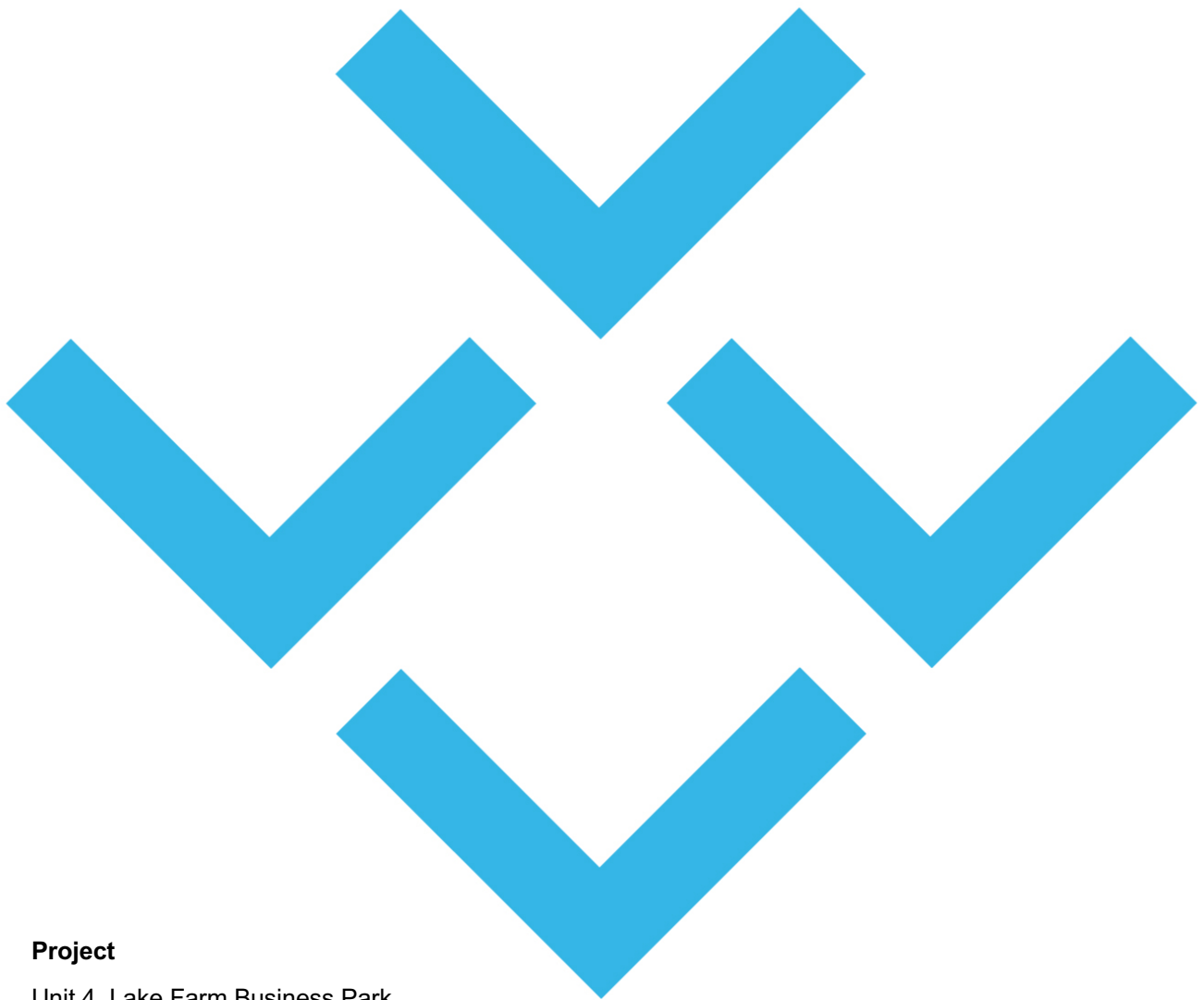




Project

Unit 4, Lake Farm Business Park
Preliminary Ecological Appraisal

Project No

EC2033

Client

Mark Cox

Date

August 2023

Project

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EC2033

Client:

Mark Cox

Site survey:

Fraser Gurney, Harley Stone

Final version completed by:

Fraser Gurney

Technical check completed by:

Pete Satchell

Project Manager Disclosure:

The advice which we have prepared and provided is true to the best of our knowledge and utilises information available at the time. The advice has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct.

Quality check completed by:

Helen Satchell

Date

August 2023

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Summary

enims Ltd has been commissioned to carry out a Preliminary Ecological Appraisal (PEA) of Lake Farm Business Park, Allington Lane, Fair Oak, Eastleigh, Hampshire, SO50 7DD (Grid Reference SU 48191 17739). This is in order to support a planning application for the site. The proposed development is to extend an existing building and associated tarmac hardstanding.

The application site consists of three buildings and a greenhouse set within hardstanding tarmac and surrounding amenity grassland areas. Buildings B1 and B2 were metal and used as a workshop and shed respectively, while B3 was brick with a metal roof and used as office space. Piles of unused building materials were scattered throughout the application site, as were many debris piles of wooden boards, woodchip, brick rubble and various other materials. To the north of the hardstanding tarmac was amenity grassland, with patches of bare earth, extensive stands of long grass and weeds, edged by various types of hedgerow. To the south of the hardstanding tarmac was an area mostly classified as coastal and floodplain grazing marsh, made up of extensive long grass and weeds surrounded by a strip of amenity grassland, a waterlogged ditch with a treed hedgerow, a laurel hedge and a hardstanding tarmac driveway. A large oak on the far side of the driveway overhung the drive and part of the southern area.

Some simple pollution control measures should also be implemented during construction to ensure the notable habitat on the application site is not adversely impacted. The notable habitat on the application site is not near the proposed development footprint. Removal of any trees or shrubs should be timed to avoid the main bird nesting period of March through August. The construction site should be left safe at the end of shift to avoid potential harm to badger, reptiles, amphibians and hedgehog which may move through the application site at. Removal of any debris piles and vegetation (if required) should be undertaken carefully and with consideration to the potential presence of reptiles, amphibians and hedgehog. Should the oak overhanging the site driveway need to be pruned or removed, an arboriculturalist should be consulted.

The National Planning Policy Framework (NPPF) encourages projects to implement ecological enhancements to achieve net gains for biodiversity. Possible opportunities to enhance wildlife potential, appropriate to this site, are given in this report.

Further Survey Effort/Ecology Requirements

No further survey is currently required for the application site regarding the proposed development.

1 Introduction

1.1 Background to Commission

enims Ltd was commissioned by Mark Cox in July 2023 to undertake a Preliminary Ecological Appraisal (PEA) at Lake Farm Business Park, Fair Oak. The appraisal was carried out to provide baseline ecological information about the site and to identify any potential ecological constraints associated with the proposed development of the application site. Due to the nature of the application site and proposed development, bats were the primary consideration and a Preliminary Roost Assessment was the focus of the site survey visit. The information presented in this report will serve to support a planning application.

