

Ecological Impact Assessment

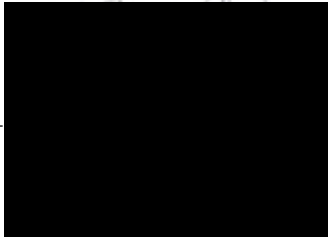
Heath House Lane, Southampton

For:

Kode Architecture

March 2024

This report is the responsibility of Abbas Ecology,
It should be noted, that whilst every effort is made to meet the client's brief,
no site investigation can ensure complete assessment,
or prediction of the natural environment

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Executive Summary

Preliminary Survey: 08/03/2024

Location: Land at Heath House Lane, Southampton, SO30 0LE

Grid Reference: SU 49101 11724

Surveyor: Nicola Hesketh-Roberts, ACIEEM

The purpose of this report is to assess the likely impact of the change of use of land to Agricultural with associated works including, engineering works to land to raise ground levels to allow erection of 2 x poly-tunnels and 2 x outbuildings.

The preliminary assessment was carried out following CIEEM guidelines, from the desk study the site appeared to be deciduous broadleaved priority habitat woodland, however the site visit recorded predominantly neutral grassland with bare ground and ephemeral herbaceous species with areas of dense scrub along both the east and western boundaries. An area of broadleaved woodland remained in the northeastern corner with scattered oak along the northern boundary and an area of wetter ground at the bottom of the slope.

There is potential for direct impacts to the neighbouring SINC Pilands Copse. A buffer of at least 15 metres and a Construction and Environmental Management Plan will be put in place to remove any risks to this important site.

There is potential for foraging bats and in particular light sensitive species to be impacted by any light increases caused by the introduction of the polytunnels and outbuildings. A lighting strategy will be implemented in accordance with Bats and Artificial Lighting at Night (BCT and ILP, 2023).

There is low potential for reptiles to be impacted by the loss of scrub, log piles and longer sward tussocky grassland. The scrub also has some limited potential to support hazel dormice. These areas will require habitat manipulation and ecological supervision when removed. The scrub may also support nesting birds and therefore a nesting bird check will be required if removed during the breeding season.

To ensure commuting badger and hedgehogs are safe guarded during construction, mitigation measures have been recommended.

The site measures less than 1 hectare and therefore is exempt from Biodiversity net gain rules at this time, however the loss of the grassland and scrub will be offset by the addition of new native species planting and allowing grassland to naturally colonise within the design of the proposal and retention of at least a 15 metre buffer between the SINC and the site boundary will retain connectivity, allowing mammals to continue using the site to forage and commute. Enhancement measures incorporating bat and bird and features along with log piles will increase the biodiversity value of the site by supporting a wide range of fauna.

I. Introduction

I.1 Individuals/Organisation Involved in the Assessment

The author of this report is Nicola Hesketh-Roberts, BSc (HONS), ACIEEM. Nicola has extensive experience in species survey dating back to 2010 when she worked for Dorset Wildlife Trust and Ecology Solutions undertaking surveys for protected species and has been working as an ecologist since 2014. She holds a CL18 Class bat licence; CL08 licence for great crested newts and a personal survey licence for smooth snake and sand lizard. CPD is kept up to date with the CIEEM organisation.

The report is for Kode Architects on behalf of the site owners.

I.2 Purpose

A preliminary ecological appraisal looks at the area to assess its likely value for protected species and other wildlife. It is not a specific survey for any one species and looks for general habitat types but it will identify the need for further survey work if required.

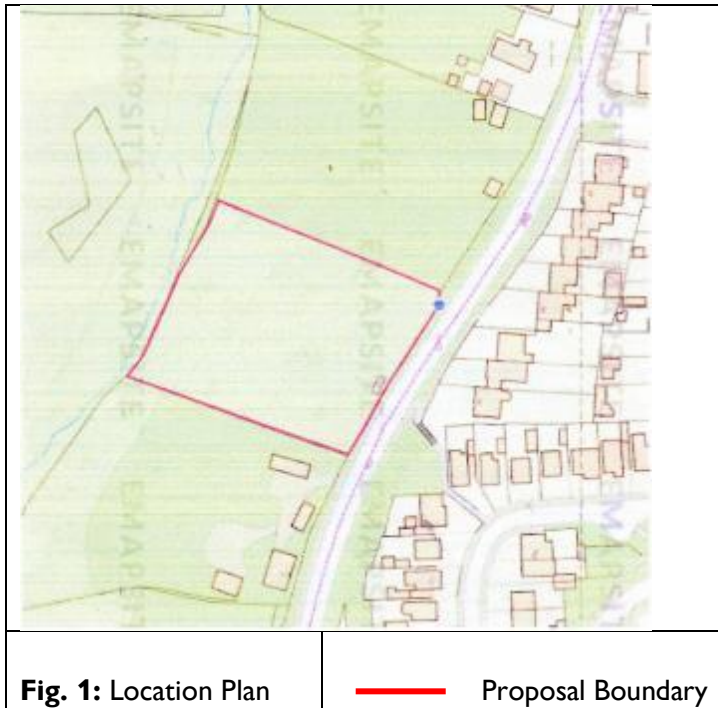
The Ecological Impact Assessment will:

- identify and prescribe all potentially significant ecological effects associated with the proposed development.
- set out mitigation measures required to ensure compliance with nature conservation legislation and to address any potentially significant effects.
- identify appropriate enhancement measures.

I.3 Site

The site is located in Hedge End, a district west of Southampton. It is located to the south of Heath House Lane, on the edge of an urban location, with residential housing to the north and west becoming open countryside to the east.

The site location and ownership boundary is shown in Map 1.



1.4 Description of proposal

The proposal involves the change of use of land to Agricultural with associated works including, engineering works to land to raise ground levels to allow erection of 2 poly-tunnels and 2 outbuildings. No other proposals of a similar nature were discovered during a planning search.

2. Planning policy and legislation

The National Planning Policy Framework was amended in July 2021 and details National planning policy and all items relating to protected species and habitat are detailed in Appendix 1.

