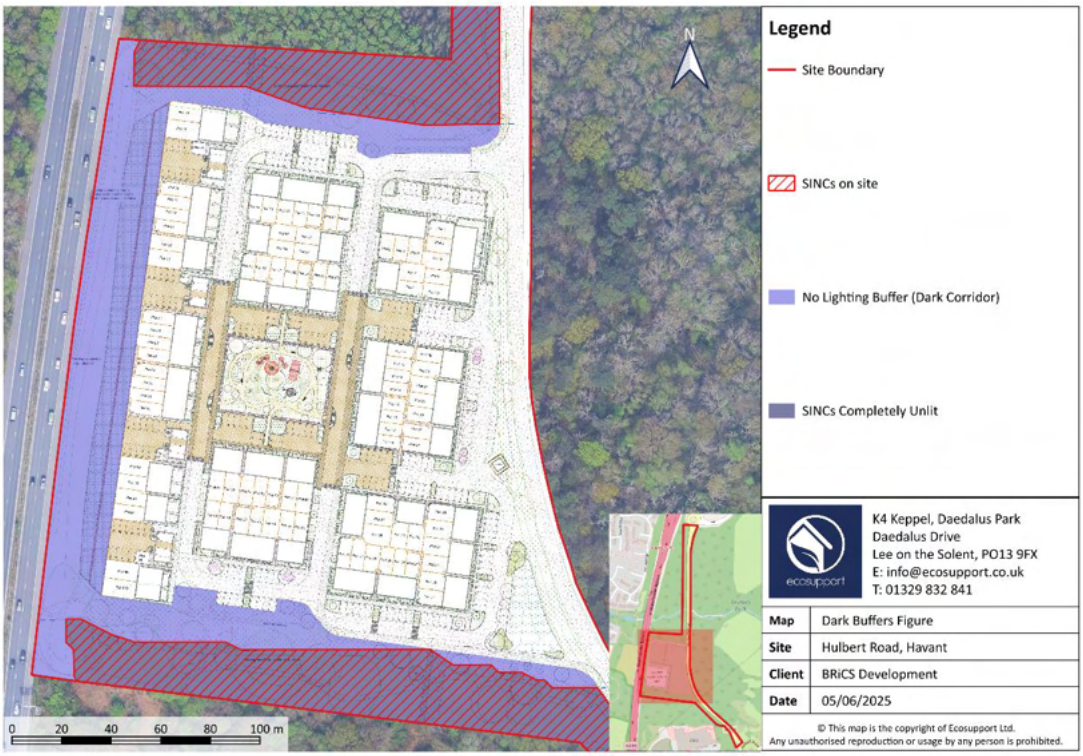
The site has sought to incorporate a number of features that will be beneficial to bats including the retention of the majority of the trees and scrub on site, habitat enhancement and improving connectivity, and dark corridors. Additional mitigation methods are outlined below in the following sections. This will ensure retention and enhancement of flight corridors utilised by local bat species.

6.3.3.1 Dark Corridors

Dark corridors will be incorporated along the northern, western, and southern site boundaries, forming the buffers adjacent to the SINCs and western boundary acoustic buffer (**Fig 29**). It is recommended that no lighting is incorporated within these areas. Should any lighting be necessary, it will follow the recommendations as set out in **Section 6.3.2**, above.

The buffers will be planted with native tree, scrub, and species-rich wildflowers, with an approximate 7m dark corridor buffer along the northern SINC boundary, and ranging from 0-15m along the southern SINC boundary. The SINCs will not be subject to any lighting.

Figure 29. Location of the dark corridors around the site (Google Satellite, 2025; Deacon Design, 2025. Drawing no. DD694L01 Revision A).



6.3.3.2 Habitat Retention, Compensation & Enhancements

Retention

As part of the proposals, the majority of the boundary habitats will be retained, of which were noted to be of high importance to local bat species, including Barbastelle and Bechstein's. No vegetation is proposed to be removed to facilitate access. The northern and southern SINC woodland will be retained, with minimal vegetation clearance of small trees and scrub adjacent to facilitate small aspects of development and to allow for access for SINC maintenance and enhancements.

Barbastelles can forage 10-15km from their roosts, meanwhile Bechstein's have been found to forage in and locally around the woodland in which they roost with a 'limited outward travel' (SDNPA and Natural England 2018). As such, it is important that the suitable habitat on site for these species, such as the woodlands, are retained.

Furthermore, the retention of flight-paths in combination a sensitive lighting strategy and dark corridors will ensure that bats are still able to commute freely to and from the nearby semi-natural and ancient woodland.

Compensation

Works will require the loss of other neutral grassland with scattered scrub, bramble scrub, mixed scrub, and gorse scrub located centrally across the site. These habitats presently attract a variety of invertebrates providing an important food source for bats. Similarly, the scrub bordering the woodland SINCs and grassland on site will be removed.

The scrub boundary, particularly along the southern SINC edge (no physical clearance of SINCs), comprises of dense Bramble, encompassing young native shrubs and saplings and any ground flora that may be present. Works to the SINC edges will entail removal of such scrub to allow for enhancements and regeneration of the SINC boundaries. A species-rich grassland will be created comprising of a species-rich seed mixture, as well as the incorporation of native evening scented plants such as Bladder Campion (*Silene vulgaris*), Evening Primrose (*Oenothera biennis*), Fleabane, Soapwort (*Saponaria officinalis*), Red Valerian (*Centranthus ruber*), Honeysuckle (*Lonicera periclymenum*), and White Campion (*Silene latifolia*). This will increase the quantity and encourage a diverse variety of invertebrates, including moths (favourable for Barbastelle), in turn increasing foraging resources on site for local bats.

SINC boundaries will be infill planted with native scrub species such as Hawthorn, Blackthorn, Holly, and Dog-rose to provide a dense buffer between the SINC and the development, further increasing foraging resources as well as increasing vegetation along the existing commuting routes. As such, the poor-quality scrub lost will be compensated for through species-rich scrub planting.

Tree planting will be incorporated throughout the site providing a landscape link to the woodland comprising of Ash, Beech, Birch, and Oak as these are preferred species for tree roosting bats such as Bechstein's and Barbastelle. This will provide long-term potential tree roosting resources and a food source all year round for other species present on site. The newly planted tree and hedge network in combination with the retained trees throughout the centre of the site and around the newly built dwellings will act as 'stepping stone' habitats, to enhance connectivity throughout the site (Gunnell et al., 2012). These stepping stones will maintain the existing flight paths, as structural landscape connectivity is vital for the movement of bats.

