

41 BEACH ROAD, EMSWORTH, HAMPSHIRE

ECOLOGICAL IMPACT ASSESSMENT

Final Document (Revision 1)

May 2023

Preliminary Ecological Appraisals Protected Species Surveys and Licensing NVC EclA HRA Management Plans
Habitats Badger Bats Hazel Dormouse Birds Reptiles Amphibians Invertebrates Riparian and Aquatic Species

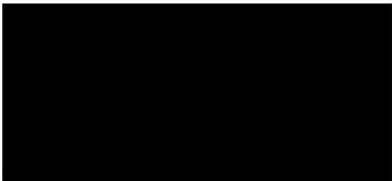
ECOSA, Ten Hogs House, Manor Farm Offices, Flexford Road, North Baddesley, Hampshire, SO52 9DF
Tel: 02380 261065 Email: info@ecosa.co.uk Web: www.ecosa.co.uk

Registered Office: 3-4 Eastwood Court, Romsey, Hampshire, SO51 8JJ Registered in England No: 6129868
Ecological Survey & Assessment Limited is a Trinity Consultants Company



ECOSA Quality Assurance Record

This report has been produced in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Report Writing 2017 (CIEEM, 2017). The Ecological Impact Assessment and report has been prepared in line with the CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018) and survey work has been undertaken in line with references within CIEEM's Source of Survey Guidance (CIEEM, 2017).

Description:	Ecological Impact Assessment
Produced For:	Michael Hughes c/o Amberleigh House
Issue:	Final (Rev. 1)
Report Reference:	22.0080.0002.F1
Date of Issue:	24 th May 2023
Date of Survey Works:	Various dates between May and July 2022
Author:	 Jennifer Simpson-Watts MSc Ecologist
Checked by:	 Jo Richmond BSc (Hons) ACIEEM Senior Ecologist
Reviewed by:	 Simon Colenutt BSc (Hons) MCIEEM CEnv Managing Principal Ecologist  Georgina Timmis BSc (Hons) MCIEEM Principal Ecologist

DISCLAIMER

This is a technical report which does not represent legal advice. You may wish to seek legal advice if this is required.

COPYRIGHT

© This report is the copyright of ECOSA Ltd. Any unauthorised reproduction or usage by any person is prohibited.

41 BEACH ROAD, EMSWORTH, HAMPSHIRE

ECOLOGICAL IMPACT ASSESSMENT

Table of Contents

EXECUTIVE SUMMARY	1
1.0 INTRODUCTION	2
1.1 Background.....	2
1.2 The Site	2
1.3 Aims and Scope of Report.....	3
1.4 Site Proposals.....	3
2.0 PLANNING POLICY CONTEXT	5
2.1 Introduction	5
2.2 National Policy	5
2.3 Local Policy.....	6
3.0 METHODS.....	7
3.1 Introduction	7
3.2 Zone of Influence	7
3.3 Scoping	7
3.4 Desk Study	7
3.4.1 <i>Multi-Agency Geographic Information for the Countryside</i>	7
3.4.2 <i>Other Sources of Information</i>	8
3.5 Field Survey.....	8
3.5.1 <i>Survey Methods</i>	8
3.5.2 <i>Survey Details</i>	9
3.5.3 <i>Field Survey Limitations</i>	9
3.6 Bat Survey	9
3.6.1 <i>Survey Methods</i>	9
3.6.2 <i>Survey Details</i>	10
3.6.3 <i>Survey Limitations</i>	10
3.7 Criteria used to Assess Ecological Value	11
4.0 BASELINE ECOLOGICAL CONDITIONS AND EVALUATION	12
4.1 Introduction	12
4.2 Statutory Designated Sites	12
4.2.1 <i>Baseline Ecological Conditions</i>	12
4.2.2 <i>Evaluation</i>	12
4.3 Habitats.....	13
4.3.1 <i>Desktop Study Results</i>	13
4.3.2 <i>Field Survey Results</i>	13
4.3.3 <i>Evaluation</i>	15
4.4 Bats.....	15
4.4.1 <i>Baseline Ecological Conditions</i>	15
4.4.2 <i>Evaluation</i>	18
4.5 Otter.....	18
4.5.1 <i>Baseline Ecological Conditions</i>	18
4.6 Badger	18
4.6.1 <i>Baseline Ecological Conditions</i>	18
4.7 Hazel Dormouse	19
4.7.1 <i>Baseline Ecological Conditions</i>	19
4.8 Water Vole	19
4.8.1 <i>Baseline Ecological Conditions</i>	19

4.9	Birds.....	20
4.9.1	Baseline Ecological Conditions	20
4.9.2	Evaluation	20
4.9.3	Baseline Ecological Conditions	20
4.9.4	Evaluation	21
4.10	Great Crested Newt.....	21
4.10.1	Baseline Ecological Conditions	21
4.11	Invertebrates.....	21
4.11.1	Baseline Ecological Conditions	21
4.12	Other Relevant Species.....	22
4.12.1	Baseline Ecological Conditions	22
4.12.2	Evaluation	22
5.0	ASSESSMENT OF ECOLOGICAL EFFECTS AND MITIGATION/COMPENSATION/ ENHANCEMENT MEASURES	23
5.1	Introduction	23
5.2	Scheme Design	23
5.3	Designated Sites	23
5.3.1	Potential Impacts and Effects	23
5.3.2	Mitigation Measures.....	23
5.3.3	Significance of Residual Effects	24
5.3.4	Compensation.....	24
5.3.5	Enhancement.....	24
5.3.6	Monitoring	24
5.4	Habitats.....	24
5.4.1	Potential Impacts and Effects	24
5.4.2	Mitigation Measures.....	24
5.4.3	Significance of Residual Effects	24
5.4.4	Compensation.....	24
5.4.5	Enhancement.....	24
5.4.6	Monitoring	25
5.5	Bats.....	25
5.5.1	Potential Impacts and Effects	25
5.5.2	Mitigation Measures.....	25
5.5.3	Significance of Residual Effects	25
5.5.4	Compensation.....	25
5.5.5	Enhancement.....	26
5.5.6	Monitoring	26
5.6	Birds.....	26
5.6.1	Potential Impacts and Effects	26
5.6.2	Mitigation Measures.....	26
5.6.3	Significance of Residual Effects	26
5.6.4	Compensation.....	26
5.6.5	Enhancement.....	26
5.6.6	Monitoring	26
5.7	Reptiles.....	27
5.7.1	Potential Impacts and Effects	27
5.7.2	Mitigation Measures.....	27
5.7.3	Significance of Residual Effects	27
5.7.4	Compensation.....	27
5.7.5	Enhancement.....	27
5.7.6	Monitoring	28
5.8	Other Relevant Species.....	28
5.8.1	Potential Impacts and Effects	28
5.8.2	Mitigation Measures.....	28
5.8.3	Significance of Residual Effects	28
5.8.4	Compensation.....	28
5.8.5	Enhancement.....	28
5.8.6	Monitoring	28
5.9	Cumulative Effects.....	28

6.0	CONCLUSIONS	29
6.1	Conclusion	29
6.2	Updating Site Survey	29
7.0	REFERENCES	30

Map 1 Site Location Plan

Appendix 1 Proposed Site Layout

Appendix 2 Sites Designated for Nature Conservation

Appendix 3 Relevant Legislation

Appendix 4 Protected and Notable Species Appraisal Methods

Appendix 5 Appraisal Criteria for Bats

Appendix 6 Statutory Designated Sites within the Desktop Study Area

EXECUTIVE SUMMARY

Ecological Survey and Assessment Ltd (ECOSA) have been appointed by Michael Hughes c/o Amberleigh House to undertake an Ecological Impact Assessment to support a planning application for the redevelopment of 41 Beach Road, Emsworth. The site is located to the south of Emsworth and comprises a two-storey residential property and garden. Proposals comprise the demolition of the existing property and clearance of the on-site vegetation to facilitate the construction of a replacement residential dwelling.

The main findings of the Ecological Impact Assessment are:

The Chichester and Langstone Harbours Ramsar site and SPA, Solent Maritime SAC and Chichester Harbour SSSI are all located 15 metres south of the site. Solent Wader and Brent Goose Sites are located approximately 260 metres west of the site. No impacts are anticipated to designated sites.

Bat emergence/re-entry surveys recorded no roosting bats within the property, therefore are considered likely absent from the building. The site has suitability for foraging and commuting bats and suitability for breeding birds, reptiles and European hedgehog.

Potential adverse impacts on these ecological features have been identified and suitable mitigation measures proposed. A sensitive lighting scheme will be devised to mitigate for impacts on foraging and commuting bats and Heras fencing will be installed to protect the boundary hedgerows and trees during the construction phase. The installation of a single bat tube/box on the new property will compensate for the loss of potential roosting features.

Enhancement measures include the planting of native species hedgerows, new tree planting and shrub planting and the provision of nesting and roosting boxes installed on the new dwelling and/or retained trees after the works have been completed.

Given the impacts identified, and the mitigation, compensation and enhancement measures proposed it is considered that the proposals accord with all relevant local and national planning policy.

If the planning application boundary changes or the proposals for the site alter, a re-assessment of the scheme in relation to ecology may be required. Given the mobility of animals and the potential for colonisation of the site over time, updating survey work may be required, particularly if development does not commence within 18 months of the date of the most recent relevant survey.