1.2 Scope of Report

The purpose of this PEA is to establish the current biodiversity value of the site, identify and assess any potential ecological constraints/impacts associated with the proposed development, and to provide recommendations for additional survey work if required. Avoidance, mitigation/compensation and/or enhancement measures are recommended where necessary to ensure compliance. The assessment is based on the following information sources:

- A desk study of the site and up to a 1km surrounding radius.
- A Preliminary Roost Assessment of the building(s) to be impacted.
- A walkover of the application site in order to record habitats following Phase 1 Habitat Survey classification (JNCC 2010) and to identify features with potential to support protected or otherwise notable species.
- The site plan 'Location and Site Plan', supplied and designed by Mark Cox.

1.3 Site Description

The application site is Lake Farm Business Park, approximately 1.35 hectares in size, located on Allington Lane, Fair Oak, Eastleigh, Hampshire, SO50 7DD (Grid Reference SU 48191 17739). The site is comprised of an area of hardstanding tarmac and several open areas of grass with trees or hedgerows around their edges. There is a large industrial building and a smaller retail building on the hardstanding area, and a large shed on one of the grass areas. A driveway connects the hardstanding area to Allington Lane and separates the application site from a residential property with the same landowner. The site belongs to the administrative authority of the Eastleigh Borough Council.

Plans showing the location of the site and surrounding landscape are included in Figures 1 and 2 in Appendix A.

1.4 Project Overview

The proposal is to construct a single bay extension to the north of a current building (Unit 4) to provide additional floorspace that can be rented to private businesses. The extension would mirror the height, form, scale and mass of the existing building and be constructed in identical character, profile, colour and appearance. The tarmac hardstanding would be extended alongside the unit to provide additional car parking and access to the extended unit as well as access to the North for maintenance purposes.

Plans showing the proposed development can be seen in Figure 2 in Appendix A.

1.5 Relevant Legislation and Planning Policy

The following key pieces of nature conservation legislation are relevant to this appraisal. A more detailed description of relevant legislation is provided in Appendix B:

- The Conservation of Habitats and Species Regulations, 2017 (as amended) /Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (commonly referred to as the Habitats Regulations);
- Wildlife and Countryside Act 1981 (as amended); and
- Natural Environment and Rural Communities Act 2006.

Bats are of particular relevance to the application site due to the presence of buildings, as these can support bat roosts. All bats species are protected under Schedule 2 of the Habitat Regulations and Schedule 5 of the Wildlife and Countryside Act. In brief, these legislative instruments make it an offence to deliberately or recklessly capture, injure, or kill any bat. Roosts are protected from damage or destruction. Furthermore, it is an offence to deliberately disturb a bat, whether roosting or otherwise. In addition, the following native bats are identified as Species of Principal Importance in England under Section 41 of the Natural Environment and Rural Communities Act 2006:

- Barbastelle Bat - *Barbastella barbastellus*
- Bechstein's Bat - *Myotis bechsteinii*
- Noctule - *Nyctalus noctula*
- Soprano Pipistrelle - *Pipistrellus pygmaeus*
- Brown Long-eared Bat - *Plecotus auritus*
- Greater Horseshoe Bat - *Rhinolophus ferrumequinum*
- Lesser Horseshoe Bat - *Rhinolophus hipposideros*

The National Planning Policy Framework (DfCLG 2021) requires local authorities to avoid and minimise impacts on biodiversity and, where possible, to provide net gains in biodiversity when making planning decisions. Paragraph 174 states that:

“Planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes, sites of biodiversity or geographical value and soils”.

Paragraph 180 sets out the principles that local planning authorities should apply when determining planning application and states that:

“development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around development should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity”.

Other planning policies at the local level, which are of relevance to this development, include the Eastleigh Borough Council Local Plan 2016-2036, which satisfies the council's obligations under the NERC Act. This is achieved through Policy DM11 – Nature Conservation, which states that:

“1. The Council will work with statutory and voluntary agencies and developers, and will determine planning applications, to:

a. protect, conserve and enhance all:

i. international, national and local nature conservation designations; and

ii. networks of natural habitats and features, including the Local Ecological Network, Priority Biodiversity Areas and Priority Biodiversity Links, watercourses, wetland complexes, woodland trees, and trees and hedgerows important to biodiversity and local character;

and facilitate their adaptation to climate change wherever possible;

b. assist in achieving national, county and local biodiversity targets as set out in Biodiversity Action Plans (BAPs);

c. seek a net gain of biodiversity on all development sites (including sites for redevelopment) through the protection, enhancement and connection of existing and provision of new habitats and features of nature conservation interest compatible with the native biodiversity characteristics of the Borough, having regard to local geodiversity and soils; and

d. contribute to major elements of the PfSH Green Infrastructure Strategy and other strategies for the provision and enhancement of multifunctional green infrastructure including green routes, ecological networks and biodiversity enhancements (see strategic policy S9)."

2 Methodology

2.1 Overview

This PEA has been prepared with reference to best practice as published by the Chartered Institute for Ecology and Environmental Management (CIEEM 2017 & 2018), the Bat Conservation Trust (Collins, 2016) and British Standard 42020:2013 (BSI 2013).

2.2 Desk Study

A search was carried out using the Multi-Agency Geographic Information for the Countryside (MAGIC) website (www.magic.gov.uk) for any Statutory nature conservation designations located on site and/or within 1km. Where relevant, consideration was also given to Statutory sites located further distances away. Habitats of Principal Importance (HPI) and Ancient Woodland sites on site and/or within 500m were also identified. The Woodland Trust online Ancient Tree Inventory (<http://ati.woodlandtrust.org.uk>) was reviewed for the locations of any known ancient and veteran trees on or adjacent to the site.

Records of protected or otherwise notable species within the site, and up to 1km from the site boundary, were obtained from the National Biodiversity Atlas website (<https://records.nbnatlas.org>). Records of granted Natural England species licences from within 1km of the application site were also searched for using the MAGIC website. Online maps and aerial imagery were used to identify the presence of water bodies within 250m of the site, in order to establish if the application site could be used by great crested newts.

Given the small-scale and localised nature of the development proposals, the web-based data resources and search areas set out above are considered appropriate for this assessment (CIEEM 2018).

The status of species is taken directly from the relevant legislation; the 'UK Post-2010 Biodiversity Framework', local Biodiversity Action Plans (BAPs) and Birds of Conservation Concern (Stanbury et al. 2021)¹.

Scientific names are given following the species first mention. Thereafter, only common names are used.

2.3 Site Survey

The site survey was conducted on the 31st of July 2023. The survey was undertaken under optimum conditions and during the recommended period, April through October (JNCC 2010). Weather conditions on that day were overcast with sporadic light rain, and temperatures around 15 °C.