To act as a buffer along the western boundary, and compensate for the loss of scattered scrub on site and adjacent to the SINC boundaries, several native trees and native scrub will be planted in a dense buffer comprising of Blackthorn, Bramble, Gorse, and Hawthorn, further increase the foraging resources on site and providing a wider dark commuting corridor along the western boundary.

Enhancement

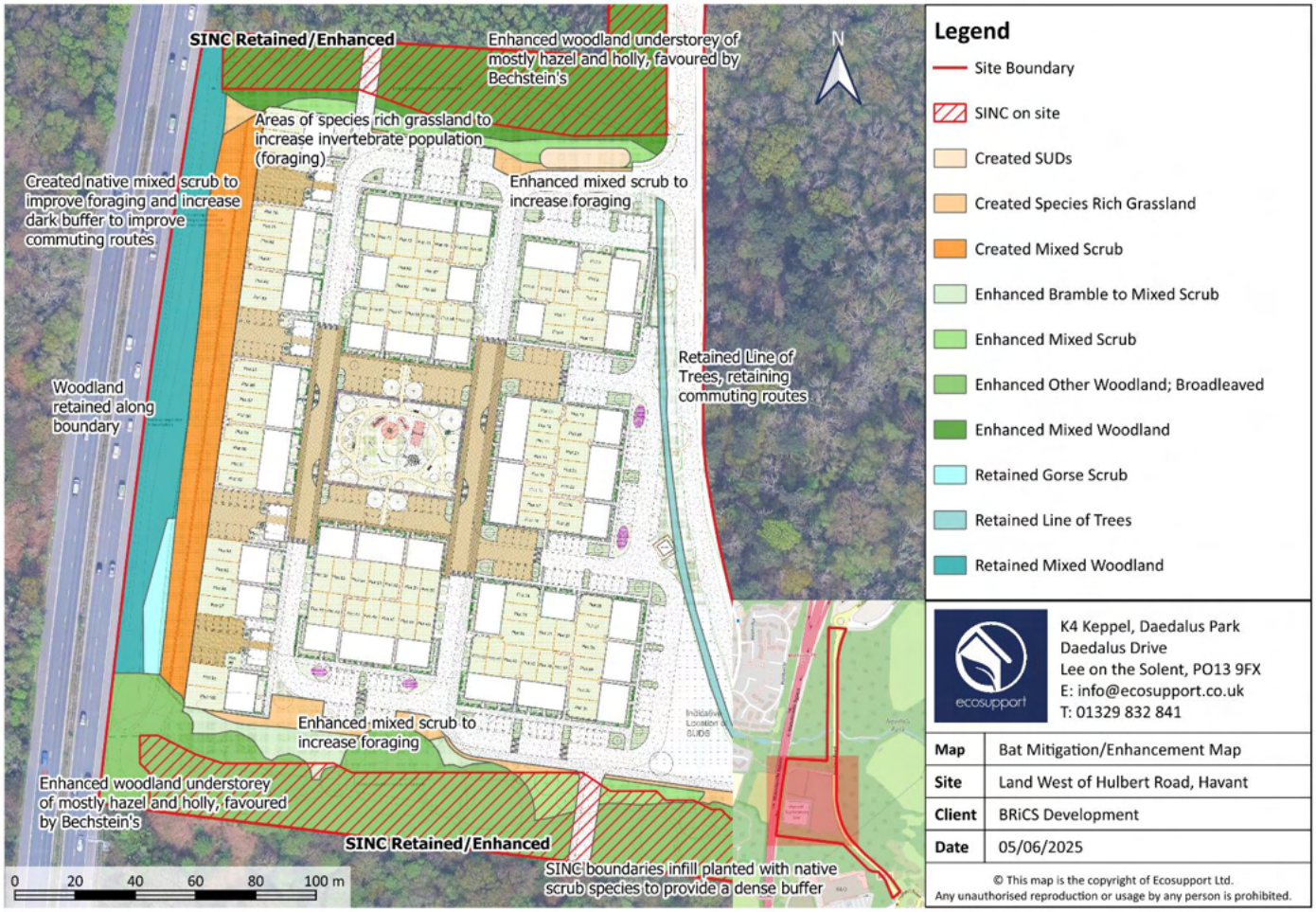
Habitat enhancements will be used to further enhance the site for bats. This comprises of general SINC management and enhancements, described further in **Section 6.9**, along with further mitigation to minimise against potential adverse impacts.

Enhancements comprise:

- Monitoring of tree age class and planting of trees to provide future long-term natural roosts;
- Planting of fruit trees around and along the site boundaries to provide further diverse (invertebrates) foraging resources;
- Native understorey planting, including Holly and Hazel (favourable for Bechstein's (Bat Conservation Trust, 2013)); and
- Retention of all standing and falling deadwood present on site for roosting potential and to encourage woodland invertebrates.

Locations of approximate habitat retention, compensation, and enhancement measures are shown below in **Fig 30.**

Figure 30. Retained, created, and enhanced habitats to benefit bats, particularly Bechstein's and Barbastelle on site (Google Satellite, 2025; Deacon Design, 2025. Drawing no. DD694L01A).



6.3.3.3 Compensatory Bat Boxes

To compensate for the potential loss of the potential roosting features due to necessary scrub and small tree removal, a total of 8 No bat boxes will be erected on site onto suitable retained trees within the woodland SINCs. The following boxes are recommended to provide roosting resources for both crevice and void dwelling species, all year round:

- 2 No Schwegler 1FW Hibernation Bat Box
- 2 No Schwegler 2FN (used by Bechstein's (English Nature, 2004))
- 2 No General-Purpose Wood Concrete Bat Box
- 2 No Large Multi Chamber WoodStone Bat Box

The bat boxes will be erected by or under the supervision of an ecologist to ensure they are placed in the most appropriate / effective locations.

6.4 Badgers & Other Terrestrial Mammals

A walkover of the site will be undertaken by a suitably qualified ecologist in search of any recent or new Badger activity within 4 weeks of works commencing. In the case evidence of potential Badger setts are identified, further survey works may be required to assess the status of any potential Badger setts on site.