1.0 INTRODUCTION

1.1 Background

Ecological Survey & Assessment Limited (ECOSA) have been appointed by Michael Hughes c/o Amberleigh House to undertake a Ecological Impact Assessment to identify the ecological impacts associated with the redevelopment of 41 Beach Road, Emsworth, Hampshire, PO10 7HR (hereafter referred to as the site).

Pre-application advice was sought during 2022 (Ref: GEN/22/00778), and a response was received from Havant Borough Council 31st October 2022. The pre-application responds included the following comments in relation to ecology:

“iv. Impact on Ecology and Trees

The site is located immediately adjacent the Chichester and Langstone Harbour with its associated international designations of SSSI, Ramsar, SSSI and SAC, primarily to protect overwintering birds. The potential impacts of development on such a Habitats site must be taken into consideration, particularly from noise and disturbance to wildlife from construction related disturbance. To ensure no adverse impacts occur during the key over-wintering period then it is likely that any future planning permission for a replacement dwelling would be conditioned to ensure no percussive piling or works with heavy machinery (i.e. plant resulting in a noise level in excess of 69dbAmax - measured at the sensitive receptor at the foreshore) is undertaken between 1st October and 31st March inclusive.

It is noted that a bat survey has been undertaken and this should be submitted as part of any future planning application for verification. Enhanced biodiversity on the site is welcomed, though not currently required by adopted local policy. National policy requirements for mandatory biodiversity net gain is expected by November 2023, so you should be aware of this forthcoming requirement.

The trees on the site have been surveyed and the retention of the two on the south frontage are welcomed and encouraged for the screening they provide. At application stage the landscape proposal would be carefully assessed by our landscape officer.”

1.2 The Site

The site is located in Emsworth, Hampshire, centred on National Grid Reference (NGR) SU 7413 0537 (**Map 1**).

The site measures approximately 0.11 hectares and comprises a two-storey residential house with single storey extensions and gardens.

The wider landscape comprises extensive residential development to the north, east and west. The Solent is approximately 10 metres south of the site.

Farmland and linear wooded features are present to the west of the site and Slipper Mill Pond is present approximately 650 metres to the east. The A27, a major trunk road is located approximately 1.1 kilometres to the north.

1.3 Aims and Scope of Report

The information within this report is based on a field survey and desktop study and relevant species-specific surveys carried out between May 2022 and July 2022. The report describes the habitats and species (hereafter referred to as ecological features) within the site's Zone of Influence (Paragraph 3.2), and provides a detailed assessment of potential ecological effects of the proposed development of the site. It identifies the need for any measures to avoid, mitigate or compensate for significant adverse effects¹ ecological features and outlines enhancements to the site's ecology to be implemented as part of the development. The objectives of the assessment are:

To provide baseline information on ecological features within the site's Zone of Influence and determine the importance of these features;

To assess, characterise and quantify the effects on ecological features, including cumulative effects, and identify significant effects in the absence of any mitigation;

To set out measures to avoid, mitigate and compensate for significant ecological effects in accordance with the 'mitigation hierarchy'²;

To provide an assessment of the significance of any residual effects;

To outline opportunities for enhancement in order to achieve a net gain for biodiversity; and

To set out the requirements for any post-construction monitoring.

1.4 Site Proposals

Proposals for the site comprise the demolition of the current property and clearance of the on-site vegetation in order to facilitate the construction of a replacement residential dwelling.

¹ For the purposes of this assessment a 'significant' adverse effect is one which will have an adverse effect on the ecological feature at the site level or higher.

² In accordance with CIEEM Ecological Impact Assessment guidance (CIEEM, 2018) a sequential process is adopted to address impacts on features of ecological interest, with 'Avoidance' prioritised at the top of the hierarchy and Compensation/Enhancement' at the bottom. This is often referred to as the 'mitigation hierarchy'.

The assessment makes reference to a proposals plan produced by OB Architecture (Drawing No. 387-OBA-00-ZZ-DR-A-0102-PA 04) dated May 2023 (**Appendix 1**).

with full planning permission being sought in 2023, and construction proposed to commence soon after permission has been granted.

2.0 PLANNING POLICY CONTEXT

2.1 Introduction

This section summarises the planning policy in relation to ecology and biodiversity within the Havant Borough Council administrative area. This information is then used to assess the compliance of the scheme in relation to relevant planning policy and where necessary make recommendations for mitigation, compensation and enhancements (see Section 0).

2.2 National Policy

The National Planning Policy Framework (NPPF) sets out the government's requirements for the planning system in England. The original document was published in 2012 with the most recent revised NPPF published in July 2021. A number of sections of the NPPF are relevant when taking into account development proposals and the environment. As set out within Paragraph 11 of the NPPF *"Plans and decisions should apply a presumption in favour of sustainable development"*. However, Paragraph 182 goes on to state that *"The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site."*

The NPPF sets out that development proposals should not only minimise the impacts on biodiversity but also to provide enhancement. Paragraph 174 states that the planning system should contribute to and enhance the natural environment by *"...minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures..."*.

A number of principles are set out in Paragraph 180, including that where harm cannot be adequately avoided then it should be mitigated for, or as a last resort, compensated for. Where impacts occur on nationally designated sites, the benefits must clearly outweigh any adverse impact and incorporating biodiversity in and around developments should be encouraged. Specific reference is also made to the protection of irreplaceable habitats³, including ancient woodland⁴. Where loss to irreplaceable habitats occurs planning permission would normally be refused unless there are wholly exceptional reasons and an adequate compensation strategy is in place. Paragraph

³ The NPPF defines irreplaceable habitats as *"Habitats which would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity. They include ancient woodland, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen."*

⁴ Natural England defines ancient woodland as *"An area that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland and plantations on ancient woodland sites (PAWS)."*

180 also states *“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.”*. Paragraph 181 also sets out that potential SPAs, SACs and listed or proposed Ramsar sites or sites acting as compensation for SPAs, SACs and Ramsar sites, should receive the same protection as habitat sites.

In addition to the NPPF, Circular 06/05 provides guidance on the application of the law relating to planning and nature conservation as it applies in England. Paragraph 98 states *“the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat”*. Paragraph 99 states *“it is essential that the presence or otherwise of a protected species, and the extent that they may be affected by the Proposed Project Development, is established before planning permission is granted”*.

2.3 Local Policy

Local planning policy within Havant Borough is provided by the Havant Borough Core Strategy 2011, adopted March 2011. Two policies refer in part to ecology and biodiversity:

Policy CS11: Protecting and Enhancing the Special Environment and Heritage of Havant Borough

This policy refers to protecting and enhancing designated sites and features of ecological interest including wildlife habitats and corridors; and

Policy DM9: Development in the Coastal Zone

This policy states that permissions will only be granted in this zone where it can be demonstrated that there will be no harmful effects on designated sites.

3.0 METHODS

3.1 Introduction

This section details the methods employed during the Ecological Impact Assessment. Any significant limitations to the assessment are also considered.

3.2 Zone of Influence

To define the total extent of the study area for this assessment, the proposed scheme was reviewed to establish the spatial scale at which ecological features could be affected⁵. The appropriate survey radii for the various elements of the assessment (i.e. desktop study, field survey and species-specific surveys) have been defined in the relevant sections below. These distances are determined based on the professional judgement of the ecologist leading the appraisal, taking into account the characteristics of the site subject to assessment, its surroundings and the nature of the proposals.

3.3 Scoping

Protected species considered within the Ecological Impact Assessment are those species/species groups considered likely to be encountered given the geographical location and context of the site. As the impacts of the proposed works are limited to within the footprint of the on-site buildings only species likely to occur within buildings have been considered within this appraisal. Where the site was found to be suitable to support these species/species groups, and adverse effects cannot be avoided from the outset, further species-specific surveys are undertaken. These are discussed within the results section (Section 4.0) of the current report. Where such a species is unlikely to be present on site a justification for likely absence is provided. Species considered likely absent from the site are not then considered in the assessment of ecological effects and mitigation/compensation measures section (Section 0) of this report.

3.4 Desk Study

A full biological record centre desktop study was not undertaken as part of this assessment. This was not considered necessary given the limited scale of impacts and the nature of on-site habitats.

3.4.1 Multi-Agency Geographic Information for the Countryside

The Multi-Agency Geographic Information for the Countryside (MAGIC) database (DEFRA, 2022) was reviewed on 2nd August 2022 to establish the location of statutory designated sites located within the vicinity of the site. This included a search for all internationally and nationally designated sites such as Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Wetlands of International Importance

⁵ The Zone of Influence (Zoi), as defined by CIEEM, is the area over which ecological features may be subject to significant effects as a result of the proposed project and associated activities (CIEEM, 2018).

(Ramsar sites), Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) and Local Nature Reserves (LNRs) within one kilometre of the site. See **Appendix 2** for details. Where appropriate, the desk study search area has been extended to take account of any appropriate statutory designated sites which need consideration in terms of potential in-direct effects and which support particularly mobile species, particularly those specifically mentioned in local planning policy. The Impact Risk Zones (IRZ) were also obtained from MAGIC, which are used to help guide and assess planning applications for likely effects on SSSIs.

Sites within two kilometres of the site boundary where European Protected Species Mitigation (EPSM) licences have been granted were reviewed. This information allows a greater understanding of the potential for European Protected Species to be present in the local area.

