



Ecological Impact Assessment

Land South-East of Chalcroft Business Park,
West End, Hampshire

Contents

1.0 INTRODUCTION	4
PURPOSE OF THE REPORT	4
SITE DESCRIPTION	4
PLANNING POLICY AND LEGISLATION	5
2.0 METHODOLOGY	6
ECOLOGICAL ASSESSMENT METHODOLOGY	9
3.0 BASELINE ECOLOGICAL CONDITIONS	13
<i>Desktop Study</i>	13
<i>Notable species</i>	13
<i>Statutory Sites</i>	14
<i>Notable offsite habitats</i>	17
<i>Species and species groups on site</i>	19
<i>Badgers</i>	20
<i>Reptiles</i>	20
<i>Dormouse</i>	20
<i>Great crested newts</i>	20
4.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT	22
5.0 ASSESSMENT OF EFFECTS AS WELL AS AVOIDANCE AND MITIGATION MEASURES.....	22
6.0 CUMULATIVE IMPACTS	27
7.0 COMPENSATION	29
8.0 ENHANCEMENT	31
9.0 MONITORING.....	31
10.0 SUMMARY AND CONCLUSIONS.....	32
11.0 REFERENCES.....	36

LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living creatures are capable of migration and whilst protected species may not have been located during the survey duration, their presence may be found on a site at a later date.

The views and opinions contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Purpose of the Report

- 1.1 This Ecological Impact Assessment (EcIA) evaluates the effects of the development of Land south-east of Chalcroft Business Park, hereafter referred to as the 'site'.
- 1.2 The results of The Ecology Partnership's surveys and desk study of the site and surrounding land are presented. These findings are assessed against the proposals for a housing development on the site to: identify and rank significant impacts, set out mitigation and compensation measures and the means to secure these, in essence the EcIA;
- Evaluates the baseline interest;
 - Identifies and rank significant impacts;
 - Sets out mitigation and compensation measures and the means to secure these;
 - Assess the significance of residual impacts;
 - Identifies enhancement measures; and
 - Sets out requirements for post-construction monitoring.

Description of the Project

- 1.3 The proposed development is for an outline application for up to development of up to 3,410m² of commercial floorspace (Use Classes E(g)(ii), E(g)(iii) and B8) to include farm shop (Use Class E(a)) of up to 325m², parking and yard areas (including accessible spaces), landscape buffers and acoustic mitigation. Formation of vehicular and pedestrian access to Estate road (access not a reserved matter).
- 1.4 Supporting ecology documents submitted for the application are a Preliminary Ecological Appraisal (PEA: The Ecology Partnership 2023a), from the findings of which survey reports were produced for dormice (The Ecology Partnership 2023b); bats (The Ecology Partnership 2023c), and reptiles (The Ecology Partnership 2023d).

Site Description

- 1.5 The site (SU 48750 15962) is located south-east of Chalcroft Business Park and consists primarily of areas of grassland with some scattered trees. The wider area consists of

woodland to the north and west, grassland fields to all aspects, railway tracks to the south and the town of Hedge End to the south-east. The aerial photograph below (Figure 1) shows the site and its immediate surrounds with the approximate site boundary.



*Figure 1: Approximate location of the red line boundary
Satellite imagery captured from Google Earth Pro (April 2023) © Google*

Planning policy and legislation

- 1.6 The planning application may be constrained and guided by legislation and national and local planning policies that relate to biodiversity. The following paragraphs identify relevant legislation and policy and their relevance to the project.

Wildlife Legislation

- 1.7 The following legislation has been considered in determining the scope of this EcIA:
- Wildlife and Countryside Act (1981 as amended);
 - The Protection of Badgers Act 1992;
 - The Hedgerow Regulations 1997;
 - The Natural Environment and Rural Communities (NERC) Act (2006);

- Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019;
- The Environment Act 2021

National and Local Planning Policy

- 1.8 The proposals were assessed against policy guidance provided by the National Planning Policy Framework (NPPF, 2021) as well as relevant planning policies from Eastleigh Borough Local Plan 2016-2036 (adopted in 2022). These policies included the following which are considered relevant to Ecology, Biodiversity and Nature Conservation:

- S9: Green Infrastructure
- DM11: Nature Conservation

2.0 Methodology

Scope of the Assessment

- 2.1 The zone of influence of the development is defined as:
- The project red line, for effects on designations, habitats and species;
 - Adjacent habitat, considered by species, for mobile species with territories or foraging ranges that may overlap the site;
 - Designated sites which can be impacted through development activities; and
 - Undesignated priority (Section 41) habitats that may be sensitive receptors to increased recreational pressure or other impacts such as surface water pollution
- 2.2 The types of features considered in the assessment of effects, to meet legislative and policy requirements, are:
- Designated sites (European, national and local);
 - Protected species;
 - Habitats and species of principal importance (Section 41 list);
 - Hedgerows and woodland, where not of principal importance;
 - Invasive species (Schedule 9 of Wildlife and Countryside Act); and,
 - Habitats, where not of principal importance, that may function as wildlife corridors or stepping stones.

Desk Study

- 2.3 A desktop study search was completed using an internet-based mapping service (www.magic.gov.uk) for statutory designated sites and an internet-based aerial mapping service (maps.google.co.uk) was used to understand the habitats present in and around the survey area and habitat linkages and features (ponds, woodlands etc.) within the wider landscape. Records for the site and local area (up to 2km) were purchased from the Hampshire Biological Information Centre (HBIC).
- 2.4 Prior ecology reports consulted were those produced as in support of this outline planning application:
- Preliminary Ecological Appraisal (The Ecology Partnership 2023a);
 - Dormouse surveys (The Ecology Partnership 2023b);
 - Bat Surveys (The Ecology Partnership 2023c);
 - Reptile surveys (The Ecology Partnership 2023d).

Field Surveys

UK Hab survey

- 2.5 An extended UK Hab survey was conducted on site by The Ecology Partnership in March 2023, in order to inform a Preliminary Ecological Appraisal (PEA) for the site (The Ecology Partnership 2023a). An update survey was conducted in August 2023 to account for any change in species-richness within the grassland. The surveyors identified the habitats present, following the standard 'UK Hab' auditing method. The Ecology Partnership surveyed the site on foot and the existing habitats and land uses were recorded on an appropriately scaled map. In addition, the dominant plant species in each habitat were recorded. In addition, a search for evidence of protected species, assessment of the potential for the site to support protected species, and identification of Section 41 habitats, was also undertaken.

Protected Species Surveys

- 2.6 As part of the PEA, a desk study and protected species assessment was conducted of the site, to identify the need for any further protected species surveys to ascertain the use of the site by these species, and recommend appropriate mitigation.