During the construction phase, any open excavations left overnight will either be covered to prevent commuting Badgers and other terrestrial mammals falling in or escape ladders will be used to prevent them from becoming trapped. Any open pipework will be checked and then capped nightly.

6.5 Reptiles

6.5.1 Passive Dispersal

WYG concluded the likely absence of reptiles in 2019. Notwithstanding this, the site has been left unmanaged since, and it is considered that the most appropriate form of mitigation would be to adopt a precautionary approach. The following methods will be undertaken to ensure that no reptiles are harmed during the works in the unlikely case that individuals are present on site.

- The days prior to ground works commencing:
    - **Stage 1**: During the first stage, the vegetation will be cut down to a height no lower than 20cm. Cutting will occur directionally, working towards suitable habitat to be retained along the northern and southern scrub SINC boundaries to encourage reptiles to these areas. This will be done under the supervision of a suitably qualified ecologist holding a Natural England Licence for GCN (see **Section 6.6**).
    - **Stage 2**: A second cut (the following day) will take it down to ground level. At this time, the supervising ecologist will do a fingertip search of any tussocky areas. Any potential refugia (i.e., deadwood, rubble, earthbanks) will also be searched and removed. Any potential reptiles encountered will be captured and relocated to areas of retained habitat on the margins of the site. This will be done under the supervision of a suitably qualified ecologist.

- The ecologist on site will then hand search any denser areas of cover such as leaf litter where these areas are to be directly impacted upon.
- All vegetation on site must be kept managed during the development to ensure that reptiles don't establish whilst works take place.
- Materials must not be stored along the boundary vegetation on site and must be kept raised off of the ground (i.e., stored on pallets).
- ***Depending on the habitat type present, a destructive search may also be required, as detailed below, under supervision of an ECoW***

6.5.2 Destructive Search (if required)

Following the two-stage clearance, a destructive search may be carried out under the supervision of the suitably qualified ecologist depending on the habitat type present. Topsoil will be gently stripped to 100mm depth using a digger with a toothed bucket. The supervising ecologist will capture any reptiles found and relocate them to the retained boundary habitat. Please note, any suitable habitat within the root protection zone will not have the topsoil stripped and will only be maintained cut at ground level.

These works will be undertaken during the active reptile period (April – October) when temperatures are above 10°C with sunshine. This area of habitat will be regularly managed and maintained unsuitable for reptiles for the duration of the works and will be cordoned off from the site to prevent vehicles entering the area. The arisings will be removed and any materials will be stored off the ground using pallets or skips if stored in the grassland to prevent sheltering reptiles.

6.6 Great Crested Newts

As the ditch on site is dry between April – June, it is considered that GCN are likely absent from the site, in combination with lack of records and absence of nearby suitable waterbodies. Notwithstanding this, to ensure no adverse impacts to GCN, the precautionary measures outlined within **Section 6.5.1** are considered to be feasible.

In the unlikely instance that a GCN is found during any works, all works must immediately stop and the project ecologist must be informed. Natural England will then need to be contacted in order to obtain a European Protected Species development licence before any further works proceed. If any GCN are found on site updated GCN surveys will be required for all water bodies within 500m of the site to establish the population size present. It is essential that these processes are immediately followed to ensure that no offence is committed under the Wildlife and Countryside Act 1981 or the Conservation.

6.7 Hazel Dormouse

6.7.1 European Protected Species Licence

The proposed plans will require removal of some areas of some mixed and Bramble scrub at the north, centre, and south of the site, with connectivity to the boundary and surrounding habitats. Throughout the 2019 – 2020 Dormouse surveys (WYG, 2021), Dormouse were predominantly found along the northern and western scrub. However, during the updated 2025 surveys to date, Dormice have been found along the northern and southern scrub, and

as such, other habitat may contain Hazel Dormice (**Fig 31**). Therefore, Dormice should be assumed to be present within all areas of the site and a European Protected Species Licence (EPSL) will be required for any works impacting the Bramble scrub (and the hedgerow if this becomes necessary).

6.7.1.1 Updated Surveys for EPSL

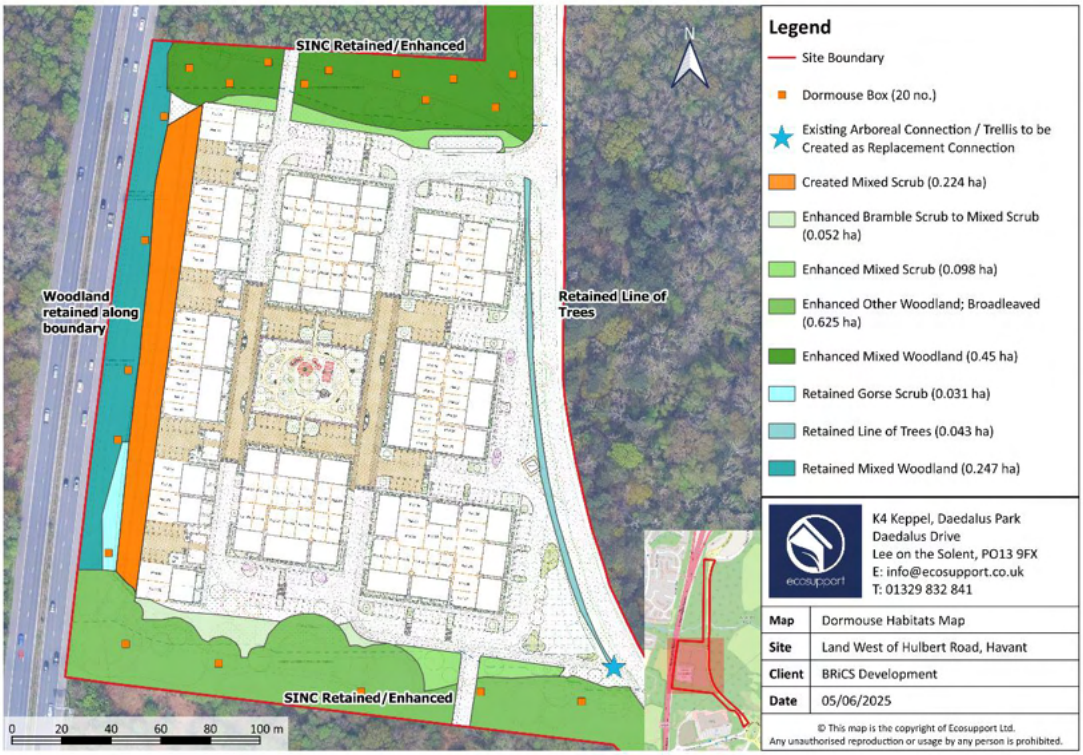
Due to the age of the data, in order to apply for an EPSL from Natural England, Hazel Dormouse surveys will continue to be updated within the 2025 active seasons. The mitigation strategy and targeted enhancement measures will be updated accordingly as necessary.

