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QUOBLEIGH BREACH, ONE HORTON HEATH, HORTON HEATH, HAMPSHIRE

ECOLOGICAL IMPACT ASSESSMENT

Final Document (Revision 1)

November 2025

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

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QUOBLEIGH BREACH, ONE HORTON HEATH, HORTON HEATH, HAMPSHIRE

ECOLOGICAL IMPACT ASSESSMENT

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EXECUTIVE SUMMARY

Ecological Survey and Assessment Ltd (ECOSA) have been appointed by Eastleigh Borough Council to undertake an Ecological Impact Assessment to support a reserved matters application for the redevelopment of Quobleigh Breach, One Horton Heath. The site comprises grassland fields. The application is for the approval of reserved matters (appearance, layout, scale and landscaping) for the development of 269 dwellings, associated open space, landscaping, parking and other associated works, pursuant to outline permission O/20/89498.

The main findings of the Ecological Impact Assessment are:

- The site lies within 5.6 kilometres of the Solent designated sites.
- The site comprises hedgerows with more common and widespread habitats such as amenity grassland, improved grassland, marshy grassland and running water.
- The site supports hazel dormouse, a low population of slow-worm and a small population of great crested newt. The site is also suitability for roosting, foraging and commuting bats, badger, breeding birds and European hedgehog.
- The proposals will result in the loss of habitats and may cause disturbance and/or harm to hazel dormouse, breeding birds, slow-worm and great crested newt.
- Mitigation and compensation measures include the need for EPSM licences for hazel dormouse and great crested newt and sensitive methods of works for roosting, foraging and commuting bats, reptiles, breeding birds and European hedgehog.
- Proposed enhancement measures include the provision of roosting, nesting and hibernacula features.
- 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.

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1.0 INTRODUCTION

1.1 Background

Ecological Survey & Assessment Limited (ECOSA) have been appointed by Eastleigh Borough Council to undertake an Ecological Impact Assessment to support a reserved matters application for redevelopment of Quobleigh Breach, One Horton Heath, Horton Heath, Hampshire SO50 7DF (hereafter referred to as the site).

The site is part of the wider One Horton Heath development (outline planning application Reference O/20/89498) which covers approximately 130 hectares proposed to deliver 2,500 houses, with associated infrastructure, employment opportunities and schools. The site is a phased parcel of the outline application within Eastleigh Borough Council. Associated infrastructure to the wider development is now operational, specifically a link road running north-south that bisects the site and was opened in September 2025.

1.2 The Site

The site is located in Horton Heath, Hampshire centred on National Grid Reference (NGR) SU 4846 1749 (**Map 1**).

The site comprises grassland fields with boundary hedgerows around each field. Three of the fields contain areas of hardstanding and one contains the site compound. The road Fir Tree Lane cuts through the site and separates the north and south parcels of the site. Fir Tree Lane is closed to the public where it sits within the site and there is no vehicular access from the link road.

The wider landscape comprises of a complex of agricultural fields, grassland fields, hedgerows and small blocks of woodland. Fair Oak is located approximately 540 metres to the north-east of the site and Eastleigh is located approximately two kilometres to the west.

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 October 2023 and September 2025. 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

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adverse effects[1] 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

The proposals comprise the construction of a total of 269 dwellings, associated open space, landscaping, parking and other associated works, pursuant to outline permission O/20/89498.

The appraisal made reference to an initial proposals plan produced by Clague Architects, dated June 2025 (Drawing No. 30071D-CLA-PRSL-00-PD-A-0001, Rev. P4) (**Appendix 1**).

Reserved matters consent is being sought during 2026.

[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'.

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2.0 PLANNING POLICY CONTEXT

2.1 Introduction

This section summarises the planning policy in relation to ecology and biodiversity within the Eastleigh 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 5.0).

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 December 2024. 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 195 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 187 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 193, 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 habitats[3], including ancient woodland[4]. 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)."

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193 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 194 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

The Eastleigh Borough Local Plan 2016-2036 was adopted on 25th April 2022. It sets out the policies and plans to guide future development to 2036 and replaced the 'saved' policies in the Adopted Local Plan 2001-2011. A number of policies relate to ecology:

- **Policy S9: Green Infrastructure**
  In relation to ecology, this policy states that the council will seek to provide green stepping stones such as street trees, green roofs and walls, pocket parks and urban copses as well as connected habitats linking the network of designated sites and existing propriety habitats, taking account of the Hampshire ecological network map.

- **Policy DM10: Water and Waste Water**
  This policy states that where new water supply or waste water infrastructure is required or proposed, the development will be phased alongside the provision of infrastructure to ensure compliance with the Habitats Regulations; that there is no deterioration of the status of water bodies; and the avoidance or mitigation of any other adverse impacts.

- **Policy DM11: Nature Conservation**
  This policy states that developments should seek to protect, conserve and enhance international, national and local nature conservations designations and networks of natural habitats. A 'project level' Habitats Regulations Assessment will be required where there are likely significant effects on

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international or European nature conservation sites. In particular, reference is made to the Solent, the New Forest and the River Itchen designated sites. The policy also states that a net gain of biodiversity will be sought on all development sites.

Development will not be permitted if it is likely to have adverse effects on priority habitats, protected or priority species, or on the local ecological network, unless it can be demonstrated that there are no alternative solutions, there is an overall biodiversity net gain or the benefits clearly outweigh the adverse effects.

In relation to ecological survey work, the policy states that development will not be permitted unless it can be demonstrated that there have been thorough habitat and species surveys conducted; a great crested newt strategic survey and strategy have been considered in all developments within 500 metres of a great crested newt pond; and a strategic bat trapping survey has been considered in all developments within the locality of a woodland or connected habitat network.

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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 affected[5]. 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. 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 5.0) of this report.

3.4 Desk Study

A full biological record centre desktop study was not undertaken as part of this appraisal. This was not considered necessary given the fact this site is a phase of a much larger development which presents a large body of historic survey data to refer to as part of this appraisal.

3.4.1 Multi-Agency Geographic Information for the Countryside

The Multi-Agency Geographic Information for the Countryside (MAGIC) database (DEFRA, 2025) was reviewed on 22nd August 2025 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 (Ramsar sites), Sites of Special Scientific Interest (SSSIs), National Nature Reserves

[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).

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(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).

The following reports have been used to understand the baseline or referred to where appropriate:

- One Horton Heath Phase 1 Habitat Survey: Technical Note (Johns Associates, 2020j);
- One Horton Heath Appendix 10.10 Reptiles (Johns Associates, 2020c);
- One Horton Heath Appendix 10.13 Habitat Change (Johns Associates, 2020d);
- One Horton Heath Appendix 10.4 Bat Report (Johns Associates, 2020e);
- One Horton Heath Appendix 10.5 Great Crested Newts (John Associates, 2020f);
- One Horton Heath Appendix 10.7 Dormouse (Johns Associates, 2020g);
- One Horton Heath Appendix 10.8 Birds (Johns Associates, 2020h);
- One Horton Heath Appendix 10.9 Badgers (John Associates, 2020i)
- One Horton Heath Great Crested Newt Monitoring Report (Johns Associates, 2024); and
- One Horton Heath Quobleigh Breach Tree Assessment Report (Eastleigh Borough Council, 2024).

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3.5 Field Survey

The field survey broadly followed standard Phase 1 habitat survey methodology (JNCC, 2010)[6] 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). The field survey covered all accessible areas of the site, including boundary features. Habitats described in Section 4.0, have been mapped () and photographs provided, where relevant.

Since the previous surveys works, the access road and SuDS basins have been constructed. These areas, under development at the time of the update survey and were not assessed as part of the update survey as they are covered under the granted link road application (F/21/91185). This update survey only assessed the change in habitat type and condition of the areas not developed.

3.5.1 Phase 1 Habitat Survey

An assessment was made of all areas of vegetation within the site based on the standardised Phase 1 habitat survey methodology (JNCC, 2010) . This involved identification of broad vegetation types, which were then classified against Phase 1 habitat types, where appropriate. A list of characteristic plant species for each vegetation type was compiled and any invasive species[7] encountered as an incidental result of the survey recorded.

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 5**.

3.5.2 Survey Details

The update field survey was carried out by Samantha Faggetter, Ecologist of ECOSA on 31st October 2024. The weather conditions were wet with heavy rain showers with approximately 75-100% cloud cover, an ambient temperature of 15°C and calm wind.

