



ecosupport

## Preliminary Ecological Appraisal (PEA) Report

Robin Gardens

### **Author(s):**

Amy Johnston BSc (Hons) &  
Darla Brown BSc (Hons)

### **Client:**

Portsmouth City Council

1st February 2023

|                      |                                                                       |
|----------------------|-----------------------------------------------------------------------|
| <b>Report</b>        | Preliminary Ecological Appraisal                                      |
| <b>Site Name</b>     | Robin Gardens                                                         |
| <b>Author(s)</b>     | Amy Johnston Bsc (Hons) & Darla Brown BSc (Hons)                      |
| <b>Checked By</b>    | Aaron Domblides Bsc (Hons) & Lyndsey Barratt BSc (Hons) PGCert ACIEEM |
| <b>Client</b>        | Portsmouth City Council                                               |
| <b>Date of Issue</b> | 1 <sup>st</sup> February 2023                                         |
| <b>Status</b>        | <b><i>Final</i></b>                                                   |

## Table of Contents

|                                                                           |           |
|---------------------------------------------------------------------------|-----------|
| <b>EXECUTIVE SUMMARY.....</b>                                             | <b>4</b>  |
| <b>1.0 INTRODUCTION .....</b>                                             | <b>5</b>  |
| 1.1 BRIEF .....                                                           | 5         |
| 1.2 SITE DESCRIPTION & LOCATION .....                                     | 5         |
| 1.3 PROPOSED DEVELOPMENT .....                                            | 6         |
| <b>2.0 RELEVANT LEGISLATION AND POLICY .....</b>                          | <b>8</b>  |
| 2.1 LEGISLATION .....                                                     | 8         |
| 2.1.3 <i>The Countryside and Rights of Way Act (2000)</i> .....           | 8         |
| 2.1.4 <i>Natural Environment and Rural Communities Act (2006)</i> .....   | 9         |
| 2.1.5 <i>Protection of Badgers Act</i> .....                              | 9         |
| 2.2 POLICY.....                                                           | 10        |
| 2.3 BIODIVERSITY ACTION PLANS & UK POST-2010 BIODIVERSITY FRAMEWORK ..... | 17        |
| <b>3.0 METHODOLOGY.....</b>                                               | <b>18</b> |
| 3.1 DESK STUDY .....                                                      | 18        |
| 3.1.1 <i>Designated sites</i> .....                                       | 18        |
| 3.1.2 <i>Waterbodies</i> .....                                            | 18        |
| 3.2 FIELD SURVEY .....                                                    | 18        |
| 3.2.1 <i>Habitats</i> .....                                               | 18        |
| 3.2.2 <i>Badger</i> .....                                                 | 18        |
| 3.2.3 <i>Bats</i> .....                                                   | 18        |
| 3.3 ASSESSMENT METHODOLOGY.....                                           | 19        |
| 3.3.1 <i>Introduction</i> .....                                           | 19        |
| 3.3.2 <i>Valuation</i> .....                                              | 19        |
| 3.4 LIMITATIONS.....                                                      | 19        |
| 3.4.1 <i>Habitats</i> .....                                               | 19        |
| <b>4.0 ECOLOGICAL BASELINE.....</b>                                       | <b>20</b> |
| 4.1 DESIGNATED SITES.....                                                 | 20        |
| 4.1.1 <i>Statutory Designated</i> .....                                   | 20        |
| 4.1.2 <i>Locally Designated / Non-Statutory</i> .....                     | 20        |
| 4.2 HABITAT SURVEY RESULTS .....                                          | 20        |
| 4.2.1 <i>Modified Grassland (g4) – with Scattered Trees (11)</i> .....    | 20        |
| 4.2.2 <i>Lowland mixed deciduous woodland (w1f)</i> .....                 | 21        |
| 4.2.3 <i>Bramble Scrub (h3d)</i> .....                                    | 22        |
| 4.2.4 <i>Developed land; Sealed surface (u1b)</i> .....                   | 22        |
| 4.3 BAT SURVEY RESULTS.....                                               | 22        |
| 4.3.1 <i>Preliminary Roost Assessment (Trees)</i> .....                   | 22        |
| 4.4 BADGERS .....                                                         | 24        |
| 4.4.1 <i>Site Assessment</i> .....                                        | 24        |
| 4.5 REPTILES .....                                                        | 24        |
| 4.5.1 <i>Site Assessment</i> .....                                        | 24        |
| 4.6 GREAT CRESTED NEWTS .....                                             | 25        |
| 4.6.1 <i>Water Bodies Within 500 m</i> .....                              | 25        |
| 4.6.2 <i>Site Assessment</i> .....                                        | 25        |
| 4.7 HAZEL DORMOUSE .....                                                  | 25        |
| 4.7.1 <i>Site Assessment</i> .....                                        | 25        |

|                                                                     |           |
|---------------------------------------------------------------------|-----------|
| 4.8 NOTABLE AND BIRDS OF CONSERVATION CONCERN (BOCC) .....          | 25        |
| 4.8.1 Site Assessment.....                                          | 25        |
| <b>5.0 LIKELY ECOLOGICAL IMPACTS IN ABSENCE OF MITIGATION .....</b> | <b>26</b> |
| 5.1 INTRODUCTION .....                                              | 26        |
| 5.2 SITE PREPARATION AND CONSTRUCTION .....                         | 26        |
| 5.2.1 Impacts to Habitats.....                                      | 26        |
| 5.2.2 Impacts to Wildlife.....                                      | 26        |
| 5.3 SITE OPERATION.....                                             | 26        |
| 5.3.1 Impacts to Wildlife.....                                      | 26        |
| 5.3.2 Impacts to Designated sites.....                              | 27        |
| <b>6.0 RECOMMENDATIONS .....</b>                                    | <b>28</b> |
| 6.1 INTRODUCTION .....                                              | 28        |
| 6.2 BATS .....                                                      | 28        |
| 6.2.1 Precautionary tree removal.....                               | 28        |
| 6.2.2 Sensitive Lightning .....                                     | 28        |
| 6.2.4 Lighting during the construction phase .....                  | 29        |
| 6.2.4 Roof underlining.....                                         | 30        |
| 6.3 HAZEL DORMICE .....                                             | 30        |
| 6.4 AVOIDANCE OF IMPACTS TO BREEDING AND NESTING BIRDS.....         | 32        |
| 6.5 BADGERS .....                                                   | 32        |
| 6.6 TREE PROTECTION.....                                            | 32        |
| 6.7 BIODIVERSITY NET GAIN .....                                     | 32        |
| 6.8 ENHANCEMENTS .....                                              | 33        |
| 6.8.1 Bat Bricks .....                                              | 33        |
| 6.8.2 Bird Bricks .....                                             | 33        |
| 6.8.3 Tree / Shrub Planting .....                                   | 34        |
| 6.8.4 Hedgehogs .....                                               | 34        |
| <b>7.0 REFERENCES .....</b>                                         | <b>36</b> |
| <b>APPENDIX 1- LIGHTING PLAN.....</b>                               | <b>37</b> |