3.4.2 Other Sources of Information

Online mapping resources, at an appropriate scale, were used to identify the presence of habitats such as woodland blocks, ponds, watercourses and hedgerows, in the vicinity of the site. These habitats may offer resources and connectivity between the site and suitable habitat in the local area, which may be exploited by local species populations.

The presence of ponds or other waterbodies within a 500 metre radius of the site in particular are noted in relation to great crested newt. The 500 metre radius is a standardised search radius to assist in the assessment of the suitability of a site and its surrounding habitat to support this species, based on current Natural England guidance (English Nature, 2001).

3.5 Field Survey

3.5.1 Survey Methods

The field survey broadly followed standard Phase 1 habitat survey methodology (JNCC, 2010) and included a search for evidence of, and an assessment of the site's suitability to support, protected and notable species as recommended by CIEEM (CIEEM, 2017).

Protected and Notable Species Appraisal

A preliminary appraisal of the site's suitability to support legally protected and notable species was carried out. Specific methods for species/species groups considered during the appraisal are provided in **Appendix 4**.

3.5.2 Survey Details

The field survey was carried out by Joanne Richmond, Senior Ecologist of ECOSA on 23rd May 2022. The weather conditions were dry with 100% cloud cover, an ambient temperature of 17°C and a gentle breeze.

During the survey, the surveyor was equipped with a ladder, 10x40 binoculars, a high powered torch and a digital camera.

3.5.3 Field Survey Limitations

Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviour. The field survey has therefore not produced a complete list of plants and animals and in the absence of evidence of any particular species should not be taken as conclusive proof that the species is absent or that it will not occur in the future.

Online mapping resources provide an indication of habitat features present in the wider area, but do not provide a detailed assessment of habitat types.

Not all potential bat roosting features are accessible to the surveyor, e.g. gaps beneath roof materials or holes or cracks in trees, and therefore assessments are based upon the potential for these features to provide suitable roosting opportunities.

It is not always possible to provide definitive assessments of a species' presence/likely absence at a site and so in the absence of direct evidence, assessments and recommendations are based on the presence of suitable habitat within/adjacent to a site and the results of species records within the desk study data.

3.6 Bat Survey

3.6.1 Survey Methods

Bat Emergence/Re-entry Survey

The bat emergence/re-entry surveys were undertaken in line with current best practice guidelines (Collins, 2016). In accordance with the guidelines for a building assessed as having moderate suitability to support roosting bats a single dusk emergence survey and a single dawn re-entry survey were undertaken in order to ascertain the presence/likely absence of roosting bats from within the building. Where the presence of roosting bats is confirmed the data also allows for an assessment of the status of the roost present.

The survey was carried out by three to four experienced ECOSA surveyors, positioned at previously identified vantage points around the building. These vantage points

locations allowed a sufficient coverage of the Potential Roosting Features identified on the building impacted by the proposals.

During the survey, surveyors recorded the time, species, location and direction of flight for each bat encountered, with particular attention paid to establishing bat access/egress locations to any roosts within the building. In accordance with best practice guidelines, a dusk survey starts 15 minutes before sunset and continues for 1.5 to two hours after sunset. A dawn survey starts 1.5 to two hours before sunrise and continues for 15 minutes after sunrise.

3.6.2 Survey Details

Bat Emergence/Re-entry Survey

The bat emergence/re-entry surveys were undertaken in July 2022. **Table 1** provides details of each emergence survey.

Table 1: Bat emergence survey details

Survey Date	Survey Type	Survey Timings	Weather Conditions	Sunset/ Sunrise Time
15 th July 2022	Re-entry	Start: 03:07 End: 05:22	General conditions: Dry Start temp: 19°C End temp: 17°C Cloud Cover: 10% Wind Speed: No breeze	05:07
28 th July 2022	Emergence	Start: 20:40 End: 22:55	General conditions: Dry Start temp: 23°C End temp: 17°C Cloud Cover: 5% Wind Speed: No breeze	20:55

During the bat emergence/re-entries surveys the surveyors were equipped with Batlogger M bat detectors. Recordings made with the detectors were later analysed using Sonobat® (v2.9.7) and BatExplorer (v2.1.10.1) to confirm the identity of any species encountered.

The bat emergence/re-entries survey was coordinated by Jennifer Simpson-Watts, Ecologist of ECOSA, assisted by suitably qualified and experienced ECOSA surveyors Amiker Best, Joseph Apsey, Briza Alves, Ciara Askin, Ryan McCormick, Heidi Wheatley and Ben Davis.

3.6.3 Survey Limitations

Some bat species, e.g. long-eared bats *Plecotus* species⁶, generally emerge from their roosts in total darkness and do not produce strong echolocations, and therefore these

⁶ There are two species of long-eared bat, the brown long-eared bat *Plecotus auritus* and the grey long-eared bat *Plecotus austriacus*. These species can only be separated by examination of physical characteristics and Phylogenetic

bats can be difficult to observe and record during bat surveys, leading to under-recording.

3.7 Criteria used to Assess Ecological Value

The evaluation criteria used in this report are based on ECOSA's professional judgement and publicly available publications, survey data and other sources as referenced in the main text. The evaluation is based on a sliding scale of importance as follows; international and European, national, regional, county, local and site. There are a wide range of characteristics which contribute to the importance of ecological features, and these may justify an increase or reduction in the value of an ecological feature. Where deviations occur, these will be explained in the evaluation section of this report (Section 4.0). Current published relevant guidance, including information sources such as A Nature Conservation Review (Ratcliffe, 1977) and Guidelines for Ecological Impact Assessment in the United Kingdom (CIEEM, 2018) have also been used to inform the assessment.

Analysis Identification of bat droppings. Unless confirmation of identification has been made by visual identification the two species shall be referred to in this report as long-eared bat. The brown long-eared bat is the commonest of the two species typically being found roosting within large roof voids although small voids and trees are also utilised. The grey long-eared bat is rare and confined to southern England and like the brown long-eared typically roosts in roof voids.

4.0 BASELINE ECOLOGICAL CONDITIONS AND EVALUATION

4.1 Introduction

This section details the results of the Ecological Impact Assessment undertaken for the site. It assesses the baseline ecological conditions of the site at the time the desktop study was completed and based on the findings of the field survey and subsequent protected species surveys. This section also provides an assessment of the ecological value of ecological features present at the site.

4.2 Statutory Designated Sites

4.2.1 Baseline Ecological Conditions

There are four statutory designated sites of nature conservation interest situated within one kilometre of the site boundary. These are:

Chichester and Langstone Harbours (Ramsar Site) – Located 15 metres to the south of the site and designated for supporting an internationally important population of breeding and overwintering birds.

Solent Maritime (SAC) - Located 15 metres to the south of the site and designated for supporting a range of important coastal habitats and the rare Desmoulin's whorl snail *Vertigo moulinsiana*;

Chichester and Langstone Harbours (SPA) - Located 15 metres to the south of the site and designated for supporting significant populations of overwintering and breeding bird species.

Chichester Harbour (SSSI) – Located 15 metres to the south of the site and is of particular significance for wintering wildfowl and waders and also breeding birds.

Consultation with the Solent Waders and Brent Goose Strategy Current Use Mapping tool identified parcels of land near to the site that are classified as 'Secondary Support Areas' and 'Candidate Sites' for these species. The nearest parcels are approximately 260 metres west for both sites.

Further details of the statutory designations listed above are provided in **Appendix 6**.

4.2.2 Evaluation

Chichester and Langstone Harbours Ramsar site is of value at the international level whilst Solent Maritime SAC and Chichester and Langstone Harbours SPA and associated Solent Wader and Brent Goose sites are of value at the European level. Chichester Harbour SSSI is of value at the national level.

4.3 Habitats

4.3.1 Desktop Study Results

A review of the MAGIC database revealed the presence of several Habitats of Principal Importance within the desktop study area however, none are located within the proposed development site.

Mudflats, coastal saltmarsh and saline lagoons are present 15 metres south, 240 metres south and 665 metres east, respectively. These are associated with the coastal habitats in the Solent and Slipper Mill Pond.

Coastal Floodplain and Grazing Marsh is present 220 metres west of the site and good quality semi-improved grassland is present 540 metres west.

Lowland Mixed Deciduous Woodland is also present approximately 185 metres north-west of the site.

4.3.2 Field Survey Results

Habitats are described in general terms using standard Phase 1 habitat survey terminology. The main habitats recorded on site during the Phase 1 habitat survey were as follows:

Scattered Trees

Scattered trees are present to the south and east of the site within the introduced shrubs (**Figure 1**). Species present include cedar *Cedrus* species and rowan *Sorbus aucuparia*.



Figure 1: Tree to east of the site

Improved Grassland

Improved grassland is present to the south and west of the site and has a short sward due to regular management through mowing (**Figure 2** and **Figure 3**). Species present include annual meadow grass *Poa annua* cock's foot *Dactylis glomerata*, daisy *Bellis perennis*, bird's-foot trefoil *Lotus corniculatus*, dandelion *Taraxacum officinale*

aggregate, lesser trefoil *Trifolium dubium*, lesser hawkbit *Leontodon taraxacoides*, selfheal *Prunella vulgaris* and creeping buttercup *Ranunculus repens*.