During the survey, the surveyor was equipped with 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

[6] UK Hab is now the main habitat classification being using the UK however Phase 1 has been used here for consistency with the baseline and in order to establish any changes
[7] Plant species included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). The survey was not specifically aimed at assessing the presence of these species and further specialist advice may need to be sought.

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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.

3.6 Bat Survey

3.6.1 Survey Methods

Ground Level Tree Assessment

The ground level tree assessment was undertaken in line with current best practice guidelines (Collins, 2023). An assessment was made of the suitability of the trees on the site and immediately on the site boundary to support roosting bats based on the presence of Potential Roost Features such as holes, cracks, splits, loose bark and ivy cladding.

Bat Emergence Survey

The bat emergence/re-entry survey was undertaken in line with current best practice guidelines (Collins, 2023). In accordance with the guidelines for trees assessed as having features with PRF-M suitability to support roosting bats and the trees are unable to be climbed, a total of three dusk emergence surveys were undertaken in order to ascertain the presence/likely absence of roosting bats from within the trees.

Where the presence of roosting bats is confirmed the data also allows for an assessment of the status of the roost present. The status of roosts (where appropriate) has been based on standard terminology as detailed in **Appendix 7**.

The surveys were carried out by five experienced ECOSA surveyors, positioned at previously identified vantage points around the trees. These vantage point locations allowed a sufficient coverage of the Potential Roosting Features identified on the trees impacted by the proposals.

During the surveys 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 trees.

3.6.2 Survey Details

Ground Level Tree Assessment

The ground level tree assessment was carried out by Eastleigh Borough Council in 2024 (Eastleigh Borough Council, 2024). An updated ground level tree assessment was carried out by Hugh Turner, Principal Ecologist of ECOSA on 18th July 2025 to

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determine suitability levels of the previously surveyed trees identified for removal for roosting bats.

Bat Emergence Survey

The bat emergence surveys were carried out between August and September 2025. **Table 1** provides details of each emergence survey.

Table 1: Bat emergence survey details

Survey Date	Tree No.	Survey Timings	Weather Conditions	Sunset/ Sunrise Time
5th August 2025	T193/G94	Start: 20:29 End: 22:44	General conditions: Dry Start temp: 19°C End temp: 16°C Cloud Cover: 5% Wind Speed: A light wind	20:44
6th August 2025	T87-T96	Start: 20:28 End: 22:13	General conditions: Dry Start temp: 18°C End temp: 16°C Cloud Cover: 95% Wind Speed: A light wind	20:43
26th August 2025	T193/G94	Start: 19:48 End: 22:03	General conditions: Dry Start temp: 19°C End temp: 17°C Cloud Cover: 80% Wind Speed: A moderate breeze	20:03
27th August 2025	T87-96	Start: 19:46 End: 22:01	General conditions: Dry Start temp: 18°C End temp: 19°C Cloud Cover: 60-100% Wind Speed: A light breeze	20:01
16th September 2025	T193/G94	Start: 19:02 End: 21:17	General conditions: Dry Start temp: 18°C End temp: 16°C Cloud Cover: 95-70% Wind Speed: A light wind	19:17
22nd September 2025	T87-96	Start: 18:48 End: 21:03	General conditions: Dry Start temp: 17°C End temp: 18°C Cloud Cover: 0% Wind Speed: No wind	19:03

During the bat emergence/re-entry surveys the surveyors were equipped with Batlogger M bat detectors. One Night Vision Aid (NVA) kits were also used during each survey for T193/G94 and three NVA kits were used during each survey for T87-T96. Each NVA kit comprises; a Sony A7s (MK1) camera which has been modified to capture infrared light, a Batbox Baton bat detector and two rayTEC VAR2-i8-1 Long Range Infra-Red Illuminator lamps. The bat box baton was attached to the Sony A7s to provide a 'bat detector' soundtrack on the video recording.

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Recordings made with the detectors were later analysed using BatExplorer (Version 2.2.6.0). This program is designed to analyse bat call data by identifying key call characteristics such as call shape, call length, call 'distance' (i.e. the time period between two consecutive calls) and peak frequency to confirm the identity of any species encountered. Video recordings made with the NVA cameras were analysed using VLC Media Player.

The bat emergence/re-entry surveys were coordinated by Hugh Turner, Principal Ecologist of ECOSA (Natural England Bat Licence 2020-50816-CLS-CLS) assisted by suitably qualified and experienced ECOSA surveyors.

3.6.3 Survey Limitations

Some bat species, e.g. long-eared bats *Plecotus* species[8], generally emerge from their roosts in total darkness and do not produce strong echolocations, and therefore these bats can be difficult to observe and record during bat surveys, leading to under-recording.

Trees identified with potential roosting features for bats were not considered safe to climb for an endoscopic inspection. Therefore, the methodology was adapted to conduct emergence surveys to account for this limitation.

3.7 Badger

The badger survey was carried out by Emily Whitley on behalf of Eastleigh Borough Council in 2024 (Eastleigh Borough Council, 2024).

3.8 Reptile Survey

3.8.1 Survey Methods

The reptile survey was undertaken in accordance with current best practice guidelines (Froglife, 2015).

The reptile survey consisted of the laying bitumen felt mats approximately 500 millimetres x 500 millimetres in areas of suitable habitat on the site. Typically, this included areas of suitable habitat with good exposure to the sun. The mats were distributed in all areas considered to offer suitable reptile habitat. The locations of these mats are marked on **Map 4**.

[8] 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 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.

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The use of such refugia is an effective way of surveying for all species of reptile and current survey guidance states that seven inspections are sufficient to confirm presence/likely absence. Survey visits were undertaken in marginal weather conditions such as cold but sunny weather or hazy and somewhat overcast conditions, as this will maximise the thermal value of the refugia for basking reptiles.

During each visit surveyors also undertook a visual inspection survey of other suitable refugia in the site and other suitable basking locations. During the survey a note was also made of any suitable hibernation features present within the site.

3.8.2 Survey Details

A total of 199 reptile refugia were distributed on 22nd and 23rd May 2024 with seven inspection visits undertaken between 10th June and 1st July 2024. **Table 2** provides details of each reptile survey.

Table 2: Reptile survey details

Survey Date	Air Temperature (°C)	Weather Conditions
10th June 2024	15	Dry, 50% cloud cover and a light wind
14th June 2024	17	Dry, 40% cloud cover and a moderate wind
18th June 2024	16	Dry, 70% cloud cover and no wind
21st June 2024	17	Dry, 30% cloud cover and a light wind
24th June 2024	18	Dry, 30% cloud cover and no wind
27th June 2024	19	Dry, 100% cloud cover and a light wind
1st July 2024	19	Dry, 90% cloud cover and a light wind

The reptile survey was coordinated by Hugh Turner of ECOSA assisted by suitably experienced ECOSA surveyors.

3.8.3 Survey Limitations

There were no significant limitations to the reptile survey.

3.9 Great Crested Newt Survey

The great crested newt survey was carried out by Johns Associates in 2024 (Johns Associates, 2024).

3.10 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

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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.

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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

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

- River Itchen (SAC) – Location approximately 960 metres to the west of the site and is designated for supporting Annex I habitats including sub-type 1 chalk river and for supporting Annex II species including the southern damselfly *Coenagrion mercurial* and bullhead *Cottus gobio*.

- River Itchen (SSSI) – Location approximately 960 metres to the west of the site and is designated for supporting classic chalk stream and river, fen meadows, flood pasture and swamp habitats. In addition, the site is designated for supporting breeding birds including tufted duck *Aythya fuligula,* pochard *Aythya ferina* and shoveler *Anas clypeata*.

In addition, the site sits within the Zone of Influence for the Solent and Southampton Water SPA and Ramsar and Solent Maritime SAC as these are located approximately 5.5 kilometres to the south-east of the site and the onsite running water feeds into this the SPA, Ramsar and SAC. Therefore the increase in wastewater discharge as a result of the proposals will drain into these designations which will result in a negative effect on these designations.

Further information on sites designated for nature conservation are provided in **Appendix 2**. Further details of the statutory designations listed above are provided in **Appendix 3**.