The site survey was undertaken by Fraser Gurney, a consultant Ecologist at enims Ltd. Fraser was assisted by Harley Stone, a junior ecologist at enims Ltd and a Qualifying member of Chartered Institute of Ecology and Environmental Management (CIEEM). Harley holds a Level 1 Bat Licence.

An assessment of the buildings was carried out to gather evidence to determine whether the building(s) either had the potential to support bat roosts, or showed direct indications of

¹ The Red and Amber lists of Birds of Conservation Concern refer to bird species of particular conservation concern for a number of reasons. In general terms, Red list species are globally threatened showing severe recent declines in population. Amber list species are species either with unfavourable conservation status or those species showing moderate recent declines in population; they may also include particularly localised species.

current/previous use by roosting bats. All surveys were carried out in strict accordance with Good Practice Guidelines published by the Bat Conservation Trust (Collins 2016). External inspections of the buildings were undertaken whereby a search was made for direct evidence of bat activity, such as corpses, droppings, urine stains and scratch marks. Potential access points, particularly those free of cobwebs and other obstructions, were also recorded, irrespective of whether there was direct evidence of use in the vicinity. Equipment included a high-powered torch and binoculars.

During the survey visit, a walkover of the site was also carried out, covering the entire area within the redline boundary and including any boundary features of interest. Habitats were described and recorded broadly in accordance with standard Phase 1 Habitat survey methodology (JNCC 2010). Habitats were also assessed using the Habitat of Principal Importance (HPI) criteria, as set out by JNCC (BRIG, ed. A. Maddock 2011). HPI are listed under Section 41 of the NERC Act 2006.

Incidental records of birds and other fauna noted during the course of the habitat survey were also compiled. The presence of non-native invasive plant species were also recorded and locations of stands mapped.

2.4 Protected Species Assessment

The habitats were assessed for their potential to support protected species using a combination of desk study information and field observations carried out during the habitat survey. The assessment was based on professional judgement and best practice survey guidance methodology for identifying field signs of protected species. The potential for protected species presence was based on the following criteria:

- **Present** – Confirmed presence through first hand survey evidence or recent verified records
- **High Potential** – Local records highlight presence in the local vicinity. The site and immediate surrounds support good quality habitat or good connectivity to such habitat
- **Moderate Potential** – Habitat within the site provides key elements for any species or species group, although may be limited by factors including habitat area, isolation or disturbance. Desk study records highlight presence in proximity to site
- **Low Potential** – On-site habitat is of low or moderate quality for any species or species group, lacking key elements and limited by factors including habitat fragmentation and habitat area. Few or absence of local records, but within national distribution and thus cannot be completely discounted.
- **Negligible Potential** – Habitats within the site are very poor quality or completely absent for any species or species group. Desk study records are absent, the site is outside of the normal range of the species or species group, and the surrounding habitat is unlikely to support wider populations. Presence cannot be completely ruled out but it is considered 'reasonably unlikely' to support any species or species group.

When assigning a level of bat roosting potential (negligible, low, moderate or high) to a feature, the descriptions in Table 1 were considered.

Table 1. Criteria for the potential of features and habitats to support roosting and foraging/commuting bats (Collins 2016).

Suitability	Description of roosting habitat	Commuting or foraging habitat
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.
Low	A structure with one of more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do 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 gapped hedgerow 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 (not in a parkland situation) or patch of scrub.
Moderate	A structure or 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 (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	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.
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, protection, conditions and surrounding habitat.	Continuous, high quality habitat that is a 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.

2.5 Site Evaluation

An evaluation of the site was carried out in accordance with guidance issued by the Chartered Institute of Ecology and Environmental Management (CIEEM 2018), which ranks the nature conservation value of a site according to a geographic scale of reference. The scale that measures conservation value is as follows: international, national, regional, county/metropolitan, district/borough, local/parish, or of value at the site scale. In evaluating the nature conservation value of the site, the following factors are also considered: nature

conservation designations, rarity, naturalness, fragility, connectivity and relevant nature conservation aims and objectives for a given area, as contained in national and local biodiversity action plans and planning policies.

2.6 Survey and Assessment Limitations

The data and conclusions presented within this report are an evidence-based assessment of the current status of the application site. The data and conclusions do not provide a full and definitive survey of any protected species group. Evaluations have been made based on the results of this ecological assessment. The likely ecological constraints to the proposed development are detailed, as well as any need for further ecological survey and mitigation measures.

Ecological surveys are limited by factors which affect the presence of plants and animals, such as the time of year, migration patterns and behaviour. Therefore, the absence of evidence of a particular species should not be taken as conclusive proof that the species is not present, or that it will not be present in the future.

The main building being surveyed was an active workshop, meaning it was unsafe and impractical to enter during the site visit. However, the interior of the building was very open with no loft spaces and could easily be viewed from the main entrance. As such, not entering the building did not impact the survey results in any way.

The data provided in this report is valid for 12 months from the date of survey, due to the mobile nature of bats.

3 Results

3.1 Designated and Notable Sites

3.1.1 Statutory Sites of Nature Conservation

There are two statutory sites of nature conservation within 1km of the application site. These sites are the River Itchen Site of Specific Scientific Interest (SSSI) and the River Itchen Special Area of Conservation (SAC). The reasons for these statutory sites being designated as such can be seen below in Table 1. Both of the sites occupy the same general area around the River Itchen to the west of the application site.

Table 1. Statutory designated nature sites within 1km of the application site

Site Name	Distance from site and orientation	Reason for designation
River Itchen SSSI	0.77km to the west of application site	This site is notified for classic chalk stream and river, fen meadow, flood pasture and swamp habitats, particularly formations of in-channel vegetation dominated by water crowfoot <i>Ranunculus</i> spp, riparian vegetation communities (including wet woodlands) and side channels, runnels and ditches associated with the main river and former water meadows. The site is also notified for significant populations of the nationally-rare southern damselfly <i>Coenagrion mercuriale</i> and assemblages of nationally-rare and scarce freshwater and riparian invertebrates, including the white-clawed crayfish <i>Austropotamobius pallipes</i> . This site is notified for otter <i>Lutra lutra</i> , water vole <i>Arvicola terrestris</i> , freshwater fishes including bullhead <i>Cottus gobbo</i> , brook lamprey <i>Lampetra planeri</i> and Atlantic salmon <i>Salmo salar</i> , and the assemblage of breeding birds including tufted duck <i>Aythya fuligula</i> , pochard <i>A. ferina</i> and shoveler <i>Anas clypeata</i> , the waders lapwing <i>Vanellus vanellus</i> , redshank <i>Tringa totanus</i> and snipe <i>Gallinago gallinago</i> , and wetland passerines including sedge warbler <i>Acrocephalus schoenobaenus</i> , reed warbler <i>A. scirpaceus</i> and Cetti's warbler <i>Cettia cettia</i> .
River Itchen SAC	0.77km to the west of application site	The Itchen is a classic example of a sub-type 1 chalk river. The river is dominated throughout by aquatic <i>Ranunculus</i> spp. The headwaters contain pond water-crowfoot <i>Ranunculus peltatus</i> , while two <i>Ranunculus</i> species occur further downstream: stream water-crowfoot <i>R. penicillatus</i> ssp. <i>pseudofluitans</i> , a species especially characteristic of calcium-rich rivers, and river water-crowfoot <i>R. fluitans</i> . Strong populations of southern damselfly <i>Coenagrion mercuriale</i> occur here, estimated to be in the hundreds of individuals. The site in