6.7.2 Vegetation Clearance

It is expected that a total of 0.385 ha of suitable Hazel Dormouse habitat in the form of mixed and Bramble scrub will be cleared under a single / two stage methodology (see **Fig 31** for location of sensitive vegetation removal). Furthermore, works will take place adjacent to retained suitable habitat (total 1.546 ha suitable habitat retained). Any Dormice discovered during the works will either be left undisturbed in place (if deemed safe by the ecologist) or will be relocated to a retained habitat in a similar location to where they were found (e.g. if the animal is found within leaf litter, then the animal will be placed in leaf litter). 20 No. Dormouse nest boxes will be placed into the retained scrub / woodland to act as receptors in the unlikely event of any Dormice being found (**Fig 32**).

Figure 31. Location of retained, enhanced, created, and lost dormouse habitat with directions of proposed single / two stage clearance indicated (Google Satellite, 2025; Deacon Design, 2025. Drawing no. DD694L01A).

Figure 32. Proposed location of 20 No. Dormouse boxes (orange dots) to be erected within the retained scrub and woodland on site (Google Satellite, 2025; Deacon Design, 2025. Drawing no. DD694L01A).



6.7.2.1 Clearance Methodology

The following methodologies outline both a single stage option and two stage option for the clearance work to be carried out once a NE EPSL has been granted.

Single stage methodology:

- Fingertip search of all vegetation to be cleared, by the licenced ecologist, immediately prior to clearance commencing (on the same day and every day clearance occurs).
- Prior to works commencing, the named ecologist or accredited agent will provide all site operatives with a toolbox talk to inform them of the potential presence of dormice, their legal status, means of identification, habitat requirements, the methodologies required to avoid impacts on the species and what they should do if a dormouse is found. A written record that this has been undertaken, signed by attendees, will be kept and made available to Natural England should it be required.
- Hand tools will be utilised to sensitively cut vegetation down to ground level in ***a single stage***. This will be undertaken in a directional fashion to passively encourage Dormice to move away from the works area towards retained, suitable hedgerow / treeline habitat. Where areas of scrub are being cut, this will be done directionally towards the retained habitats. All arisings will be chipped on site immediately.
- Cut material will be removed from the areas and chipped and removed from site or area of working operations.
- 20 Dormouse nest boxes will be placed into the areas of retained scrub / woodland around the site to act as receptors in the event of any Dormice being found (**Fig 32**).

- Works will take place outside of the core breeding periods (June - September inclusive) and avoid the hibernation period (late November – March) and as such, the most appropriate timings would be April - May and late September - October
- ***No more than 50m^2 of habitat will be cleared in a single day***

Two Stage methodology:
Clearance of the vegetation within the site will be carried out sympathetically and under the supervision of a Licenced Ecologist (LE) who will search for nests by hand and capture Dormice (if necessary) before and during clearance works. If any active animals are discovered during the works, then these animals will be captured and placed, with their original nest where present, within previously erected nest boxes (outlined above). If any hibernation nests/potential hibernation nests are identified during the first stage of the clearance over winter, these will be left undisturbed, with vegetation retained in a buffer around the nest, due to the vulnerable nature of hibernating or torpid Dormice. All arisings / cuttings will also be removed from site each day following a hand search by the licenced ecologist to prevent re-occupation.

- The licenced ecologist will deliver a toolbox talk to the vegetation clearance contractors, detailing the sensitive measures required. The ecologist will then supervise all vegetation clearance. No clearance will be undertaken without the supervision of the ecologist.
- To avoid any impacts to Dormice the removal of all vegetation will adopt a two staged approach with the upper sections removed over winter (when Dormice may be hibernating in the lower parts) and the trunk and roots removed during spring.

<u>Winter clearance</u>
This should remove sufficient vegetation to persuade Dormice emerging from hibernation in April or May to move to more appropriate habitat nearby. Once emergence is complete, by the end of May, full clearance of the area can continue. Winter clearance should thus be planned as a two- stage process.

Trees and shrubs within the area in question should be cut down between November and March inclusive, to avoid both the bird nesting season and the majority of the period when Dormice might be found in nests above ground. Clearance should be done by hand and in a sensitive manner, to minimise the likelihood of disturbing or killing hibernating Dormice. Similarly, the process of removing the cut material should, as far as possible, be designed to protect Dormice hibernating on the ground. This can involve such techniques as:

- Sacrificing a single 'haul- route', which has first been cleared by hand if necessary;
- Using a long-reach mechanical grab and/or limiting the number of 'drag-lines' along which stems are removed; and/or
- Directional felling to minimise the ground impact.

In addition to the above, all vegetation being removed, and the ground beneath, will first be hand searched as far as possible to identify the presence of any hibernation nests. Similarly, any proposed drag/haul routes will first be searched by hand before such usage commences.

If any hibernation nests are identified, these will be retained and protected and, if present within a haul/drag routes these will be re-routed to avoid the retained nest.

Spring clearance

Once the above works have been completed, the roots will be removed using hand tools where possible or with a digger using a toothed bucket under the supervision of the licenced ecologist from mid-April onwards (provided the temperatures have been warm enough for Dormice to emerge from hibernation at the discretion of the ecologist).