4.2.1 Evaluation

The River Itchen SAC is assessed as being of European value and the River Itchen SSSI is assessed as being of national value.

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4.3 Habitats

4.3.1 Baseline Ecological Conditions

Desktop Study Results

Consultation of the MAGIC database highlighted the potential record of priority habitat coastal and floodplain grazing marsh within the north of the site. However, the field survey carried out by John Associates in 2020 (John Associates, 2020j) determined that this was not correct, as the grassland is not seasonally flooded and does not maintain a high water table. In addition, the marshy grassland on site does not contain a significantly high diversity of plant species which would expected of Coastal and Floodplain Grazing Marsh.

Adjacent to the southern boundary the MAGIC database identified the presence of potential areas of priority habitats Coastal and Flood Plain Grazing Marsh and Deciduous Woodland.

Field Survey Results

Habitats within the site are shown on the Phase 1 Habitat (see **Map 2**). Habitats are described in general terms using standard UKHab terminology. The main habitats recorded on site during the field survey were as follows:

Improved Grassland

Previously the site was assessed as being comprised mostly of improved grassland and during the update survey it was assessed that this is still the case on the areas of the site that have not been developed (**Figure 1** and **Figure 2**). The grassland appears to still be managed through topping as it has not become an exceptionally long sward. However, the grassland is likely less regularly managed than previously as there are area where species such as curled dock *Rumex crispus*, and creeping thistle *Cirsium arvense* have become more abundant than previously recorded. The grassland remains dominated by grass species with a limited range of forb species. The grass species which were abundant include perennial rye-grass *Lolium perenne*, creeping bent *Agrostis stolonifera* and Yorkshire fog *Holcus lanatus.*

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Figure 1: Grassland located on the western elevation of the site compound



Figure 2: Grassland located towards the northern boundary.

Amenity Grassland

As was noted in the previous surveys there are small areas of amenity grassland within the site boundary (**Figure 3**). In the update survey this was restricted to two areas on the eastern boundary. These areas are still under regular management to maintain a sward heigh of five centimetres. The grassland is dominated by perennial rye-grass, white clover *Trifolium repens*, and dandelion *Taraxacum officinale* aggregate.



Figure 3: Amenity grassland located on the eastern boundary

Marshy Grassland

Adjacent to the running water in the north of the site the marshy grassland that was previously recorded is still present (**Figure 4**). This grassland has more than a 25% cover of rushes and is wet most of the year due to the topography of the land meaning it is very low lying. This marshy grassland contains an abundant amount of soft-rush *Juncus effusus* and frequent common ragwort *Senecio jacobaea*, Yorkshire fog, tufted hair-grass *Deschampsia cespitosa*, creeping buttercup *Ranunculus repens*, wild angelica *Angelica sylvestris* and hard rush *Juncus inflexus*.

The update survey conducted by ECOSA in 2023 concluded there was no change from the surveys conducted by Johns Associates.

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Figure 4: Marshy grassland adjacent to the running water in the north of the site

Scattered Trees

A number of mature trees are still present within the site boundary and there are mature standard trees present within many of the hedgerows.

Semi-Natural Broadleaved Woodland

A strip of semi-natural broadleaf woodland was previously recorded along the southern boundary and this was still present during the update surveys. This woodland is wet due to being adjacent to running water and is dominated by alder with occasional willow *Salix* species. A section of this woodland has been removed as part of the granted works for the access road.

Hedgerows

There are a series of hedgerows along the site boundaries and through the centre of the site creating compartments. The hedgerows on the site are labelled to be consistent with the labelling by John Associates in the Appendix 10.2 (John Associates, 2020j). Most of the hedgerows had not changed from the previous surveys however where the site has been developed a section of H33 has been removed. The details of the hedgerow survey results can be found in **Table 3**.

Table 3: description of the hedgerows located at the site.

Hedgerow Number	Hedgerow Type	Description
H1	Species-poor defunct	Less than five woody species are present and a lot of gaps are present. Species recorded include hawthorn, elder *Sambucus nigra*, leylandii *Cuprocyparis leylandii*, dogwood *Cornus sanguinea* and bramble *Rubus fruticosus* aggregate.
H2	Species-poor defunct	This hedgerow is very similar to H1 and include the same species mix and has gaps along the length of the hedgerow

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Hedgerow Number	Hedgerow Type	Description
H3	Species-poor defunct	This hedgerow is very similar to H1 and include the same species mix and has gaps along the length of the hedgerow
H4	Species-rich defunct	H4 is located along the northern edge of Fir Tree Lane which runs through the centre of the site. As part of the infrastructure development a section of this hedgerow has been removed. This hedgerow still contains more than five woody species including dogwood, hawthorn, field maple *Acer campestre*, pedunculate oak *Quercus robur* and blackthorn *Prunus spinosa*. Some of the pedunculate oaks are semi-mature standard trees,
H5	Species-poor defunct	This hedgerow consists of willow and bramble and has gaps along the length of the hedgerow.
H6	Species-rich intact	Is located along the eastern edge of the compound and contains blackthorn, hazel, bramble, elder, willow and wild cherry *Prunus avium*.
H7	Species-poor defunct	Less than five woody species are present and there are gaps along the hedgerow. Species that are present include two species of willow and bramble.
H8	Species-rich defunct	This hedgerow had previously been laid and is still approximately two metres wide.
H9	Species-rich defunct	This hedgerow could not be reached during the field survey as the running water in the north of the site had flooded and it was unsafe to cross. From afar the hedgerow does not look to have changed since the original surveys.
H13	Species-rich defunct	More than five woody species are present including hawthorn, blackthorn, pedunculate oak, field maple, English elm *Ulmus procera*, ash *Fraxinus excelsior* and hazel. There are gaps along the hedgerow.
H14	Species-rich defunct	More than five woody species are present including hawthorn, blackthorn, pedunculate oak, field maple, English elm ash and hazel. There are gaps along the hedgerow.
H26	Species-rich defunct	Hedgerow is species rich as there are more than five woody species present however the most dominant ones are hazel, English elm and hawthorn. There are also mature standard ash and pedunculate oak present.
H31	Species-rich defunct	This hedgerow runs along the southern side of Fir Tree Lane that passes through the centre of the site. A section of this hedgerow has been removed to facilitate the approved access road. More than five woody species present including hawthorn, field maple pedunculate oak and blackthorn. A few standard trees are present and there are gaps along the length of the hedgerow.

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Hedgerow Number	Hedgerow Type	Description
H32	Species-poor defunct	Less than five native woody species are present, making this hedgerow species poor and there are also gaps along the length of the hedgerow. There are standard trees present in the form of mature ash and pedunculate oak trees.
H33	Species-poor defunct	This hedgerow is dominated by hawthorn. The hedgerow now has a large gap in the middle from vegetation removal to facilitate the main road through the site.
H62	Species-rich defunct	This hedgerow is adjacent to the stream near the southern boundary and results in quite a wet understorey. The hedgerow comprises of alder. willow, hazel, ash, pedunculate oak and bramble.
H76	Species-poor defunct	This hedgerow contains less than five woody species and is therefore species poor. There are gaps along the length of the hedgerow making it defunct.

Other Habitats

Other habitats present include hardstanding and new temporary buildings. The building which were previously recorded on the site have now all been removed as part of the approved planning application (F/21/90865).

4.3.2 Evaluation

As all of the hedgerows are more than 20 metres long and are dominated by at least one woody native species (80% or more of the hedgerow), they are assessed as being a Habitat of Principal Importance. The remainder of the habitats at the site do not constitute Habitats of Principal Importance and are common with the wider landscape. As such the hedgerows on site are considered to be of local importance while the remaining habitats on site are only of site value.

4.4 Bats

4.4.1 Baseline Ecological Conditions

Desktop Study Results

Consultation with the MAGIC database produced six records of granted EPSM licences in regard to bats within the desktop study area. The species covered by these licences are soprano pipistrelle *Pipistrellus pygmaeus*, common pipistrelle *Pipistrellus pipistrellus*, brown long-eared bat *Plecotus auritus,* and Natterer's bat *Myotis nattereri.* The closest licence is located approximately 160 metres to the north of the site.