Figure 2: Improved grassland to the south of the site



Figure 3: Improved grassland to the west of the site

Introduced Shrub

Introduced shrubs are present around the perimeter of the site and are mostly non-native species (**Figure 4**). Species present include bay laurel *Laurus nobilis*, hawthorn *Crataegus monogyna*, cherry laurel *Prunus laurocerasus*, buckthorn *Rhamnus* species, pendulous sedge *Carex pendula*, bellflower *Campanula* species, scarlet pimpernel *Anagallis arvensis*, ribwort plantain *Plantago lanceolata*, wood avens, green alkanet, broadleaved dock, bramble and spear thistle.



Figure 4: Introduced scrub

Species-Poor Defunct Hedgerow

A garden privet *Ligustrum ovalifolium* species hedgerow is present along the southern boundary of the site and is approximately 30 metres long and 1.5 metres in height. The hedgerow is well managed.

Other Habitats

Other habitats present include the property itself (Paragraph 4.4.1), garages, hardstanding and a fence around the perimeter of the site.

4.3.3 Evaluation

The species composition within the site is common and widespread within the local area and supports a low diversity of plant species. The habitats are typical of residential houses and gardens. Therefore, the habitats on site are assessed as having value at the site level.

4.4 Bats

4.4.1 Baseline Ecological Conditions

Desktop Study Results

Consultation with MAGIC revealed two granted EPSM licences for bats within two kilometres of the site boundary. These are:

2019-44235-EPS-MIT – Granted for the destruction of a soprano pipistrelle *Pipistrellus pygmaeus* resting place between 2020 and 2024, approximately 765 metres north-east of the site; and

EPSM2010-2147 – Granted for the destruction of a common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle, brown long-eared bat *Plecotus auritus* and Natterer's bat *Myotis nattereri* resting place between 2010 and 2012, approximately 1.8 kilometres south-west of the site.

Field Survey Results

Building Assessment

A two-storey residential property is present with single storey extensions (**Figure 5**). The exterior is pebble dashed with plastic cladding at the front and plastic soffits. The roof is pitched with clay tiles and the single storey extensions are flat roofs with either bitumen felt or clay tiles (**Figure 6**). There is no internal roof void present due to rooms built into the roof.



Figure 5: Main residential property with pitched roof



Figure 6: Flat roof section of the property

There are several lifted and missing tiles mostly around the ridge (**Figure 7**) and rear dormer window (**Figure 8**). The soffits and flat roof sections are well sealed.



Figure 7: Missing tiles along roof ridgeline



Figure 8: Lifted tiles around dormer window

Garages are also present with a pebble dash exterior and a corrugated asbestos roof (**Figure 9**). A small gap is present on the western elevation due to damage from ivy.



Figure 9: Garages

Overall the property is considered to have moderate suitability for roosting bats and the garage is considered to have low suitability for roosting bats.

Tree Assessment

The on-site trees do not contain any features which are suitable for supporting roosting bats. Therefore, they are assessed to be of negligible suitability for roosting bats.

Foraging and Commuting Habitat

The site itself has suitability for foraging and commuting bats in the form of hedgerows and introduced shrub, however, does not have good connectivity to suitable habitats in the wider landscape. The wider landscape is largely residential though agricultural fields which are bounded by hedgerows are present to the west of the site. Due to the limited size of the site and lack of connectivity to more suitable habitats, it is considered to have low suitability for supporting foraging and commuting bats.

Bat Emergence/Re-entry Survey Results

The surveys recorded at least four species of foraging and commuting bat: common pipistrelle, soprano pipistrelle, noctule *Nyctalus noctula* and *Myotis* bat species⁷. The majority of bats recorded were foraging along the boundary vegetation surrounding the site.

No bats were observed emerging from or re-entering the building on either survey, therefore it is concluded roosting bats are likely absent from the site.

Table 2 provides details of the species and numbers of bats recorded foraging/commuting during the emergence survey.

Table 2: Bat Emergence/Re-entry Survey Results

Visit 1 - Survey Details	
Survey Date:	15 th July 2022
Structures Surveyed:	41 Beach Road
Survey Type:	Dawn Re-Entry Survey
Time of Sunset:	05:07
General Bat Activity	
Low levels of bat activity throughout. No re-entries were recorded during the survey. Foraging and commuting was recorded during the survey around the boundary vegetation which surrounds the house. The most commonly recorded species were common pipistrelle and soprano pipistrelle.	

Visit 2 - Survey Details	
Survey Date:	25 th July 2022
Structures Surveyed:	41 Beach Road
Survey Type:	Dusk Emergence Survey
Time of Sunrise:	21:02
General Bat Activity	
Moderate levels of bat activity throughout. No emergences were recorded during the survey. Foraging and commuting was recorded throughout the survey around the boundary vegetation which surrounds the house. The most commonly recorded species were common pipistrelle and soprano pipistrelle. Noctule and <i>Myotis</i> were also recorded foraging/commuting across the site.	

⁷ There are seven species of *Myotis* bats in Britain. *Myotis* bats are very difficult to identify specifically, this can generally only be done by examination of physical features and Phylogenetic Analysis Identification of bat droppings. Many of these bats are common and will utilise buildings for roosting often occupying small and inaccessible voids. For the purpose of this report all species shall be referred to as *Myotis* bats unless a specific identification has been possible.

4.4.2 Evaluation

Foraging and Commuting Bats

Common pipistrelle and soprano pipistrelle are common in Hampshire whilst noctule is less common but widespread (Mammal Society, 2015). *Myotis* bat species is uncommon but widespread across the south-east of England and in Hampshire (Mammal Society, 2015). Due to the location of the site and the habitats present, it is not anticipated that the recordings of *Myotis* species represent one of the rarer species within this group such as Bechstein's bat which is a woodland specialist

Given the limited size of the site and proximity of highly suitable habitat within the surrounds for foraging and commuting individuals. It is considered that the site is of value for each of these species at the site level.

4.5 Otter

4.5.1 Baseline Ecological Conditions

Desktop Study Results

Consultation of the MAGIC database produced no records of EPSM licences granted in relation to otter within the desktop study area, however, this does not confirm the absence of the species in the local area.

Field Survey Results

There are no suitable habitats such as rivers or streams located on the site. Suitable habitats for otter are located approximately 1.5 kilometres north-east of the site along the corridor of the River Ems but are separated from the site by extensive residential development and various road networks.

It is unlikely that otter would commute across the site as there is no further suitable habitat for otter beyond the site and all suitable habitats are to the north-east, along the corridor of River Ems.

As the habitat on site is unsuitable for otter, this species is not considered further in this report.

4.6 Badger

4.6.1 Baseline Ecological Conditions

Field Survey Results

No field signs of badger *Meles meles* were identified during the survey and the habitats on site are not suitable for commuting and foraging badger or for sett construction.

This species may be present in the wider landscape however, it is unlikely that badger would commute through the site itself, due to the close-board fencing with no gaps between the mature gardens of the site itself and the neighbouring residential developments.

As the habitat on site is unsuitable for badger, this species is not considered further in this report.

4.7 Hazel Dormouse

4.7.1 Baseline Ecological Conditions

Desktop Study Results

Consultation with MAGIC produced no records of hazel dormouse *Muscardinus avellanarius* within the desktop study area, however, this does not confirm the absence of the species in the local area.

Field Survey Results

The site supports a species-poor defunct hedgerow which does not have connectivity to other wooded features within the wider landscape. Furthermore, the hedgerow lacks the structure required to support hazel dormouse and does not support species such as hawthorn or bramble which are important food sources for hazel dormouse.

Therefore, the habitat on site is unsuitable for hazel dormouse and the species is not considered further in this report.

4.8 Water Vole

4.8.1 Baseline Ecological Conditions

Field Survey Results

There are no suitable habitats such as rivers or streams located on the site. The River Ems is located 1.5 kilometres north-east of the site and comprises habitats suitable for supporting water vole *Arvicola amphibius*. However, these habitats are separated from the site itself by extensive residential development and various networks of roads.

As the site does not contain any habitats suitable for supporting water vole, this species is considered absent from the site and is not considered further in this report.

4.9 Birds

4.9.1 Baseline Ecological Conditions

Field Survey Results

Species recorded on site during the survey included house sparrow *Passer domesticus* (a red listed species of conservation concern⁸), jackdaw *Corvus monedula* and woodpigeon *Columba palumbus* (an amber listed species of conservation concern⁹).

There is some suitability for nesting birds to utilise the features on the house and/or garage such as gaps under the missing/lifted tiles and the gap present on the garage.

The hedgerow, scattered trees and shrubs are suitable for supporting common and widespread nesting bird species.

The habitats on site are not suitable for supporting wintering bird species such as wintering waterfowl, waders and gulls, though these species may be present within the wider landscape where suitable wetland habitats are present e.g. Solent and nearby Solent Wader and Brent Goose Sites. Due to the lack of suitable habitats, these species are considered absent from the site. Wintering birds are therefore not considered further in this report.

4.9.2 Evaluation

Given that the site is small scale and supports a limited resource of nesting habitat compared to the wider area, the site is assessed as being of no more than 'site' level importance to breeding birds. Reptiles

4.9.3 Baseline Ecological Conditions

Desktop Study Results

Consultation with the MAGIC database produced no records of granted EPSM licences with regards to smooth snake *Coronella austriaca* or sand lizard *Lacerta agilis* within the desktop study area, however, this does not confirm the absence of the species in the local area.

Field Survey Results

The habitats on the site comprise a hedgerow and introduced shrubs which all offer a limited area of suitable habitat for common and widespread reptile species for

⁸ The UK's birds are split in to three categories of conservation importance - red, amber and green. Red is the highest conservation priority, with species needing urgent action. Amber is the next most critical group, followed by green.