Biodiversity enhancement measures as required by NPPF, section 15 and Local Plan Policy will need to be included.

Further specialist surveys may also be recommended, in some cases, to determine whether protected species are present and whether the legislation relating to them is being followed. These will usually need to be completed before the planning application is submitted. Failure to do so may result in the application being delayed or refused.

The planning authority for the site is Eastleigh Borough Council. The Council currently adhere to the Biodiversity Action Plan policy 2012-2022 with the new biodiversity strategy “securing our Natural Environment” 2022-2034 in draft which is intended to set the framework for biodiversity recovery in Eastleigh primarily through the development of a revised Biodiversity Action Plan and Supplementary Planning Documents for biodiversity and drainage. Further information can be found here [Biodiversity | Eastleigh Borough Council](#).

3. Methodology

3.1 Scope of Assessment

The zone of influence (Zol) for a project is the area over which ecological features may be subject to significant effects as a result of the proposed project and associated activities.

Species have different influence zones according to their mobility and territory sizes. These are outlined if there is a risk to a particular species.

3.2 Desk study

The government's Multi-Agency Geographic Information for the Countryside website (www.magic.gov.uk) was reviewed to look for:

- Designated sites, Priority Habitats, European Protected Species licences and other relevant information – within 2 km of the site.
- Countryside Stewardship Targeting areas that were on or adjacent to the site were noted.

A data search was obtained from Hampshire Biological Information Centre (HBIC) to look for Local Sites and protected/important species within 2km of the site.

Bats Zol is considered to extend up to 6 km, based on Core Sustainance Zones stated by the Bat Conservation Trust (BCT, 2016). Therefore, the species search for Annexe II bats extended to this range.

Existing and potential ecological networks on and adjacent to the site were viewed via the data search by HBIC.

3.3 Field survey

A Preliminary Ecological Appraisal (PEA) was carried out following CIEEM guidance. This looks at the area to assess its likely value for protected species and other wildlife. It is not a specific survey for any one species and looks for general habitat types, but it will identify the need for further survey work if required. Once the appraisal is carried out and it is concluded that no further work is required an Ecological Impact Assessment of the proposal can be carried out.

The entire site was surveyed for protected species, and for the potential for protected species, all protected species surveyed followed guidance from Natural England's Standing Advice Sheets for the relevant species. Habitat features of interest were also noted.

All areas of semi-natural habitat were also surveyed, and any features of interest noted. Consideration was also given to the potential of this area to act as a wildlife corridor.

Boundary features including walls and hedgerows were assessed if present. Hedgerows if effected were assessed in terms of species richness (five or more woody species in a 30m stretch) or in favourable condition as defined in appendix 2.

A species list was made of plants apparent at the time of survey and a 'DAFOR' scale applied to indicate relative abundance.

A consistent search effort for evidence of bats was applied to all parts of the site that are due to be impacted by the proposed works. The methodology used to search this site is consistent with the guidelines provided in the Bat Conservation Trusts Bat Survey Guidelines (2023). Table 1 provides further guidance on how potential roost features (PRFs) were assessed.

The habitat surrounding the site was assessed for its suitability for use by bats, identifying features such as possible commuting corridors and foraging areas. These features assist bats with orientation in the dark, allowing bats to successfully navigate between roosts and foraging areas.

Any habitat features, for example, scrub and trees, which could potentially be used by nesting birds, were surveyed and any nesting activity within the buildings was noted. Ground nesting bird potential was also considered.

Habitat features that may be suitable as hibernacula or feeding/resting areas by reptiles were noted.

Any area that could be used by badgers for foraging or could potentially contain a badger sett was surveyed and any field signs, such as snuffle holes, latrines or hairs were noted.

Any river corridors or aquatic features with potential for use by otter or water vole were surveyed and any signs of otter such as spraint or footprints were noted. Water voles were surveyed using methodology detailed in Water Vole Conservation Handbook, Third Ed. (Strachan, R. , Moorhouse, T., Gelling, M. ,WildCRU, University of Oxford Publication, 2011).

Any habitat features that could potentially provide feeding or nesting habitat for dormice were checked for signs of this species and areas with potential for use by dormice were noted. Visual surveys for nests and opened nuts were undertaken if the work only involves losing a small amount of habitat (for example access gaps in hedgerows). Guidance provided in the dormouse conservation handbook, second ed. (Bright, P, Morris, P, Mitchell-Jones, T, Natural England, 2006) was also followed. The Zol was considered, looking for connecting habitats on-site that extend off site to other hedgerows and woodland areas that might be used by dormice.

Any terrestrial or aquatic habitat features that could be used by great crested newt was noted. Any ponds within 1km of the site were subject to a Habitat Suitability Index assessment (ARG UK, 2010) and where appropriate eDNA testing, where landowner permission could be obtained. The Zol for GCNs is considered to extend to 500 m from the site, as this is the distance up to which the species will typically travel to access breeding ponds (Froglife, 2001). If HSI assessment could not be carried out the 'pond-scape' within 500m and linking habitat was still assessed using online maps and aerial photographs.

Invertebrate habitat was noted during this assessment including potential for butterflies, moths and dragonflies. Micro features that are particularly important to invertebrates was also highlighted such as deadwood, edge of scrub, damp areas and/ or grassland structure. Potential for protected invertebrates were considered, including white-clawed crayfish, stag beetles, southern damselfly, brown and white-letter hairstreak butterflies.

Type of habitat	Negligible	Low	Moderate	High
Building	No obvious habitat features on the site likely to be used by roosting bats. However s small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	A structure with one or more potential roost sites that could be used by individual bats at any time of the year. However, these potential roosting sites do not provide enough space, shelter, [protection, appropriate conditions and/or suitable habitat to be used on a regular basis or by larger numbers of bats.	A structure 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.	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. These structures have the potential to support high conservation status roosts.
		PRF-1	PRF-M	
Tree	No features on the site likely to be used by roosting bats.	PRF is suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.	PRF is suitable for multiple bats and may therefore be used by a maternity colony.	