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During the updating walkover survey conducted by John Associates in 2020 (Johns Associates, 2020e) a number of trees were identified within the redline boundary which have suitability to support roosting bats. The building Victoria House was located within the site near to the eastern boundary of the site. Prior to it being removed under licence (reference 2021-52226-EPS-MIT-2) John Associates identified a brown long-eared satellite roost, whiskered bat *Myotis mystacinus* day roost and common pipistrelle day roost within the building. Johns Associates also recorded a maternity roost of brown long-eared bats within a building located within Fir Tree farm which is located to the east of the site.

Field Survey Results

Tree Assessment

There are a number of trees that were noted during the field survey which had suitability to support roosting bats particularly along the running water in the north of the site. Therefore, the site is assessed as having suitability to support tree roosting bats. These trees were also recorded during the original surveys conducted by Johns Associates (Johns Associates, 2020e).

Foraging and Commuting Habitat

The site provides suitable habitat for bats that may be foraging or commuting within the on-site woodland, hedgerows and running water. The varying types of vegetation as well as the combination of habitat types are likely to support a range of invertebrate prey for the common species of bat identified within the desktop study. In addition, the onsite woodland connects well with offsite woodland to the west and east of the site via the canopy which increased the total foraging and commuting habitat available. Overall, the site is assessed as having moderate suitability for foraging and commuting bats and has not changed since the assessment conducted by Johns Associates.

Bat Ground Level Tree Assessment Results

The results of the ground level tree assessment of the on-site trees are provided in **Table 4** and on **Map 3**.

Table 4: Ground level tree assessment results

Tree Number	Description	Description of Features	Climb and Inspect Survey?	Suitability for Bats
T87-96	Dead trees along river	Multiple woodpecker holes and lifted bark across the trees	No	PRF-M
T13	Large tree at corner of field	Large split limb	No	PRF-I

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Tree Number	Description	Description of Features	Climb and Inspect Survey?	Suitability for Bats
T193/G94	Dead trees along hedgerow	Woodpecker holes and callus rolls	No	PRF-M

Bat Emergence/Re-entry Survey Results

The surveys recorded at least six species of bat: common pipistrelle, soprano pipistrelle, noctule *Noctula Nyctalus*, serotine *Eptesicus serotinus, Myotis* bat and brown long-eared bat. Moderate levels of bat foraging activity has been recorded around the surveyed trees.

Table 5 provides details of the species, numbers and locations of bats recorded roosting and foraging/commuting during the emergence surveys.

Table 5: Bat Emergence/Re-entry Survey Results

Visit 1 - Survey Details	
Survey Date:	5th August 2025
Trees Surveyed:	T193/G94
Time of Sunset:	20:44
General Bat Activity	
Moderate levels of bat activity were recorded in the vicinity of the trees with common pipistrelle, soprano pipistrelle, noctule and serotine bats recorded on site	

Visit 2 - Survey Details	
Survey Date:	6th August 2025
Trees Surveyed:	T87-96
Time of Sunset:	20:43
General Bat Activity	
Low numbers of common pipistrelle and soprano pipistrelle were recorded foraging back and forth amongst the trees.	

Visit 3 - Survey Details	
Survey Date:	26th August 2025
Trees Surveyed:	T193/G94
Time of Sunset:	20:03
General Bat Activity	
Moderate levels of foraging and commuting activity were recorded comprising predominantly common pipistrelle. *Myotis* bat and noctule were also recorded foraging on site.	

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Visit 4 - Survey Details	
Survey Date:	27th August 2025
Trees Surveyed:	T87-96
Time of Sunset:	20:01
General Bat Activity	
Very low numbers of common pipistrelle were recorded foraging amongst the trees.	

Visit 5 - Survey Details	
Survey Date:	16th September 2025
Trees Surveyed:	T193/G94
Time of Sunset:	19:17
General Bat Activity	
Low numbers of foraging activity recorded, with species recorded comprising common and soprano pipistrelle.	

Visit 6 - Survey Details	
Survey Date:	22nd September 2025
Trees Surveyed:	T87-96
Time of Sunset:	19:03
General Bat Activity	
Low numbers of common pipistrelle and soprano pipistrelle were recorded constantly foraging back and forth amongst the trees. *Myotis* bat and a single brown long-eared bat were also recorded but not seen.	

4.4.2 Evaluation

There were no emergences recorded during the surveys however low to moderate levels of foraging and commuting activity were observed. **Table 6** shows the geographic level of value of foraging and commuting habitat at the site.

Common pipistrelle and soprano pipistrelle are common and widespread in England (JNCC, 2019), and Hampshire (Hampshire Bat Group, n.d.). While it cannot be determined if the long-eared bat species recorded foraging and commuting over the site were brown long-eared bat or grey long-eared bat *Plecotus austriacus*, the brown long-eared bat is common and widespread within Hampshire while records of grey long-eared bat are generally restricted to the south coast and the New Forest (The Mammal Society, 2015). It is therefore presumed that the long-eared species recorded within the site are the more frequently recorded brown long-eared bat. As a result the site has been assessed to be of value at the site level for common pipistrelle, soprano pipistrelle and long-eared bat.

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There are seven species of *Myotis* bats in Britain, six of these occur in Hampshire. *Myotis* bats are very difficult to identify specifically, this can generally only be done by examination of physical features and DNA analysis of bat droppings. However, given the lack of records of the rarest of the *Myotis* bat species within the local area it is considered unlikely that foraging and committing bats recorded include the rare Bechstein's bat *Myotis bechsteinii*, Given that within Hampshire, Daubenton's bat and Natterer's bat are the most commonly recorded species (The Mammal Society, 2015), the *Myotis* recordings made during the surveys are likely attributed to one of these two species, and as a result of site value.

Noctule and serotine are infrequent but widespread in Hampshire, the records of these species within the site are considered to be of value at a local level.

Table 6: Value of the site to bat species/species complexes

Species	Foraging and Commuting Value
Common pipistrelle	Site
Soprano pipistrelle	Site
Myotis Species	Site
Long-eared bat species	Site
Noctule	Local
Serotine	Local

4.5 Otter

4.5.1 Baseline Ecological Conditions

Desktop Study Results

Consultation with the MAGIC database produced no records of European protected species licence in regard to otter *Lutra lutra* within the desktop study area, however, this does not confirm the absence of the species in the local area.

The update survey conducted by John Associates in 2020 did not record any evidence of otter within the site but there are historic records of otter in the wider landscape (John Associates , 2020k)

Field Survey Results

There are wo areas of running water to the north and south of the site which are suitable for supporting otter. The running water are small tributaries that eventually feed into the River Itchen. It is unlikely however that otter would leave the watercourse and enter

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site due to the site consisting of predominantly open space. Therefore, otter is assessed as likely present in the wider landscape and could use the site on occasion.

4.5.2 Evaluation

The habitats on site represent a small proportion of the habitats available to otter in the wider area and are of poor quality in comparison. Therefore the site is assessed as being of site value only for otter.

4.6 Badger

4.6.1 Baseline Ecological Conditions

Desktop Study Results

The update *badger Meles meles* survey conducted by John Associates in 2020 recorded no evidence of badgers within the site (John Associates, 2020i). During their desktop study

Field Survey Results

No evidence of badger was recorded during the field survey. The site provides suitable foraging and sett building habitat for badgers in the woodland and grassland and adjacent habitats. Therefore, the site is assessed as having suitability to support badger.

Badger Survey Results

No badger sett or confirmed evidence of badger were recorded on site during the badger survey (Eastleigh Borough Council, 2024).

4.6.2 Evaluation

The habitats on site offer a small portion of habitats suitable for badger available in the wider area. Therefore the site is assessed as being of site value only for badger.

4.7 Hazel Dormouse

4.7.1 Baseline Ecological Conditions

Desktop Study Results

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

The dormouse survey conducted by Johns Associates in 2020 recorded a dormouse nest within the woodland adjacent to the site (Johns Associates, 2020g). In addition,

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another nest and individual was recorded to the east of the site within the woodland which connects to the woodland on the southern boundary of the site.

Field Survey Results

The site supports suitable habitat for hazel dormouse in the form of woodland, hedgerows and dense scrub which contains key food sources such as bramble and hazel. Additionally, the site connects to suitable habitat for hazel dormice in the wider area through woodland and scrub to the east and west of the site. The site hasn't changed since the surveys were conducted in 2020 and therefore it is assessed that this population is still present.