6.7.3 Minimising Disturbance

Prior to construction works commencing the retained scrub / treelines and the adjacent woodland will be protected from damage during the works. They will be fenced using Heras fencing or similar with a tarpaulin screen to prevent the spread of dust and access by machinery. Where large mature trees are present, they will be protected using standard arboricultural tree protection measures which include protection of the canopy and prevention of root compaction. Access will not be permitted behind this fencing by construction personnel. This will protect Dormouse habitat from direct damage/disturbance and dust. Signage will also be added (on top of the usual warnings for tree protective fencing) stating things such as:

Protected Dormouse Habitat

It is an Offence to Damage / Disturb this Habitat

This will also provide protection for wildlife species, including Badgers, that may be using the margins of the site as well as bats, invertebrates and other mammals. No vehicles will enter the protective ring fencing and no materials will be stored within their circumference. All protective fencing must be in place prior to any construction machinery arriving on site, before any works on site get underway, and will remain in place until all work is completed. This will minimise the level of disturbance within the boundary habitat / buffer areas during the works and ensure the habitats and any wildlife species that may be using them are protected.

6.7.4 Habitat Compensation / Connectivity

The permanent loss of approximately 0.385 ha of mixed and Bramble scrub will be compensated for through the creation of 0.224 ha of mixed scrub with trees and enhancement of the retained mixed scrub through infill planting and enhancement of the woodland SINCs (1.062 ha total). Specifically, mixed scrub comprising a variety of species of known benefit to Hazel Dormice (e.g. Hazel, Hawthorn, Blackthorn) will be created along the western boundary of the site to reinforce and enhance the area where the Dormice and nests were found and provide long-term food sources (**Fig 31**). The retained mixed scrub bordering the SINCs on site will be enhanced planting of native species (Hawthorn, Blackthorn, Holly, Dog-rose), to provide a dense between the SINC and the development, with appropriate management to ensure a mixture of species is maintained without a single species dominant, resulting in an increase in foraging resources for Hazel Dormice and other protected species (**Fig 31**).

Furthermore, there is presently limited native understorey within the woodland suitable for Hazel Dormouse (as seen in **Fig 12** in **Section 4.2.6**). Native understorey planting will be undertaken within the woodland SINCs comprising of Holly and Hazel, to provide an increase in commuting opportunities and foraging resources. Given the extensive woodland areas around the SINCs, woodland enhancements, and habitat creation, it is expected that the loss (in ha) of suitable habitat is considered acceptable at a landscape scale.

The areas of mixed and bramble scrub being removed are on the periphery of the existing suitable Dormouse habitat on site with little connectivity into further suitable habitat within the wider environment. All of the Dormouse habitat which is connected to the wider landscape (i.e. the retained scrub, site boundaries, and woodland) is to be retained with the proposed compensatory Dormouse habitat being planted to increase commuting opportunities along the western site boundary. No vegetation is proposed to be removed for access. Furthermore, the existing arboreal connection in the south-eastern corner of the site will be maintained providing connectivity over the new cycle path (**Fig 29**). If this is not viable, then connectivity will be maintained over the cycle path through the treeline by using trellis planted with climbers to create a continuous canopy. Therefore, it considered that there will be no residual loss of connectivity for Hazel Dormice using the site.

6.7.5 Mitigating Operational Impacts

6.7.5.1 Lighting

A sensitive lighting scheme for the site will be implemented as described in **Section 6.3.2** which includes specific recommendations for lighting types to mitigate against the impact of artificial lighting on nocturnal species, including further information on dark corridors in **Section 6.3.3.1**. Furthermore, where there is any light spill into the newly created and retained Dormouse habitats, this will also be kept to a minimum level of no higher than 0.5 Lux as per **Fig 29**.

6.7.5.2 Cat Predation

To minimise the risk of cat predation once the houses have been completed and the new occupants moved in, thorny species (such as *Prunus spinosa*, as listed within **Section 6.3.3.2**) will be planted up within the retained scrub along the SINC edges / newly planted mixed scrub on site and along the new western scrub dark corridor (with known Hazel Dormouse presence) at a minimum density of 1 per linear metre. As these species mature, they will provide a natural deterrent to cats moving into the Dormouse areas on site.

6.7.5.3 Monitoring

As iterated in the above sections, prior to the commencement of vegetation removal, at least 20 No Dormouse boxes will be installed by a suitably qualified ecologist in suitable habitat to be retained to enhance the site for Dormice (as per **Fig 32**). The boxes will be checked at years 1 – 10 post clearance works by a licenced ecologist and the data submitted to the National Dormouse Monitoring Programme (NDMP).

6.7.6 Responsibility

The retained and newly created habitats will be managed for a minimum period of 12 months by the developer post completion of development, covering the first part of the establishment period. Ownership / management responsibilities will then be transferred to a management company which is as yet unappointed, when required.

6.7.7 Precautionary Approach – Scrub Management

It will be necessary to limit scrub encroachment within areas of bordering species-rich grassland that will be managed to benefit common reptiles and encourage a range of invertebrates. Furthermore, it is likely scrub management will be required within the SINC woodlands to ensure they remain at optimal condition for development and to benefit any protected species that may be residing within. Therefore, any ongoing scrub management on site will take place during late September – October and will follow the precautionary measures outlined in **Table 9** below in order to avoid harm coming to any Hazel Dormice that may be present within the vegetation.

Table 9. Precautionary approach to managing scrub with Dormouse presence (reproduced from Forestry Commission, 2019).

Scrub Vegetation Management	May to mid-Sept	Avoid cutting taller vegetation and areas of shrubs. Any areas with a short sward may be mowed.
	Mid-Sept to end of Oct	Any areas with a short sward may be mowed. For areas of tall sward or woody vegetation, treat 25% or less of favourable or marginal habitat. For areas of shrubs, cut a maximum of 50 m by 10 m segments, working less than 10% of the area of favourable or marginal habitat and leaving the worked area uncut for a minimum of 8 years. Maintain branch connectivity at intervals over rides and tracks.
	Nov to end of March	Any areas with a short sward may be mowed. For areas of tall sward or woody vegetation, treat 25% or less of favourable or marginal habitat. For areas of shrubs, cut a maximum of 50 m by 10 m segments, working less than 10% of the area of favourable or marginal habitat and leaving the worked area uncut for a minimum of 8 years. Maintain branch connectivity at intervals over rides and tracks.
	April	Avoid cutting taller vegetation and areas of shrubs. Any areas with a short sward may be mowed.

6.8 Notable and Birds of Conservation Concern (BoCC)

6.8.1 Avoidance of Impacts to Breeding and Nesting Birds

In order to avoid disturbance of breeding and nesting birds or damage to their nests, works to the buildings and any works to the trees on site should avoid bird nesting season (typically March – August, dependent on weather). If this is not possible, the buildings / trees should be

thoroughly checked by an ecologist immediately prior to works. If any active nests are found, they should be left undisturbed with a suitable buffer within which works cannot take place (ca. 5m) until nestlings have fledged.