2.7 The site was thought to have potential to support the following protected species groups/species: bats, dormouse, breeding birds, and reptiles. Further survey work was considered unnecessary for breeding birds, due to the low-impact nature of the proposals to habitats likely to support them, meaning a suitable mitigation strategy would ensure their protection during works, and appropriate habitat creation post-develop would enable them to persist on site. A summary of the survey work completed is set out in the table below. Detailed survey methodologies are provided in the appended, referenced reports:

Table 1 Species surveys

Faunal Group	Survey Methodology	Date of Surveys	Guidance
Bats – tree inspection	As part of the Preliminary Roost Assessment, any trees likely to be removed by the scheme and supporting particular features likely to be of value to bats, such as splits, cracks, rot holes, coverings of ivy, peeling bark or similar, were recorded. The potential for the trees to support roosting bats has been assessed in accordance with the criteria set out in the Bat Conservation Trust guidelines (Collins, 2016)	16 th March 2023	Bat Surveys – Good Practice Guidelines 3 rd edition (Collins, 2016).
Bats – roost surveys (tree)	Dusk emergence surveys commenced at least 15 minutes before sunset until 90 minutes after sunset, during which time, bats were identified and recorded. These were undertaken during suitable weather conditions, when conditions are relatively dry and mild with little/no wind. Surveyors were positioned in such a way as to cover areas of interest and any activity around the tree.	21 st June 2023; 2 nd August 2023; 6 th September 2023	Bat Conservation Trust (BCT) guidelines (Colins 2016)
Bat – activity surveys	A predetermined transect route was agreed and followed for the duration of the survey, during which bat activity was recorded. The transect was walked twice during the surveys. Static Anabat detectors were placed out at two different points along the transect route and left to record for at least five nights each month.	25 th May 2023; 21 st June 2023; 20 th July 2023; 2 nd August 2023; 6 th September 2023 4 th October 2023	Bat Conservation Trust (BCT) guidelines (Colins 2016)
Badgers	During the PEA, all habitats potentially suitable for badgers were systematically examined for evidence of badger activity.	16 th March 2023	Methodology developed for the National Survey of Badgers (Creswell et al. 1990).

Dormice	A total of 50 dormouse tubes were deployed within areas of suitable scrub habitat beneath the mature boundary treelines. Dormice checks were undertaken once a month from May to September 2023 and achieved a probability score of 20.	Setup – 20 th April 31 st May 29 th June 26 th July 16 th August 14 th September	Bright <i>et al.</i> 2006
Reptiles	Approximately 80 mats were placed out and left to bed in for at least a two weeks. These refugia were checked a total of seven times across the survey period within suitable weather for surveying reptiles. Any reptiles seen, were recorded including their species, sex and life-stage where possible.	Setup – 16 th March 3 rd April 20 th April 31 st May 29 th June 26 th July 16 th August 14 th September	Froglife (1999) Gent and Gibson (1998).

Ecological Assessment Methodology

- 2.8 This assessment has been carried out with reference to the CIEEM *Guidelines for Ecological Impact Assessment* (EcIA) (CIEEM, 2018). The guidelines help in the determination of the baseline conditions, what features are important, what impacts significant and how to apply the mitigation hierarchy. The sequential application of the guidelines to this assessment are outlined in the following paragraphs.

Baseline condition

- 2.9 The baseline condition of the site is the situation documented in this report (section 3) from data (field surveys and desk study) gathered between March 2023 and October 2023.

Important ecological features

- 2.10 Important ecological features are those for which the decision maker (LPA or other regulator) needs the EcIA to help to assess the effects (negative, neutral or positive) and to guide the determination of the planning application. Important features are therefore generally defined by whether legislation or policy requires their consideration. For example, a European site within the zone of influence of the development is important and needs an assessment of effects. Similarly, at different levels, any legally protected species and any features such as wildlife corridors and section 41 species, with national or local policy support, are important features. Features that cannot be referenced to legislation and policy are generally not important and the next step of the EcIA (impact assessment) is not necessary. There may occasionally be situations where professional

judgement and local expertise is relevant in defining local rarity as important, regardless of a lack of current legislative and planning support.

- 2.11 The CIEEM guidelines (2018) avoid rigid guidance on the levels of importance, which is often required within EIA, along with the level of magnitude of an effect, as one axis of an impact matrix. Sometimes a label of European, national or local importance may be obvious, for European sites, SSSIs and Local Wildlife Sites respectively. It is often less clear whether a small population of a Section 41 priority species or small extent of a Section 41 habitat should be of local or greater or less importance, as this may depend on data that does not exist on the distribution and abundance of the feature. Legally protected species can be important solely because of the need to meet legislation, or because they are also a feature of a County Wildlife Site or target of a local Biodiversity Action Plan. In these cases, the same species could warrant different levels of importance, possibly with different implications for what is reasonable mitigation or compensation, beyond legislative compliance.
- 2.12 This report follows CIEEM guidelines (2018) in not forcing features into a level of importance, but using ranked importance where possible. Sites are given three levels, corresponding to their legislative and planning support: European, National and Local. Habitats and species, where not a qualifying feature of the hierarchy of sites, are simply referenced to the planning policy or legislation that supports their importance and where possible assessed from the extent, range or population size within zone of influence in relation to the extent, range or population size in the relevant administrative unit, for example LPA boundary or BAP boundary.

Impact assessment

- 2.13 According to CIEEM guidelines (2018), the only essential purpose of impact assessment in EcIA is: *“to assess and report significant residual effects that remain after mitigation measures have been taken into account. However, it is good practice for the EcIA to make clear both the potential significant effects without mitigation and the residual significant effects following mitigation”*.
- 2.14 Impact assessment is required for each feature determined as important and not for other features. CIEEM guidelines (2018) advise that each impact assessment should consider, if

possible, the different stages of a development (construction, operation and decommissioning) and that it should be characterised by the following:

- Positive or negative - whether the impact leads to an adverse, beneficial or neutral effect;
- Extent – the spatial area over which the impact occurs;
- Magnitude – change in, for example, the amount of habitat or the size of population;
- Duration – both in relation to the life cycle of the ecological feature and of the life of the project;
- Frequency and timing – for example, the number of disturbance incidents to birds and their timing in relation to the breeding cycle; and
- Reversibility – if and at what timescale recovery is possible.

- 2.15 As with the assessment of importance, CIEEM 2018 does not encourage a classification of the magnitude of impacts on a scale of severity. Rather, the significance of each impact should be assessed as the quantity of a feature of importance impacted; for example, residual loss of 5% of the extent of woodland within a Local Wildlife Site or gain of 10% in the extent of a section 41 habitat (hedgerows) on the site.