4.7.2 Evaluation

The habitats on site are well connected to other suitable hazel dormouse habitats with known hazel dormouse populations. Therefore the site is assessed as being of local value for hazel dormouse.

4.8 Water Vole

4.8.1 Baseline Ecological Conditions

Desktop Study Results

The updated surveys by John Associates in 2020 did not record any evidence of water vole *Arvicola amphibius* within the site boundary however there is a historic record within the running water at the north of the site from 2018 (John Associates , 2020k).

Consultation with the MAGIC Field Survey Results

The running water to the north and south of the site are suitable for supporting water vole. The running water are small tributaries that eventually feed into the River Itchen. It is unlikely however that water vole would leave the watercourse and enter site due to the site consisting of predominantly open space. Therefore, water vole are considered unlikely to occur on site and are not considered any further in this report.

4.9 Birds

4.9.1 Baseline Ecological Conditions

Desktop Study Results

The previous breeding bird surveys conducted at the site by Johns Associates (in 2020) recorded a number of species within the hedgerows and along the running water at the site (Johns Associates, 2020h). No ground nesting bird were recorded and the site was assessed as not suitable for these types of birds. These species included the red listed

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species[9] song thrush *Turdus philomelos*, house martin *Delichon urbicum*, house sparrow *Passer domesticus*, amber listed species[10] whitethroat *Sylvia communis*, dunnock *Prunella modularis*, moorhen *Gallinula chloropus*, stock dove *Columba oenas*, and green listed species blackcap *Sylvia atricapilla*, chiffchaff *Phylloscopus collybita*, long-tailed tit *Aegithalos caudatus*, chaffinch *Fringilla coelebs*, and jackdaw *Coloeus monedula.*

Field Survey Results

During the field survey great tit *Parus major*, blackbird *Turdus merula*, robin *Erithacus rubecula*, and goldfinch *Carduelis carduelis* were recorded within the vegetation on site. The woodland and hedgerows provide suitable habitat for supporting breeding birds. As such the site is assessed as having suitability for breeding birds.

The site is unsuitable for ground-nesting birds and wintering birds due to the fields containing short grassland which subjected to frequent disturbance. The woodland present would provide some suitable habitat for wintering birds but given the size of the habitat on site it is unlikely that it could support a significant number of individuals.

4.9.2 Evaluation

The habitats on site represent a small portion of habitats available for breeding birds in the wider area and are unsuitable for ground nesting and wintering assemblages. Therefore the site is assessed as being of site value only for birds.

4.10 Reptiles

4.10.1 Baseline Ecological Conditions

Desktop Study Results

During the update reptile survey conducted by John Associates in 2020 recorded no reptiles within the site boundary (John Associates, 2020c). During the works conducted by ECOSA at Allington Land, which is adjacent to the northern boundary of the site, a small number of slow-worm *Anguis fragilis* were recorded. It is assumed that the

[9] Birds of Conservation Concern Red List
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. Red List criteria include species which are: globally threatened; have been subject to historical population decline in UK during 1800–1995; are in severe (at least 50%) decline in UK breeding population over last 25 years, or longer-term period, or; subject to severe (at least 50%) contraction of UK breeding range over last 25 years, or longer-term period.

10 Birds of Conservation Concern Amber List
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 .

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species has colonised the site since the update surveys were conducted by John Associates.

Field Survey Results

The grassland areas of the site are generally well managed with a consistent sward height however there are areas within the site that are tussocky which are suitable as foraging and basking opportunities for reptiles. The woodland and base of the hedgerows also provide suitable foraging and basking opportunities. Therefore, the site is assessed as having habitats that are suitable for supporting reptiles.

Reptile Survey Results

A summary of the reptile surveys at the site is provided in **Table 7** and on **Map 4**. Peak counts of one adult slow-worm and one juvenile slow-worm were recorded during the surveys.

Table 7: Summary of reptile survey results

Survey Date	Number of Individuals Recorded	
	Slow-worm	
	Adult	Juvenile
10th June 2024	0	1
14th June 2024	0	1
18th June 2024	0	1
21st June 2024	0	0
24th June 2024	0	0
27th June 2024	1	0
1st July 2024	0	1
Peak Count	**1**	**1**

4.10.2 Evaluation

Population Class Size Assessment

Table 8 shows the current guidance (Froglife, 1999)for assessing the population size of reptiles based on a refugia density of 10 per hectare. A density of 20 refugia per hectare was used at the site and therefore the population size assessment has been adjusted accordingly.

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Table 8: Criteria for population size assessment based upon a refugia density of 10 per hectare

Species	Low Population	Good Population	Exceptional Population
Slow-worm	<10	10-40	>40
Common lizard	<10	10-40	>40
Grass snake	<10	10-20	>20
Adder	<10	10-20	>20

Given the peak count of one adult, the site can be said to support a low population of slow-worm.

Evaluation

Given the low population of slow-worm recorded on site, the site is assessed as being of site value for slow-worm.

4.11 Great Crested Newt

4.11.1 Baseline Ecological Conditions

Desktop Study Results

Consultation with the MAGIC database produced 12 records of Natural England EPSM licences in respect of great crested newt *Triturus cristatus* within two kilometres of the site boundary. Five of these licences are located within the north of the site and relate to the approved works for the access road and Allington Lane Realignment. These licences cover the damage and destruction of a resting place and the most recent was granted in 2021.

An updating population assessment survey was undertaken by John Associates which confirmed that a low population of great crested newts are present within a pond to the north of the site in 2019 (John Associates, 2020f).

A review of aerial imagery and 1:5,000 OS mapping releveled that there are 11 ponds within 500 metres of the site boundary. One of the ponds is onsite, located adjacent to the western boundary. The next closest pond is located approximately 215 metres north-east of the site.

Field Survey Results

The grassland areas of the site with tussocky structure and have a mixed height sward provide suitable foraging and sheltering great crested newts. Within the woodland there are also piles of deadwood and debris which provide suitable hibernation opportunities for great crested newt. In addition, the desktop study confirmed that there is a low

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population of great crested newts within 500 metres of the site. Therefore, the site is assessed as having suitability for great crested newts.

Great Crested Newt Population Size Class Assessment Survey Results

A peak count of 5 great crested newt were recorded within ponds within 500 metres of the site during the 2024 surveys. The full results of the surveys are provided in the One Horton Heath Quobleigh Breach Great Crested Newt Monitoring Report (Johns Associates, 2024).

4.11.2 Evaluation

Population Class Size Assessment

It is difficult to establish the true size of a population of great crested newt, due to variations in sampling efficiency and the complex population dynamics involved. Hence, population estimation methods can only give an indication of whether the population is small, medium or large in terms of the number of newts present in the breeding pond.

In accordance with Natural England guidance (English Nature, 2001) survey results should be expressed as peak adult counts per pond per night gained through field survey methods, and a total site count, if appropriate.

Populations can then be classed as:

- ‘small’ for maximum counts up to 10;
- ‘medium’ for maximum counts between 11 and 100; or
- ‘large’ for maximum counts over 100.

Evaluation

As a peak count of five great crested newts were recorded during the 2024 surveys, the size of the population is assessed as being ‘small’. While the site supports suitable terrestrial habitats for great crested newt, the lack of ponds means the site provides no breeding opportunities. Therefore the site is considered to be of only site value for great crested newt.

4.12 Invertebrates

4.12.1 Baseline Ecological Conditions

Desktop Study Results

Johns Associates concluded that invertebrate surveys were not required as the site is dominated by lower quality habitats which would not support a significant abundance or assemblage of invertebrates (Johns Associates, 2020b)

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Field Survey Results

The site itself is likely to support a wide range of common invertebrate species and assemblages but does not support any habitats likely to attract notable or protected invertebrate species. The boundary stream provides suitable habitat to support notable invertebrate species, and these could occasionally pass through the site. As the site is unlikely to support resident notable invertebrates no adverse impacts are anticipated on any local population of notable or protected species and therefore invertebrates are not considered further in this report. This assessment has not changed from the John Associate surveys.

4.13 Other Relevant Species

4.13.1 Baseline Ecological Conditions

Desktop Study Results

Johns Associates conducted surveys to establish if there is a presence of hedgehogs within the wider One Horton Heath development which revealed that European hedgehog *Erinaceus europeaus* are present within the landscape and using the habitats on the site for foraging (Johns Associates, 2020b).