Site Name	Distance from site and orientation	Reason for designation
		central southern England represents one of the major population centres in the UK. It also represents a population in a managed chalk-river flood plain, an unusual habitat for this species in the UK, rather than on heathland. The Itchen is a classic chalk river that supports high densities of bullhead <i>Cottus gobio</i> throughout much of its length. The river provides good water quality, extensive beds of submerged plants that act as a refuge for the species, and coarse sediments that are vital for spawning and juvenile development.

In addition, there are two SAC designated for bats within 30km of the application site. Mottisfont Bats SAC is 18.8km away to the northwest and supports an important population of the rare barbastelle (*Barbastella barbastellus*). It is one of only six known maternity sites in the UK (2002 data) and the only one in Hampshire. Briddlesford Copses SAC is 26.8km away to the south and supports an important population of the rare Bechstein's bat (*Myotis bechsteinii*). This is one of the rarest mammals in the UK with very few maternity roosts currently known.

3.1.2 NERC Act HPI / Local BAP Priority Habitats

There are six parcels of NERC Act HPI / Local BAP Priority Habitats within 500m of the application site. Four of these are coastal and floodplain grazing marsh, one of which encompasses the southern part of the application site. The remaining two habitat parcels are deciduous woodland, 430m to the east and west of the application site respectively.

3.1.3 Other Notable Designations

There are no parcels of Ancient Woodland within 500m of the application site.

No known ancient or veteran trees were indicated as being on or within 50m of the application site using the online mapping resource.

3.2 Habitats

The results of the site visit are presented in Figure 3, Appendix C.

The application site (Lake Farm Business Park) is comprised of three buildings set within hardstanding tarmac and surrounding amenity grassland areas. Building 1 (B1) was a workshop with no loft in the area of hardstanding tarmac, constructed of corrugated iron with metal guttering (Photograph 1, Appendix C). Building 2 (B2) was a garage/large shed of the same construction as B1, set in an area of amenity grassland to the east of the tarmac hardstanding (Photograph 2, Appendix C). Building 3 (B3) was a small, single-story row of offices, made of brick with metal guttering and roofing, set south of B1 in the area of hardstanding tarmac (Photograph 3, Appendix C). There was also a greenhouse in the amenity grassland near B2. Piles of unused building materials were scattered throughout the application site, as were many debris piles of wooden boards, woodchip, brick rubble and various other materials (Photographs 4, 7 and 9, Appendix C).

The surrounding areas of amenity grassland were situated to the north and south of the hardstanding tarmac. The northern area was edged by a pine hedge on the western boundary (the northern half of this hedge had been cut back to give room to the powerline which ran northeast/southwest across the northern amenity area – with a wooden power pole near the northeast corner of the hardstanding tarmac). A mixed species hedge (hawthorn (*Crataegus monogyna*), bramble (*Rubus fruticosus*), ivy (*Hedera* sp.)) with an animal track passing perpendicularly through it ran along the northern boundary (Photograph 6, Appendix C). A dry ditch ran along the eastern boundary, extending part of the way underneath the mixed species hedge on the north boundary. A bramble hedge also ran along part of the western boundary of the site (Photograph 4, Appendix C), between the boundary and B1, and a laurel (*Prunus laurocerasus*) hedge along the north/south boundary of the hardstanding tarmac and amenity grassland. Immediately north of the hardstanding tarmac was an area of waterlogged bare earth, with long grass and weeds on its northern and eastern edges (Photograph 5, Appendix C). There was another area of long grass and weeds to the east of this, surrounded by the amenity grassland.

The southern amenity grassland area was mostly long grass and weeds, surrounded by a strip of amenity grassland (classified as coastal and floodplain grazing marsh along with the associated ditch) (Photograph 10, Appendix C). Between this strip of amenity grassland and the hardstanding tarmac to the north was a waterlogged ditch (Photograph 8, Appendix C) with a wire grate at its eastern end. The ditch was surrounded by a treed hedgerow containing hazel (*Corylus avellana*) oak (*Quercus robur*) and other species. The hedgerow had a woodpile at its western end (Photograph 9, Appendix C). A laurel hedge ran along the western and southern edge of the southern amenity grassland, with a grass public walkway on its far side (Photograph 11, Appendix C). A hardstanding tarmac driveway ran along the eastern edge of the southern amenity grassland, connecting the central hardstanding area to Allington Lane to the south (Photograph 12, Appendix C). A large oak on the far side of the driveway overhung the drive and part of the southern amenity grassland. The application site as a whole was mostly surrounded by fields, with a mix of similar business parks, large residential properties and small wooded areas.

3.3 Protected Species Assessment

3.3.1 Badger

NBN Atlas shows no records of Eurasian badger (*Meles meles*) within the local area. The application site and adjacent woodlands provide suitable foraging habitat, and the areas of woodland nearby could offer habitat for badger setts.

3.3.2 Bats

NBN Atlas shows no records of bats within the local area. Information from MAGIC Maps evidenced three granted European Protected Species Mitigation Licences for bats within 1km of the site boundary. The closest of these licences was approximately 0.3km to the east of the application site, granted from 2019-2024 for the destruction of a resting place for common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*). The next closest was approximately 0.6km to the northeast of the application site, granted from 2020-2026 for the destruction of a resting place for soprano pipistrelle. The furthest was approximately 1km from the application site granted from 2019-2024 for the destruction of a breeding site and roosting place of brown long-eared bat (*Plecotus auritus*), common pipistrelle and Natterer's bat (*Myotis nattereri*).

All three buildings on the application site (B1-B3) had **negligible potential** to support roosting bats. B1 and B2 were large, open, entirely metal buildings with no loft spaces and

no potential roosting features. B3 had a metal roof with brick walls, but was in very good condition and had no visible potential bat roosting features or entry points. A large mature oak bordering the driveway in the southeast part of the site had several potential roosting features, including wounds, broken branches and peeling bark. The habitats on the application site provide commuting and foraging opportunities for bats, while the habitats surrounding the site provide commuting, foraging and roosting opportunities.