Table 1: Roosting potential for bats in buildings and trees

4. Baseline Biological Conditions

4.1 Statutory and Local Sites

Information was looked at on the MAGIC Defra website. The following was determined:

There are international and national designated sites within 2km of the proposal area. These are:

Solent and Southampton Ramsar, Solent Maritime Special Area of Conservation (SAC) and Solent and Southampton Water Special Protection Area (SPA) located 1.2 kilometres southeast at their closest points.

Upper Hamble Estuary and Woods SSSI located 380 metres east at its closest point.

The site is within a SSSI Impact Risk Zone that falls into rural non residential development where the footprint exceeds 0.2 ha however it is within an existing settlement/ urban area and therefore does not pose a risk in this respect. If the development requires its own water supply then the LA will need to consult with Natural England on the likely risks.

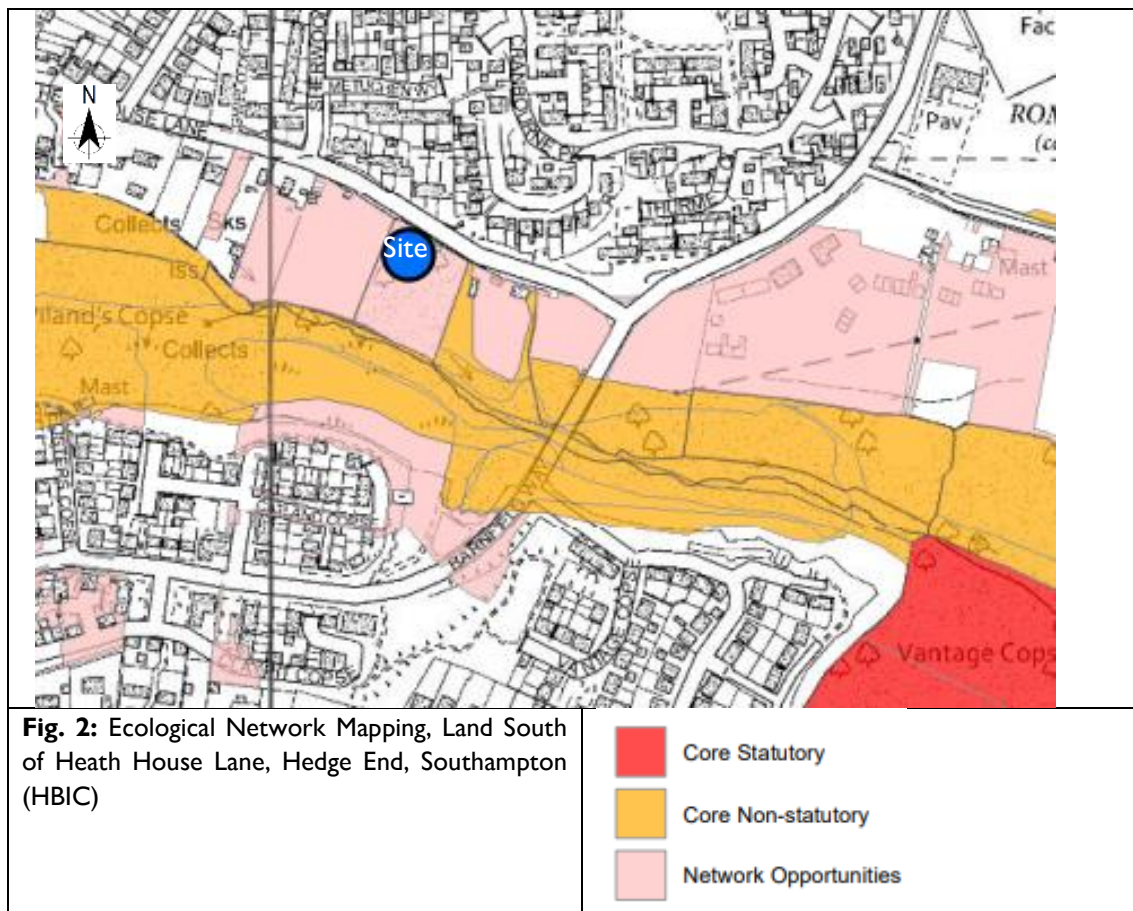
A data search was obtained from HBIC, reference 23685) to look for Local Sites within a 1 km radius of the site. Pilands Copse immediately borders the southern boundary of the site.

Sites of Nature Conservation Interest (SINC)		
Site name	Grid reference	Description or interest
Netley Hill	SU480119	Areas of Heathland Vegetation including mosaics of dwarf shrub heath, acidic grassland, valley mire and scrub. Areas of Heathland which are afforested or have succeeded to woodland.
Peewit Hill	SU481115	Areas of Heathland Vegetation including mosaics of dwarf shrub heath, acidic grassland, valley mire and scrub. Areas of Heathland which are afforested or have succeeded to woodland. Supports the Hampshire notable <i>Schoenus nigricans</i> .
Oakleigh Meadow	SU487110	Semi-improved grassland which retain a significant element of unimproved grassland.
Pilands Copse	SU488117	Ancient Semi-natural Woodland.
Durncomb's Copse Meadow	SU489113	Semi-improved grassland which retain a significant element of unimproved grassland.
Durncomb's Copse	SU492112	Other woodland where there is a significant element of ancient semi-natural woodland surviving or supporting some characteristics of ancient woodland.

Sandpit Copse	SU494113	Ancient Semi-natural Woodland and Other woodland where there is a significant element of ancient semi-natural woodland surviving or supporting some characteristics of ancient woodland.
Tanhouse Meadow	SU500121	Fens, flushes, seepages, springs and inundation grasslands of floodplains that support a flora and fauna of less-improved wet conditions (seasonal or permanent).
Kings Copse Meadow and Pond	SU502116	Semi-improved grassland which retain a significant element of unimproved grassland. Fens, flushes, seepages, springs and inundation grasslands of floodplains that support a flora and fauna of less-improved wet conditions (seasonal or permanent).

Table 2: Local Sites within 1km of the site.