Field Survey Results

The grassland and dense scrub provide suitable foraging and resting habitat for European hedgehog. Therefore, it is possible that European hedgehog may enter or be resident at the site.

4.13.2 Evaluation

The habitats on site represent a small portion of the habitats available to European hedgehog in the wider area, therefore the site is assessed as being of site value only to European hedgehog.

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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 hierarchy[11] 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

The proposed development entails the construction of 269 new residential dwellings with associated landscaping, drainage, parking and external lighting. As part of the new infrastructure a link road and SuDs attenuation basins have been built through the site.

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

As the site is hydrologically linked to the River Itchen SAC and SSSI and the Solent and Southampton Water SPA and Ramsar and the Solent Maritime SAC there is the potential that the proposal could results in negative effects on these designated sites due to pollution from the construction and operational phases of the development.

5.3.2 Mitigation Measures

This has not changed since the original surveys and therefore the measures recommended within the John Associates Landscape and Ecological Mitigation Masterplan are still applicable (Johns Associates, 2020a) and result in the development being nutrient neutral. The measures for operation phase include the setting up of the drainage system so that it drains into the Peel Common Waste Water Treatment works, a comprehensive SuDS networks which include vegetated SuDS ponds, swales and

[11] 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'.

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sediment forebays and the implementation of a treatment plan for nitrogen and phosphates or the purchase of credits from a suitable source such as Natural England if this is not possible. A Nutrient Neutrality report is provided as part of the submission.

All of the mitigation will be detailed within a Construction Environmental Management Plan (CEMP) as recommended by John Associates (Johns Associates, 2020a).

5.3.3 Significance of Residual Effects

Following mitigation there are no anticipated residual effects on designated sites.

5.3.4 Compensation

No compensation measures are proposed with regards to designated sites.

5.3.5 Enhancement

No enhancement measures are proposed with regards to designated sites.

5.4 Habitats

5.4.1 Potential Impacts and Effects

The proposals will result in the loss of grassland habitats and some hedgerow and trees to provide access and for health and safety reasons. The proposals involve the retention of running water, woodland and hedgerows which could be accidentally damaged during the construction phase of the development.

There is a risk that retained habitats such as the boundary hedgerows, woodland and running water could be accidentally damaged during clearance and construction phases.

5.4.2 Mitigation Measures

The woodland and hedgerows to be retained should be protected with Root Protection Zones established in accordance with BS 5837:2012 (British Standards, 2012), this will require an arboriculture assessment to inform the protection measures. The woodland will have a minimum of a 15 metre buffer zone and the hedgerows will have a five metre buffer zone to mitigate against accidental damage (Johns Associates, 2020a). In addition, the retained running water should have a 10 metre buffer zone to protect against accidental damage. The boundary of these buffers will be marked by the installation of Heras style fencing to prevent access to the retained habitats (Johns Associates, 2020a).

The CEMP recommended in Paragraph 5.3.2 will mitigate for potential negative effects on habitats during the construction phase of the development.

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5.4.3 Significance of Residual Effects

Following mitigation, the loss of habitats cannot be accommodated for within the scheme. This is considered significant at the site level.

5.4.4 Compensation

The proposals will include new landscaping including public open space grassland and tree planting. A Biodiversity Net Gain assessment will be undertaken by Johns Associates to determine if the proposals will result in a net gain in biodiversity on site.

5.4.5 Enhancement

No enhancement measures are proposed with regard to habitats.

5.5 Bats

5.5.1 Potential Impacts and Effects

The proposals will result in the loss of suitable roosting, foraging and commuting habitats. New external lighting may disturb foraging and commuting bats.

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

Given that no emergences were recorded during the surveys, a European Protected Species Mitigation (EPSM) licence in respect to bats will not be required and a precautionary method of works can be undertaken. In accordance with current bat mitigation guidelines (Reason & Wray, 2025), this will involve an endoscopic inspection of the potential roosting features by a suitably qualified ecologist immediately prior to the tree removal, using a Mobile Elevated Work Platform (MEWP). If all of the potential roosting features can be inspected and bats are confirmed to be absent, the tree can be felled.

If any of the potential roosting features cannot be inspected however, the tree must be soft-felled under the supervision of a suitably qualified ecologist. The sections of the tree should be removed in a way to allow the potential roosting features to remain intact and can be lowered to the ground gently via ropes. Once the features have been brought to ground, they will be inspected by the ecologist for bats and left for 24 hours before being removed from the site.

If bats are found to be present during the inspection, works must stop immediately and an EPSM license must be obtained from Natural England.

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New external lighting to be installed on the new development will comprise hooded luminaires directed away from vegetation and the adjacent boundary hedgerow and woodland habitats. Ideally the bulbs will be LED and will avoid blue or white light to stay within the warmer end of the spectrum. LED lights emit much lower levels of UV and will therefore have a lower impact on wildlife. The new lighting will be associated with the specific entrance/exit points of the development and task related. The lux level will also be as low as possible to allow the task to be carried out safely and effectively. Guidance on task related lighting levels and mitigation options as described within the Bats and Artificial Lighting in the UK report will be followed (Bat Conservation Trust, Institution of Lighting Professionals, 2023).

5.5.3 Significance of Residual Effects

The loss of roosting, foraging and commuting habitats cannot be mitigated for as part of the proposals. This is considered to be of moderate significance.

5.5.4 Compensation

New landscaping proposals will provide additional foraging and commuting habitats for bats.

5.5.5 Enhancement

A number of new bat roosting units will be incorporated into new residential units. The exact amount will be determined as part of the planning condition to take into consideration enhancement measures that will be implemented as part of the wider One Horton Heath development.

5.6 Badger

5.6.1 Potential Impacts and Effects

While the site does not currently support a badger sett there is a chance that before the development begins badger could colonise the site. If this were to happen, then there is a risk during the site clearance and construction works that badger could be disturbed and/or harmed. Therefore, badger is considered a constraint to the proposals.

Badger are protected from killing and injury, and their setts protected from damage and interference, under the Protection of Badgers Act 1992. Refer to **Appendix 3** for details.

5.6.2 Mitigation Measures

An updating badger walkover should be carried out three months prior to works commencing on site to determine if badger have colonised the site.

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In addition, deep excavation should either be covered at night or a suitable escape method provides such as ladders to prevent individuals becoming trapped (Johns Associates, 2020a).

5.6.3 Significance of Residual Effects

Following mitigation, there are no anticipated residual effects on badger.

5.6.4 Compensation

No compensation measures are proposed with regards to badger.

5.6.5 Enhancement

No enhancement measures are proposed with regards to badger.

5.7 Hazel Dormouse

5.7.1 Potential Impacts and Effects

The proposals will result in the loss of suitable hazel dormouse habitat and hazel dormouse may be harmed during vegetation clearance works.

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

5.7.2 Mitigation Measures

Prior to any hedgerow removal works, an EPSM licence in respect to hazel dormouse will be required. Hedgerow removal will be undertaken between March and April and will involve a single stage clearance under the supervision of a licenced ecologist..

5.7.3 Significance of Residual Effects

Following mitigation measures, there will still be a net loss of suitable hedgerow habitat for hazel dormouse at the site that cannot be mitigated for within the boundaries of this reserved matters application.

5.7.4 Compensation

The planting recommendations in Paragraph 5.4.4 will replace lost hazel dormouse habitats.

5.7.5 Enhancement

Hazel dormouse nest boxes will be installed within the boundary vegetation of the site as a measure of enhancement. In addition, the planting of additional native species-rich hedgerows within the development will provide additional habitat for hazel dormouse and therefore enhance the site for the species further. The exact amount will

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be determined as part of the planning condition to take into consideration enhancement measures that will be implemented as part of the wider One Horton Heath development.

5.8 Birds

5.8.1 Potential Impacts and Effects

Suitable breeding habitat for birds will be lost in the form of hedgerows to facilitate the development which could result in disturbing a nesting bird or the destruction of an active nest.

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.

5.8.2 Mitigation Measures

Vegetation clearance should be undertaken outside the breeding bird season of March to August, inclusive, or if not possible, an ecologist should be present immediately prior to clearance to check vegetation. Any active nests found should be left with a suitable buffer until nesting ends.

5.8.3 Significance of Residual Effects

Following mitigation, there will be a loss of habitats for nesting birds.