3.3.3 Dormouse

NBN Atlas shows one record of hazel dormouse (*Muscardinus avellanarius*) within the local area from 2020. Hazel was present in the treed hedgerow in the southern part of the site, as were multiple fallen hazel nuts which had been chewed open. The fallen hazel nuts are unlikely to have been opened by dormice, as teeth marks were obvious on the inner rim of all the inspected nuts. The woodland habitat near the application site may be suitable for dormice, however, the garden habitat of the application site is largely unsuitable. Therefore, this species is not considered further in this report.

3.3.4 Otter and Water Vole

NBN Atlas shows no records of otter (*Lutra lutra*) or water vole (*Arvicola amphibus*) within the local area. Although there is a small stream/waterlogged ditch on site, it is too small to support otter or water vole. A lack of suitable habitat and a lack of records in the local area means these species will not be considered further in this report.

3.3.5 Nesting Birds

NBN Atlas shows records of five species of Schedule 1 birds in the local area; barn owl (*Tyto alba*), Cetti's warbler (*Cettia cetti*), green sandpiper (*Tringa ochropus*), kingfisher (*Alcedo atthis*), and redwing (*Turdus iliacus*). While these species may utilise habitats on or adjacent to the application site for foraging, a lack of appropriate breeding habitat means they are all unlikely to nest on the application site. Redwing are also winter visitors so are unlikely to be nesting when in the local area.

The trees, shrubs and hedges on the application site offer nesting opportunities for a variety of common and garden bird species. The nearby woodland offers nesting opportunities for a variety of woodland birds.

3.3.6 Great Crested Newt

NBN Atlas shows 21 records of great crested newt (*Triturus cristatus*) in the local area from 2015-2018. Information from MAGIC Maps evidenced 10 granted European Protected Species Mitigation Licences for great crested newt within 1km of the site boundary. These 10 licences were all granted in an east or northeast direction from the application site, between approximately 0.3 and 0.8km from the site boundary. The licences cover a range of dates between 2009 and 2028, with nine being granted from 2018 onwards.

MAGIC Maps also showed 26 great crested newt class survey licence returns with great crested newt present within 1km of the site boundary. Five of these were from a site 0.6km west of the application site in 2016, 10 were from a site approximately 0.4km northwest of the application site from 2015-2016, and 11 were from two sites approximately 0.8km northwest of the application site from 2015-2016.

There are no ponds within the application site, although aerial imagery shows two ponds within 250m of the eastern boundary of the site. These ponds were not able to be accessed to determine their suitability for great crested newt. The application site and the ponds within

250m are not connected by terrestrial habitat as the relatively busy road, Allington Lane, runs between them.

The majority of the application site is unsuitable for great crested newt, being tarmac hardstanding and amenity grassland habitat. The hedgerows, ditches, and long grass and weeds have low potential to be utilised as commuting habitat by great crested newt.

3.3.7 Reptiles

NBN Atlas shows 48 records of slow worm (*Anguis fragilis*) and one record of grass snake (*Natrix helvetica*) in the local area from 2014-2020. The hedgerows, areas of long grass and weeds, wood and debris piles may provide suitable habitat for both slow worm and grass snake.

3.3.8 NERC Act SPI/Local BAP Species

Bats and reptiles are covered in the relevant sections above, as are any nesting bird species which are also Species of Principal Importance (SPI) and/or local BAP species. Common toad (*Bufo Bufo*) and hedgehog (*Erinaceus europaeus*) both have records in the local area and may utilise the hedgerows, long grass and weeds, and woodpile and debris piles for foraging, refuge and hibernation.

3.4 Non-Native Invasive Species

Several cherry laurel hedges were present on the site, along part of the border between the northern amenity grassland and the adjacent tarmac hardstanding, and around the southern and western borders of the southern amenity grassland.

4 Impact Assessment

4.1 Evaluation of Ecological Features

The application site is not subject to any statutory nature conservation or notable habitat designations. The grassy habitats and associated waterlogged ditch in the southern area of the site are priority habitat coastal and floodplain grazing marsh.

The buildings on the application site all have negligible potential to support roosting bats. The development footprint is relatively small and has limited conservation value, with similar habitat common on the application site and in the wider landscape.

Much of the habitat on the application site is of limited value as it is relatively managed, however, some of the habitat present is suitable for badger, nesting birds, reptiles, amphibians and hedgehog.

4.2 Discussion of Potential Ecological Impacts

4.2.1 Statutory Nature Conservation Sites

Due to the small scale of the development proposals and presence of existing roads, it is not anticipated that the proposed development would cause a significant increase in pollution at any statutory nature conservation sites.

The application site is approximately 18.8km from Mottisfont Bats SAC. Barbastelle bats have been shown to forage and commute over very large areas and they have a core sustenance zone of 6km (Bat Conservation Trust, 2020). Primary habitats that the species rely on most are deciduous woodland, wet meadows and water bodies, such as woodland streams and rivers, riparian margins and unimproved grassland. Field margins and hedgerows are also used as secondary habitats. The habitats present on the application site are likely too far away to be important for the bat population of this SAC.

The application site is approximately 26.8km from Briddlesford Copses SAC, which is designated for Bechsteins's bat. Bechstein's bat have a core sustenance zone of 3km and are strongly associated with broadleaved woodland, particularly semi-natural ancient woodland with dense structured understorey (Bat Conservation Rust, 2020). The habitats present on the application site are unlikely to be important for the bat population of this SAC.

4.2.2 NERC Act HPI / Local BAP Priority Habitats and Other Notable Designations

The driveway which provides access to the area of development runs alongside priority habitat coastal and floodplain grazing marsh. While no development is proposed for this area of priority habitat, their proximity to the development and the accessway creates some potential for pollution impacts during construction via surface water run-off, dust and noise.

4.2.3 Habitats

The development will result in the permanent loss of a small area of the northern amenity grassland to the footprint of the development and potentially temporary disturbance to a wider area during construction. No notable habitats of principal importance are present within the development footprint. The areas of long grass and weeds, the bare earth and amenity grassland in the development footprint are of value at the site level, but similar habitat exists in the surrounding landscape. The loss of these garden habitats would not have a significant negative impact on the habitat diversity of the local area.

A mature oak near the driveway of the application site in the southeast corner could be affected by the proposed works. This oak may need to be pruned for access of construction equipment or management reasons. The root protection areas of the trees should also be considered to ensure there is no short or long-term damage to the root systems of retained trees.

4.2.4 Protected Species

Badger

There were no records of badger in the local area or field sign during the site visit, although suitable habitat exists on and adjacent to the application site. The development proposals are not anticipated to impact any badger setts or remove any badger habitat. However, construction sites have the potential to harm individuals; for example, by badgers falling into excavations left open at night or by coming into contact with chemicals.