⁹ Amber list criteria include species which are: in unfavourable conservation status in Europe; subject to historical population decline during 1800–1995, but recovering; subject to moderate (25-49%) decline in UK breeding population or contraction of UK breeding range over last 25 years, or the longer-term period; subject to moderate (25-49%) decline in UK non-breeding population over last 25 years, or the longer-term period; rare breeders (1–300 breeding pairs in UK); rare non-breeders (less than 900 individuals), or; internationally important species with at least 20% of European breeding or non-breeding population in UK.

sheltering. The improved grassland is subject to management and has a short sward and therefore is considered unsuitable for reptiles.

4.9.4 Evaluation

The site forms a small proportion of the habitat available in the surrounding area, largely comprising residential gardens. Furthermore, the site is unlikely to support an important population of reptiles due to its size and habitats present. As such, the site is assessed as being of no more than 'site' level importance to reptiles.

4.10 Great Crested Newt

4.10.1 Baseline Ecological Conditions

Desktop Study Results

Consultation with the MAGIC database produced no records of granted EPSM licences with regards to great crested newt *Triturus cristatus* within the desktop study area, however, this does not confirm the absence of the species in the local area.

A review of aerial photography and OS mapping revealed no waterbodies within 500 metres of the site.

Field Survey Results

There are no waterbodies on site and no waterbodies within 500 metres of the site. Therefore breeding great crested newt are considered absent from site and the surrounding area.

Therefore, the site is not considered suitable for great crested newt and this species is not considered further in this report.

4.11 Invertebrates

4.11.1 Baseline Ecological Conditions

Field Survey Results

The grassland and wooded habitats are likely to support a range of common and widespread invertebrate species and assemblages but are limited in their extent and lack any features that would support protected or notable invertebrate species.

The habitats on site are considered unsuitable for scarce or notable invertebrates and therefore the species group is not considered further in this report.

4.12 Other Relevant Species

4.12.1 Baseline Ecological Conditions

Field Survey Results

The grassland habitat on site provides foraging opportunities for European hedgehog *Erinaceus europaeus*. There is close-board fencing with no gaps between the mature gardens of the site itself and the neighbouring residential developments, therefore connectivity is limited. Overall, the site is considered to have suitability for European hedgehog, if individuals are able to access the site.

4.12.2 Evaluation

Given the extent of suitable habitat in the wider area for hedgehog, comprising residential gardens, the site is assessed as being of no more than 'site' level importance to the species.

5.0 ASSESSMENT OF ECOLOGICAL EFFECTS AND MITIGATION/COMPENSATION/ENHANCEMENT MEASURES

5.1 Introduction

This section assesses the ecological effects of the proposed development scheme on the identified ecological features as identified in Section 4.0. Methods for addressing potential impacts on ecological features have been approached in accordance with the mitigation hierarchy¹⁰ with avoidance of impacts prioritised where possible. Where significant adverse effects cannot be avoided other forms of mitigation are prioritised over compensation. Enhancement measures have been detailed, where relevant, in order to not only minimise the impacts on biodiversity but also to provide enhancement in accordance with Paragraph 174 of the NPPF (Paragraph 2.2). It is anticipated that mitigation, compensation and enhancement measures will be secured through the planning process.

5.2 Scheme Design

Proposals for the site comprise the demolition of the current property and clearance of the on-site vegetation in order to facilitate the construction of a replacement residential dwelling.

The potential ecological impacts and effects of these proposals, in the absence of mitigation, are described for each ecological feature below. For each ecological feature, measures to mitigate and/or compensate for significant effects are described.

5.3 Designated Sites

5.3.1 Potential Impacts and Effects

The Chichester and Langstone Harbours Ramsar site and SPA, Solent Maritime SAC and Chichester Harbour SSSI are all located 15 metres south of the site. Solent Wader and Brent Goose Sites are located approximately 260 metres west of the site. Given the small scale, nature and extent of the redevelopment proposals, the distance between the redevelopment's footprint and the designated sites, the lack of hydrological connectivity and the reason for the site's designations, no adverse impacts are anticipated. As there will be no net increase of residents on the site post-construction, there will be no additional recreational impacts on these designated sites.

5.3.2 Mitigation Measures

Given that no potential impacts in relation to designated sites have been identified, no mitigation measures will be required.

¹⁰ In accordance with CIEEM Ecological Impact Assessment guidance (CIEEM, 2018) a sequential process is adopted to address impacts on features of ecological interest, with 'Avoidance' prioritised at the top of the hierarchy and Compensation/Enhancement' at the bottom. This is often referred to as the 'mitigation hierarchy'.

5.3.3 Significance of Residual Effects

No significant residual effects in relation to designated sites are anticipated as a result from the proposals.

5.3.4 Compensation

No compensation measures are required.

5.3.5 Enhancement

No enhancement measures in relation to designated sites are proposed.

5.3.6 Monitoring

No future monitoring is required.

5.4 Habitats

5.4.1 Potential Impacts and Effects

The proposals will result in the loss of the majority of the on-site habitats to accommodate the new property aside from the trees which are largely to be retained and part of the hedgerow will be removed. Although the majority of these habitats are limited in their ecological value, there will be a net loss of biodiversity at a site level. See Paragraph 5.4.4 for compensatory planting.

5.4.2 Mitigation Measures

No mitigation measures in relation to habitats are required.

5.4.3 Significance of Residual Effects

Compensatory planting will be required.

5.4.4 Compensation

As the proposals require the removal of the majority of vegetation on-site, compensatory planting is required to ensure no net loss of biodiversity. This will comprise a mix of native and non-native tree and shrub planting and replacement of lost hedgerow like for like along the southern boundary (see the landscaping scheme produced by Graduate Landscapes (Graduate Landscapes, 2022)). Retained trees will be protected from damage through the installation of protective fencing.

5.4.5 Enhancement

Additional hedgerow planting is proposed in the north-eastern corner of the site and along the eastern boundary, this will comprise hawthorn *Crataegus monogyna*. The site will be enhanced with a range of tree planting and low-level ornamental planting incorporated into the landscape strategy. The landscaping scheme produced by Graduate Landscapes (Graduate Landscapes, 2022) should be referred to for full details.

5.4.6 Monitoring

No future monitoring is required.

5.5 Bats

5.5.1 Potential Impacts and Effects

As 41 Beach Road does not support any roosts, roosting bats are considered absent from the site. Therefore, there will be no direct impacts to these species. The proposals will however result in the loss of potential roosting features for bats.

Any additional lighting on the site may cause disturbance to foraging and commuting bat species.

In England, bats and their habitat are fully protected under the Wildlife and Countryside Act 1981 through inclusion in Schedule 5. In addition, all bat species are protected under the Conservation of Habitats and Species Regulations 2017. Refer to **Appendix 3** for details.

5.5.2 Mitigation Measures

All works associated with the construction phase will be carried out within daylight hours to avoid disturbance to foraging and commuting bats.

New lighting will be task related, associated with specific entrance/exit points of the building. In addition, the lighting will be directed away from important foraging and commuting habitat such as hedgerows and woodland and will be downward facing. The lux level will be as low as possible to allow the task to be carried out safely and effectively. Bollard lights on the driveway/pathway will result in minimal upward light spill (SRE, 2022). Guidance on task related lighting levels and mitigation options as described within the Bats and Artificial Lighting in the UK report will be followed (Institution of Lighting Professionals, Bat Conservation Trust, 2018).

5.5.3 Significance of Residual Effects

In the absence of compensation, there will be a loss in habitat suitable for bats.

5.5.4 Compensation

Due to the loss of the potential roosting features on the existing building, as a form of compensation, a single bat tube will be installed within the fabric of the new building. A Vivara Pro WoodStone Build-in Bat Tube is a suitable artificial unit for this site. The bat tube will be installed at least four metres high, away from artificial light sources and exposed to the sun for part of the day (usually south-south-east or south-west elevation).

5.5.5 Enhancement

As a measure of enhancement, a single Vivara Pro Woostone Bat Box (or similar design) will be installed within a retained tree to provide additional roosting opportunities for bats at the site.

5.5.6 Monitoring

No future monitoring is required.

5.6 Birds

5.6.1 Potential Impacts and Effects

The demolition of the property and outbuildings as well as woody vegetation removal may harm and/or disturb breeding birds if carried out during the nesting season of March to August inclusive and in the absence of compensation, will lead to a loss of nesting habitats.

All birds, their nests, eggs and young are legally protected, with certain exceptions, under the Wildlife and Countryside Act 1981 (as amended). Refer to **Appendix 3** for details.

5.6.2 Mitigation Measures

The works will be undertaken outside the breeding bird season of March to August, inclusive, or if not possible, an ecologist will be present immediately prior to the works to check for signs of nesting activity. Active nests will be left with undisturbed until nesting ends, which may delay the works.

5.6.3 Significance of Residual Effects

No significant residual effects in relation to breeding birds are anticipated as a result of the proposals.

5.6.4 Compensation

No compensation measures are required.

5.6.5 Enhancement

As a form of enhancement, a single Vivara Pro WoodStone Swallow Nest Box on the house will be installed after the completion of the development to provide further nesting opportunities for breeding birds and/or a Vivara Pro Woodstone open nest box on a retained tree. New tree and hedgerow planting will also provide additional nesting habitat for birds at the site.