5.8.4 Compensation

The new landscaping proposals described in Paragraph 5.4.4 will replace lost nesting habitats for birds.

5.8.5 Enhancement

As a measure of enhancement, two Woodstone Build in Swift nest boxes (or swift boxes of a similar design) installed in pairs, should be installed into a number of the new buildings on site. The exact amount will be determined as part of the planning condition to take into consideration enhancement measures that will be implemented as part of the wider One Horton Heath development.

5.9 Reptiles

5.9.1 Potential Impacts and Effects

The proposals will result in loss of reptile habitat during the construction phase within the site.

Construction activities on areas of reptile habitat have the potential to result in direct harm to the population of slow-worm recorded at the site.

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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.

5.9.2 Mitigation Measures

As the site supports only a low population of slow-worm, it is considered that a precautionary methods of work will be sufficient to protect the status of the reptile population on site. This will involve a destructive search undertaken by or under the supervision of a suitably qualified ecologist. The habitat will be cleared via methodical strimming to 10 centimetres, followed by a second strim down to ground level. Once the strimming has been completed, the top layer of vegetation stripped using an excavator with a toothed bucket under the supervision of an ecologist. Any additional reptiles encountered will be translocated outside of the works area to open public space, part of the wider One Horton Heath site, to the north of the site. Once the destructive search has been completed, and all suitable reptile habitat removed, the development works will be able to proceed.

5.9.3 Significance of Residual Effects

Following mitigation measures, the loss of habitats cannot be mitigated for.

5.9.4 Compensation

The grassland planting recommendations in Paragraph 5.4.4 will replace lost grassland habitats for reptiles.

5.9.5 Enhancement

One hibernacula will be installed within the woodland ecological buffer zone in the north-east of the site.

5.10 Great Crested Newt

5.10.1 Potential Impacts and Effects

The clearance of the grassland and hedgerows could result in disturbance, killing and/or injury to an individual.

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

5.10.2 Mitigation Measures

As a result of the loss of great crested newt terrestrial habitat at the site, an EPSM licence will be required prior to the development works commencing. This can only be

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applied for once planning permission is in place with any relevant wildlife conditions discharged.

The EPSM licence application will require the preparation of a clear and reasoned Method Statement which details the methods for maintaining the conservation status of the species at the site.

A translocation exercise will need to be undertaken. Exclusion fencing will be installed around the boundary of the site. This will prevent movement of great crested newt into the development area following the translocation of animals. This fence will be maintained in good condition throughout the development. Internal drift fencing to aid the capture of animals will also be installed which will be removed prior to the commencement of the development.

The area enclosed by the exclusion fencing will then be subject to trapping and translocation of newts. This will be carried out by installing pitfall traps at 10 metre intervals along the full length of the exclusion fencing and the drift fence. Great crested newt fall into these traps and this is an effective method of capturing and removing them. Additionally, refuge traps (carpet tiles or similar) will be placed across the site in between the installed pitfall traps.

Once installed, the pitfall traps will require inspection every morning shortly after sunrise in order to remove animals from the traps. Any great crested newt captured will then be relocated beyond the exclusion fence to the receptor site located to the north of the site.

Trapping and translocation must be undertaken during suitable weather conditions between March and October. According to the current guidance (English Nature, 2001), trapping should be undertaken for a minimum of 30 days where a low population of great crested newt is found to be present. The translocation exercise will be deemed complete once five clear days no capture has been achieved.

Following the completion of the translocation, a destructive search will be undertaken of the translocation area. This will entail the methodical removal of any suitable habitat using an excavator under ecological supervision. Any additional great crested newt encountered as part of the destructive search will be captured by the ecologist and relocated to the receptor area. Once the destructive search has been completed, and all suitable great crested newt habitat has been removed from the site, the development work will be able to proceed.

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5.10.3 Significance of Residual Effects

Following the implementation of the mitigation measures outlined about there will still be a loss in great crested newt habitat which is considered to be significant at the site level. This is considered to be significant at the site level.

5.10.4 Compensation

The proposals will deliver new ponds to the west of the site. This will create new breeding opportunities on site for great crested newt.

5.10.5 Enhancement

As a measure of enhancement, hibernacula will be constructed in the woodland ecological buffer, to provide additional sheltering opportunities for great crested newt. These will be constructed in line with the specification included in the great crested newt mitigation guidelines (English Nature, 2001).

5.11 Other Relevant Species

5.11.1 Potential Impacts and Effects

Site clearance works have the potential to result in direct harm to European hedgehog. The proposals will also result in the loss of suitable habitats for European hedgehog.

The installation of residential fencing at the site also has the potential to result in fragmentation of habitat for European hedgehog and other small mammal species.

5.11.2 Mitigation Measures

The sensitive clearance measures associated with reptile and great crested newt (see Paragraphs 5.9.2 and 5.10.2will ensure that both European hedgehog, amongst a wide range of other species, are protected as site clearance works progress. If individuals are encountered during clearance works they will be moved to the receptor site.

In order to ensure continued permeability of the site for European hedgehog and other small mammal species, holes of 130 millimetres x 130 millimetres will be installed in new close board fencing. The gaps will be labelled as ‘hedgehog highways’ to inform new homeowners of the purpose of the holes.

5.11.3 Significance of Residual Effects

Following the implementation of mitigation measures no significant residual effects on any other relevant species are anticipated.

5.11.4 Compensation

No specific compensation for other relevant species is proposed.

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5.11.5 Enhancement

As an enhancement measure for European hedgehog, two hedgehog domes will be installed within public open spaces on site, one to the north of the site and one to the south. The hedgehog domes should be sited partially under cover to avoid being disturbed by residents.

5.12 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.

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6.0 CONCLUSIONS

6.1 Conclusion

The site lies within the 5.6 kilometre buffer of the Solent designated sites. The site also supports foraging and commuting bats, hazel dormouse, a low population of slow-worm and a small population of great crested newt. In addition the site has suitability for roosting, foraging and commuting bats, badger, breeding birds and European hedgehog. Adverse impacts on these ecological features have been identified and appropriate mitigation measures proposed.

Post-development, no residual or cumulative impacts are anticipated. The site will be enhanced for protected species through the installation of roosting, nesting and hibernacula features. As such it is considered that the proposals will accord with all relevant national and local planning policy in relation to ecology including Policies S9, DM10 and DM11 of the local plan 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.

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Map 1 Site Location Plan

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QUOBLEIGH BREACH, ONE HORTON HEATH

ECOLOGICAL IMPACT ASSESSMENT

Map 1 - Site Location Plan

Client:	Eastleigh Borough Council
Date:	August 2025
Status:	Draft

KEY

Site Boundary



Scale at A3 1:10,000

0 100 200 300 400 m

N

Prepared by: JP	Date: 010225
Last amended by: JP	Date: 290825

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Map 2 Phase 1 Habitat Map

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QUOBLEIGH BREACH, ONE HORTON HEATH

PRELIMINARY ECOLOGICAL APPRAISAL

Map 2 - Phase 1 Habitats

Client:	Eastleigh Borough Council
Date:	February 2024
Status:	Draft

KEY

- Site Boundary
- A — Amenity grassland
- Development area
- Hardstanding
- I — Improved grassland
- Marshy grassland
- Semi-natural broadleaved woodland
- Species-rich intact hedgerow
- Species-rich defunct hedgerow
- Species-poor defunct hedgerow
- Running water
- Fence
- Scattered Trees
- TN — Target Notes

1:3,000

0 30 60 90 120 m

N

Prepared by: BA	Date: 080224
Last amended by: JP	Date: 090224

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Map 3 Bat Ground Level Tree Assessment Results

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QUOBLEIGH BREACH, ONE HORTON HEATH

ECOLOGICAL IMPACT ASSESSMENT

Map 2 - Baseline Habitats

Client:	Eastleigh Borough Council
Date:	August 2025
Status:	Draft

KEY

Site Boundary

Ground Level Tree Assessment Results

- PRF-I
- PRF-M

Description of Features

T13
Large split limb.

T87-96
Multiple woodpecker holes and lifted bark across the trees.

T193 / G94
Woodpecker holes and callus rolls.