6.8.2 Compensatory Bird Boxes

Habitat management on site (see **Section 6.9**) will compensate and increase opportunities for birds within the site. Additionally, to compensate for the potential loss of nesting bird habitat due to necessary scrub and small tree removal, a total of 6 No bird boxes will be erected on site onto suitable retained trees within the woodland SINCs. The following boxes are recommended to provide roosting resources for both crevice and void dwelling species, all year round:

- 2 No Schwegler 1B
- 2 No Schwegler 2H
- 2 No Schwegler 2M

The 1B is the most popular box for garden birds and appeals to a wide range of species. The 2H is attractive to Robins, Pied Wagtails, Spotted Flycatcher, Wrens and Black Redstarts whilst the 2M is an example of a general-purpose design (***NB is there are issues obtaining these boxes, alternatives can be used if first agreed with the ecologist***). The bird boxes will be erected by or under the supervision of an ecologists to ensure they are placed in the most appropriate / effective locations.

6.9 Neville's Park West Wood & Hulbert Road Meadow SINCs (Priority Habitat)

6.9.1 Site Preparation and Construction

During site preparation and construction, both SINCs will be fenced off from works using the methodology outlined within **Section 6.2**. Both SINCs (and other suitable Dormouse habitat) with be fenced off using Heras fencing or similar with a tarpaulin screen to prevent the spread of dust and access by machinery, following standard arboricultural tree protection measures. Access will not be permitted beyond this fencing by construction personnel. Access however will be permitted for appropriate management of the scrub / woodland and enhancements measures, upon agreement with the Local Planning Authority.

Access into the SINCs will be created and maintained as a single access track, cut into the vegetation, to allow for SINC management and maintenance for the landowner, as well to provide enhancement and mitigation measures. The access track will be maintained as a dirt path / track, and will be minimally intrusive in terms of infrastructure.

A Construction Environmental Management Plan (CEMP) has been imposed through Condition 11 of Outline Planning Permission APP/20/0041.

Furthermore, it is recommended that a SINC / Woodland Management Plan is conditioned to ensure details of appropriate habitat management and monitoring are incorporated throughout the works, including enhancement measures.

6.9.2 Site Operation

6.9.2.1 Access & Signage

A single interpretation board will be installed informing visitors of the SINC's conservation value. This will include images and text relevant to the areas wildlife and inclusive of a plan of the pathway and cautionary note in relation to disturbance of wildlife using the area. The interpretation board will be positioned near the cycle route at the south-east of the site.

6.9.2.2 Leaflets (Littering)

In order to prevent littering from neighbouring properties into the SINCs or dark corridor buffers, leaflets will be provided to the residents upon taking up residence informing the new residents of the SINC's conservation value, with images and text relevant to the wildlife present on site.

6.9.2.3 Litter Bins

To further ensure littering does not occur from the public, it is recommended that litter bins will be installed, with at least one adjacent to each SINC. These will be emptied regularly by a management company.

Prior to works commencing upon the pathway and litterbins being installed clearance of all foreign objects, rubbish, unnatural debris, and litter etc will be cleared from the site including the SINCs.

6.9.2.4 Predation

To minimise the risk of cat predation once the houses have been completed and the new occupants moved in, thorny species (such as *Prunus spinosa*, and other species listed within **Section 6.3.3.2**) will be planted up within the retained scrub along the SINC edges / newly planted mixed scrub on site and along the new western scrub dark corridor at a minimum density of 1 per linear metre. As these species mature, they will provide a natural deterrent to cats moving into the SINCs and Dormouse areas on site.

6.9.2.5 Lighting

It is understood that no lighting will be incorporated within or onto the SINCs, with dark corridor buffers along the northern, western, and southern site boundaries. Further information on sensitive lighting and dark corridors are detailed in **Section 6.3.2** & **Section 6.3.3.1**.

Any lighting required around the cycle / footpath will comprise of either low level bollard solar lights or wildlife friendly in-ground lighting, designed to minimise impacts on foraging and commuting bats and other protected species such as Hazel Dormice and nocturnal birds that may be using the site boundaries.

6.9.3 SINC enhancements

Both SINCs (area of SINCs within the redline boundary) will undergo appropriate management and enhancement measures. The objectives of the management of these SINCs are to protect and enhance the existing woodland habitat to provide the greatest benefit to wildlife.

It is recommended that a SINC / Woodland Management Plan is conditioned to details appropriate habitat management and monitoring.

6.9.3.1 Selective Thinning for Understory Planting

Selective thinning of poor-quality trees will re-invigorate the development of understory vegetation and woodland ground flora through increasing light levels and reduce competition from removing aggressive colonizing species.

6.9.3.2 Native Understory Species Planting

The development of the understory and the overall woodland structure following the thinning operations will be encouraged through the planting of native species including Hazel (*Corylus avellana*) and Holly (*Ilex aquifolium*) (both species existing within the woodlands), creating favourable habitat for Bechstein's bats (Bat Conservation Trust, 2013) and foraging resources for Hazel Dormice. Planting of other native species is also recommended.

To ensure a successful establishment of the newly planted trees, it is recommended that mycorrhizal treatment to the tree roots is conducted during the planting, to reduce the risk of tree mortality and increase the long-term tolerance of these trees to periods of drought or adverse soil conditions thus ensuring a higher chance of successful long-term establishment.

In addition to the implementation of biodegradable rabbit/ deer guards to protect planted trees to ensure establishment, all newly planted trees must have a 1-metre exclusion zone whereby weeds are routinely and pro-actively removed for the **first 2 – 3 years**. Bark mulch is also recommended around each tree and will act as an effective management method to also supress weed colonisation.

6.9.3.3 Retention of Deadwood

Suitable arisings and deadwood generated from the thinning operations and vegetation clearance on site will be retained and used to create deadwood habitat piles within suitable locations throughout the woodland. Standing deadwood (with suitable trees reduced to a safe height) will also be created were possible to create additional features and opportunities for wildlife. The creation/ retention of deadwood features will provide a range of microhabitats that can be utilise by invertebrates, birds and small mammals.