Avoidance, mitigation, compensation and enhancement

- 2.16 CIEEM guidance (2018) recommends a mitigation hierarchy (Figure 2). Once important features and significant impacts are identified, the project design should be modified where possible to avoid significant impacts. If avoidance is not possible, mitigation then compensation should be sequentially considered. A residual impact is an impact that remains after mitigation but is documented here both before and after compensation, as mitigation, particularly if embedded in the design, is assumed to be delivered without input from the LPA or other regulator, whilst compensation may require planning conditions and have some uncertainty on which the regulator should deliberate. Enhancement is an activity that results in a net gain in biodiversity, generally for an important feature, “over and above” anything required for mitigation or compensation. The terms mitigation and compensation are not always clearly defined and there is difference of opinion on their definitions. This report follows the Information Paper on the subject developed in consultation with Natural England for HS2 (2017), from which this quote and illustration are taken:

“A clear distinction is made between the use of the terms ‘mitigation’ and ‘compensation’ reflecting the habitual use in ecological impact assessment of ‘mitigation’ to mean ‘measures taken to avoid or reduce negative impacts’, as separate from ‘compensation’ meaning ‘measures taken to make up for the loss of, or permanent damage to, biological resources through the provision of replacement areas’”

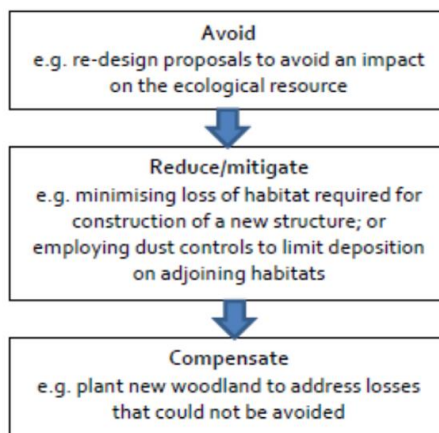


Figure 2: The mitigation hierarchy (from HS2 2017)

Limitations of the Assessment

- 2.17 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment. The site was visited over the period of several site visits, as such seasonal variations cannot be fully observed and potentially only a selection of all species that potentially occur within the site have been recorded. Therefore, the survey provides a general assessment of potential nature conservation value of the site and does not include a definitive plant species list. However, the survey area was visited on a number of occasions over the optimal period, ensuring that detailed habitat information could be gathered. It is therefore considered that the survey work has allowed a robust assessment of habitats and botanical interest across the site.
- 2.18 The specific protected species surveys were undertaken at the appropriate time of year and during suitable weather conditions to an appropriate level of survey effort. Any specific limitations are noted in the relevant sections above or discussed in the results section.

3.0 Baseline Ecological Conditions

Desktop Study

Notable species

- 3.1. As part of the PEA a 2km data search was requested from the Hampshire Biological Information Centre (HBIC). The records included a number of priority species relevant to the site, more details on each of these species can be found within the PEA, however a summarised version is included in Table 2 below:

Table 2: Notable species records within 2km of the site in the last 10 years

Species group	Notable species	Distance of closest record
Invertebrates	White Letter Hairstreak <i>Satyrrium w-album</i>	1.7km south
Reptiles and amphibians	Great Crested Newt <i>Triturus cristatus</i>	600m north
	Grass snake <i>Natrix natrix</i>	1.16km south
Bats	Common Pipistrelle <i>Pipistrellus pipistrellus</i>	325m
	Soprano Pipistrelle <i>Pipistrellus pygmaeus</i>	325m
	Nathusius's Pipistrelle <i>Pipistrellus nathusii</i>	325m
	Brown Long-eared Bat <i>Plecotus auritus</i>	185m
	Serotine <i>Eptesicus serotinus</i>	325m
	Daubenton's Bat <i>Myotis daubentonii</i>	900m
	Whiskered Bat <i>Myotis mystacinus</i>	1.8km
	Natterer's Bat <i>Myotis nattereri</i>	1.7km
Other mammals	Noctule Bat <i>Nyctalus noctula</i>	325m
	Western European hedgehog <i>Erinaceus europaeus</i>	180m
Birds	Eurasian badger <i>Meles meles</i>	335m
	Red Kite <i>Milvus milvus</i>	149m south-east
	Marsh Harrier <i>Circus aeruginosus</i>	1.6km west
	Peregrine <i>Falco peregrinus</i>	Within 2km
	Hobby <i>Falco subbuteo</i>	644m
	Merlin <i>Falco columbarius</i>	1.6km west
	Osprey <i>Pandion haliaetus</i>	1.2km north-east
	Barn Owl <i>Tyto alba</i>	149m south-east
	Cuckoo <i>Cuculus canorus</i>	910m north-west
	Skylark <i>Alauda arvensis</i>	910m north-west
	Fieldfare <i>Turdus pilaris</i>	910m north-west
	Redwing <i>Turdus iliacus</i>	910m north-west

	Brambling <i>Fringilla montifringilla</i>	1.6km west
	Common Crossbill <i>Loxia curvirostra</i>	1.9km north-west
	Woodlark <i>Lullula arborea</i>	1.1km south-west
	Snipe <i>Gallinago gallinago</i>	910m west
	Firecrest <i>Regulus ignicapillus</i>	910m west
	Black Redstart <i>Phoenicurus ochruros</i>	910m west
	Nightingale <i>Luscinia megarhynchos</i>	1.9km north-west
	Linnet <i>Linaria cannabina</i>	910m west
	Lesser Redpoll <i>Acanthis cabaret</i>	910m west
	Yellowhammer <i>Emberiza citrinella</i>	1.1km east
	Reed Bunting <i>Emberiza schoeniclus</i>	645m west

Statutory Sites

- 3.2. The site itself is not designated for its ecological importance or for its nature conservation value. There are four internationally designated statutory sites within 10km (Table 3):

Table 3: Internationally designated statutory sites within 10km

Name of Site	Designation	Distance from site	Primary Reason for Designation
River Itchens	SAC	c.2km NW	Annex I Habitat: Water courses with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation, and Annex II Species: Southern damselfly <i>Coenagrion mercurial</i> , and bullhead <i>Cottus gobio</i> ;
Solent Maritime	SAC	c. 4.37km SE	Annex I Habitat: Estuaries; <i>Spartina</i> swards; and, Atlantic salt meadows
Solent and Southampton Water	SPA	c.5km S	Supports Nationally important assemblage of Mediterranean Gull, Sandwich tern, Common tern, Little tern & Roseate Tern; and, Internationally Important populations of Dark-bellied brent geese, teal, ringed plover, and black-tailed godwit.
Solent and Southampton Water	Ramsar	c.5km S	Extensive diverse wetland habitats, rare plants & invertebrates, internationally important wintering waterfowl.

- 3.3. Two nationally designated statutory sites for ecology were located within 2km:

Table 4: Nationally designated statutory sites within 2km

Name of Site	Designation	Distance from site	Reason for Designation
Moorgreen Meadow	SSSI	c.1.04km S	Lowland meadows and wet woodland
River Itchen	SSSI	c. 1.99km NW	Chalk stream, fen meadow, flood pasture, swamp, Otter, Water vole, important invertebrate assemblage including White clawed crayfish, and southern damselfly; important fish assemblage including bullhead and brook lamprey; and, important bird assemblage including tufted duck.