Scale at A3 1:2,200

0 20 40 60 80 m

N

Prepared by: JP	Date: 010225
Last amended by: JP	Date: 290825

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Map 4 Reptile Survey

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QUOBLEIGH BREACH, ONE HORTON HEATH

PRELIMINARY ECOLOGICAL APPRAISAL

Map 3 - Reptile Survey Results

Client:	Eastleigh Borough Council
Date:	August 2024
Status:	Draft

KEY

- Site Boundary
- Refugia Locations

Reptile Survey Results

- Slow worm - Adult
- Slow worm - Juvenile

1:3,307.5

0 30 60 90 120 m

N

Prepared by: KM	Date: 090824
Last amended by: N/A	Date: N/A

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Appendix 1 Proposed Site Layout

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Eastleigh Borough Council



One Horton Heath, Quobleigh Breach

N

NOTES:

Report all discrepancies, errors and omissions.

Verify all dimensions on site before commencing any work on site or preparing shop drawings.

All materials, components and workmanship are to comply with the relevant British Standards, Codes of Practice, and appropriate manufacturers recommendations that from time to time shall apply.

For all specialist work, see relevant drawings.

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Rev	Date	Description

Project Title

Eastleigh Borough Council

Proposed Residential Development
One Horton Heath
Quobleigh Breach

Drawing Description

Proposed Site Layout Plan

Scale	Drawn by
1:1000 at A1	HP
Date	**Checked by**
June 2025	SW

CLAGUE ARCHITECTS

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CANTERBURY LONDON HARPENDEN

Project . Originator . Function . Spatial . Form . Discipline . Number. Revision

30071D - CLA - PRSL - 00 - PD - A - 0001 - P4

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.

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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.

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Appendix 3 Statutory Designated Sites within the Desktop Study Area

Details of statutory designated sites within the desktop study area, as listed in Paragraph 4.2 are provided in **Table 9**.

Table 9: Statutory Designated Sites Located Within the Desktop Study Area

Site Name	River Itchen
Site Designation	SAC
Approximate Relative Location	960 metres to the west of the site
Reasons for Designation:	
Annex I habitats that are a primary reason for selection of this site: ▪ Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation. **Annex II** species that are a primary reason for selection of this site: ▪ Southern damselfly ***Coenagrion mercurial*; and** ▪ Bullhead ***Cottus gobio*.** **Annex II species present a qualifying feature but not a primary reason for site selection:** ▪ White-clawed (or Atlantic stream) crayfish *Austropotamobius pallipes;* ▪ Brook lamprey *Lampetra planeri;* ▪ Atlantic salmon *Salmo salar*; and ▪ Otter *Lutra lutra.*	

Site Name	River Itchen
Site Designation	SSSI
Approximate Relative Location	960 metres to the west of the site
Reasons for Designation:	
This site is notified for classic chalk stream and river, fen meadow, flood pasture and swamp habitats. The site is also notified for significant populations of the nationally rare southern damselfly *Coenagrion mercuriale* and assemblages of nationally-rare and scarce freshwater and riparian invertebrates, including the white-clawed crayfish *Austropotamobius pallipes*. This site is notified for otter *Lutra lutra*, water vole *Arvicola amphibius*, freshwater fishes including brook lamprey *Lampetra planeri* and Atlantic salmon *Salmo salar*, and the assemblage of breeding birds.	

Site Name	Solent and Southampton Water
Site Designation	SAC
Approximate Relative Location	located approximately 5.5 to the south-east of the site
Reasons for Designation:	
Annex I habitats that are the primary reason for selection of this site: ▪ Estuaries; ▪ Spartina swards (Spartinion maritimae); and	

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- Atlantic salt meadows (Glauco-Puccinellietalia maritimae).

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	Solent and Southampton Water
Site Designation	SPA
Approximate Relative Location	located approximately 5.5 to the south-east of the site
Reasons for Designation:	

The site qualifies for supporting the following Annex I species:

Breeding

- Sandwich tern *Sterna sandvicensis*, 441 pairs representing at least 4.01% of the breeding population in Great Britain;
- Common tern *Sterna hirundo*, 492 pairs representing at least 4.77% of the breeding population in Great Britain; and
- Little tern *Sternula albifrons*, 63 pairs representing at least 3.31% of the breeding population in Great Britain.

And the following habitats:

Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons, Salt marshes. Salt pastures. Salt steppes Coastal sand dunes. Sand beaches. Machair Shingle. Sea cliffs. IsletBogs, marshes. Water fringed vegetation. Fens Humid, mesophile grasslands Broadleaved deciduous woodland

Site Name	Solent and Southampton Water
Site Designation	Ramsar
Approximate Relative Location	located approximately 5.5 to the south-east of the site
Reasons for Designation:	

Ramsar criterion 1 - The site is one of the few major sheltered channels between a substantial island and mainland in European waters, exhibiting an unusual strong double tidal flow and has long periods of slack water at high and low tide. It includes many wetland habitats characteristic of the biogeographic region: saline lagoons, saltmarshes, estuaries, intertidal flats, shallow coastal waters, grazing marshes, reedbeds, coastal woodland and rocky boulder reefs.

Ramsar criterion 2 - The site supports an important assemblage of rare plants and invertebrates. At least 33 British Red Data Book invertebrates and at least eight British Red Data Book plants are represented on site.

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Ramsar criterion 5 - Assemblages of international importance.
Species with peak counts in winter:
51343 waterfowl (5 year peak mean 1998/99-2002/2003)

Ramsar criterion 6 – species/populations occurring at levels of international importance.

Qualifying Species/populations (as identified at designation) with peak counts in spring/autumn:

- Ringed plover *Charadrius hiaticula*, Europe/Northwest Africa 397 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3).

Species with peak counts in winter:

- Dark-bellied brent goose *Branta bernicla bernicla*, 6456 individuals, representing an average of 3% of the population (5 year peak mean 1998/9-2002/3).

- Eurasian teal *Anas crecca*, NW Europe 5514 individuals, representing an average of 1.3% of the population (5 year peak mean 1998/9-2002/3).

Black-tailed godwit *Limosa limosa islandica*, Iceland/W Europe 1240 individuals, representing an average of 3.5% of the population (5 year peak mean 1998/9-2002/3).

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Appendix 4 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.

Hazel Dormouse and Great Crested Newt

These 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;

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- 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 one of these species uses for shelter or protection.

Badger

The Protection of Badgers Act 1992 consolidates previous legislation (including the Badgers Acts 1973 and 1991 Badgers (Further Protection) Act 1991). It makes it an offence to:

- Kill, injure or take a badger;
- Attempt to kill, injure or take a badger; or
- To damage or interfere with a sett.

The 1992 Act defines a badger sett as 'any structure or place which displays signs indicating current use by a badger'.

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

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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.

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Appendix 5 Protected and Notable Species Appraisal Methods

Bats

The survey conformed to current Bat Conservation Trust guidelines (Collins, 2023). An assessment was made of the suitability of trees on the site and immediately on the site boundary to support roosting bats based on the presence of features such as holes, cracks, splits, loose bark and ivy cladding for trees.

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 6**.

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.

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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

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Biodiversity List, and Local Biodiversity Action Plan (LBAP) species[12], 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.

[12] 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.

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Appendix 6 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 10**[13].

Table 10: 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.

[13] Table adapted from (Collins, 2023).

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Appendix 7 Assessment Criteria for Roosting Bats

Roost types have been defined in accordance with Natural England and Bat Conservation Trust guidelines. Definitions are set out in **Table 11**.

Table 11: Bat roost types as defined by Natural England and the Bat Conservation Trust

Roost Type	Definition
Day Roost	A place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer.
Night Roost	A place where bats rest or shelter in the night but are rarely found in the day. May be used by a single individual on occasion or it could be used regularly by the whole colony.
Feeding Roost	A place where individual bats or a few individuals rest or feed during the night but are rarely present by day.
Transitional/Occasional Roost	Used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.
Swarming Site	Where large numbers of males and females gather during late summer to autumn. Appear to be important mating sites.
Mating Sites	Where mating takes place from late summer and can continue through winter.
Maternity Roost	Where female bats give birth and raise their young to independence.
Hibernation Roost	Where bats may be found individually or together during winter. They have a constant cool temperature and high humidity.
Satellite Roost	An alternative roost found in close proximity to the main nursery colony used by a few individual breeding females to small groups of breeding females throughout the breeding season.

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