6.9.3.4 Native Species Buffer Planting

SINC boundaries will be infill planted with native scrub species such as Hawthorn, Blackthorn, Holly, and Dog-rose to provide a dense buffer between the SINC and the development, further increasing foraging resources as well as increasing vegetation along the existing commuting routes. As such, the poor-quality scrub lost will be compensated for through species-rich scrub planting.

6.9.3.5 Management

The following measures will be undertaken with regard to long term management of the woodland:

- Newly planted trees and shrubs will be monitoring to ensure establishment, with replacement planting/ seeding works undertaken as required.
- Should any non-native invasive species establish, these will be removed / treated continuously until permanent eradication has been achieved.
- The woodland will be divided into coupes with the understory coppiced on a 5-7 year rotation. Arisings will be utilised to create dead hedges to protect new growth from browsing pressure.
- Annual walkovers of the site will be undertaken to identify potential risks to public health and safety, with appropriate remedial measures implemented.
- A risk assessment of the trees within the site will be undertaken every three years with appropriate tree surgery operations implemented as required.
- Selective thinning of mature trees/ shrubs will conducted as required to promote a vigorous and dense understory, with the optimal canopy cover targeted at 75% to allow the greatest development of the understory to create a more diverse woodland.

A suitability qualified ecologist will be consulted with regard to prospective tree remediation works, with appropriate ecological surveys undertaken as required.

6.10 Chichester and Langstone Harbours SPA

6.10.1 Recreational Pressure

The site lies within the vicinity of the recreational zone for the Solent SPAs. In order to mitigate for the likely increases in residential pressure upon these SPAs, due to the high densities of wildfowl and waders for which the area is predominantly protected, the Solent Recreation Mitigation Strategy (SRMS) has been introduced in collaboration with Natural England, comprising a partnership of all local councils. Mitigation towards the SPA must be provided for all new recreational developments within the 5.6km disturbance zone of the SPA.

A s.106 legal agreement was signed for this application prior to Outline Planning Permission being issued (APP/20/0041) and as such, further mitigation towards recreational pressure is not required.

6.10.2 Nutrient Neutrality

The site lies within a nutrient impact area where Nitrogen has been identified as having an impact on the Solent designated sites. Nutrient mitigation for the proposed development was secured under Outline planning application APP/20/00441, but this has to be revisited as part of the reserved matters application.

6.11 Enhancements

6.11.1 Bats

At least 10 of the newly built dwellings will have 1 No Ibstock bat brick each (**Fig 33**) integrated within the external brick work. These features are entirely self-contained and available in a variety of different colours to match different construction materials. They should ideally be

placed on an elevation which will benefit from some degree of sunlight exposure and be located away from windows.

Figure 33. Ibstock bat brick 'B' which will be integrated into the gable walls of the newly built dwellings.

If this is not feasible, the following woodcrete models will also be erected on suitable retained trees around the site's boundary:

- 2 No Vivara Pro Miramare Large WoodStone bat box
- 2 No Vivara Pro Large Multi Chamber WoodStone bat box

The woodstone bat boxes will be erected by or under the supervision of an ecologists to ensure they are placed in the most appropriate / effective locations.

6.11.2 Hedgehogs

6.11.2.1 Hedgehog Home

The SINC buffers on site will incorporate 1 No Hedgehog homes (**Fig 34**) (such as the Igloo Hedgehog home or Hogitat Hedgehog house). This will be provided within or adjacent to areas of retained trees / shrubs and will provide a rapidly declining species with a place to shelter / hibernate.

It is recommended that the hedgehog homes are maintained to ensure they remain suitable for use by Hedgehogs. The hibernation period for Hedgehogs typically spans from October – April, therefore it is recommended that the hedgehog homes are inspected every year in mid to late-April, after hibernation but prior to the nesting period. During these inspections the hedgehog homes should be checked for any damage and replaced/repaired where necessary.

Additionally, the hedgehog homes should be cleared of any old nesting material and would be beneficial to be replaced with fresh, dry hay. The hedgehog homes should be placed back in their original location, unless the hedgehog homes have been interfered with by the public or not utilised by any Hedgehogs, an alternative discrete location should be considered.

Figure 34. Example of the Igloo Hedgehog Home.

6.11.2.2 Gaps in Garden Fencing

The garden fences within the site will also ensure at least 1 gap is present within the gravel boards to allow for movement of Hedgehogs between gardens and into the wider area. The gaps should be at least 15 cm high by 15 cm wide with permeability for small mammals. Guidance for these gaps will be included in the Home Users Guide.

Small signage could be installed at these points to ensure they remain open upon completion of the development. The People's Trust for Endangered Species provide such signage, the purchase of which also supports conservation efforts (**Fig 35**).

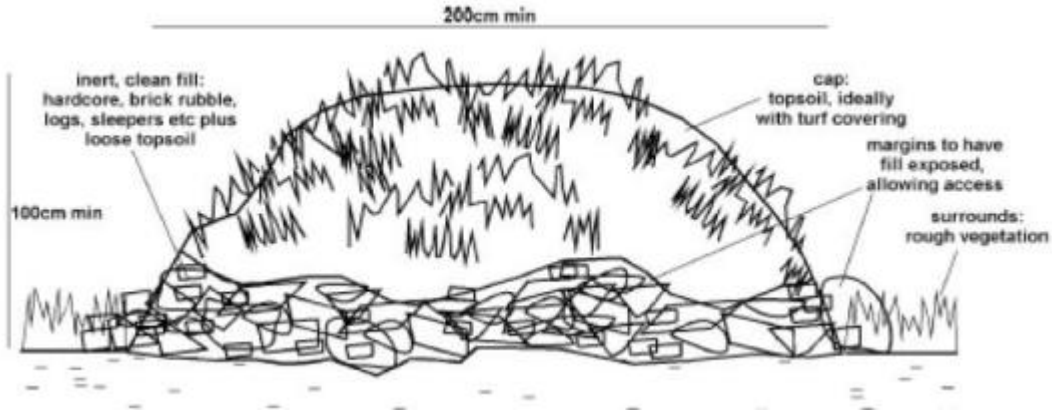
Figure 35. Example of Hedgehog Highway signage to be placed above fence gaps provided to allow movements between gardens (PTES, 2019).