5.6.6 Monitoring

No future monitoring is required.

5.7 Reptiles

5.7.1 Potential Impacts and Effects

Proposals require the removal of the majority of habitats on site which has the potential for direct harm to individual reptile species and loss of suitable reptile habitat.

Widespread reptile species (slow-worm *Anguis fragilis*, common lizard *Zootoca vivipara*, grass snake *Natrix helvetica* and adder *Vipera berus*) are protected under the Wildlife and Countryside Act 1981 against harm. Refer to **Appendix 3** for details.

5.7.2 Mitigation Measures

Due to the small size of the site, removal of grassland will be undertaken under a precautionary working method. A staged vegetation clearance of these areas will need to be conducted with an ecologist present using hand-held tools (such as strimmers and brush cutters). This will need to be carried out during the period of April to September, inclusive. Potential reptile refugia (rubble, logs and debris etc.) will be removed by hand and vegetation will first be cut to 300 millimetres before a second stage clearance to remove the remaining vegetation and arisings from the site. Any reptiles encountered will be carefully removed by hand from the development area and left to disperse into the wider site.

5.7.3 Significance of Residual Effects

Following the implementation of the mitigation measures, no significant residual effects in relation to reptiles are anticipated as a result of the proposals.

5.7.4 Compensation

No compensation measures are required.

5.7.5 Enhancement

The creation of suitable hibernacula along the bases of hedgerows, comprising of log piles, placed within the boundary habitats will enhance the site for reptiles (**Figure 10**).

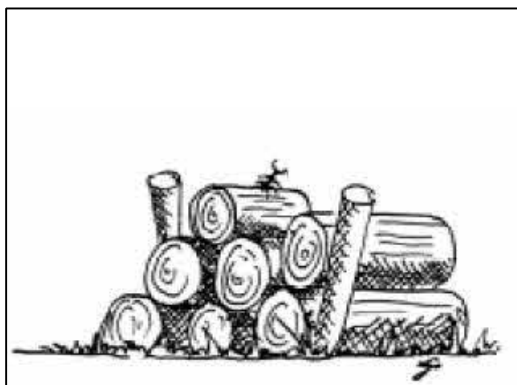


Figure 10: Log 'pile', logs held in place by posts

5.7.6 Monitoring

No future monitoring is required.

5.8 Other Relevant Species

5.8.1 Potential Impacts and Effects

The removal of vegetated habitats on site including part of the hedgerow along the southern boundary may cause harm/disturbance to hedgehog, if present on site.

5.8.2 Mitigation Measures

A watching brief will be maintained during vegetation removal to ensure individuals are not harmed during clearance works. If an individual is encountered, this will be carefully removed and allowed to disperse into the wider area away from the construction zone.

5.8.3 Significance of Residual Effects

No significant residual effects in relation to European hedgehog are anticipated as a result of the proposals.

5.8.4 Compensation

No compensation measures are required.

5.8.5 Enhancement

New hedgerow planting will enhance the site for hedgehog by providing additional foraging and shelter.

5.8.6 Monitoring

No future monitoring is required.

5.9 Cumulative Effects

Assuming that the mitigation and compensation measures outlined in the paragraphs above are implemented, no significant residual effects are anticipated. As such it is considered unlikely that the proposals will contribute to cumulative adverse effects in association with other proposals in the local area.

6.0 CONCLUSIONS

6.1 Conclusion

The Chichester and Langstone Harbours Ramsar site and SPA, Solent Maritime SAC and Chichester Harbour SSSI are all located 15 metres south of the site. Solent Wader and Brent Goose Sites are located approximately 260 metres west of the site. No impacts are anticipated to designated sites.

Bat emergence/re-entry surveys recorded no bats emerging from or re-entering the property, therefore roosting bats are considered likely absent from the building. The site has moderate suitability for foraging and commuting bats and suitability for breeding birds, reptiles and European hedgehog.

Potential adverse impacts on these ecological features have been identified and suitable mitigation measures proposed. A sensitive lighting scheme will be devised to mitigate for impacts on foraging and commuting bats and Heras fencing will be installed to protect the boundary hedgerows and trees during the construction phase. The installation of a single bat tube/box on the new property will compensate for the loss of potential roosting features.

Enhancement measures include the planting of native species hedgerows, new tree planting and shrub planting and the provision of nesting and roosting boxes installed on the new dwelling and/or retained trees after the works have been completed.

As such it is considered that the proposals will accord with all relevant national and local planning policy in relation to ecology including those within the Havant Borough Core Strateg and the NPPF (see Section 2.0).

6.2 Updating Site Survey

If the planning application boundary changes or the proposals for the site alter, a re-assessment of the scheme in relation to ecology may be required. Given the mobility of animals and the potential for colonisation of the site over time, updating survey work may be required, particularly if development does not commence within 18 months of the date of the most recent relevant survey.

7.0 REFERENCES

CIEEM, 2017. *Chartered Institute of Ecology and Environmental Management Website*.
[Online]

Available at: www.cieem.net

CIEEM, 2017. *Guidelines for Ecological Report Writing*. 2nd ed. Winchester: Chartered Institute of Ecology and Environmental Management.

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

CIEEM, 2018. *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Winchester: Chartered Institute of Ecology and Environmental Management.

Collins, J., 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 3rd ed. London: Bat Conservation Trust.

DEFRA, 2022. *Multi-Agency Geographic Information for the Countryside (MAGIC) Map Application*. [Online]

Available at: www.defra.magic.gov.uk
[Accessed 2 August 2022].

English Nature, 2001. *Great Crested Newt Mitigation Guidelines*. Peterborough: English Nature.

Graduate Landscapes, 2022. *Concept Presentation*, s.l.: Graduate Landscapes.

Institution of Lighting Professionals, Bat Conservation Trust, 2018. *Bats and Artificial Lighting in the UK*, Rugby: Institution of Lighting Professionals.

JNCC, 2010. *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. Peterborough: Joint Nature Conservation Committee.

Mammal Society, 2015. *South East Mammal Atlas*. Blandford Forum: Mammal Society.

Ratcliffe, D., 1977. *A Nature Conservation Review*. Cambridge: Cambridge University Press.

SRE, 2022. *Dark Skies Assessment*, Petersfield: SRE.

Map 1 Site Location Plan



41 BEACH ROAD, EMSWORTH, HAMPSHIRE

PRELIMINARY ECOLOGICAL APPRAISAL

Map 1 - Site Location Plan

Client:	Mike Hughes c/o Amberleigh House
Date:	August 2022
Status:	Final

KEY

 Site Boundary



Scale at A4: 1:10,000

0 100 200 400 Metres

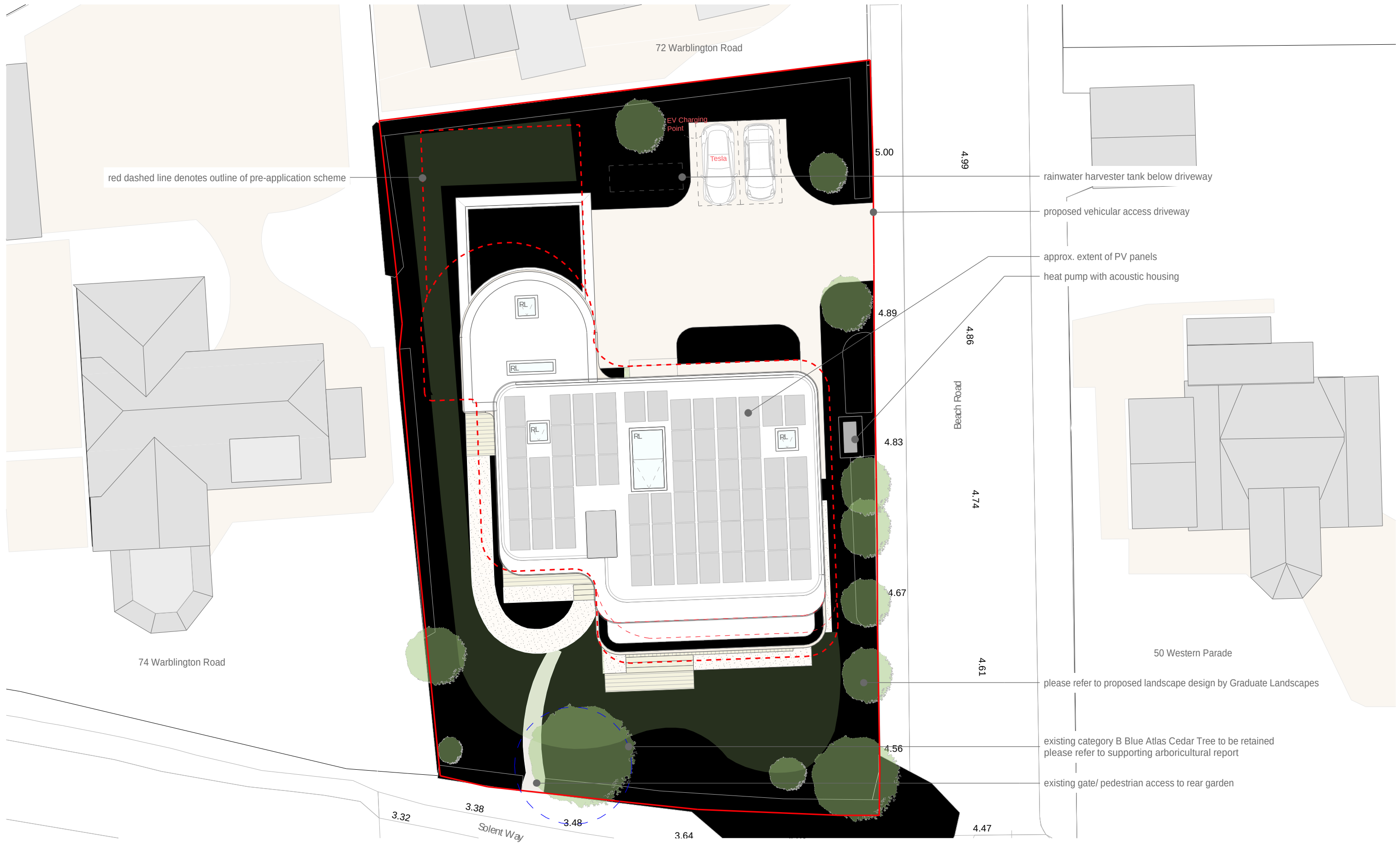


Prepared by: EV	Date: 100522
Last amended by: JSW	Date: 100822

ECOSA
Ecological Survey & Assessment
A Trinity Consultants Company
ECOSA Ltd, Ten Hods House, Manor Farm Offices,
Flexford Road, North Baddeley, Hampshire SO25 9DF
Telephone: 03380 261065 Email: info@ecosa.co.uk
Web: www.ecosa.co.uk