## Executive Summary

Ecosupport Ltd was instructed by Portsmouth City Council to undertake a Preliminary Ecological Appraisal (PEA) of Robin Gardens, Wecock. This was required in order to identify any potentially important ecological features that may be affected by the proposed development. As part of this assessment, the following surveys were undertaken:

- Preliminary Ecological Appraisal (November 2022)
- Preliminary Roost Assessment (Trees) (November 2022)

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:

- Low potential for roosting Bats
- Potential for Hazel Dormice
- Potential for breeding and nesting birds
- Potential for foraging and commuting Badgers
- Mature Deciduous woodland adjacent to the site boundary
- Potential for individual reptiles

In the absence of any mitigation measures, the proposed development is anticipated to result in, ***certain adverse impacts***.

Mitigation measures are outlined within section 6.0 of this document to mitigate these impacts as well as targeted ecological enhancements.

## 1.0 INTRODUCTION

### 1.1 Brief

Ecosupport Ltd was commissioned by Portsmouth City Council to undertake a Preliminary Ecological Appraisal (PEA) of Robin Gardens, Wecock (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 a proposed residential 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<sup>1</sup> then the findings of this survey will no longer be considered valid and may require updating.***

### 1.2 Site Description & Location

The site comprises of the land located at Robin Gardens, Wecock, Waterlooville, Havant, Hampshire, England, PO8 9XE (centred on OS grid reference SU 67702 11603) (**Fig 1**). The site is bound by residential properties to the north, east and south. To the west there is a strip of woodland followed by arable land. The larger surrounding environ to the east and south is predominantly urban situated within the town of Waterlooville, however to the west and north there is number of arable fields with treelines as well as small patches of woodland.

---

<sup>1</sup> <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>

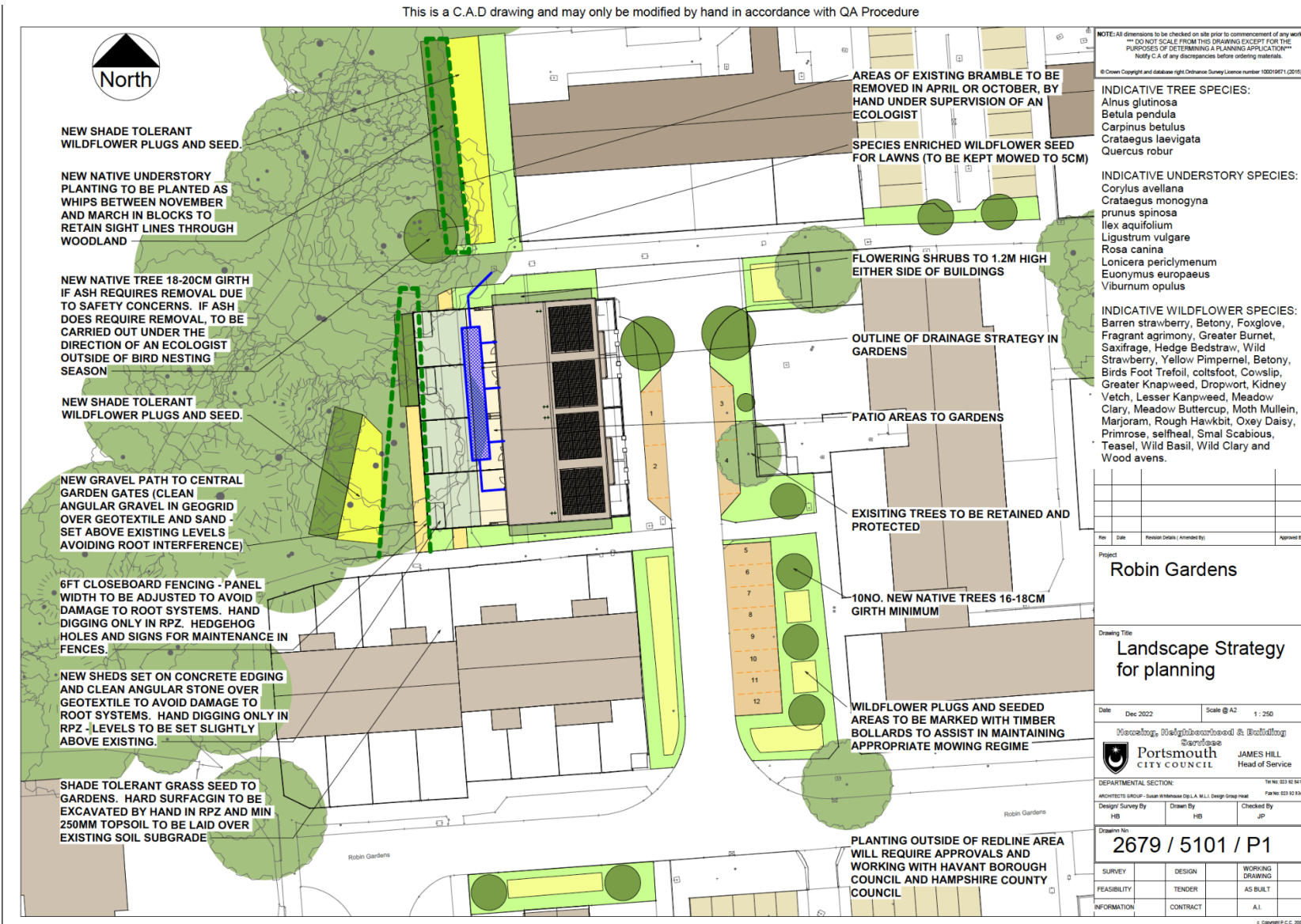
**Figure 1.** Location plans of the site (Portsmouth City Council 2021, Drawing no 2679/1100/P3)



### 1.3 Proposed Development

It is understood that the proposals involve the construction of 4 residential dwellings with gardens and allocated parking spaces (**Fig 2**).

**Figure 2. Site (landscaping) plan for the proposed development (Portsmouth City Council 2022).**



## 2.0 RELEVANT LEGISLATION AND POLICY

### 2.1 Legislation

#### 2.1.1 *The Conservation of Habitats and Species Regulations 2017 (as amended)*

The Conservation of Habitats and Species Regulations 2017 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.

The Conservation of Habitats and Species Regulations 2019 (EU Exit) 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.