- 3.4. In terms of non-statutory designations, there are 29 non-statutory designated sites within 2km of the site. All were designated as Sites of Importance for Nature Conservation (SINC) and are listed in Table 5 below:

Table 5: Nationally designated statutory sites within 2km

Name of Site	Designation	Distance from site	Reason for Designation
Chalcroft Distribution Park	SINC	<i>Adjacent to west</i>	Woodland with ground flora indicative of ancient woodland
Round Copse, West End	SINC	c. 40m N	Ancient woodland
Home Covert, West End	SINC	c.750m W	Ancient woodland
Hearts Copse	SINC	c.800m NW	Ancient woodland
Meadow adjacent to Home Covert	SINC	c. 860m W	Good quality semi-improved grassland
Field North of Hearts Row, West End	SINC	c. 943m NW	Wetland
Scorey's Copse	SINC	c. 950m NE	Ancient woodland
Scorey's Copse Meadow	SINC	c. 995m NE	Grassland
Treeline Break, West End	SINC	c. 996m NW	Ancient woodland; Wet woodland
Copse by Oaklands House	SINC	c. 1km W	Ancient woodland; Wet woodland
Winslowe House Meadow	SINC	c. 1.04km W	Unimproved grassland

Scorey's Copse Rush Pasture	SINC	c. 1.12km NE	Good quality semi-improved grassland; Wetland
Moorgreen Woodlands	SINC	c. 1.12km NE	Ancient woodland; Wet woodland
Allington Lane Pond	SINC	c. 1.27km NW	Pond; Great Crested Newt
Alder Strip;	SINC	c. 1.32km E	Ancient woodland; Wet woodland
Botley Golf Course Wood	SINC	c. 1.54km SE	Ancient woodland; Wet woodland
Snakemoor Farm Meadow	SINC	c. 1.38km NE	Good quality semi-improved grassland
Bushy Copse	SINC	c. 1.48km W	Ancient woodland
Hogwood Lane Drove	SINC	c. 1.53km NW	Ancient woodland
Hog Wood and Gravel Pits	SINC	c. 1.56km NW	Ancient woodland; Wet woodland; Ponds; Great Crested Newt
Withybed Covert / Ridgeway Copse	SINC	c. 1.63km W	Ancient woodland
Hogwood Lane Meadow	SINC	c. 1.64km NW	Good quality semi-improved grassland; Wetland
Quobleigh Pond and Woods	SINC	c. 1.67km N	Ancient woodland; Wet woodland
Itchen Valley Country Park	SINC	c. 1.68km NW	Rivers/ponds; Wetland; Good quality semi-improved grassland; Harvest mouse, Otter, Water shrew, Aquatic flora.
Wyvern Technology College Meadow	SINC	c. 1.7km NE	Unimproved grassland
Ford Lake Woodland	SINC	c. 1.72km SE	Woodland with ground flora indicative of ancient woodland; Wet woodland
Ponds and Meadow adjacent to Wyvern Technology College	SINC	c. 1.84km N	Great Crested Newt
Bottom Copse / Bushy Copse	SINC	c. 1.88km SE	Ancient woodland; Wet woodland
Ford Lake Meadow	SINC	c. 1.98km W	Woodland with ground flora indicative of ancient woodland; Good quality semi-improved grassland; Wetland

Notable offsite habitats

3.5. There are several units of priority habitat within 2km of the site. The closest of each type is:

- Deciduous woodland adjacent to the west of the site;
- Coastal and floodplain grazing marsh c. 490m north of the site;
- Ancient semi-natural woodland c. 650m north-west of the site;
- Traditional orchards c. 656m south-west of the site;
- Purple moor grass and rush pasture c. 1km north-east of the site;
- Lowland meadows c. 1.04km south of the site; and
- Good quality semi-improved grassland c. 1.3km north-east of the site.

Baseline habitats on the site

3.6. The site was subjected to a UK Hab survey as part of a preliminary ecological appraisal undertaken on the 16th March, with update checks throughout the year alongside the various protected species surveys. The findings are summarised below and are described in full detail in the accompanying PEA (The Ecology Partnership 2023a).

3.7. The majority of the site comprised species-poor neutral grassland, bordered by areas of bramble scrub, bracken and native hedgerows (See Figure 4 overleaf). Two mature oaks are present in the centre of the site with other present along the south-eastern boundary. The canopy of the adjacent woodland extends over the north-western site boundary.

3.8. The only habitat of note on site was the mature trees, native hedgerow and the adjacent woodland habitat to the north-west. These habitats were considered to be of **Local'** value (See Table 4 overleaf).

3.9. No other habitats on site were considered to meet the criteria for priority habitat or have sufficient inherent ecological value, and as such is not required to be assessed at EcIA level.



Figure 4. Habitat map for the site.

Table 4: Habitats and Level of Importance

Habitat type	Description	Level of importance
Woodland	An area of priority habitat deciduous woodland was present adjacent to the west of the site. This habitat was found to overlap into the site boundary and included species such as hazel and oak frequently, and bluebell, bramble and ground ivy occasionally.	Local
Modified grassland	A section of modified grassland was identified along the northern edge of the site boundary. This habitat was well-managed with vegetation kept at a short sward. Within this habitat perennial rye-grass was observed in abundance, with other species present occasionally including common bent, common mouse-ear, creeping buttercup, dove's-foot crane's-bill, lesser hop trefoil, meadow foxtail, ribwort plantain, spotted medick, wavy bitter-cress, and white clover.	Site
Species poor other neutral grassland	The majority of the site consisted of a large area of neutral grassland. This grassland was unmanaged and consisted of longer sward, tussocky vegetation. This was dominated by Yorkshire fog and timothy, with species such as perennial rye-grass and common bent appearing frequently. Other herbaceous species that were present included occasional bramble, broad-leaved dock, cock's-foot, cow parsley, creeping buttercup, creeping cinquefoil, soft rush, spear thistle, and wood dock.	Site
Bramble Scrub	Several areas of bramble scrub were present on site. These habitats were dominated by bramble, with species such as bracken appearing in abundance, and common nettle appearing occasionally.	Site

Native hedgerow	A length of native hedgerow was identified along the northern, eastern and southern boundary of the other neutral grassland field on site. This habitat consisted of an abundance of blackthorn, with species such as hawthorn, bramble and common ivy appearing frequently, and species such as dog-rose, hazel and lords-and-ladies appearing occasionally.	Local
Scattered trees	Several large mature trees were present on site which consisted predominantly of oak in the centre of the other neutral grassland and along the south-eastern boundary of the site, and one Douglas fir on the grassland verge to the north of the site. Due to the size and maturity of these trees, they are collectively considered to be of local value.	Local