© This map is the copyright of Ecological Survey & Assessment Ltd.
Any unauthorised reproduction or usage by any person is prohibited.

Appendix 1 Proposed Site Layout



1:200
Site Plan Proposed



Scale @ A3: 1:200



NOTE: This drawing is to be scaled for planning purposes only

Project: Beach Road
Address: Beach Road,
Emsworth, PO10 7HR
Client: Mr M. Hughes

Drawing: Site Plan Proposed

387 - OBA - 00 - ZZ - DR - A - 0101 - P04

Status: PLANNING OBA proj no: 387

P04	Design Update	05/05/2023
P03	Design Update	14/04/2023
P02	Revised Design	17/02/2023
P01	Revised Design	08/02/2023
PA 01	Pre App	15/08/2022
rev	description	date

OB ARCHITECTURE

The Dispensary, 5-6 The Square, Winchester, SO23 9ES
6a Maltings Place, 169 Tower Bridge Road, London, SE1 3JB
01962 865344 info@obarchitecture.co.uk www.obarchitecture.co.uk

Appendix 2 Sites Designated for Nature Conservation

Statutory Sites

Internationally Designated Sites - Ramsar Sites, Special Areas of Conservation and Special Protection Areas

Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) form a network of protected sites across the European Union and United Kingdom. In the United Kingdom the primary legislative protection is afforded to these sites under the Conservation of Habitats and Species Regulations 2017 (as amended).

Ramsar sites are designated as wetlands of international importance which are afforded similar legislative protection to SPAs and SACs.

SACs are sites which support internationally important habitats or internationally important assemblages or populations of species. SPAs are designated for supporting internationally important populations of birds. SACs, SPAs and Ramsar sites are generally also designated as Sites of Special Scientific Interest.

Under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended) there is a legal requirement that competent authorities, such as local planning authorities, need to consider whether plans or projects are likely to have a significant adverse effect on SPAs, SACs or Ramsar sites, either alone, or in combination with other plans or projects. In the event that a likely significant effect cannot be ruled out, on the basis of objective information, then the competent authority must undertake an “Appropriate Assessment” to fully assess the plan or project against the site’s conservation objectives. Unless certain defined derogation tests can be met, the competent authority may not authorise nor undertake any plan or project which adversely affects the integrity of a SPA, SAC or Ramsar site.

Nationally Designated Sites – Sites of Special Scientific Interest and National Nature Reserves

Sites of Special Scientific Interest (SSSI) receive legal protection under the Wildlife and Countryside Act 1981 (as amended). Such sites are designated to protect specific areas of biological or geological interest of national importance. Such sites also generally receive strict protection through the planning system.

National Nature Reserves (NNR) are also usually designated as SSSIs and are specifically managed for their wildlife value. They receive legal protection through the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981 (as amended). As with SSSIs, these sites generally receive strict protection through the planning system.

Locally Designated Sites – Local Nature Reserves

Local Nature Reserves (LNR) are designated by local authorities under the National Park and Access to the Countryside Act 1949. These are generally designated not only for their local wildlife value but also for education, scientific and recreational purposes. These sites generally receive protection from development through the planning system.

Appendix 3 Relevant Legislation

Bats

All UK bat species are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017. They are afforded full protection under Section 9(4) of the Act and Regulation 43 of the Regulations. These make it an offence to:

Deliberately capture, injure or kill any such animal;

Deliberately disturb any such animal, including in particular any disturbance which is likely:

To impair its ability to survive, breed, or rear or nurture their young;

To impair its ability to hibernate or migrate;

To affect significantly the local distribution or abundance of that species;

Damage or destroy a breeding site or resting place of any such animal;

Intentionally or recklessly disturb any of these animals while it is occupying a structure or place that it uses for shelter or protection; or

Intentionally or recklessly obstruct access to any place that any of these animals uses for shelter or protection.

In addition, five British bat species are listed on Annex II of the Habitats Directive. These are:

Greater horseshoe bat *Rhinolophus ferrumequinum*;

Lesser horseshoe bat *Rhinolophus hipposideros*;

Bechstein's bat *Myotis bechsteinii*;

Barbastelle *Barbastella barbastellus*; and

Greater mouse-eared bat *Myotis myotis*.

In certain circumstances where these species are found the Directive requires the designation of Special Areas of Conservation (SACs) by EC member states to ensure that their populations are maintained at a favourable conservation status. Outside SACs, the level of legal protection that these species receive is the same as for other bat species.

Breeding Birds

With certain exceptions, all wild birds, their nests and eggs are protected by Section 1 of the Wildlife and Countryside Act 1981 (as amended). Therefore, it is an offence, to:

Intentionally kill, injure or take any wild bird;

Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; or

Intentionally take or destroy the egg of any wild bird.

These offences do not apply to hunting of birds listed in Schedule 2 subject to various controls. Bird species listed on Schedule 1 of the Act receive further protection, thus for these species it is also an offence to:

Intentionally or recklessly disturb any bird while it is nest building, or is at a nest containing eggs or young; or

Intentionally or recklessly disturb the dependent young of any such bird.

Reptiles

The four widespread species of reptile that are native to Britain, namely common or viviparous lizard *Zootoca vivipara*, slow-worm *Anguis fragilis*, adder *Vipera berus* and grass snake *Natrix helvetica*, are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are afforded limited protection under Section 9 of this Act. This makes it an offence to:

Intentionally kill or injure any of these species.

The remaining native species of British reptile (sand lizard *Lacerta agilis* and smooth snake *Coronella austriaca*) receive a higher level of protection via inclusion under Schedule 2 of the Conservation of Habitats and Species Regulations 2017. They are afforded full protection under Section 9(4) of the Act and Regulation 43 of the Regulations (in England and Wales only) and the Wildlife and Countryside Act 1981 (as amended). The distribution of these species are restricted to only a few sites in England.

Species and Habitats of Principal Importance in England

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The England Biodiversity List is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the NERC Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions. There are currently 943 species of principal importance and 41 habitats of principal importance included on the England Biodiversity List.

Appendix 4 Protected and Notable Species Appraisal Methods

Bats

The survey conformed to current Bat Conservation Trust guidelines (Collins, 2016). An assessment was made of the suitability of buildings on the site and immediately on the site boundary to support roosting bats based on the presence of features such as loose or missing roof tiles or lifted lead flashing. A detailed external and internal inspection of accessible structures was undertaken to compile information on potential and actual bat entry/exit points; potential and actual bat roosting locations; any evidence of bats found.

An assessment was made of the suitability of the site and the surrounding landscape to support foraging and/or commuting bat species. The assessment of the potential for the site to support roosting, foraging and commuting bat is based on a four-point scale as detailed in **Appendix 5**.

Otter

The otter appraisal was based on an assessment of the suitability of the habitat present within the site to support otter by reference to habitat type (such as rivers, streams, ditches, wetlands, reed beds, lakes, ponds and reservoirs), proximity of the site to freshwater and potential important feeding resources (such as fisheries), presence of habitat features which could provide opportunities for resting places and/or holts (such as tunnels, hollows at the base of trees and presence of dense, undisturbed habitat). During the survey attention was paid to the presence of evidence such as spraints, feeding remains, footprints and slides.

Badger

The survey involved a detailed investigation of the site to identify evidence of badger residence, foraging or territorial activity. Particular emphasis was placed on locating badger setts, paths, and signs of territorial activity such as latrine sites both on-site and within immediately adjacent areas where access was possible.

Hazel Dormouse

The appraisal for the potential of the site to support dormouse was based on an assessment of habitat features that may indicate that the species is present. This includes the presence of key food sources such as hazel and bramble, or plants used as nesting material such as honeysuckle and clematis. Additionally, the species requires a continuum of food supply so that habitat structure, diversity and connectivity to adjacent areas of woodland/scrub are important features in determining the potential presence of hazel dormouse.