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 is 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 part II of the Act. This list over 30 plants including Japanese Knotweed (*Fallopia japonica*), Giant Hogweed (*Heracleum mantegazzianum*) and Parrot's 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.

Part 6 of The Environment Act relates to nature and biodiversity. This section makes provision for biodiversity net gain to be a condition of planning permission in England and a requirement for nationally significant infrastructure projects. Biodiversity net gain will require maintenance for a period of at least 30 years after the completion of enhancement works to be achieved.

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

Section 15 of the National Planning Policy Framework (NPPF, 2021) 'Conserving and enhancing the natural environment' states that planning policies and decisions should contribute to and enhance the natural environment. They should do this by protecting and enhancing sites of biodiversity and minimising impacts on and providing net gains for biodiversity, including establishing coherent ecological networks.

The plan states to protect and enhance biodiversity plans should identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks. This includes the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them. Plans should identify the protection and recovery of priority species and opportunities for securing measurable net gains for biodiversity.

When determining planning applications, local planning authorities should apply the following principles:

- if significant harm to biodiversity resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact;
- development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

### 2.2.2 Local – Havant Borough Council

Havant Borough Core Strategy (2011)

Part of the 'Vision for Havant Borough in 2026' is to protect and enhance biodiversity. Similarly, 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 above Local Plan will remain in place until the Havant Borough Local Plan is adopted. However, the updated plan includes the following:

#### E14 The Local Ecological Network

All development in Havant Borough is expected to protect, conserve and enhance the Borough's Local Ecological Network. Planning permission will only be granted where:

- . The development of one dwelling or more or a new commercial building results in biodiversity net gain;
- . The development avoids the fragmentation of the Local Ecological Network;
- . The applicant has identified and assessed the level of ecological value of the site through adequate and proportionate information and any matters arising have been addressed through an avoidance or mitigation plan; and
- . Any necessary mitigation plan includes provision for ongoing management and maintenance.

In addition to the above, priority habitats in the Borough are afforded protection by specific nature conservation designations. Development proposals which could affect a designated site will need to consider the impact and respond appropriately.

#### International Nature Conservation Designations

Development which has the potential to have an impact on an international nature conservation designation will be subject to a Habitats Regulations Assessment and, if necessary, an Appropriate Assessment, to determine the potential for likely significant effects. Development that is likely to have an adverse effect, either alone or in combination with another project/plan, on the integrity of an international site will not be permitted unless it can be demonstrated that:

- Necessary avoidance or mitigation is secured such that in combination with other development there will be no adverse effects on the integrity of the designated sites; or
- There are no alternative sites for the proposal, there are reasons of overriding public benefit/interest and compensatory provision is secured.

#### National Nature Conservation Designations

In addition to criteria a) to d), planning permission will only be granted on or adjacent to a national nature conservation designation where development is unlikely to have an adverse effect either individually or in combination with other developments.

An exception to will only be made where the benefit of development clearly outweighs the likely impact on the feature(s) of the designation; and mitigation and/or compensation measures are secured to offset any likely impacts.

#### Local Nature Conservation Designations

In addition planning permission will only be permitted on or adjacent to a local nature conservation designation where:

- . The value of the designation is retained and, where possible, enhanced in line with its original criteria for designation through avoidance and/or mitigation measures; or
- . The benefit of the development can be shown to clearly outweigh the substantive nature conservation value of the site, and where the impact cannot be avoided nor mitigated, compensation is provided.

#### Joint working

The Council will continue to work collaboratively with its PUSH partners to develop a strategic approach towards water quality and air quality.

Under duty-to-cooperate, the Council is committed to developing a shared Nitrogen Action Plan for the Farlington area (Portsmouth) in partnership with Portsmouth City Council and other appropriate partners.

The Borough has a rich and diverse ecological network as documented by the protected international, national and local designations, as well as its range of natural features. The Local Ecological Network comprises an extensive coastline, which includes Chichester and Langstone Harbours, as well as trees, woodlands, hedgerows, streams, rivers, wildlife and river corridors, springs, ditches and ponds. The Borough's ancient woodlands and mature trees are the remnants of the ancient Forest of Bere, which once stretched across southern Hampshire from Eastleigh to Emsworth. The Local Ecological Network project has identified a number of opportunity areas. Within these it is possible to reconnect and enhance nodes in the Local Ecological Network in order to achieve biodiversity net gain.

Development that takes place in Havant Borough is expected to make a positive contribution to the existing natural environment. It is considered that development which does not do this is contributing to the continuing decline of biodiversity and would not constitute sustainable development.

A breakdown of the different types of international, national and local nature conservation designations found in Havant Borough is presented in the table below. These sites form key nodes in the Local Ecological Network. However, it is important to stress that the network of designated sites is not the entirety of the Local Ecological Network and **it is vital to consider the corridors and linkages between the sites as well as the sites themselves**. Such considerations must not be limited to the Borough boundary as Havant's Local Ecological Network feeds into a wider network beyond our boundaries.

Species which are protected outside of the designations listed below are covered in Policy E15.

| International                                                                                                      | National                                   | Local                                                                                         |
|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------|
| Ramsar Site<br>Special Protection Area (SPA)<br>Special Area of Conservation (SAC)                                 | Site of Special Scientific Interest (SSSI) | Site of Importance for Nature Conservation (SINC) <sup>89</sup><br>Local Nature Reserve (LNR) |
| Table 7: A breakdown of the different types of international, national and local nature conservation designations. |                                            |                                                                                               |

There are six Local Nature Reserves wholly within the Borough: Brook Meadow, Gutner Point, Hayling Billy, Sandy Point, The Kench and West Hayling; part of two others (Farlington Marshes and Hazleton Common) in the Borough. The SINCs in the Borough are listed in the Havant Borough Biodiversity Strategy.

In line with national policy, the Council expects substantial development proposals to achieve a net gain in biodiversity on the site and the surrounding area. Almost any development can achieve biodiversity net gain. Even smaller developments can include the use of design features to integrate biodiversity attributes into the building itself. **At least every new dwelling, or commercial developments that involve the construction of a new building can include boxes or bricks for bats and birds**, and other features can additionally be incorporated within larger developments.

For householder development, any development affecting roof materials or roof voids may impact roosting bats and certain nesting birds, and those affecting trees or areas of dense woody vegetation may impact nesting birds.

#### Avoiding and mitigating harm

As set out in the NPPF, if significant harm cannot be avoided then such harm should be adequately mitigated. Where it cannot be adequately mitigated then such harm must be compensated for. Where it cannot be compensated for, planning permission will be refused.