Ecological Network information was gathered from HBIC. No eco-networks are present on site however the site's southern boundary borders Pilands Copse SINC core non statutory network, with the core statutory network situated 380 metres to the southeast boundary whilst the site itself is within an area designated for network opportunities. These areas are shown in Fig. 2. The Hampshire Ecological Network Map should not be viewed as a barrier to development (HBIC, 2020); instead it can be used to guide the location, layout and design of development to enable habitat and species mitigation, restoration and re-creation to inform green infrastructure and achieve biodiversity net gain. The 'Network Opportunities' component of the mapping can also be used to inform proposals to achieve net gain for biodiversity as part of the planning process in order to promote the restoration and re-creation of priority habitats including increasing the size of existing wildlife sites, enhance connections between sites, either through physical corridors or through 'stepping-stones' and enable the recovery and enhancement of priority species populations.



The site is immediately adjacent to the SINC Pilands Copse and therefore there is some potential for accidental damage to the habitats supported in these sites, and also for habitat degradation from accidental pollution incidents and dust deposition. Mitigation will be put in place to address these potential impacts to any habitats during construction.

Complimentary habitat to enhance the ecological network will be considered as a part of this assessment.

4.2 Habitats

The site is situated along the south of Heath House Lane, Hedge End, east of Southampton. It is situated on the suburbs of Hedge End with residential neighbourhoods to the north, an SINC immediately bordering the south and opening up to countryside to the east. Up until 2020 the main habitat type on site was classified as broadleaved woodland (W1) with evidence of large log piles,

brush and wood chippings across the site, with the site still showing as deciduous woodland priority habitat on Magic.gov, and as a woodland on google earth. However the habitat within the site was reclassified by HBIC sometime in 2020 as neutral grassland, and the site survey recorded ephemeral species and grassland colonising the bare ground, with dense areas of scrub recorded along the east and west margins and some smaller patches along the southern part of the site. Scattered trees are present along the northern boundary, whilst some broadleaved woodland remains in the northeastern corner.

The full results of the survey including DAFOR surveys are found in Appendix II of this report.

4.2.1 Neutral grassland g3, 14, 81, 206, 510

The majority of the site comprised UK habitat type neutral grassland (g3). The site is situated on a fairly steep gradient with bare ground (secondary code 510) in the form of gravel and earth at the top where it has undergone some ground levelling work previously (photo 1). Most of the site is being colonised by ephemeral and ruderal species and neutral grassland (secondary code 81), with the grassland quite established and tussocky along the eastern and western margins as shown in photo 2. Scattered rushes (secondary code 14) are present at the bottom of the slope, the southern section where the water table is high and other water tolerant species, including willow sp. were recorded. Large log piles and brash were recorded on site along with wood chippings from the fell as shown in photo 3.

Species recorded include:

Creeping bent	<i>Agrostis stolonifera</i>
Cock's-foot	<i>Dactylis glomerata</i>
Doves-foot cranesbill	<i>Geranium mole</i>
Ground-ivy	<i>Glechoma hederacea</i>
Hogweed	<i>Heracleum sphondylium</i>
Yorkshire fog	<i>Holcus lanatus</i>
Perennial ryegrass	<i>Lolium perenne</i>
Greater plantain	<i>Plantago major</i>
Rough meadow-grass	<i>Poa pratensis</i>
Selfheal	<i>Prunella vulgaris</i>
Field buttercup	<i>Ranunculus repens</i>
Broadleaved dock	<i>Rumex obtusifolius</i>
Curled dock	<i>Rumex crispus</i>
Common ragwort	<i>Senecio jacobaea</i>

Dandelion
 Common nettle
 Black medick
 Wild carrot
 Canadian fleabane
 Common mouse-ear
 Wild strawberry
 Common bird's foot trefoil
 Daisy
 Groundsel
 Milk thistle
 Creeping cinquefoil
 Yarrow
 Evening primrose
 Common vervain

Taraxacum agg.
Urtica dioica
Medicago lupulina
Daucus carota
Conyza canadensis
Cerastium fontanum
Fragaria vesca
Lotus corniculatus
Bellis perennis
Senecio vulgaris
Silybum marianum
Potentilla reptans
Achillea millefolium
Primula vulgaris
Verbena officinalis

A full species list is presented in appendix I.



Photo 1: North of the site depicting bare ground after recent ground levelling works



Photo 2: Neutral grassland tussocky margins.



Photo 3: Log piles and wood chippings towards the south of the site

4.2.2 Scrub

Large areas of continuous scrub were recorded along the eastern and western margins, along with patches of bramble scrub (h3d) scattered along the southern section. Bramble scrub is present towards the southwest of the site with a large pile of logs (photo 4) with scrub growing through and over it. This scrub continues along most of the western boundary (photo 5). Rhododendron scrub (h3g) is present along the eastern boundary (photo 6) which then becomes a very large area of dominant bramble scrub where discarded items and rubbish were recorded within this patch (photo 7). Species recorded within the scrub include:

Rhododendron sp.
Silver birch
Pendulous sedge
Hazel
Ivy
Holly
Cherry Laurel
Bramble
Common nettle

Betula pendula
Carex pendula
Corylus avellana
Hedera helix
Ilex aquifolium
Prunus laurocerasus
Rubus fruticosus agg.
Urtica dioica



Photo 4: Large log pile with scrub



Photo 5: Southwest corner of site, depicting large patch of bramble scrub and log piles underneath



Photo 6: Large patch of rhododendron scrub along eastern boundary



Photo 7: Large patch of bramble scrub in southeast corner of site

4.2.3 Scattered trees and woodland patch wlg

Three mature oak trees are present along the far northern boundary of the site as shown in photo 8. A small fragment of broadleaved woodland is present in the northeastern corner, with predominantly silver birch present as shown in photo 9, likely remnants from when the site was previously woodland.



Photo 8: Mature oaks along the northern boundary



Photo 9: Group of trees including silver birch in northeastern corner

Habitats recorded just outside of site boundary

Pilands Copse borders the southern section of the site and is designated ancient woodland as shown in photo 10. A small tributary of the River Hamble is present between the site and the SINC (photo 11).