Species and species groups on site

Bats

- 3.10. The PEA desk study resulted in records of nine species of bat within 2km of the site within the past 10 years, as well as seven Mitigation Licences from Natural England relating to roosts (The Ecology Partnership 2023a).
- 3.11. Following the tree inspections, subsequent emergence/re-entry surveys it was confirmed that bats were likely absent from all trees on site (The Ecology Partnership, 2023c). However, a single mature oak on site does have suitable features for roosting bats, and although a roost was confirmed absent in 2023, if retained the tree could offer a suitable roosting place for bats in future years.
- 3.12. The hedgerows, trees and scrub around the perimeter of the site provided suitable foraging opportunities and commuting links to the surrounding landscape for bats. The grassland on site, whilst species-poor, still offers some minor value for foraging. The site was generally considered to be of 'moderate' habitat suitability of foraging and commuting bats, owing to the adjacent woodland and railway corridor to the west.
- 3.13. Activity surveys and static recording devices found common pipistrelle to be the most frequently recorded species on site, with lower numbers of myotis species, soprano pipistrelle and serotine, and rare occurrences of noctule, brown long-eared, barbastelle bat and Nathusius' pipistrelle (The Ecology Partnership, 2023c). However, it should be noted that common pipistrelles were still only found in relatively low numbers, with an average of around 29.8 passes per night respectively. Overall, the bat assemblage utilising the site for roosting and commuting/foraging was considered to be of '**Site**' value only.

Badgers

- 3.14. A badger survey was undertaken as part of the PEA (The Ecology Partnership 2023a) with the site walked to search for the signs of use by badgers. No evidence of badgers, such as setts, latrines, snuffle holes or footprints were identified within the site on the day of survey. However, habitat on site was suitable for foraging, it was considered possible that the site could be used occasionally by badgers for commuting and foraging. However, significant potential impacts are considered unlikely, and it is therefore considered that this species is not required to be assessed at EcIA level.

Reptiles

- 3.15. Edge habitats on site were of high suitability for reptiles, although the majority of grassland on site was less suitable due to its open nature and lack of cover. On completion of the reptile survey, it was confirmed that the site supported a 'low' population of slow worm (The Ecology Partnership 2023d). This population is considered to be of 'Site' value.

Dormouse

- 3.16. Dormouse surveys carried out between May and September 2023 did not record presence of any dormouse (The Ecology Partnership 2021b). As such, they are determined to be likely absent from the site, and have been scoped out of the EcIA.

Great crested newts

- 3.17. The boundary hedgerow and bramble scrub habitats within the other neutral grassland on site were considered suitable for great crested newts in their terrestrial phase. However, due to the lack of suitable breeding ponds within 250m and the presence of multiple dispersal barriers between the nearest confirmed GCN breeding pond and the site, it was considered unlikely that GCN are present on site. As such, they are determined to be likely absent from the site, and have been scoped out of the EcIA.

Breeding birds

- 3.18. The hedgerow, bramble scrub, woodland, and scattered trees on site all have the potential to support nesting birds. However, due to the size of the site and a lack of high value habitats and features within the majority of the site, it is considered that the breeding bird assemblage on site is likely to be of importance at 'Site' level only.

Hedgehog

- 3.19. The hedgerow and edge habitat along the boundaries of the site was suitable to support hedgehog. This species are likely to be utilising the edge habitat on site for foraging. Due to the size of the site, any population of hedgehog on site is likely to be of importance up to 'Site' level.

Invertebrates

- 3.20. Due to the size of the site and low botanical diversity of the grassland, it is considered likely that the invertebrate assemblage on site is unlikely to exceed 'Site' value. As such, it is considered that invertebrates are not required to be assessed at EcIA level.

Future baseline

- 3.21. Future baseline conditions are conditions which would be likely to arise if present conditions continue and a change of land use through the planning system does not occur. As the site is unmanaged, it would likely continue to be represented by rank grassland, areas of bramble scrub will begin to encroach from the edges of the site, along with self-seeded shrubs and trees. However, any notable change in the ecological character of the site from grassland to a site dominated by scrub and scattered trees would likely take around 15 years.
- 3.22. Table 5 summarises the findings of these surveys and assesses the level of importance for each notable species/species group:

Table 5: Summary table of faunal groups surveyed & present on the site & levels of importance

Faunal Group/Species	Description	Level of importance
Bats – roosting	A single mature oak in the centre of the site presented suitable features for roosting bats, however, a roost was confirmed absent in 2023. However, it is possible that small numbers of bats may occasionally utilise the tree for roosting in the future.	Site (legislative implications)
Bats – foraging and commuting	The activity surveys found the site to only support relatively low numbers of bats with the most frequently recorded species (common pipistrelle) only recorded an average of 29.8 passes a night. Eight species were recorded overall, however the majority were only recorded in very low numbers. The edge habitats on site may form part of a network of foraging and commuting habitat for bats across the landscape. However, high value foraging habitat is scarce in the	Site

	surrounding local area, and, as such, the site itself is of low value for commuting/foraging bats.	
Reptiles	The reptile surveys conducted onsite confirmed presence of an 'low' population of slow worm.	Site (legislative implications)
Breeding Birds	Breeding birds are likely to be using the trees and scrub on site as well as the buildings for nesting purposes.	Site (legislative implications)
Hedgehog	Hedgerows, grass margins and boundary scrub on site was considered suitable to support hedgehog.	Site
Invertebrates	Limited nectar resources are available in parts of the site; however, the poor botanical diversity and relatively small size of the site likely limits the overall value of this assemblage.	Site

4.0 Description of the Proposed Development

4.1 The proposed development is for an outline application for up to development of up to 3,410m² of commercial floorspace (Use Classes E(g)(ii), E(g)(iii) and B8) to include farm shop (Use Class E(a)) of up to 325m², parking and yard areas (including accessible spaces), landscape buffers and acoustic mitigation. Formation of vehicular and pedestrian access to Estate road (access not a reserved matter).

4.2 Embedded **Avoidance/Mitigation** measures incorporated into the submitted site layout include:

- The retention and protection of the majority of boundary habitat along the site boundaries, as well as a mature trees on site, to avoid impacts on birds, bats, reptiles, and hedgehog in these areas.

5.0 Assessment of Effects as well as Avoidance and Mitigation Measures

5.1 The impact assessment is for the development as described above, including the proposed site layout plan (See Appendix 1). The assessment does not separate construction and operation impacts, solely assessing effects on important features that would result from the final layout. Residual impacts are those after mitigation and before compensation, which is considered in this section.

5.2 Features within the red line that require an impact assessment are those determined as important in section 3, namely;

- Mature trees (important habitat)

- Native hedgerow (priority habitat)
- Bats (potential roosting, foraging and commuting habitat)
- Reptiles,
- Breeding birds, and,
- Hedgehog.