There will be a presumption against any development involving the net loss of biodiversity or the loss of any natural features, unless there are wider public benefits that outweigh the harm of this loss. The Council expects applicants to approach considering an impact on biodiversity in the following order:

- Avoid
- Mitigate
- Compensate

#### The Local Ecological Network

The mapping of the Local Ecological Network (LEN) has been undertaken by the Hampshire Biodiversity Information Centre. As such, data searches should be used to inform ecological assessments accompanying development proposals. The mapping is available through a request to the Hampshire Biodiversity Information Centre.

The effect of the proposed development on components of the LEN must be assessed both in terms of its proximity, the proposed end use and the impact of that use on it. The impact of any construction activity must also be considered.

There are several ways in which the impact of development on the LEN can be mitigated and improvements to it achieved. This can be done through careful design of layouts to facilitate the movement of wildlife, the use of new landscape planting which is informed by priorities in the Biodiversity Strategy and the inclusion of specific building design features.

Where new open space is proposed, its design should consider multifunctionality and how biodiversity can be incorporated without compromising its recreational function.

#### International and National Nature Conservation Designations

Any development which is likely to have a significant effect on the internationally designated sites (outlined in the table above) will require a project level Habitat Regulations Assessment (HRA) and in all likelihood an Environmental Impact Assessment (EIA) by law. A project level Habitats Regulations Assessment (HRA) will be prepared by the Council as the competent authority as part of the determination of the planning application and the applicant will need to provide the necessary information to inform that assessment. The HRA will assess the effects of the proposal both alone and in combination with other plans and projects. If the development proposal is shown to have an adverse effect on an internationally designated conservation site, then planning permission cannot be lawfully granted.

#### E15 Protected Species

This policy sets out the requirements for species which have been afforded statutory legal protection. In particular, emphasis is placed on Bechstein's bat, which is a rare non-migratory bat species found in internationally important numbers in the ancient Forest of Bere landscape throughout South Hampshire.

Development proposals which are likely to affect protected species, and/or their supporting habitats, must undertake appropriate surveys to establish their presence/likely absence. In using the findings of such surveys, proposals should, in the first instance, avoid an impact on a protected species. If this is not possible, planning permission will only be granted where:

- . A Mitigation Plan, or if this is not possible a Compensation Plan, is provided to the satisfaction of the Council; and
- . A Monitoring and Review Plan is put in place.
- .

#### Bechstein's Bat

In instances where Bechstein's bat is likely to be found on site and/or nearby, survey methods appropriate to Bechstein's bat must be used and undertaken by a suitably qualified ecologist. The Hampshire Biodiversity Information Centre (HBIC) holds all data relating to Bechstein's bat. Where Bechstein's bat is likely to be present on and/or near a development proposal, it is highly advisable that further details are sought (e.g. there may be site-specific information not normally included within a standard data request) from HBIC and/or the Hampshire Bat Group. If the presence of Bechstein's bat is established on site and/or nearby, planning permission will only be granted where:

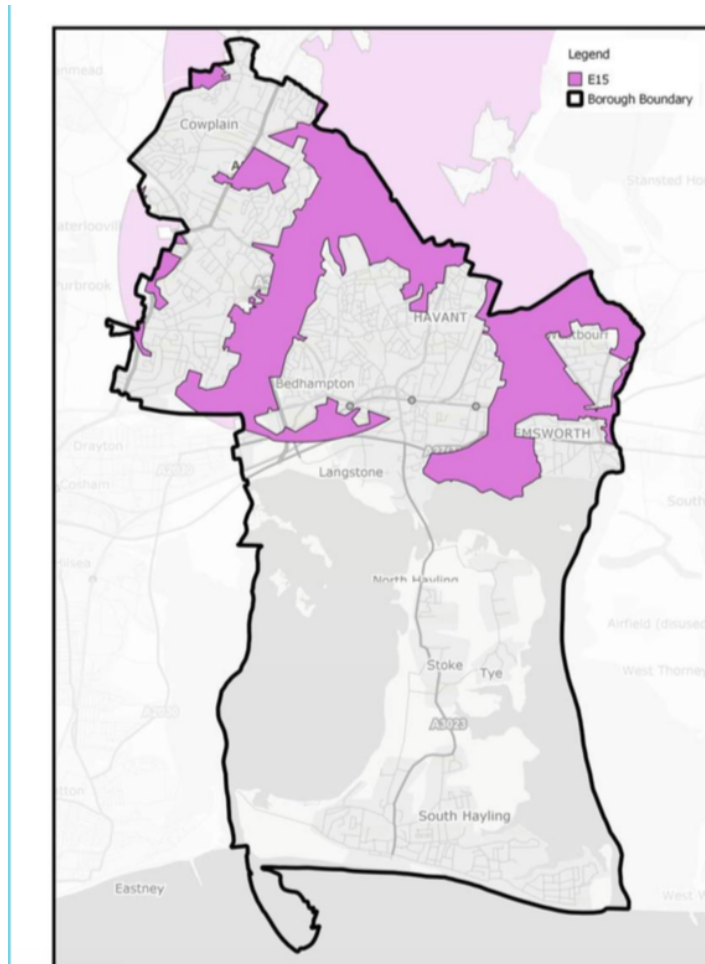
- Impacts on Bechstein's bat breeding habitat (i.e. net loss of/excessive disturbance to woodland or trees containing roosts) are avoided;
- Proposals include appropriate buffers to woodlands, trees, hedgerows and other flight corridors, considering the location of roosts and foraging/commuting habitats; and

- Review and monitoring plans are put in place.

Where the above measures cannot be met planning permission will be refused, unless the applicant can show, subject to meeting the tests of the Habitats Regulations, that there would not be an adverse effect on the population of the relevant protected species.

In the instance that potential impacts to Bechstein's bat and/or their habitat are identified, site layouts will need to be designed to avoid any impact on the species. Any impact on Bechstein's bat breeding habitat (i.e. loss of/excessive disturbance to woodland or trees) must be avoided as the loss of roosts, especially maternity roosts, can lead to population-level consequences for this species. The females and their young roost colonially, therefore the loss of a single roost tree can impact many tens of individuals and affect the long-term viability of the population.

In addition, impact on areas used by Bechstein's bat for foraging and movement should also be avoided. However, if it is not possible, mitigation measures should be used. This could include buffering, maintenance of flight corridors, and sensitive lighting.



#### E16 Solent SPA

Planning permission will be granted for new dwellings that mitigate the likely significant effect on the Solent SPAs. This mitigation can be provided through either:

- . A financial contribution consistent with the Solent Recreation Mitigation Strategy (SRMS); or
- . A developer provided package of measures associated with the proposed development supported by evidence that it will avoid or mitigate any likely significant effect on the SPAs; or
- . A combination of measures in (a) and (b) above.

Where these measures cannot be provided development proposals will be refused, unless the applicant can show, subject to meeting the tests of the Habitats Regulations, that there would not be a likely significant effect on the Solent SPAs either alone or in combination with other plans or projects.