Bats

There were no records of bats in the local area, or evidence of bats during the site visit. All three buildings on the application site have negligible potential to support roosting bats, with only one building (B1) involved in the proposed development. It is highly unlikely that the proposed works will have any effect on roosting bats or bat roosts. Should bats be present, the extension or renovation of B1 could kill, injure or disturb any roosting bats.

The development proposals are not anticipated to lead to physical fragmentation of commuting routes. However, there is potential for roosting, foraging and commuting bats to be disturbed by increased lighting during and after construction.

Nesting Birds

The removal of any trees or shrubs, should it be required to facilitate the works, could negatively impact any active bird nests present. Potential impacts include killing and injury of birds, as well as damage or destruction of nests and eggs. Any birds nesting in the bramble, pine or mixed species hedges on the western boundary of the site could be disturbed by construction activities, due to their proximity to the area of development. Such activities would be an offence under the Wildlife and Countryside Act 1981, as amended.

Great Crested Newt

There were 20+ records of great crested newt in the local area from both NBN Atlas and MAGIC MAPS. However, the habitat on the application site is largely unsuitable for the species and no suitable habitat will be destroyed in the proposed development. Open excavations and unsafe storage of materials, tools and chemicals could harm any individual great crested newt that may be commuting through the site.

Reptiles

There is potential for reptiles to utilise the areas of long grass and weeds, the hedge habitats, and woodpile and debris piles for commuting, foraging and refuge. A small area of long grass and weeds, a debris pile and the bramble hedge near the development footprint will be destroyed or disturbed during construction, however the other areas of these habitats will likely to be unaffected. Killing and injury of individual animals would be an offence under the Wildlife and Countryside Act 1981.

NERC Act SPI/Local BAP Species

Open excavations and unsafe storage of materials, tools and chemicals could harm any individual common toads or hedgehogs that may be utilising the site. Removal of debris piles could harm or disturb hibernating common toad or hedgehog.

4.2.5 Non-Native Invasive Species

Although not listed under Schedule 9 of the Wildlife and Countryside Act 1981, cherry laurel can spread quickly through a habitat to the detriment of native flora, and are difficult to eradicate. There is a low potential for construction activities to spread this species further as while this species is present on the application site, no individuals are located close to the development footprint.

5 Recommendations

5.1 Overview

The assessment of the ecological constraints and subsequent recommendations are based on the current development proposals. If the development proposals change, this may alter the conclusions and advice in this report.

5.2 Ecological Impact Avoidance and Mitigation Measures

The National Planning Policy Framework (NPPF) outlines the mitigation hierarchy and promotes its use throughout the development planning process, in order to minimise harm to, and maximise benefits for, biodiversity. The NPPF highlights the primary objective for any proposed development should be avoiding adverse effects on biodiversity through good design. Any unavoidable adverse effects on biodiversity should be adequately mitigated to minimise any negative impacts. Compensation may be used after avoidance and mitigation measures have been fully considered, in order to address any residual impacts of the proposals.

Care should be taken when operating any plant or moving construction materials in proximity of the hedgerow habitats near the development footprint. Standard pollution control measures should be followed when working on site, such as refuelling measures, spill response plans, dust suppression techniques and noise control measures.

Removal of any suitable nesting habitat for birds should be undertaken outside of the bird nesting season (i.e., works should take place September through February) to avoid acting unlawfully. If this is not possible, then vegetation must only be removed following a nesting bird check carried out immediately prior to works (or within 24 hours) by a suitably qualified ecologist. Any active nests must remain 'in situ' with an appropriate vegetation buffer until young have fledged and the nest is no longer in use. Should the oak overhanging the driveway (site access) need to be pruned or removed, any necessary tree protection measures should be adhered to as per the advice of an arboricultural consultant.

To avoid potential harm to other protected species that may be in the local area at the time of works, the following simple measures should be followed:

- The work site should be kept tidy at the end of each shift, with chemicals and equipment stored securely. Excavations should be backfilled or covered to prevent badger, amphibians or hedgehog from falling in. If this is not possible then a plank should be left in the excavation at an angle no greater than 45 degrees to provide a means of escape.
- Removal of storage materials, debris piles, leaf litter and any ground vegetation within the boundary vegetation habitats should be undertaken carefully and with consideration to the potential presence of reptiles and hedgehog. Any individuals encountered should be allowed to move away safely or be moved to an area of similar habitat away from the works.

5.3 Ecological Enhancement

The National Planning Policy Framework (NPPF) and local policy encourages developers to incorporate ecological enhancements into projects to achieve net gains for biodiversity. Generally, enhancements act to improve the quality of the habitat for the flora and fauna on and within the vicinity of the site. These enhancements can also provide aesthetic appeal, thus

adding to the value of the project. The National Planning Practice Guidance (NPPG) provides guidance to planning authorities on how development proposals may provide enhancements to biodiversity, and contribute to wildlife and habitat connectivity in the wider area.

Possible opportunities to enhance the wildlife potential, appropriate to this site, are provided below. It is important that any measures adopted be clearly demonstrated to the Planning Authority through inclusion in design plans and accompanying documentation.

- A range of boxes are available that provide a self-contained space for roosting bats. Some which can actually be incorporated into the walls of new builds, others may be attached to trees or the building exterior. These bat boxes can provide additional roosting features to those already available on-site, or provide new roosting space to encourage a wide range of bat species to utilise the surrounding area.
- The installation of bird boxes can provide additional nesting space for birds, secure from predatory animals such as foxes. Many small bird species, such as blue tit (*Cyanistes caeruleus*) and great tit (*Parus major*) will preferentially nest in nest boxes, where available, and boxes to suit different species should be offered. As a building development, there is an opportunity to provide nest boxes built into walls specifically for house sparrow (*Passer domesticus*) and swift (*Apus apus*). These are both on the red list of Birds of Conservation Concern.
- Any hedges being planted should use a range of native plant species, rather than exotic species commonly used for hedges such as cherry laurel. Using native species will provide greater foraging and sheltering opportunities and encourage birds and other species to use the site.

6 Conclusion

All three buildings on the application site (B1-B3) have negligible potential to support roosting bats. No further survey is recommended to determine if any bats utilise the buildings on the application site.

The application site includes areas of notable habitat, including a parcel of priority habitat coastal and floodplain grazing marsh. However, this habitat is not near the proposed development footprint and will not be reduced in size by the proposed development. The habitats in and immediately surrounding the proposed development footprint are of low value, being managed and in a garden setting. Some standard pollution methods (outlined in section 5.2 Ecological Impact Avoidance and Mitigation Measures) should be adhered to when construction activities are taking place to avoid impacts on the nearby notable habitat. Removal of trees, shrubs and debris piles should be undertaken outside of the main bird nesting season or preceded by a check by an ecologist. Consideration should be given to badger, reptiles, amphibians and hedgehog during site clearance and construction activities. Should the oak overhanging the site driveway need to be managed, the advice of an arboricultural consultant should be sought.