Photo 10: Pilands copse SINC bordering the southern boundary



Photo 11: Small tributary between the site and Pilands Copse

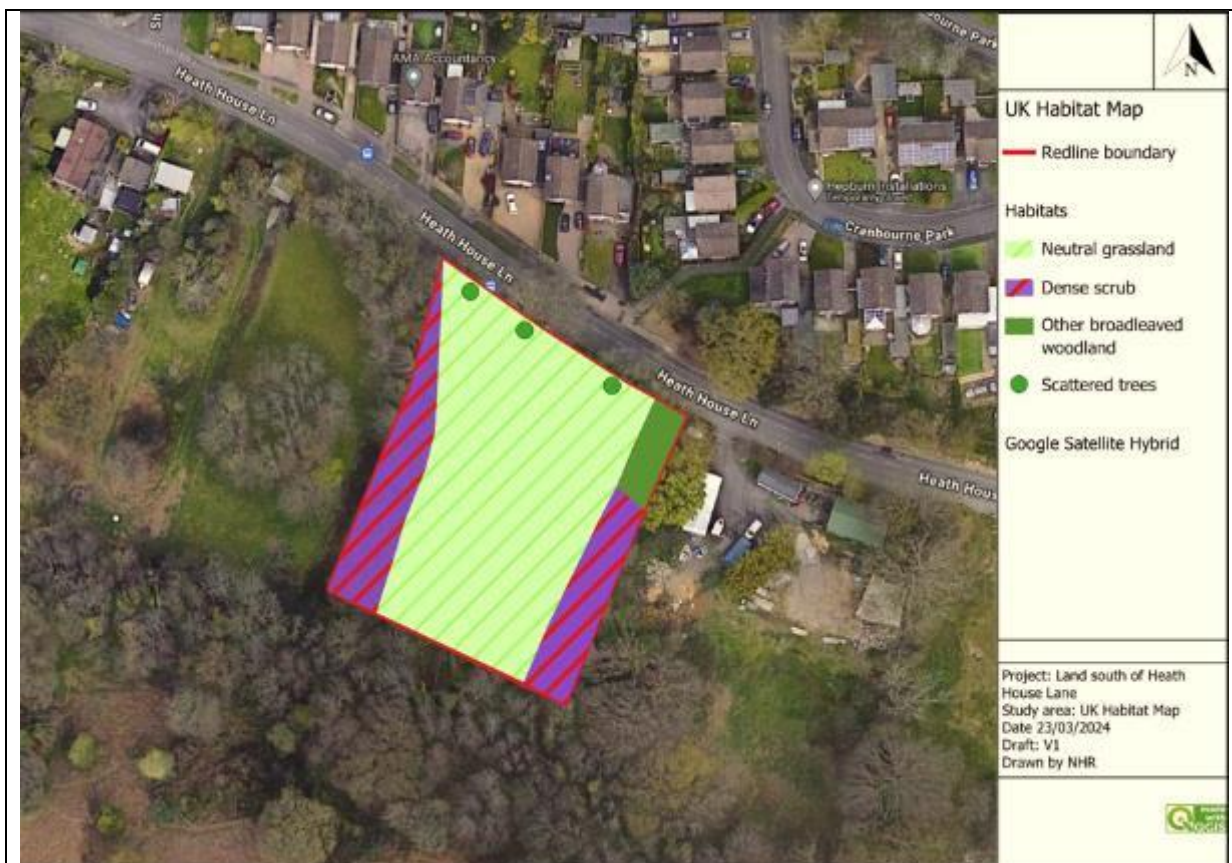


Fig 3: Existing Site

4.3 Species/Groups

4.3.1 Roosting Bats

There are no structures within the redline boundary. The mature oak trees along the northern boundary possess some features that may support roosting bats such as peeling bark. It is likely that these trees will not be affected by the development, however if they will be subject to works then further surveys will be required. All other trees within the footprint were assessed for their suitability to support roosting bats and no features were identified. The proposal is not considered to be a risk to these species.

4.3.2 Foraging Bats

Six species of bats were recorded within 1km of the site, including light sensitive species. HBIC provided records of the Annex II species Bechstein and western barbastelle within 5km of the site.

There is moderate potential for foraging bats along the scrub edges and scattered trees, with higher potential within the surrounding area and ancient woodland corridor to the south. The majority of these features are all remaining.

The effect of this proposal on this species is low. Mitigation will be implemented to remove this low risk, plus enhancements to the existing foraging features and a dark corridor will be implemented.

4.3.3 Breeding Birds

High potential breeding bird habitat exists within the scrub and scattered trees. The trees will be retained however, the scrub will likely need to be removed in order to facilitate further ground levelling works and therefore will impact this species. The data search returned records for 57 different bird species including song thrush, turtle dove and yellow wagtail within 1 km of the site.

The effect of this proposal is assessed to be low on these species, mitigation will be implemented to remove this low risk and enhancement measures including new native planting to conceal the retaining wall will increase the sites potential to support breeding birds.

4.3.4 Badgers

Badger prints and a clear mammal path as shown in photos 12 and 13, were recorded towards the south of the site, and 6 records were returned for this species within 1km of the site. The habitats

within the site, particularly the large patches of scrub offer suitable foraging opportunities for badgers, and they appear to be using the site for foraging and commuting to other suitable areas within the immediate vicinity.



Photo 12: Badger print in mud, southwest of the site



Photo 13: Badger print in mud along the southern area of the site



Photo 14: Mammal path recorded close to the print, along the southern section of the site

No setts or latrines were recorded within the site boundary or within 30 metres, where access was permitted. The effect of this proposal is assessed to be low on these species, however badgers will still be able to access the site for foraging and commuting after development and mitigation measures will be implemented to ensure badgers are not harmed during construction.

4.3.5 Hedgehogs

There were 23 records for hedgehogs within 1km of the site. These are most likely to use the scrub and longer grassland margins and therefore there is low potential for the proposal to impact this species, particularly during construction stage. Mitigation measures will remove this risk and enhancement measures will be put in place to ensure hedgehogs can move safely through the site and into the wider countryside.