An acknowledged issue for any new residential development within 5.6 km of the Solent coast is the impact which disturbance, much of which is caused by recreation, can have on the protected species which use the Solent SPAs. This zone of influence includes the vast majority of Havant Borough.

The mitigation framework for individual new developments can be provided through a financial contribution consistent with the SRMS. The scale of the financial contribution is based on the number of net additional dwellings, varied by the number of bedrooms per dwelling. These figures will be increased on 1st April each year in line with the Retail Price Index. The Council will produce an HRA as part of the committee or delegated report at the full or outline planning stage on all development proposals that include residential development. For most development, if a planning obligation to secure the financial contribution is agreed prior to the granting of planning permission which provides the necessary level of mitigation, then it should be possible for the HRA to conclude that a significant effect as a result of the development is unlikely.

Separate mitigation may be required for other impacts which may arise from new housing such as direct habitat loss or light pollution onto the SPA. Those will be assessed by the Council, in liaison with Natural England, to identify whether, and if so what, mitigation is required.

#### E18 Trees, Hedgerow and Woodland

Development affecting trees, hedgerows and woodlands will only be permitted where it:

- . Reflects, conserves or enhances the existing landscape and integrates the development into its surroundings, adding visual interest and amenity;
- . Adequately protects existing trees and hedgerows including their root systems prior to, during and after the construction process; and
- . Will not result in the loss or deterioration of ancient woodland and ancient or veteran trees.
- .

The Council will refuse planning permission for proposals that threaten the retention of important trees, hedgerows, and woodland, unless the need for, and benefits of development in that location clearly outweigh the impact of the proposal.

Provision of new trees are expected as part of development proposals for new homes and commercial floorspace. Planning permission will be granted where it facilitates adaptation to climate change by providing shade, shelter and cooling through new tree planting and includes proposals for the successful implementation, maintenance and management of landscape and tree planting schemes.

Where development proposals affect trees with a main stem over 75mm in diameter, and 15m from any proposed development, applicants are required to submit their development proposals with an arboricultural survey in accordance with British Standard BS5837.

To prevent damage to tree roots and branches, developers will be required to provide protection to the tree prior to and during the development and construction process. Developers will be required to provide tree protection measures, in line with BS5837, ensuring the health and integrity of trees are not harmed in any way.

The loss of trees, hedgerows and woodland will only be permissible in exceptional circumstances and any proposed loss will be considered on a site by site basis. The applicant must provide a clear and robust reasoning for any proposed loss, setting out why any loss is unavoidable and justified.

### **2.3 Biodiversity Action Plans & UK Post-2010 Biodiversity Framework**

The UK Post-2010 Biodiversity Framework (JNCC & DEFRA, 2010) supersedes the UK Biodiversity Action Plan 1992-2012 (UKBAP), setting out goals relating to nature conservation at a UK scale, for example the reduction and reversal in the decline of threatened species and improving the status of biodiversity. The specific habitats and species contained within the UKBAP continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework, and are required to be a material consideration in the planning process under the 2021 NPPF.

### 3.0 METHODOLOGY

#### 3.1 Desk Study

##### 3.1.1 Designated sites

A search for designated sites within 1km of the site was undertaken using freely available online resources.

##### 3.1.2 Waterbodies

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

#### 3.2 Field Survey

##### 3.2.1 Habitats

The field survey work which forms the basis of the findings of this report was carried out by Aaron Domblides BSc (Hons) and Amy Johnston BSc (Hons) experienced ecologists with Ecosupport, on the 22<sup>nd</sup> November 2022.

Habitats on site pre-development were identified in accordance with the categories specified for a UK Habitats survey, using Habitat Definitions Version 1.1 (UKHab Ltd., 2020). This was chosen as an appropriate habitat categorisation system as it fits within the Biodiversity Metric 3.1 calculation. 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

An assessment was made of the suitability of the trees on site to support roosting bats based on the presence of any Potential Roost Features (PRFs) during November 2022. This involved the use of 8 x 42 close focus binoculars and a high-powered torch (where required) for a more detailed inspection of any features (which may include fissures / cracks in branches, platey bark, occluded wounds, Ivy with a stem diameter of > 50mm) and any evidence of bat occupation. The survey conformed to current best practice guidance as described in *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2016) and was conducted by Aaron Domblides of Ecosupport in November 2022 (acting under the class level 2 license of Adam Jessop 2015-13366-CLS-CLS).

### 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 significant limitations on the results of the habitat survey with all areas of the site accessible. Despite the survey being conducted outside of the optimal season for vascular flowering plants, given the nature of the habitat types present and the species recorded, this is not considered to have affected the accuracy of the site's valuation. Additionally, this survey does not constitute a full site assessment for invasive plant species such as Japanese Knotweed (*Fallopia japonica*).

## 4.0 ECOLOGICAL BASELINE

### 4.1 Designated Sites

#### 4.1.1 Statutory Designated

There are no statutory designated sites located within 1 km of the site.

#### 4.1.2 Locally Designated / Non-Statutory

The site lies within 1 km of a number of SINC's including Wecock Common SINC, Soake farms SINC, Anmore Dell meadow SINC and James's Copse SINC. However given the distance of these from the site and the highly urbanised surroundings to the southern and east, these are not anticipated to be adversely impacted upon as a result of the proposed plans.

### 4.2 Habitat Survey Results

The vegetation within the site has been described below using the UK Habs Habitat Definitions Version 1.1 (UKHab Ltd., 2020). 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 (approximate spatial extent shown in the Phase 1 habitat map appended). The habitat types on site comprise:

- Modified Grassland (g4) – with Scattered Trees (11)
- Lowland mixed deciduous woodland (w1f)
- Mixed scrub (h3)
- Developed land; sealed surface (u1b)

#### 4.2.1 Modified Grassland (g4) – with Scattered Trees (11)

There were a number of areas of this habitat type identified on site (**Fig 3**). The following species were noted; Black Medick (*Medicago lupulina*), Dove's Foot Cranesbill (*Geranium molle*), Creeping Buttercup (*Ranunculus repens*), Ragwort (*Senecio jacobaea*), Daisy (*Bellis perennis*), Yarrow (*Rumex sanguineus*), Spurge (*Euphorbia peplus*), Dandelion (*Taraxacum agg.*), Annual Meadow Grass (*Poa annua*), Mouse-ear Chickweed (*Cerastium fontanum*), White Clover (*Trifolium repens*), Shepherd's Purse (*Capsella bursa-pastoris*), Broadleaved Dock (*Rumex obtusifolius*), Common Stork's-bill (*Erodium cicutarium*), Cats-ear (*Hypochaeris radicata*), Red Dead Nettle (*Lamium purpureum*), Germander Speedwell (*Veronica chamaedrys*), Ribwort Plantain (*Plantago lanceolata*), Broad leaved plantain (*Plantago major*). There was also a number of scattered Alder trees (*Alnus glutinosa*).