The proposed works provide the opportunity to enhance the application site by incorporating additional bat roosting spaces, nesting spaces for specialist bird species and planting hedgerows comprised of native plant species.

7 References

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Appendix A: Application Site



Figure 1. Location of application site (red outline) and surrounding landscape. QGIS 2023.

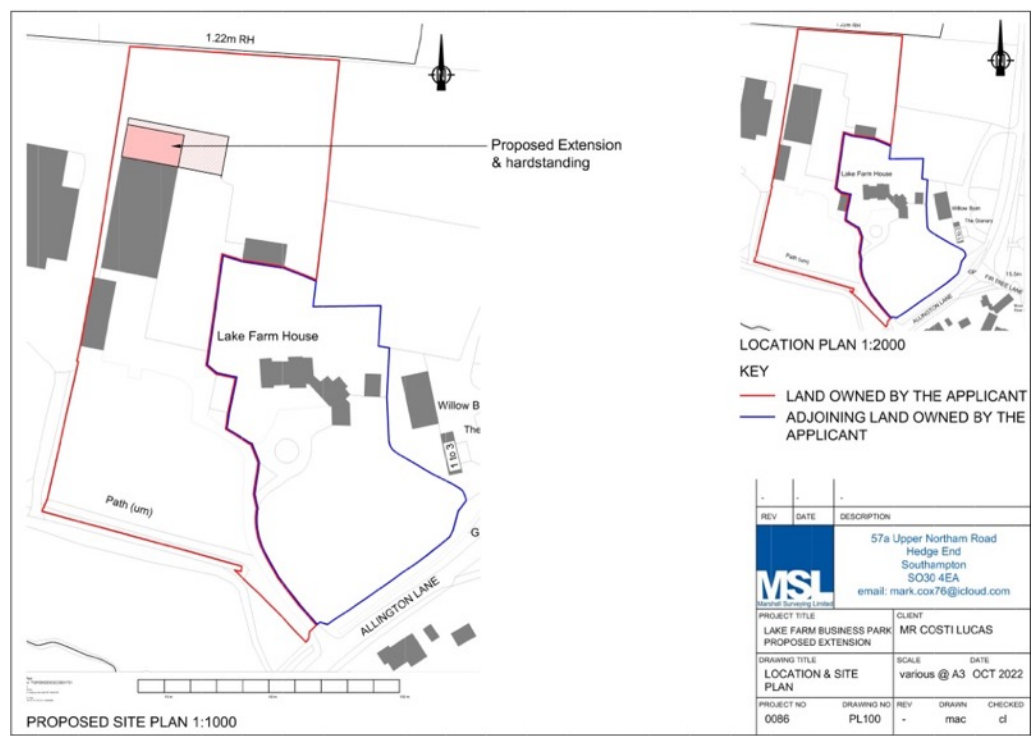


Figure 2. Application site boundary (red outline) showing proposed extension (red shading) to existing building (solid grey areas). Residential property with same landowner also shown (blue outline). Marshall Surveying Limited October 2022.

Appendix B: Legislation Information

Statutory Designated Sites

Particular national and international legislative instruments enable the designation of sites of conservation interest. These 'statutory designated sites' are then afforded varying degrees of protection under environmental legislation and government policy. The land designations considered by this study are set out below, with details of their associated legislation.

Designation	Protection
National Parks	National Parks and Access to the Countryside Act 1949.
Areas of Outstanding Natural Beauty	National Parks and Access to the Countryside Act 1949; Countryside and Rights of Way Act 2000; local planning policy.
Local Nature Reserves (LNRs)	National Parks and Access to the Countryside Act 1949; local planning policy.
National Nature Reserves (NNRs)	National Parks and Access to the Countryside Act 1949; Wildlife and Countryside Act 1981; Countryside and Rights of Way Act 2000; local planning policy.
Ramsar sites	Ramsar Convention; Wildlife and Countryside Act 1981; Countryside and Rights of Way Act 2000; Conservation of Habitats and Species Regulations 2017.
Sites of Special Scientific Interest (SSSIs)	Wildlife and Countryside Act 1981; Countryside and Rights of Way act 2000.
Special Areas of Conservation (SACs)	EU Habitats Directive; Wildlife and Countryside Act 1981; Countryside and Rights of Way Act 2000; Conservation of Habitats and Species Regulations 2017.
Special Protection Areas (SPAs)	EU Birds Directive; Wildlife and Countryside Act 1981; Countryside and Rights of Way Act 2000; Conservation of Habitats and Species Regulations 2017.

Non-Statutory Designated Sites

Non-statutory designated sites, such as County Wildlife Sites (CWS), Sites of Nature Conservation Interest (SNCI) and Sites of Importance for Nature Conservation (SINC) are local sites designated by Local Planning Authorities that are considered to be of significant nature conservation value. They often have an important role in the wider landscape by connecting statutory designated sites and can support European protected species and species listed under the Habitats Directive.

Ancient Woodland is a non-statutory designation, which is generally applied to woodlands known to predate 1600. Before this time woodland was rarely artificially planted, hence these woodlands are likely to be naturally established. Subtypes include Ancient Semi Natural Woodlands and Ancient Replanted Woodlands. Although tree cover in the latter has predominately been replaced, original features such as characteristic wildlife are retained. Ancient woodlands are protected under national planning policy. Current planning policy guidance requires that developments must not result in the loss or deterioration of Ancient Woodlands, which are a valuable biodiversity resource.

European Protected Species (EPS)

European protected species are protected in the UK by Regulation 40 of the Conservation of Habitats and Species Regulations 2017 (as amended), with EPS listed under Schedule 2. This is the national implementation of the European Union's 'Habitats Directive' (Council Directive 92/43/EEC (a) on the Conservation of Natural Habitats and of Wild Flora and Fauna). Protection is also afforded to any EPS under Section 9 of the Wildlife and Countryside Act 1981 (as amended), owing to their inclusion in Schedule 5.

These legislative instruments make it unlawful to intentionally, deliberately or recklessly capture, kill, injure or disturb in a place of shelter, any EPS. The damage or destruction of a breeding or resting place, whether intentional or reckless, also constitutes an offence.

The following are examples of EPS which are native to and residing in the United Kingdom:

- Sand lizard (*Lacerta agilis*)
- Smooth snake (*Cornella austriaca*)
- Great crested newts (*Triturus cristatus*)
- Dormice (*Muscardinus avellanarius*)
- Otters (*Lutra lutra*)
- Bats (all native species)

'Widespread' Species

Widespread Reptiles

Through inclusion in Schedule 5 of The Wildlife and Countryside Act 1981, it is an offence under Section 9 to intentionally kill, injure or sell, offer for sale, possess or transport for the purpose of sale, any living or dead widespread species of UK reptile, or any product derived from one.

In addition, all native reptiles are adopted as Species of Principal Importance in England under Section 41 of the Natural Environment and Rural Communities Act 2006.