4.3.6 Reptiles

The data search returned 6 records of slow worm, 2 records each of grass snake, common lizard and adder within 1km of the site. The taller sward, tussocky grassland margins and scrub onsite provide good foraging and commuting habitat for common species of reptile. This habitat is connected to other suitable areas within the wider vicinity, and it is likely that common reptiles are present within these areas.

There is low potential for the proposal to effect reptiles during construction. However, appropriate mitigation can be implemented to remove this risk. Enhancements will further ensure good connectivity between the site and surrounding countryside.

4.3.7 Great Crested Newts

The scrub and longer sward grassland, particularly around the edges offer suitable foraging and shelter for great crested newt and are connected to other suitable areas outside of the redline boundary. The tributary located just outside of the southern boundary contains running water which is unsuitable to support great crested newt. No other waterbodies were recorded within 500 metres of the site, no records of great crested newt were returned and an online search of the MAGIC (www.magic.gov.uk) site did not return any mitigation licences for great crested newt within 1 km of the site boundary.

It is therefore considered that the proposals will have a negligible impact on this species.

4.3.8 Hazel Dormouse

One record of hazel dormouse was recorded within 1 km of the site boundary, however this was located on the other side of the M27 motorway. The scrub patches provide some suitable foraging habitat and sub-optimal nesting habitat for this species. The scattered remains of the woodland are

not suitable to support the species due to the lack of understorey and branches, furthermore, It is likely these trees will remain. The scrub patches on site are connected to the wider habitat and if dormice were present within Pilands Copse or the connected habitat it is possible they may be utilising the scrub on site. It is highly unlikely that the proposal will affect hazel dormice, however as a means of best practice, appropriate mitigation can be implemented to remove this very low risk. A buffer between the SINC and the proposal will ensure good connectivity between the site and surrounding habitats.

4.3.9 Otters and Water Voles

The tributary that runs along Pilands Copse just outside of the site's southern boundary has some potential to support both otter and water vole. However, a buffer will be in place to protect the SINC from any negative effects of the development which will ensure both species, if present will be unaffected by the proposal. The effect of this proposal is therefore assessed to be negligible on these species.

4.3.10 Invertebrates

The grassland/ ephemeral vegetation has a moderate diversity of wildflowers, both native and non-native, and along with the scrub vegetation these areas have potential to attract common garden butterflies and other invertebrates. The data search returned 286 records of invertebrates within 1km of the site including 87 stag beetle records.

Whilst some of these habitats will likely be removed as part of the proposals, the effect of this proposal on invertebrate communities is assessed to be low. The enhancements of the remaining grassland and creation of new log piles will remove this risk and creation of the native planting to conceal the retaining wall will provide further opportunities for invertebrates.

4.3.11 Constraints

The survey was carried out in March which is outside of the optimum survey period for vegetation assessments.

5. Proposal Layout

The proposal has taken on the following:

- Root protection of retained trees along the north and northeastern boundary.
- New native planting against retention wall.
- Areas of grassland around the site will be left to grow and managed for invertebrates and in turn other fauna.
- Buffer of at least 15 metres but likely to be more, to protect the bordering SINC ancient woodland Pilands Copse.
- Bund to prevent potential run-off entering the tributary.



6. Assessment of the Effects and Proposal Measures

The proposal has the potential to affect the following:

- Pilands Copse SINC
- Neutral grassland
- Badgers
- Hedgehogs
- Foraging bats
- Breeding birds
- Reptiles
- Hazel dormice
- Invertebrates

6.1 Pilands Copse SINC

Pilands Copse SINC is immediately adjacent to the southern boundary of the site. There is a risk of this important habitat being negatively impacted by the proposed works. A narrow tributary of the River Hamble runs alongside the SINC at the bottom of the slope. If agricultural chemicals are going to be used, there is a risk of run off entering the watercourse.

Mitigation

To avoid any potential adverse impacts such as accidental damage, dust silting and pollution incidents to this SINC during construction, a Construction Environmental Management Plan (CEMP) will be prepared for submission and will be implemented. This will address potential impacts such as the use of Heras fencing during construction, briefing of all site personnel and contractors about the presence and importance of the adjacent designated site, details of how materials, fuel and chemicals will be stored and controlled on-site to avoid pollution and siltation. Standing advice on development adjacent to ancient woodland recommends a minimum 15m buffer of developing semi-natural habitat to mitigate the impacts of development and disturbance on the ancient woodland. The proposal is situated approximately 30m from the edge of the woodland canopy and therefore exceeds this buffer.

To avoid run off incidents into the watercourse, mitigation in the form of a bund creation at the bottom (south) of the slope using soil that will be moved during the proposed next stage of ground levelling will be constructed to collect surface run-off, increase water infiltration and prevent soil erosion.

6.2 Neutral grassland

Approximately 0.2 hectares of neutral grassland will be lost to facilitate the proposals, however a large area of this is already bare ground where ground levelling works have been undertaken in the north of the site.

Mitigation

Where possible, the proposals will include retention of as much grassland as possible, surrounding the polytunnels and within the buffer area. This will be left to naturally colonise and set seed to support invertebrates and in turn other fauna.

6.3 Scattered trees and woodland fringe

The oak trees along the northern boundary and the group of trees within the northeastern corner will be retained as part of the proposal, however there is a risk they could be damaged if unprotected during construction.

Mitigation

The trees will be protected during the construction phase in accordance with the British Standards Institute guidance (British Standards Institute, 2012) by installing construction hoarding along the root protection zones before works begin.

6.4 Badgers and hedgehogs

Field signs of badgers were recorded during the walkover survey therefore this species are using the site to forage and commute to other suitable areas within the wider vicinity. There are records of hedgehogs in within 1km of the site and the site itself provides good foraging and commuting habitat for this species. There is a low risk these species may be impacted by the construction stage of the development.

Mitigation

If excavations are left open at night, wooden boards or planks will be provided as a means of escape for any animals that fall in. Any pipework will be capped over-night to avoid animals becoming trapped. Hedgehog-friendly gravel boards with holes of 10 x 10 centimetres will be included within any new fencing. The buffer between the SINC and the proposal will ensure foraging and commuting habitat for both species is maintained.