**Figure 3.** View of a section of Modified grassland located in the north eastern corner of the site (taken November 2022).



#### 4.2.2 Lowland mixed deciduous woodland (w1f)

Along the western boundary of the site, a strip of woodland was present (**Fig 4**) with the following species present; Oak (*Quercus spp.*), Yew (*Taxus Baccata*), Bramble (*Rubus fruticosus*), Ivy (*Hedera Helix*), Ground-ivy (*Glechoma hederacea*), Hawthorn (*Crataegus monogyna*), *Prunus spp.*, Maple sapling (*Acer spp.*), Ash (*Fraxinus excelsior*), Sweet chestnut sapling (*Castanea sativa*), Butchers Broom (*Ruscus aculeatus*). A full assessment of the species within this area was not undertaken as the habitat is to be retained as part of the proposed plans.

**Figure 4.** View of the woodland present along the western boundary of the site (taken November 2022).



#### 4.2.3 Bramble Scrub (h3d)

A strip of scrub is present along the boundary between the woodland edge and the grassland which is almost entirely comprised of Bramble with occasional Hawthorn sapling, Ash Sapling and Sweet Chestnut Sapling.

#### 4.2.4 Developed land; Sealed surface (u1b)

This habitat was present on site in the form of a tarmacked parking area and access road (**Fig 5**).

**Figure 5.** View of the developed land; sealed surface present on site (taken November 2022).



### 4.3 Bat Survey Results

#### 4.3.1 Preliminary Roost Assessment (Trees)

To facilitate the development, a crown lift on the trees on the western boundary will be required however no PRF's were noted on these limbs and they are all relatively small in size. It is however understood that the Ash (*Fraxinus excelsior*) present on the western boundary of the site that would have to be removed due to safety concerns. It was considered to have **Low** potential for roosting bats due to the presence of a large crack in one of the branches (**Fig 6 and 7**).

**Figure 6.** Location of the Ash tree to be removed (Google earth 2022).



**Figure 7.** View of the crack present in a branch of the ash tree (taken November 2022).



#### 4.4 Badgers

##### 4.4.1 Site Assessment

Using freely available online resources, no records of Badger were found within 1 km of the site. During the walkover of the site, no evidence of badgers was identified however, the site is considered to provide suitable foraging habitat for badgers given the patches of grassland and scrub with the adjacent woodland. Therefore, there is considered to be **potential for foraging and commuting Badgers** on site.

#### 4.5 Reptiles

##### 4.5.1 Site Assessment

Using freely available online resources, 1 record of reptile species were found within 1 km of the site which was of a Slow Worm (*Anguis fragilis*). The grassland on site has undergone regular management which has led to a short sward height and is mostly in isolated patches. The bramble dominated scrub along the site boundary does provide some limited suitability for reptiles due to the leaf litter present within this area. Therefore, there is considered to be **low potential** for reptiles.

## 4.6 Great Crested Newts

### 4.6.1 Water Bodies Within 500 m

There were no ponds identified within 500m of the site, with the only water body is a ditch to the west which is understood to dry out annually.

### 4.6.2 Site Assessment

Using freely available online resources, no records of GCN were found within 1km of the site. The habitats to be directly impacted from the proposals largely include modified grassland and developed land; sealed surface which are not considered suitable for terrestrial GCN. There are small areas of bramble scrub which provided some limited suitability for GCN, however given the absence of any ponds within 500m of the site, the site is considered to be of **Negligible potential** for GCN.

## 4.7 Hazel Dormouse

### 4.7.1 Site Assessment

Using freely available online resources no records of Hazel Dormice were found within 1 km of the site and it is understood that the woodland is not to be impacted by the proposals. The small areas of bramble scrub on the woodland edge can be considered to provide some suitable habitat for Dormice as the adjacent woodland includes a number of species of importance for Dormice (such as Oak, Hazel, Hawthorn and Bramble) (as per Bright et al., 2006). The scrub itself is however relatively sparse and generally low lying and provides limited potential for Dormice. Considering this, the proposed works are considered to be of **very low potential** for Hazel Dormice.

## 4.8 Notable and Birds of Conservation Concern (BoCC)

### 4.8.1 Site Assessment

The scrub and mature trees can be considered to provide suitable nesting opportunities for birds however, it is understood that the majority of these habitats are to be retained. The site is therefore considered to have **low potential for nesting and breeding bird 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 involve the loss of modified grassland and a small area of bramble scrub. These habitats are only considered to be of value at the **Site** level of significance. In the absence of mitigation, the works could however result in the damage to the adjacent mature trees / woodland which would result in a **negative impact** at the **local level**.

#### 5.2.2 Impacts to Wildlife

A tree was considered to hold **Low** potential for roosting bats. This could therefore result in the disturbance, harm or even death of bats and the permanent loss of roosts / hibernation sites. Therefore, it is considered that an **adverse impact is possible** at the **site level** (with the significance to be established based on the species, number of bats and nature of roosts present).

Any impact to the trees or scrub could result in the disturbance of nesting birds and damage to their nests if conducted during the nesting season. Therefore, it is considered that an **adverse impact is possible** at the **local level**.

Any impact to the trees or scrub could result in the disturbance of Dormice and damage to their nests. This could result in the disturbance, harm or even death of individual Dormice. Therefore, it is considered that a **minor adverse impact is possible** at the **local level**.

The proposed plans require the clearance of small areas of scrub and leaf litter on the western boundary of the site. This could result in the harm or injury of individual common reptile species. Therefore it is considered that a **minor adverse impact is possible** at the **local level**.

The proposed works may require the creation of some excavations. This may lead to Badgers and other mammals becoming trapped or injured during the works. Therefore, it is considered that an **adverse impact is possible** at the **local level**.

### 5.3 Site Operation

#### 5.3.1 Impacts to Wildlife

The development may result in a minor increase in lighting within the general area from the car parking and on the externals of the residential dwellings (although given the presence of lighting already present along the woodland edge, any lighting increase will be minimal and

there may even be a reduction). Un-mitigated, this can affect the behaviour, particularly foraging, of nocturnal wildlife. Therefore, it is considered that a **minor adverse impact is possible** on nocturnal species at the **local level**.

#### 5.3.2 Impacts to Designated sites

The site is within 1 Km of a number of SINC's however, given the distance of the SINC's from the site and the small scale of the proposals in comparison to the large residential areas within the surrounding area, it is considered that there will be **no adverse impacts** as a result of the development.