5.3 Important features outside the redline boundary, but located in close proximity to the site or within the zone of influence of the potential for increased recreational pressure or other potential negative effects, therefore requiring impact assessment, are:

- River Itchen SAC;
- Solent Maritime SAC;
- Solent and Southampton Water SPA;
- Solent and Southampton Water Ramsar;
- Moorgreen Meadows SSSI;
- River Itchen SSSI;
- Chalcroft Distribution Park SINC;
- 28 other SINC's within 2km of the site; and,
- Lowland mixed-deciduous woodland (Priority habitat).

Mature trees (important habitat)

5.4 All mature trees on site will be retained, and protected from the works, with appropriate protective fencing around their root protection areas. As such, it is considered that the development will result in a **neutral effect** on the mature trees on site.

Hedgerow (priority habitat)

5.5 A native hedgerow is present along the northern and eastern site boundary. This will largely be retained and protected as result of the proposed development, however the existing 3m gap where the access gate was located will be widened to a 20m section along the northern boundary to facilitate the new road access into the site. Collectively this loss results in a **minor negative effect** on this habitat at the local level.

Bats (roosts)

- 5.6 No bat roosting habitat will be lost as a result of the proposals. As such, it is considered that the development will result in a **neutral effect** on roosting bats

Bats (foraging and commuting)

- 5.7 The site is relatively small in size, with features of main interest for commuting and foraging restricted to the boundary scrub and hedgerows, which was confirmed in the observations of bats during the activity transects. As previously stated, the creation of a new access road in the north of the site would result in the permanent loss of a 16m section of hedgerow. However, this is expected to be mitigated through the planting of large growing oak trees either side of the access, whose canopy will eventually provide a crossing point for bats moving along this boundary. Additionally, habitat along the south, east and western boundaries is to be retained, and as such, the loss of a small section of hedgerow at the north of the site would not sever an important commuting corridor for bats.
- 5.8 Due to the commercial nature of the development, there will be an increase in artificial lighting on site. As such, a sensitive lighting strategy should be prepared to reduce the impact of any artificial lighting on bat commuting and foraging habitat, as recommended within the Bat Activity report (The Ecology Partnership 2023c).
- 5.9 If a sensitive lighting strategy is enacted, it is considered that overall, owing to the retention of most existing commuting habitat, and the relatively low numbers of bats that currently utilise the site, the development will result in **neutral effect** for foraging and commuting bats.

Reptiles

- 5.10 Proposals will result in the loss of the majority of the central grassland habitat and some areas of scrub habitat within the site, although the most optimal reptile habitat around the edge of the site will be largely retained. Without mitigation, this would result in a negative effect on the reptile population on site, as they would likely be harmed or killed during ground clearance works in the short-term and have lost a significant area of suitable habitat (albeit sub-optimal) in the long-term. To avoid harm to individual reptiles and mitigate for the loss of habitat within the site, reptiles will be trapped out of the works

area, and safely translocated to a suitable receptor site within retained habitat in the south of the site, through the methods detailed in the reptile report (The Ecology Partnership, 2023d).

- 5.11 Whilst this will mitigate any short-term physical impacts to individuals that would otherwise occur during habitat clearance works on site, without sufficient compensatory uplift of habitat in the receptor area, there will still be a **minor negative effect** on the reptile population at the site level in the long-term. As such, further compensatory measures are required.

Breeding birds

- 5.12 The legislative protection afforded active nests, birds and their eggs and young will be met through the clearance of vegetation outside of the breeding season or after a nesting bird check by a suitably qualified ecologist. The development will result in a temporary loss of suitable nesting habitat provided by small areas of bramble scrub, and hedgerow. It is not considered that these habitats are likely to support large numbers of breeding birds or species of significance. It is considered that there may be some increase in disturbance from vehicles as part of the operational phase. It is considered that the temporary loss of nesting bird habitat will result in a **minor negative effect at the site level** and further compensation is required.

Hedgehog

- 5.13 Due to the removal of small areas of bramble scrub and a small section of hedgerow on site, there will be a temporary loss of some hedgehog habitat, and without mitigation, potential for harm to come to hedgehogs on site. As such, sensitive clearance and Reasonable Avoidance Methods (RAMS) are considered the most appropriate and proportionate approach to avoid any immediate harm to hedgehog. Scrub habitat within the development footprint should be cut in two stages: first to 150mm, followed by a check by an ecologist, and then a second cut down to ground level. Any log and brash piles should be removed carefully by hand in order to prevent harm to any hedgehog which could be found here. These would be placed in the retained areas of edge scrub, away from the works area. This would be undertaken under ecological supervision in two stage cuts during the active season for hedgehog (April - October weather dependent). If this method

is adhered to, direct harm to hedgehog will be avoided, however loss of some suitable habitat will still take place, therefore a **minor negative effect at site level** would be anticipated in the absence of compensation.

River Itchen SAC/SSSI, Solent Maritime SAC, Solent & Southampton Water SPA/Ramsar

- 5.14 The site falls within the catchment of the River Itchen and therefore also the Solent Estuary which it flows into. Both these are subject to a number of international and national statutory designations including two SAC's, an SPA, Ramsar and SSSI. Significant cumulative impacts on these designations are associated with nutrient loading, largely from housing / overnight accommodation. As the proposals are for light industrial / business park development, the requirement for compensation measures may not be required, as the development is not resulting in an increase in population within the catchment and would likely be operated by local people already living within the catchment. It is recommended that consultation with the LPA is conducted to ensure that nutrient neutrality is addressed if required. As such, the effect of the site on these designations is **undetermined** at this outline stage, however, is unlikely to be significant.

Moorgreen Meadows SSSI

- 5.15 The closest statutory designation to the site is Moorgreen Meadows, c.1.04km to the south. Due to the non-residential nature of the development site, no increase in recreational pressure on this SSSI is anticipated. Additionally, the SSSI is located within a different catchment to the site, and as such, is not hydrologically linked, as such, given the distance from the site and scale of the development it is determined that the development would result in **no residual effect** on the SSSI.

Chalcroft Distribution Park SINC

- 5.16 The site is situated adjacent to Chalcroft Distribution Park SINC to the west which is designated for the presence of priority habitats including lowland mixed deciduous woodland and due to having characteristics of ancient semi-natural woodland. The site has been designed with a 20m wildlife buffer between it and the SINC, well outside the root protection areas (RPA's) of these trees. The woodland sits at an equal elevation to the majority of the site which gently slopes down to the north, away from the woodland, in addition, the site will feature Sustainable Urban Drainage Systems SUDS. As a result, this would prevent any pollutants associated with runoff from interacting with the woodland

SINC. Additionally it is recommended that suitable dust barriers and protective fencing is established during the construction phase to prevent pollution associated with this dust. Following these mitigation measures it is determined that the development would result in **no residual effect** on the SINC.