6.5 Foraging Bats

The site has moderate potential for foraging bats and the majority of the features that they would use are remaining and being enhanced. However, there is potential for new lighting to disrupt foraging behaviour.

Mitigation

A sympathetic lighting scheme must be implemented across the site that will include but not be constricted to:

- Use of LED luminaires.
- A dark corridor of at least 5 metres will be implemented between the further most polytunnel and the tree boundary to the south.
- Any external Any external luminaries must be fixed to the unit at a height below 3m and be downward pointing/hooded. There must be 0% upward light ratio. There will be no lighting units other than those fixed to the new buildings and/or polytunnels.
- Use of motion sensor activated, or Central Management System (CMS) controlled security lighting triggered only when necessary.
- Light sources should emit minimal ultra-violet light, peak higher than 550nm and be of a warm/neutral colour <2,700 kelvin.

6.6 Breeding birds

The trees will remain as part of the proposals however the scrub will likely be removed.

Mitigation

Vegetation removal timed to occur between September and the end of February would avoid impact on nesting birds. If vegetation removal is planned during the breeding season (March to September inclusive) a suitably qualified ecologist will need to check for evidence of nesting birds before vegetation removal commences. Any nest present will be left and a five-metre buffer zone will be placed around the nest, excluding any works until the young have fledged.

The new native planting and enhancement measures including bird boxes on either trees and/or buildings will provide further nesting habitat for a range of bird species.

6.7 Reptiles

The grassland, particularly the margins, scrub habitat and log piles are suitable to support foraging, sheltering and hibernating reptiles and part of this will be removed to facilitate the ground levelling works and construction of the new buildings.

Mitigation

Due to the area of suitable habitat that will need to be removed, a full suite of reptile surveys is not deemed necessary. Mitigation will involve habitat degradation through the use of a strim and push exercise. This will be conducted under an ecological watching brief and involves a two-stage process in a directional manner to allow reptiles to move into suitable retained habitat along the southern boundary. This will be undertaken in the reptile active season between March and October when the temperatures are above 10°C. The log piles will also be removed under ecological supervision and any reptiles found during the process will be safely relocated to retained habitats outside the works area.

6.8 Hazel dormouse

There is a very low risk that dormice could be encountered on site during works.

Mitigation

The proposed clearance of scrub will proceed in accordance with precautionary methodology to ensure that the species is safeguarded from harm. Vegetation clearance works will be undertaken as a single stage clearance in May or September/October. This one stage clearance will allow all scrub vegetation to be cleared in one operation. The vegetation clearance will be undertaken in a single

direction with the noise of the brush-cutters encouraging any dormice present to safely move away from the working area and into adjacent suitable habitat south towards Pilands Copse SINC. If dormice are discovered, then the works will stop immediately, and Natural England will be contacted for further advice, and this may result in a European Protected Species licence application being obtained.

7. Enhancements

In line with NPPF 2021, enhancements will be made across the site. Two bat boxes will be erected on mature trees within the eastern boundary to increase roosting opportunities for bats.

Two bird boxes will also be installed on either mature trees and/or the new buildings to provide suitable foraging habitat for a range of species of bird.

A native planting scheme will be planted against the new retaining wall and will include native species such as hawthorn, blackthorn, hazel and field maple. This will be managed ecologically to support a range of wildlife.

The remaining grassland around the perimeters of the site and towards the bottom and within the buffer will be allowed to grow and set seed, supporting an abundance of invertebrates which in turn will support a range of fauna.

Log piles will be created in suitable areas across the site and include partially buried logs that will provide a deadwood habitat resource for invertebrate species, such as stag beetle which were recorded in good numbers within 1km of the site.

8. Monitoring

Simple photographic monitoring will be required and submitted to the LPA. This needs to happen with the watching brief and post construction to show buffers are retained and enhancements have been completed.

9. Conclusions

Construction works will require a watching brief to remove reptile, nesting bird and potential hazel dormouse habitat.

The site is approximately 0.5 hectares and therefore falls under the category of small development within the Town and Country Planning (Development Management Procedure) (England) Order 2015 and is therefore classed as exempt under the Biodiversity Net Gain Requirements (exemptions) Regulations 2024.

Construction will be guided by a Construction and Ecology Management Plan (CEMP), detailing the sensitive features of the site and how they will be protected during construction.

The mitigation and enhancement measures will increase the wildlife value of the site as a whole.

References

CIEEM (2019). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester

Collins, J., Charleston, P., Davidson-Watts, I., Markham, S. and Kerslake, L. (2023). Bat Surveys for Professional Ecologists Good Practice Guidelines. (4th Edition), Bat Conservation Trust, London.

Department for Communities and Local Government (2005). Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.

Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

HBIC (2020). Mapping the Hampshire Ecological Network, version 3.

HBIC (2024). Data request ref 12357, Land at Heath House Lane.

Multi-Agency Geographical Information for the Countryside (MAGIC) Website at <https://magic.defra.gov.uk/>

Appendix 1: Legislation (summary)

In England, all bats, dormice (*Muscardinus avellanarius*), otters (*Lutra lutra*), great crested newts (*Triturus cristatus*), smooth snakes (*Coronella austriaca*) and sand lizards (*Lacerta agilis*) are legally protected under Annex IV of the EC Habitats and Species Directive (1992), which is transposed into domestic law via the Conservation of Habitats and Species Regulations (2017). Nightjars (*Caprimulgus europaeus*) are protected under the above Regulations under Annex I (as originated from the EC Birds Directive).

Badgers (*Meles meles*) are protected under The Protection of Badgers (1992).

Some species are also listed under Annex II of the EC Habitats and Species Directive (1992), including barbastelle (*Barbastella barbastellus*), Bechstein's bat (*Myotis bechsteinii*), greater horseshoe (*Rhinolophus ferrumequinum*), lesser horseshoe (*Rhinolophus hipposideros*), great crested newt, stag beetle (*Lucanus cervus*) and otter.