The site lies within the catchment of the Solent and Southampton Water SPA. Therefore the net increase in residential dwellings will increase the Nitrogen input into the Solent and Southampton Water SPA. Therefore it is considered that a **minor adverse impact is certain** at the **international level**.

## 6.0 RECOMMENDATIONS

### 6.1 Introduction

The below sections outline a number of recommendations and 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 Bats

#### 6.2.1 Precautionary tree removal

The BCT guidelines (Collins (ed) 2016) suggest the following procedures when dealing with trees that have low suitability for roosting bats (i.e. one or two PRFs):

‘Where there are low suitability PRF’s, precautionary measures may be appropriate during felling / pruning activities’.

To this end, the Ash tree that was identified as being of low roost potential will have the features soft felled under the supervision of any ecologists to ensure there are no bats are harmed. Any limbs with features will be left overnight with any PRF’s left uncovered as a precaution to allow any bats present to escape. If any bats are encountered during the works, works will stop and Natural England will be consulted.

#### 6.2.2 Sensitive Lighting

To avoid adverse impacts on bats and other nocturnal species, a lighting strategy has been created by Portsmouth City Council (2023) (**Appendix 1**) for the wider site to ensure that any impacts to foraging and commuting bats is minimised as much as possible, whilst also ensuring all new alleys and footpaths and safely illuminated. The key points in order to reduce light spill and mitigate against the impact of artificial lighting on nocturnal species are as follows:

- Exterior lighting on the new properties will be modern LED fittings with a warm spectrum at a low level and hooded to minimise light spill.
- Height, fittings, and light colour will be carefully considered when installing additional lamp columns to minimise light spill.
- The majority of the existing lamp columns will be retained, with one modified to cover the pathway only, to reduce light spill onto the adjacent vegetation.

A document (Guidance Note 08/18 Bats and Artificial Lighting in the UK) has been 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. The key recommendations within this document have been outlined below and will be implemented provided there are no conflicts with any legal limits of illumination (in which case a suitable compromise should be reached). It is recommended that a lighting strategy is created

*‘Luminaires come in a myriad of different styles, applications and specifications which a lighting professional can help to select. The following should be considered when choosing*

#### *luminaires:*

- All luminaires should lack UV elements when manufactured. Metal halide, fluorescent sources should not be used. LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white spectrum (ideally <2700Kelvin) should be adopted to reduce blue light component.
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012).
- Internal luminaires can be recessed where installed in proximity to windows to reduce glare and light spill.
- The use of specialist bollard or low-level downward directional luminaires to retain darkness above can be considered. However, this often comes at a cost of unacceptable glare, poor illumination efficiency, a high upward light component and poor facial recognition, and their use should only be as directed by the lighting professional.
- Column heights should be carefully considered to minimise light spill.
- Only luminaires with an upward light ratio of 0% and with good optical control should be used – See ILP Guidance for the Reduction of Obtrusive Light.
- Luminaires should always be mounted on the horizontal, i.e. no upward tilt.
- Any external security lighting should be set on motion-sensors and short (1min) timers.
- As a last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed (Fig 8).'

**Figure 8.** (a) Shield 'barn doors' (b) cowl hood; (c) shield and; (d) external louvre Images from ILP (2011).



#### *6.2.4 Lighting during the construction phase*

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.

#### 6.2.4 Roof underlining

In-line with Natural England guidance non-bitumen coated roofing membrane that has passed a 'snagging propensity test' (2022) or bitumen roofing felt (2015) should be utilised as opposed to Breathable Roof Membrane (BRM) for all roofing works as there is considerable evidence to suggest that BRM poses a threat to bats occupying a structure due to entanglement in the fibres (Natural England, 2015).

### 6.3 Hazel Dormice

Due to the small area of suitable habitat being impacted by the proposals and its suboptimal nature, it is considered that the most proportionate form of mitigation would be to carry out the works sensitively under a precautionary method statement.

The below single stage precautionary method statement will be followed during the removal of all vegetation on site and **must be undertaken in October or April**:

- 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.
- 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). In the highly unlikely case that any Dormice are found, these will be captured (if necessary and considered highly unlikely) and relocated to the nest boxes previously erected along the north western boundary of the site. If any active animals are discovered during the works, works will cease and Natural England consulted (where an EPS may well be necessary). All arising's / cuttings will also be removed from site each day following a hand search by the licensed Ecologist.
- 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 any Dormice present to move away from the works area towards retained, suitable habitat on the site's boundaries. All arisings will be moved away, chipped and immediately removed from site.
- All trees / scrub to be retained along the red line boundary of the site, will be temporarily fenced off during the works to protect it from disturbance.

### 6.3.2 Compensation / Enhancement

To compensate for the loss of small areas of suboptimal habitat for Dormice on site, the existing western boundary will be reinforced with new species rich planting once the development is completed. Species used should include the following:

- Hazel (*Corylus avellana*)
- Hawthorn (*Crataegus monogyna*)
- Blackthorn (*Prunus spinosa*)
- Holly (*Ilex aquifolium*)
- Wild Privet (*Ligustrum vulgare*)
- Dog Rose (*Rosa canina*)
- Honeysuckle (*Lonicera periclymenum*).
- Spindle (*Euonymus europaeus*)
- Guelder Rose (*Viburnum opulus*)
- Field Maple (*Acer campestre*)

Planting density will seek to achieve a minimum of 4 plants / m<sup>2</sup> adjacent to the existing woodland as shown within **Fig 9** below. This will further improve both the nesting and foraging opportunities for Dormice.

Additionally, two Dormouse Boxes will be attached to retained trees within the woodland to the west of the site. This will provide further nesting opportunities for Dormice.

**Figure 9.** Area of species rich scrub planting to replace Bramble scrub and improved grassland



#### 6.4 Avoidance of Impacts to Breeding and Nesting Birds

In order to avoid disturbance of breeding and nesting birds or damage to their nests, any maintenance on site should be undertaken outside of the bird nesting season (typically March – August, dependent on weather). If this is not possible, the area to be cleared should be thoroughly checked by an ecologist immediately prior to clearance. If any active nests are found, they should be left undisturbed with a suitable buffer (ca. 5m) until nestlings have fledged.

#### 6.5 Badgers

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

#### 6.6 Tree protection

All the existing trees that are to be retained should be protected from damage during the works. All the trees / hedges should be fenced using Heras fencing or similar to prevent access by machinery. Where large mature trees are present, they should be protected using standard arboriculturally tree protection measures which include protection of the canopy and prevents root compaction.

Where works are to take place within the tree protection zone (i.e the installation of garden fences) this must be undertaken sensitively using hand tools to ensure that the roots of the adjacent trees are not damaged during the works.