Water Vole

The water vole appraisal was based on an assessment of the suitability of the habitat present within the site to support water vole by reference to habitat type (such as rivers, streams, ditches, wetlands, reed beds, lakes, ponds and reservoirs), bank structure and the bank side vegetation. Water voles generally require sloping banks in which to burrow and well-developed

bank side vegetation to provide shelter and food. During the survey attention was paid to the presence of burrows, latrines, feeding remains, trails and footprints.

Birds

The appraisal of breeding birds on the site was based on the suitability of habitat present to support nesting bird communities, the presence of bird species that may potentially nest within the available habitat and evidence of nesting such as old or currently active nests.

The assessment of wintering birds was based on an assessment of the suitability of the habitat on site to support important wintering bird species and populations. Particular attention was paid to the potential for the site to support wintering farmland bird species, waders and wildfowl.

Reptiles

The reptile appraisal was based on an assessment of the suitability of the habitat present within the site to support a population of reptiles. Reptiles particularly favour scrub and rough grassland interfaces and the presence of these is a good indication that reptiles may be present on-site. In addition, reptiles may utilise features such as bare ground for basking, tussocky grassland for shelter and compost heaps and rubble piles for breeding and/or hibernating.

Great Crested Newt

The appraisal of the site to support great crested newt included establishing the presence of suitable aquatic habitats such as ponds, lakes or other waterbodies within or adjacent to the site and the presence of suitable terrestrial habitat. Waterbodies that are densely shaded, highly eutrophic or that contain fish are likely to be less suitable for this species. The suitability of on-site ponds and terrestrial habitat is considered in relation to the presence of ponds within the wider area, as identified within the desktop study (Paragraph 3.4.2), and their suitability to be used as a network.

Invertebrates

An assessment was made of the site for its potential value to support diverse communities of invertebrates. The assessment was based on the presence of habitat features which may support important invertebrate communities. These features include, for example, an abundance of dead wood, the presence of diverse plant communities, varied woodland structure, sunny woodland edges with a diverse flora, waterbodies and water courses and areas of free draining soil exposures. During the field survey there was no attempt made to identify species present as this is a more specialist area of ecological assessment reserved for targeted surveys.

Other Relevant Species

An assessment was made of site suitability for other notable species such as more rarely encountered protected species, Species of Principal Importance for the Conservation of diversity in England notified under Section 41 of the NERC Act 2006 and as listed in the England

Biodiversity List, and Local Biodiversity Action Plan (LBAP) species¹¹, specific to the study region.

Invasive Species

During the field survey any incidental records of invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were recorded. However, it should be considered that the survey was not specifically aimed at assessing the presence of these species and further specialist advice may need to be sought.

¹¹ LBAPs identify local priorities for biodiversity conservation by translating national targets for species into effective action at the local level and identifying targets for species important to the local area.

Appendix 5 Appraisal Criteria for Bats

The criteria used to assess the suitability of roosting and foraging/commuting habitat for bats is based on industry guidelines and outlined in **Table 3**¹².

Table 3: Criteria used to Assess Suitability of Roosting and Foraging/Commuting Habitat for Bats

Suitability	Description of roosting habitats	Commuting and foraging habitats
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.
Moderate	A structure of tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically/structure that does not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerows or un-vegetated stream, but isolated (i.e. not very well connected to the surrounding landscape by other habitat). Suitable, but isolated, habitat that could be used by small numbers of foraging bats such as a lone tree or a patch or scrub.
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.

¹² Table adapted from (Collins, 2016)

Appendix 6 Statutory Designated Sites within the Desktop Study Area

Details of statutory designated sites within the desktop study area, as listed in Paragraph 4.2.1, are provided in **Table 4**.

Table 4: Statutory Designated Sites Located Within the Desktop Study Area

Site Name	Chichester and Langstone Harbours
Site Designation	Ramsar Site
Approximate Relative Location	15 metres south
Reasons for Designation:	
The site is designated under Ramsar Criterion 1, 5 and 6. Criterion 1 – Two large estuarine basins linked by the channel which divides Hayling Island from the main Hampshire coastline. The site includes intertidal mudflats, saltmarsh, sand and shingle spits and sand dunes. Criterion 5 – Assemblages of international importance: 76480 waterfowl, count in winter (5 year peak mean 1998/99 – 2002/2003) Criterion 6 – species/populations occurring at levels of international importance. Qualifying species/populations (as identified at designation) Species with peak counts in spring/autumn: Ringed plover <i>Charadrius hiaticula</i>; Black-tailed godwit <i>Limosa limosa islandica</i>; and Common redshank <i>Tringa totanus totanus</i>. Species with peak counts in winter: Dark-bellied brent goose <i>Branta bernicla bernicla</i>; Common shelduck <i>Tadorna tadorna</i>; Grey plover <i>Pluvialis squatarola</i>; Dunlin <i>Calidris alpina alpina</i>. Species/populations identified subsequent to designation for possible future consideration under criterion 6: Little tern <i>Sterna albifrons albifrons</i>.	

Site Name	Solent Maritime
Site Designation	SAC
Approximate Relative Location	15 metres south
Reasons for Designation:	
Annex I habitats that are a primary reason for selection of this site: Estuaries; Spartina swards (<i>Spartinion maritimae</i>); and Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>).	

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:

Sandbanks which are slightly covered by sea water all the time;
Mudflats and sandflats not covered by seawater at low tide;
Coastal lagoons;
Annual vegetation of drift lines;
Perennial vegetation of stony banks;
Salicornia and other annuals colonizing mud and sand; and
Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes).

Annex II species present as a qualifying feature, but not a primary reason for site selection:

Desmoulin's whorl snail *Vertigo moulinsiana*

Site Name	Chichester and Langstone Harbours
Site Designation	SPA
Approximate Relative Location	15 metres south
Reasons for Designation:	
The site qualifies for supporting the following Annex I species:	
Breeding	
Little tern <i>Sterna albifrons</i>, 100 pairs representing up to 4.2% of the breeding population in Great Britain; and Sandwich tern <i>Sterna sandvicensis</i>, 158 pairs representing up to 1.1% of the breeding population in Great Britain.	
On passage	
Little egret <i>Egretta garzetta</i>, 137 individuals representing up to 17.1% of the population in Great Britain.	
Over winter	
Bar-tailed godwit <i>Limosa lapponica</i>, 1,692 individuals representing up to 3.2% of the wintering population in Great Britain; and Little egret <i>Egretta garzetta</i>, 100 individuals representing up to 20.0% of the wintering population in Great Britain.	
This site also qualifies by supporting populations of European importance of the following migratory species:	
On passage	
Ringed plover <i>Charadrius hiaticula</i>, 2,471 individuals representing up to 4.9% of the Europe/Northern Africa - wintering population.	
Over winter	
Black-tailed godwit <i>Limosa limosa islandica</i>, 1,003 individuals representing up to 1.4% of the wintering Iceland - breeding population; Dark-bellied brent goose <i>Branta bernicla bernicla</i>, 17,119 individuals representing up to 5.7% of the wintering Western Siberia/Western Europe population; Dunlin <i>Calidris alpina alpina</i>, 44,294 individuals representing up to 3.2% of the wintering Northern Siberia/Europe/Western Africa population; Grey plover <i>Pluvialis squatarola</i>, 3,825 individuals representing up to 2.5% of the wintering Eastern Atlantic - wintering population; Redshank <i>Tringa totanus</i>, 1,788 individuals representing up to 1.2% of the wintering Eastern Atlantic - wintering population; and	

Ringed plover *Charadrius hiaticula*, 846 individuals representing up to 1.7% of the wintering Europe/Northern Africa - wintering population.

The site qualifies by regularly supporting in excess of 20,000 individual waterfowl over winter.

Site Name	Chichester Harbour
Site Designation	SSSI
Approximate Relative Location	15 metres south
Reasons for Designation:	
Chichester Harbour is a large estuarine basin in which at low water extensive mud and sandflats are exposed, drained by channels which unite to make a common exit to the sea. The site is of particular significance for wintering wildfowl and waders and also breeding birds both within the Harbour and in the surrounding permanent pasture fields and woodlands. There is a wide range of habitats which have important plant communities. The intertidal area is fragmented in the upper reaches of the harbour by intruding tongues of land giving a very long and varied coastline. The harbour exhibits a wide range of intertidal and associated terrestrial habitats and with the neighbouring Langstone and Portsmouth Harbours is unusual in providing a large volume of sheltered saline water fed by a few streams of only low volume. The extensive intertidal mudflats are the feeding grounds, at the relevant times of year for internationally important numbers of ringed plover <i>Charadrius hiaticula</i>, grey plover <i>Pluvialis squatarola</i>, redshank <i>Tringa totanus</i>, black-tailed godwit <i>Limosa limosa</i>, dunlin <i>Calidris alpina</i>, sanderling <i>Calidris alba</i>, curlew <i>Numenius arquata</i> and greenshank <i>Tringa nebularia</i> (the latter two in autumn particularly). Bar-tailed godwit numbers are of European importance. Amongst the wildfowl, shelduck <i>Tadorna tadorna</i>, teal <i>Anas crecca</i> and dark-bellied brent goose <i>Branta bernicla</i> numbers are of international importance with 5% of the world population of the latter. The unimproved permanent pasture behind the sea wall provides alternative feeding sites for the geese and major high tide wader roosts. Some of this pasture is floristically rich being a red fescue <i>Festuca rubra</i> sward with scarce species such as green-winged orchid <i>Orchis morio</i> and adder's tongue fern <i>Ophioglossum vulgatum</i>.	