Water Voles

The water vole *Arvicola amphibius* is fully protected under the Wildlife and Countryside Act 1981 (as amended). Protection is afforded against killing and injury of water voles, as well as the damage, destruction or obstruction of burrows, or disturbance of burrows while in use.

Nesting Birds

Under The Wildlife and Countryside Act 1981 it is an offence to kill, injure or take any wild bird; take, damage or destroy the nest of any wild bird while it is in use or being built; take or destroy the egg of any wild bird.

There are 49 bird species listed as Species of Principal Importance in England under Section 41 of the Natural Environment and Rural Communities Act 2006. These species are therefore material planning considerations.

Schedule 1 Listed Birds

Under the Wildlife and Countryside Act 1981 there are special penalties for offences regarding birds listed in this Schedule. Additionally, it is an offence to disturb Schedule 1 listed bird or dependent young at nest.

Badgers

Badgers are protected by the Protection of Badgers Act 1992. Under this legislation, badgers and their setts are protected against all deliberate damage, destruction and disturbance. Badgers are widespread and abundant; their legal protection is primarily aimed at preventing blood sports, however there are still implications for developers.

NERC Act Habitats and Species

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 41 (S41) of the Act required 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 S41 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 Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

There are 56 Habitats of Principle Importance (HPI) included on the S41 list. These are all the habitats in England that were identified as requiring action in the former UK Biodiversity Action Plan (UK BAP). These areas include terrestrial habitats such as upland hay meadows to lowland mixed deciduous woodland. Additionally, 943 Species of Principle Importance (SPI) were included in the S41 list. The species found in England were identified as requiring action under the former UK BAP, which has since been replaced by the Post-2010 Biodiversity Framework. The priority species and habitats designed under S41 of the NERC Act will be considered as part of the constraints and opportunities assessment, thus identifying if these habitats will be impacted and also where opportunities are present to enhance the area for local priority species.

Wild Mammals (Protection) Act 1996

All mammals receive some protection under the Wild Mammals (Protection) Act 1996, which makes it an offence to intentionally cause unnecessary suffering of any wild mammal. The Wild Mammals Act may apply during site clearance works, particularly where burrowing animals such as foxes and rabbits are present as they could be crushed or asphyxiated in their burrows by heavy machinery.

Appendix C: Survey Results

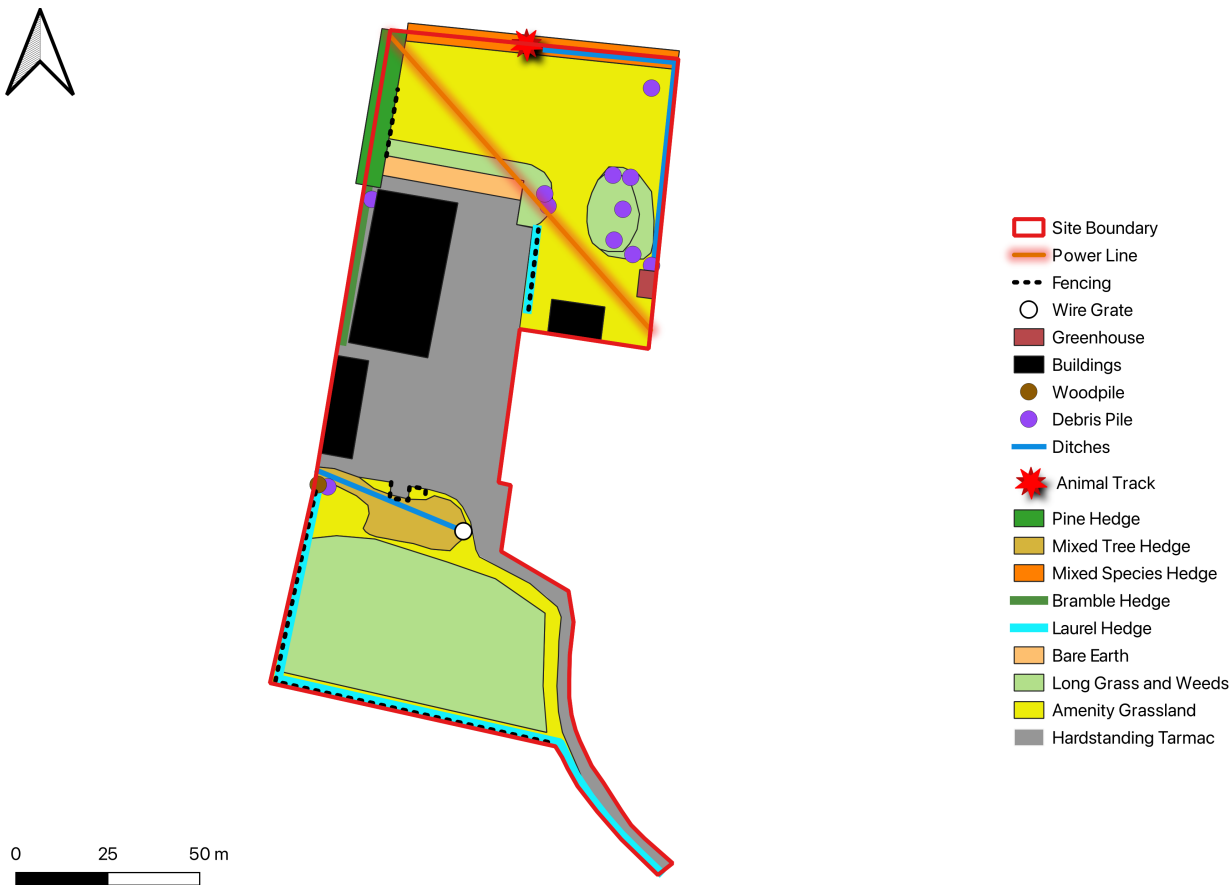


Figure 3. Survey map



Photograph 1.
B1, with hardstanding tarmac in foreground.



Photograph 2.
B2, with amenity grassland in foreground.



Photograph 3.
B3.



Photograph 4.
Bramble hedge along western boundary, with debris pile and B1 in left of photograph.



Photograph 5.
Area of waterlogged bare earth. Long grass/weeds and B1 (foreground), and tarmac hardstanding, B2, greenhouse and power line (background) also visible. The proposed development footprint is similar to the area of waterlogged bare earth.



Photograph 6
Amenity grassland in north of site. Area of long grass, mixed species hedge, pine hedge and power line also visible.



Photograph 7.
Debris pile amongst long grass/weeds.



Photograph 8.
Waterlogged ditch.



Photograph 9.
Woodpile (left) and wooden debris pile.



Photograph 10.
Area of long grass/weeds in south of site.



Photograph 11
Strip of amenity grassland, laurel hedge and fence with public walkway beyond.



Photograph 12
Driveway with laurel hedge visible.