#### 6.7 Biodiversity Net Gain

The habitats to be lost are species poor and are of low value for wildlife and are therefore only considered to be of value at the site level. The loss of Bramble dominated scrub is to be offset through the planting of species rich scrub as outlined within the dormouse mitigation section.

Additionally, to compensate for the loss of modified grassland, a total of 10 new native trees will be planted within the retained grassland areas on site. Wildflower plug planting will also be incorporated within the grassland area to improve its species diversity and its value for wildlife. These areas will also be marked with timber bollards to assist in the maintenance of appropriate mowing. The following species should be considered and will be planted at 5 per square meter within the retained grassland areas on site: Barren Strawberry, Betony, Foxglove, Fragrant Agrimony, Greater Burnet Saxifrage, Hedge Bedstraw, Wild Strawberry, Yellow Pimpernel, Betony, Birds Foot Trefoil, Coltsfoot, Cowslip, Greater Knapweed, Dropwort, Kidney Vetch, Lesser Knapweed, Meadow Clary, Meadow Buttercup, Moth Mullein, Marjoram, Rough Hawkbit, Oxeye Daisy, Primrose, Selfheal, Small Scabious, Teasel, Wild Basil, Wild Clary and Wood Aven. Additionally, flowering shrubs up to 1.2m will be incorporated along the sides of the new buildings. Shade tolerant wildflower species will be plugged and seeded along the western site boundary within the woodland, along with a new native tree to compensate for the removal of the Ash tree.

## 6.8 Enhancements

### 6.8.1 Bat Bricks

It is recommended that bat bricks will be included within each of the new dwellings. The bat bricks used should be the Ibstock bat brick B as they are available in a variety of different brick colours and requires no maintenance (**Fig 10**). These should also be positioned as close to the eaves as possible, away from windows and in a position that will receive some direct sunlight.

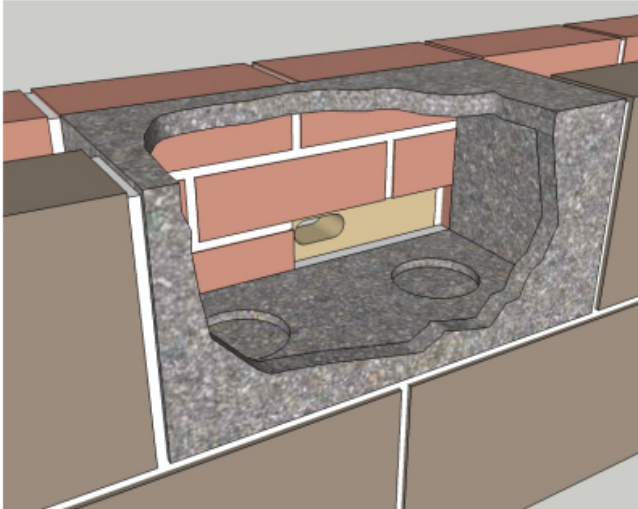
**Figure 10.** The Ibstock bat brick 'B' that will be incorporated into each of the new dwellings.



### 6.8.2 Bird Bricks

To act as biodiversity enhancement, the proposals should include a Swift brick in each of the proposed dwellings. The 'CJ Wildlife Swift maxi nesting box' (**Fig 11**) with entrance via a CJ Wildlife 'Cambridge Swift full-face brick' (The Cambridge System is a concept comprising an entrance piece and a nest box embedded in the cavity and inner leaf). It is particularly suited to gable ends at roof-space level. If this model is not suitable for the building specifications, an alternative swift box with internal floor space exceeding 400cm squared must be used. A list of swift boxes can be found on the RSPB website via the following link (<https://www.rspb.org.uk/globalassets/downloads/about-swifts/swift-bricks.pdf>) however it is worth noting that some of these do not have an internal floor space exceeding 400cm squared and are therefore not considered appropriate.

**Figure 11.** A schematic of how the Cambridge full face Swift brick leads into a cavity created by the prior installation of the Swift maxi nesting box.



#### 6.8.3 Tree / Shrub 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)). Species that can be considered within any planting include: Rowan (*Sorbus aucuparia*), Alder (*Alnus glutinosa*), Hazel (*Corylus avellana*), Holly (*Ilex aquifolium*), Silver Birch (*Betula pendula*), Small-leaved Lime (*Tilia cordata*) and Willow (*Salix* spp.). Non-natives and ornamentals should only be given a bias in formal locations where aesthetics is a priority.

Planting a mixture of flowering plants, trees (including fruit trees) and shrubs encourages a diversity of insects to sustain bats. It is beneficial that the flowers vary in colour (although pale flowers are more easily seen in poor light and so attract insects at dusk), fragrance, shape, amount of nectar and time of flowering. (It is important to provide native flowering plants, shrubs and trees throughout spring, summer and autumn). Flowers with 'landing platforms' for insects increase opportunities for insects and in turn foraging bats and these will be included within marginal habitats where appropriate.

#### 6.8.4 Hedgehogs

To ensure permeability for small mammals across the site, any garden fences of the properties will ensure at least 2 gaps are present within the gravel boards / bases of each fence line 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.

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 12**).

**Fig 12.** Example of Hedgehog Highway signage to be placed above fence gaps provided to allow movements between gardens.



## 7.0 REFERENCES

Bright ., P., Mitchell Jones., T., & Jones, T., (2006) *The Dormouse Conservation Handbook*, English Nature

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

Collins (ed) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines 3<sup>rd</sup> Edition*

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

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 (2019) 'Havant Borough Coucil Local Plan 2036' Availble online at: [https://cdn.havant.gov.uk/public/documents/The%20Draft%20Local%20Plan%202036\\_for%20web%20with%20policy%20numbers%20\(1\).pdf#:~:text=The%20Draft%20Havant%20Borough%20Local,meet%20the%20need%20for%20development.](https://cdn.havant.gov.uk/public/documents/The%20Draft%20Local%20Plan%202036_for%20web%20with%20policy%20numbers%20(1).pdf#:~:text=The%20Draft%20Havant%20Borough%20Local,meet%20the%20need%20for%20development.)

HMSO (1981). *The Wildlife & Countryside Act 1981*. HMSO, London.

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

Natural England & Forestry Commission England (2014) *Standing Advice for Ancient Woodland and Veteran Trees*.

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

Natural England, 2022. *Bats: apply for a mitigation licence (A13)*. Available online at: <https://www.gov.uk/government/publications/bats-apply-for-a-mitigation-licence>

UKHab Ltd. (2020). *UK Habitat Classification – Habitat Definitions Version 1.1* (September 2020).

Appendix 1- Lighting Plan

This is a C.A.D drawing and may only be modified by hand in accordance with QA Procedure