The above-named species and adders (*Vipera berus*), slow worms (*Anguis fragilis*), grass snakes (*Natrix natrix*), common lizards (*Zootoca vivipara*), water voles (*Arvicola amphibius*) and several invertebrate species are also protected under Schedule 5 of the Wildlife and Countryside Act (WCA) (1981) (as amended); hedgehogs (*Erinaceus europaeus*) are partially protected under Schedule 6 of the WCA (1981). Barn owls (*Tyto alba*) and other breeding birds are protected under Schedule 1 of the WCA (1981).

Schedule 9 of the WCA (1981) includes non-native, invasive species including (but not limited to) Japanese knotweed (*Fallopia japonica*), giant hogweed (*Heracleum mantegazzianum*) and Himalayan balsam (*Impatiens glandulifera*).

Some sites that have been designated for nature conservation are legally protected due to being of European importance. These include Special Areas of Conservation (SACs) (protected under the EC Habitats and Species Directive (1992), Special Protection Areas (SPAs) for birds (protected under the EC Birds Directive) and Ramsar (Ramsar Convention, 1975). Other protected sites include Sites of

Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) Local Nature Reserves (LNRs) and Protected Road Verges.

Hedgerows that qualify as 'important' under The Hedgerows Regulations (1997) are legally protected under the Regulations.

The National Planning Framework has been revised in July 2021. Section 15, paragraphs 174 to 188 can be found at <https://www.gov.uk/guidance/national-planning-policy-framework/15-conserving-and-enhancing-the-natural-environment> Conserving and enhancing the Natural Environment. Section 15, NPPF July 2021 states that planning policies and decisions should contribute to and enhance the natural and local environment.

Appendix 2: Full species list of the habitats

Species recorded in the neutral grassland

Yarrow	<i>Achillea millefolium</i>	F
Creeping bent	<i>Agrostis stolonifera</i>	F
Scarlet pimpernel	<i>Anagallis arvensis</i>	O
Cow parsley	<i>Anthriscus sylvestris</i>	F
Columbine	<i>Aquilegia sp.</i>	O
Lords and ladies	<i>Arum maculatum</i>	F
American wintercress	<i>Barbarea verna</i>	O
Daisy	<i>Bellis perennis</i>	F
Butterfly bush	<i>Buddleja davidii</i>	F
Bittercress sp.	<i>Cardamine Sp.</i>	A
Pendulous sedge	<i>Carex pendula</i>	LA and O
Common mouse-ear	<i>Cerastium fontanum</i>	F
Spear thistle	<i>Cirsium vulgare</i>	LA and F
Canadian fleabane	<i>Conyza canadensis</i>	F
Early crocus	<i>Crocus tommasinianus</i>	O
Cock's-foot	<i>Dactylis glomerata</i>	O
Wild carrot	<i>Daucus carota</i>	O
Broad buckler fern	<i>Dryopteris dilatata</i>	O
Willowherb sp.	<i>Epilobium sp.</i>	F
Common storksbill	<i>Erodium cicutarium</i>	O
Caper spurge	<i>Euphorbia lathyris</i>	O
Red fescue	<i>Festuca rubra</i>	F
Wild strawberry	<i>Fragaria vesca</i>	LF and F
Cleavers	<i>Galium aparine</i>	LA and F
Hedge bedstraw	<i>Galium mollugo</i>	LF
Doves-foot cranesbill	<i>Geranium mole</i>	O
Herb Robert	<i>Geranium robertianum</i>	F
Ground-ivy	<i>Glechoma hederacea</i>	LD
Ground ivy	<i>Glechoma hederacea</i>	F
Ivy	<i>Hedera helix</i>	LA and F
Hogweed	<i>Heracleum sphondylium</i>	O
Yorkshire fog	<i>Holcus lanatus</i>	LA and F
Cat's-ear	<i>Hypochaeris radicata</i>	O
Soft rush	<i>Juncus effusus</i>	LA
Perennial ryegrass	<i>Lolium perenne</i>	O
Common birds-foot trefoil	<i>Lotus corniculatus</i>	F and LA
Scented mayweed	<i>Matricaria recutita</i>	LF
Black medick	<i>Medicago lupulina</i>	F

Herb mercury	<i>Mercurialis annua</i>	O
Evening primrose	<i>Oenothera biennis</i>	O
Bristly oxtongue	<i>Picris echioides</i>	F
Ribwort plantain	<i>Plantago lanceolata</i>	F
Annual meadow-grass	<i>Poa annua</i>	F
Creeping cinquefoil	<i>Potentilla reptans</i>	R
Selfheal	<i>Prunella vulgaris</i>	R
Bracken	<i>Pteridium aquilinum</i>	O
Creeping buttercup	<i>Ranunculus repens</i>	A
Bramble	<i>Rubus fruticosus</i> agg.	F
Curled dock	<i>Rumex crispus</i>	F and LF
Broadleaved dock	<i>Rumex obtusifolius</i>	F
Common ragwort	<i>Senecio jacobaea</i>	F
Groundsel	<i>Senecio vulgaris</i>	F
Milk thistle	<i>Silybum marianum</i>	R
Hedge woundwort	<i>Stachys sylvatica</i>	R
Dandelion	<i>Taraxacum</i> agg.	O
Scentless mayweed	<i>Tripleurospermum inodorum</i>	O
Common nettle	<i>Urtica dioica</i>	F
Common vervain	<i>Verbena officinalis</i>	R
Common field speedwell	<i>Veronica persica</i>	O
Common vetch	<i>Vicia sativa</i>	LF

Species recorded within the scrub

Hazel	<i>Corylus avellana</i>	O
Broom	<i>Cytisus scoparius</i>	O
Ivy	<i>Hedera helix</i>	D
Bramble	<i>Rubus fruticosus</i> agg.	D
Willow sp.	<i>Salix</i> sp.	F
Common nettle	<i>Urtica dioica</i>	A and F

Species recorded within the remaining woodland margin

Oak	<i>Quercus robur</i>	F
Rhododendron sp.		LA
Silver birch	<i>Betula pendula</i>	F
Ivy	<i>Hedera helix</i>	A
Holly	<i>Ilex aquifolium</i>	O
Laurel	<i>Prunus laurocerasus</i>	F
Willow sp.	<i>Salix</i> sp.	O