Other non-statutory designated sites

- 5.17 In addition to the aforementioned Chalcroft Business Park SINC, a further 28 non-statutory designations are present within 2km of the site. The closest of these is Round Copse, West End SINC, located c.40m to the north, on the other side of the existing business park. This SINC is located on private land and enclosed within a security fence. The next closest designation is Home Covert, West End SINC located c. 750m to the west. Due to the non-residential nature of the development and distance from these 28 designations, it is determined that the development would result in **no residual effect** on the SINC.

6.0 Cumulative Impacts

- 6.1 Only one significant future development has been identified in the surrounding area. This is reviewed below and its location in relation to the application area are shown in Figure 6.

O/20/89498– Land at Burnetts Lane, Fir Tree Lane and Allington Lane, Eastleigh, SO50 7BZ – Validated

- 6.2 Located 20m to north, Outline Planning Permission validated for a phased mixed-use development comprising severable and separate phases of development consisting:
- Up to 2,500 residential units in total;
 - Local Centre (and supporting secondary local centres) on land up to 3.1ha comprising mixed-use residential, retail, leisure, community, employment, day nursery, food establishment uses;
 - Further non-residential floorspace on land up to 5ha comprising of office, commercial and industrial uses and general industrial and storage & distribution uses;
 - A 3FE Primary School;
 - Public open space including formal sports facilities and informal provisions, allotments, ecological, landscape and sustainable drainage works;

- key infrastructure and utilities provision including new roads, footpaths, bridleways and cyclepaths;
- Vehicular access from Allington Lane, Fir Tree Lane and Burnetts Lane with improvements to the existing road junction at Fir Tree Lane/Burnetts Lane; and,
- Site preparation and demolition works.

6.3 All Matters Reserved Except Access. This application is subject to Environmental Impact Assessment. Ecology Assessment by Ecology Solutions concluded no significant effects on all receptors, with most residual effects being considered negligible, absent or minor positive, the exceptions being a minor non-significant likely effects on:

- potential accidental pollution and indirect degradation of foraging bat habitat;
- increase in road collision mortality of bats;
- destruction/severance/accidental pollution of GCN habitat, as well as killing/injury of individuals;
- potential accidental pollution of water vole habitat;
- destruction/severance/accidental pollution of reptile habitat, as well as killing/injury of individuals;
- disturbance/destruction/severance of reptile habitat, as well as killing/injury of individuals;
- destruction of habitat features for badger;
- damage/destruction of active bird nests;
- disturbance/loss of foraging habitat for barn owl;



*Figure 6: Location of relevant future housing development
Satellite imagery captured from Google Earth Pro on 27/10/2023*

6.4 Assuming that all ecological mitigation and compensation recommended in the ecology reports for both site, a cumulative impact from the developments would be insignificant.

7.0 Compensation

7.1 It is recommended that the compensation methods, outlined below, are included as part of planning conditions for the outline planning application. In this development, compensation covers the loss of reptile, nesting bird, hedgehog and invertebrate habitat, as a result of the loss of scrub and grassland habitat across the site, as well as minor loss of scrub and trees. Compensation addresses the loss of habitat, which could not be avoided through the development plans, which needs to provide a minimum area of commercial floorspace.

River Itchen SAC/SSSI, Solent Maritime SAC, Solent & Southampton Water SPA/Ramsar

- 7.2 As explained previously, as the proposals are for a light industrial / business park development, as opposed to residential, the requirement for compensation measures to address nutrient increases may not be required, owing to the development not resulting in an increase in population within the catchment and likely operated by local people already living within the catchment. It is recommended that consultation with the LPA is conducted to ensure that nutrient neutrality is addressed if required. If a minor negative effect is determined by the LPA, then compensation will be required in the form of a financial contribution to a nitrate off-setting scheme. On this basis, **no residual effects** are anticipated.

Hedgerow (priority habitat)

- 7.3 To compensate for the minor loss of native hedgerow habitat in the north of the site, it is recommended that the remaining hedgerows on site are enhanced through supplementary planting. On the basis of this compensatory hedgerow enhancement, **no residual effects** are anticipated.

Bats (Foraging and commuting)

- 7.4 As part of the landscaping strategy a planting scheme will be developed to ensure that there is connectivity maintained across the site, with new planting compensating for minor fragmentation caused by the development. The creation of two SUDS ponds in the north-west of the site will also provide an additional foraging resource for bats. On the basis of a robust landscape strategy for edge habitats on site, there will be **no residual effect** on foraging and commuting bats.

Reptiles

- 7.5 In order to compensate for the loss of sub-optimal reptile habitat within the site, the retained areas of habitat will be enhanced for reptiles and act as the receptor site. The small reptile population within the works will then be translocated to this receptor area. On this basis, there will be **no residual effect** on reptiles.

Breeding birds

- 7.6 New planting and bird boxes included within the development will compensate for the initial minor loss of nesting and foraging habitat post development. As such, there will be **no residual effect**.

Hedgehog

- 7.7 Loss of any potentially suitable hedgehog habitat during the remediation process will be compensated for by new scrub planting, and the installation of log piles and hedgehog shelters in suitable areas throughout edge of the site. As such, **no residual effect** to hedgehogs are anticipated.

8.0 Enhancement

- 8.1 The following enhancements are proposed to be incorporated into the site design, which go beyond compensation:
- Long-term management of both retained and created communal habitats to benefit wildlife.

9.0 Monitoring

- 9.1 Ecological clerk of works tasks will be required during site clearance, to ensure that sensitive clearance measures for reptiles, birds, and hedgehog is adhered to, as well as implementation of the conditions, and to check that there is no change in the baseline that may alter the implementation of the development. All details of monitoring and mitigation measures during site preparation and construction would be detailed within a Construction Environmental Management Plan (CEMP).
- 9.2 As part of the reptile translocation, refugia placed out within the trapping area would be monitored daily, throughout the designated trapping period, with any reptiles found moved safely to the receptor area.
- 9.4 All habitats and ecological features on site will be monitored, maintained, and managed for biodiversity in the long-term. Full details of monitoring, maintenance, and management measures would be detailed within a Landscape Ecological Management Plan (LEMP).

10.0 Summary and conclusions

- 10.1 The development results in a change of land use of c.1.8ha of land, from agricultural pasture to commercial business park, and green infrastructure. Additionally, retained areas of habitat on site will be enhanced for reptiles and act as a receptor site for the proposed translocation. Table 6 (below) summarises the effects on important features and how mitigation and compensation have been applied.

Baseline ecology and effects

- 10.2 The baseline features evaluated as important (through site designation, legislative protection or priority status on NERC Act 2006 Section 41 lists), so needing an assessment of effects, are as follows.