6.11.3 Reptiles

1 No log / brash pile is recommended to be provided within the southern SINC buffer to further enhance the site for reptiles as well as mammals, invertebrates and amphibians. The log / brash piles will be created from vegetation removal and/or habitat management on site.

This may use a combination of logs, branches, brash and grass cuttings from the sensitive clearance above and any tree surgery. An example of a log pile hibernaculum is shown in **Fig 36** below. These should be located within areas receiving partial sun / partial shade.

Figure 36. Example of a hibernaculum design.



6.11.4 Hazel Dormouse

In order to enhance the site further for the population of dormice on site, the following are recommended;

- Planting new areas of native trees, hedgerows and shrub across the development to provide cover and additional foraging opportunities concentrating mainly around the site boundaries;
- Planting a range a native food plants across the site beneficial to dormice including; Ivy (*Hedera helix*), Honeysuckle (*Lonicera periclymenum*) and Wild Clematis (*Clematis virginiana*) can provide good links between the shrub and canopy layer as well as providing additional habitat and autumn food; and
- Planting Bramble (*Rubus fruticosus*) within the woodland's areas in low densities as it produces flowers and supports a high number of insects that dormice feed on.

6.11.5 Notable and Birds of Conservation Concern (BoCC)

To act as biodiversity enhancement, at least 10 of the newly built dwellings will incorporate one Swift brick. The Ibstock 'Eco Home for Swifts' bricks will be installed (**Fig 37**) as they are a discreet and attractive box ideal for new dwellings. The boxes should be installed under the eaves or in high walls in shaded areas out of direct sunlight and away from windows. The installation of such boxes has also been shown to be beneficial for House Sparrows (*Passer domesticus*) which are a nationally declining species.

Figure 37. Ibstock eco home for swifts that will be incorporated into the newly built dwellings.

Alternatively, if this is not feasible, the erection of 4 No nest boxes in trees within the retained woodland or treelines will be sufficient. Where possible these nest boxes could be tailored to provide opportunities for red listed/BAP species known from the local area. Vivara Pro Seville 32mm, Seville 28mm or Barcelona Bird Box should be used. These will provide suitable nesting opportunities for a variety of bird species and will increase the nesting opportunities for birds on site.

6.11.6 Planting

As a general enhancement, any new landscape planting will aim for a minimum 70:30 ratio in favour of native species over non-natives and ornamentals (in line with the CIEEM guidance outlined within Smith & Day (2012). Non-natives and ornamentals should only be given a bias in formal locations where aesthetics is a priority.

7.0 REFERENCES

Bat Conservation Trust (2013). Bechstein's Bat. An introduction for woodland owners. 2nd edition 2013.

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK & Ireland*

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

Edgar, P., Foster, J., & Baker, J., (2010) *Reptile Management Handbook, Amphibian and Reptile Conservation (ARC)*

English Nature (2004). Woodland management advice for Bechstein's bat and barbastelle bat. English Nature Research Reports.

Gunnell, K., Grant, G., & Williams, C., (2012) Landscape and Urban Design for Bats and Biodiversity. Bat Conservation Trust.

Havant Borough Council (2025). 'Draft Building a Better Future Plan'. Available online at: https://www.havant.gov.uk/planning-services/planning-policy/local-plan/building-better-future-plan

Havant Borough Council (2011). 'Havant Borough Core Strategy' Available online at: http://www.havant.gov.uk/sites/default/files/documents/ADOPTED%20CORE%20STRATEGY%20.pdf

Havant Borough Council (2014). Havant Borough Local Plan (Allocations). *Adopted Version.* July 2014. Available online at: https://www.havant.gov.uk/planning-services/planning-policy/local-plan/core-strategy-and-allocations-plan-adopted-local-plan

HMSO (1989). Wildlife and Countryside Act (amended). HMSO, London.

HMSO (1992). Protection of Badgers Act. HMSO, London.

HMSO (2000). The Countryside and Rights of Way Act. HMSO, London.

HMSO (2006). Natural Environment and Rural Communities Act. HMSO, London.

HMSO (2017) The Conservation of Habitats and Species Regulations. Statutory Instrument 2010 No. 490. HMSO, London.

HMSO (2019). The Conservation of Habitats and Species Regulations. Statutory Instrument 2019 No. 579. HMSO, London.

HMSO (2021). The Environment Act 2021. HMSO, London. Available at: https://www.legislation.gov.uk/ukpga/2021/30

ILP / BCT (2023) *Guidance Note 08/23: Bats and Artificial Lighting at Night*.

Natural England, 2011 *Badgers and Development: A Guide to Best Practice and Licensing*

Ministry of Housing, Communities & Local Government. (2024) 'National Planning Policy Framework'. December, 2024.

Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.

UKHab Ltd. (2023). *UK Habitat Classification – Habitat Definitions Version 2.0*

WYG (2021), *Hulbert Road: Bat Activity Survey, Project number A096474,* Report on behalf of Trustees of the GHM Jackson 1972 Settlement.

WYG (2021), *Hulbert Road: Dormouse Report, Project number A096474,* Report on behalf of Trustees of the GHM Jackson 1972 Settlement.

WYG, (2019), *Hulbert Road: Ecological Appraisal, Project number A096474*, Report on behalf of Trustees of the GHM Jackson 1972 Settlement.

WYG (2020), *Hulbert Road: Environmental Impact Assessment, Project number A096474,* Report on behalf of Trustees of the GHM Jackson 1972 Settlement.

WYG (2019), *Hulbert Road: Reptile Report, Project number A096474,* Report on behalf of Trustees of the GHM Jackson 1972 Settlement.

Legend

- Site Boundary
- Other Standing Water
- Other Neutral Grassland
- Modified Grassland
- Other Woodland; Broadleaved
- Lowland Mixed Deciduous Woodland
- Mixed Scrub
- Gorse Scrub
- Bramble Scrub
- Sparsely Vegetated Land
- Developed Land
- Secondary Codes:
  - 10 - Scattered scrub
  - 12 - Scattered Bracken
  - 30 - Semi-natural Woodland
  - 33 - Line of Trees
  - 50 - Ditch
  - 81 - Ruderal
  - 510 - Bare Ground

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Map	UK Habs Map
Site	Land West of Hulbert Road, Havant
Client	BRiCS Development
Date	04/06/2025

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