On site:

- Mature trees;
- Hedgerows;
- Bats (roosts and foraging and commuting habitat);
- Reptiles;
- Breeding birds; and,
- Hedgehog

Off site:

- River Itchen SAC;
- Solent Maritime SAC;
- Solent and Southampton Water SPA;
- Solent and Southampton Water Ramsar;
- Moorgreen Meadows SSSI;
- River Itchen SSSI;
- Chalcroft Distribution Park SINC;
- 28 other SINC's within 2km of the site; and,
- Lowland mixed-deciduous woodland (Priority habitat).

Mitigation, compensation and enhancement

- 10.3 Embedded mitigation includes the following:

-
- The retention and protection of the majority of boundary habitat along the southern, eastern and western boundaries as well as all mature trees, to avoid impacts on birds, bats, reptiles, and hedgehog in these areas.
- 10.4 Non-embedded mitigation which should be secured as part of any planning permission and are as follows:
- Sensitive lighting scheme for bats; and,
 - Recommended working practices and timings of works will also provide mitigation for potential protected species on site.
- 10.5 Residual impacts are removed through compensation, which should be secured as part of any planning permission and are as follows.
- Offsetting any net-increases in nutrient loads on River Itchen and Solent Estuary, if deemed necessary by LPA;
 - Planting of new scrub, and enhancement of hedgerows and grassland on site to ensure that sufficient compensatory habitat is provided for reptiles, foraging and commuting bats, breeding birds, and hedgehogs.
 - Enhancing receptor area for reptiles prior to translocation.
 - Provision of compensatory dormouse, bird, bat and hedgehog nesting/roosting opportunities.
 - Provision of access points for hedgehog within new gardens
- 10.6 Enhancements should be secured by condition including:
- Provision of additional bat boxes on trees;
 - Landscaping strategy includes additional SUDS ponds which will be designed for wildlife, creating habitat, not previously on site.
 - Long-term management of created communal habitats to benefit wildlife.
- 10.7 Monitoring will include an ecological clerk of works at construction phase and monitoring to ensure implementation of the conditions and to check that there is no change in the baseline that may alter the implementation of the development. All newly created habitats will be monitored and maintained in the long-term to ensure their biodiversity value, to be detailed within a LEMP document.

Table 6: Effects of the development

Feature	Effect type and magnitude	Mitigation and residual effect	Compensation	Residual effect	Enhancement/ biodiversity gain
Designated sites					
Solent Maritime SAC	Undetermined Potential minor net-increase in nitrates within the catchment area contributing to cumulative impacts on the River Itchen and Solent estuary to be determined by LPA.	Undetermined None	Contribution to nutrient offsetting scheme, if necessary	Neutral	None
Solent & Southampton Water SPA/Ramsar					
River Itchin SAC/SSSI					
Moorgreen Meadows SSSI	Neutral	None	None	Neutral	None
Chalcroft Distribution Park SINC	Neutral	Neutral Maintain 20m buffer	None	Neutral	None
Other non-statutory designations within 2km	Neutral	None	None	Neutral	None
Priority/important habitats					
Mature trees	Neutral	Neutral Protect existing mature trees during construction	None	Neutral	None
Hedgerow	Negative (minor) Local level Permanent loss of small section of hedgerow in the north of the site.	Negative (minor) Local level None	Enhance remaining edge row through planting of additional species and appropriate long term management	Neutral	None
Woodland	Neutral	Neutral Maintain 20m buffer	None	Neutral	None
Priority and protected species					
Bats (roosts)	Neutral No roosts recorded on site	Neutral Protect existing mature trees during construction	None	Neutral	None
Bats (foraging)	Negative (minor) Local level Potential negatives effects from artificial light.	Neutral Sensitive lighting scheme	None	Neutral	None

Reptiles	Negative - Site level Loss of individuals and permanent loss of largely sub-optimal habitat and small area of optimal habitat.	Sensitive trapping and translocation of reptiles out of the construction area at the appropriate time of year, followed by sensitive clearance methods under supervision of an ecological clerk of works. Negative (minor) - Site level	Retained receptor area to be enhanced for reptiles. Subsequently, reptiles to be translocated to this receptor area, to be managed for reptiles in the long term.	Neutral	None
Breeding birds (active nests, all species)	Negative - Site level Damage to active nests and loss of habitat Potential predation from domestic cats from new residents	Negative (minor) - Site level Site clearance works timing outside of breeding bird season or under ecological supervision.	Planting of replacement habitat Use of bird boxes	Neutral	None
Hedgehog	Negative - Site level Loss of individuals and permanent loss of small areas of habitat	Negative (minor) - Site level Site clearance works timing outside of hibernation period and under a sensitive method of works.	New scrub planting and use of hedgehog shelters around site boundary.	Neutral	None

11.0 References

Bright, P. et al. 2006. Dormouse Conservation Handbook. Second edition. English Nature.

Chapman, C., & Tyldesley, D. (2016). *Small-scale effects: How the scale of effects has been considered in respect of plans and projects affecting European sites-a review of authoritative decisions*. Natural England Commissioned Reports, (205).

CIEEM. 2018. *Guidelines for Ecological Impact Assessment in the UK 3rd Edition*, Institute of Ecology and Environmental Management, <http://www.ieem.net/ecia>

Collins, J (ed). 2016. *Bat Surveys – Good Practice Guidelines* (3rd Edition). Bat Conservation Trust, London.

Cresswell, P, Harris, S & Jefferies, D. J. 1990. *The history, distribution, status and habitat requirements of the badger in Britain*. Nature Conservancy Council, Peterborough.

Ethos Environmental Planning (2015) Ecology Assessment – Land to the rear of 97-103 Blackberry Lane, Four Marks.

Froglife (1999) *Reptile survey: An introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife advice sheet 10, <http://www.froglife.org/advice/sheets/>

HGBI (1998) *Evaluating local mitigation/translocation programmes: Maintaining Best Practices and lawful standards*. HGBI advisory notes for Amphibian and Reptile Groups (ARGs). Herpetofauna Groups of Britain and Ireland, c/o Froglife, Halesworth.

JNCC (2007) *Handbook for Phase 1 habitat survey - a technique for environmental audit*, Joint Nature Conservation Committee

The Ecology Consultancy (2023a) Land South-East of Chalcroft Business Park - *Preliminary Ecological Appraisal*

The Ecology Consultancy (2023b) Land South-East of Chalcroft Business Park - *Dormouse Survey Report*

The Ecology Consultancy (2023c) Land South-East of Chalcroft Business Park - *Bat Survey Report*

The Ecology Consultancy (2023d) Land South-East of Chalcroft Business Park - *Reptile Survey Report*

Appendix 1. Illustrative landscape masterplan

Draft Illustrative landscape masterplan (Deacon Design, February 2024)



The Ecology Partnership Ltd

Thorncroft Manor

Thorncroft Lane

Leatherhead

KT22 8JB

Tel: 01372 364 133

www.ecologypartnership.com

Approved: Alexia Tamblyn MA (Oxon) MSc CEcol CEnv MCIEEM FRGS

Issued: 07/03/2024