



EXTENDED PHASE 1 ECOLOGICAL ASSESSMENT

DURNCOMB HOUSE, FREEHILLS OFF DODWELL LANE, BURSLEDON, SO31 1AB

DRAFT REPORT

March 2023

Report conditions

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Executive Summary

- This extended phase 1 ecological assessment report has been prepared in order to support a planning application for the proposed loft conversion and construction of a single storey side extension to the existing house at Durncomb House, Bursledon.
- An extended phase 1 ecological assessment of the application site was undertaken on the 6th March 2023 by Katy Goddard and Connor Hill of Phillips Ecology.
- The survey area comprised the entirety of the site including the existing dwelling, outbuildings, ancient woodland and their immediate surroundings. A data search extended to a 2km radius for designated sites and notable habitats.
- A large section of the site comprises ancient woodland, the zone of impact of the proposed works will avoid direct impacts to the designated habitat. Mitigation measures to ensure indirect impacts are avoided to the ancient woodland are outlined in section 14.1.
- The site is considered to support opportunities for protected and priority species including bats, breeding birds, badgers and hedgehog. The existing dwelling is considered to support high suitability for roosting bats.
- In order to confirm the presence/absence of roosting bats, characterise any bat roosts, assess the extent that they may be affected by the proposed works and develop a proportionate and appropriate mitigation strategy, further survey work in accordance with Natural England standing advice and the Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition) is required for the dwelling. The recommended survey effort for structures with high roost suitability is three presence/absence surveys.
- With the implementation of precautionary construction avoidance measures, impacts on designated sites and other protected species will be avoided.
- Information regarding the length of time the findings from this report are valid for can be found in section 13.

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1. Introduction

1.1 Report purpose

This report has been prepared in order to present the extended phase 1 ecological assessment undertaken at Durncomb House, Bursledon (central grid reference: SU 49045 11067).

1.2 Description of proposal

The proposals include the construction of a single-storey extension at the northern corner of the dwelling and loft conversion including a roof extension.

1.3 Report context

MARChitecture Architectural Design & Development Ltd have prepared a planning application on behalf of their client Mr Knox (the Applicant) for the proposed works at Durncomb House, Bursledon. Phillips Ecology have been instructed by the Applicant to undertake an ecological assessment to support this application, which has been submitted to Eastleigh Borough Council.

1.4 Scope of assessment

An extended phase 1 ecological assessment was carried out on the 6th March 2023. The survey comprised a field survey and desktop study in order to identify notable or protected sites, habitats or species potentially affected by the proposal under consideration.

1.5 Survey area

The survey area comprised the structures and grounds within the site boundary including the existing dwelling, outbuildings, hedgerows and ancient woodland. Particular attention was given the buildings and habitats present within the zone of impact (ZOI) of the proposed works which includes the dwelling with surrounding hardstanding and managed garden.

Regarding the bat roost assessment, the survey area extended to all areas of the dwelling that will be modified by the proposed works in such a way that bats or their roosts could be impacted (directly or indirectly). Therefore, the survey included the entirety of the dwellings roof and northern western elevation and the two-storey extension's north-eastern elevation.

A data search extended to a 2km radius for designated sites and notable habitats.

1.6 Limitations

Limitations which are specific to each phase of the assessment are given in the relevant sections, below.

2. Data search

2.1 Methodology

A desk-based assessment was undertaken by Phillips Ecology on the 20th March 2023 with Multi-Agency Geographic Information for the Countryside (MAGIC). The MAGIC database was consulted for records of statutory designated sites and priority habitats for the development site and a 2km radius.

2.2 Limitations

The data search results are bound by the following statement contained within MAGICs general disclaimer: “The materials contained on this website are of a general, informational, nature. We have used reasonable endeavours to ensure the accuracy and completeness of the contents of the pages on this site but the information does not constitute advice and must not be relied on as such.”

2.3 Results

2.3.1 Statutory designated sites

A total of nine statutory designated sites are located within a 2km radius of the application site. These comprise two Sites of Special Scientific Interest (SSSI), one Special Protection Area (SPA), one Special Area of Conservation (SAC), one Ramsar and four Local Nature Reserves (LNR). Details on these designated sites are given in table 1, below.

Table 1: Statutory designated sites within 2km of the application site

Site Name	Approximate distance and direction from the site	Reason for designation
<i>Solent and Southampton water Ramsar site and SPA</i>	0.53 km SE	The site forms a section of the overarching Solent European Marine Site (EMS). The main habitats within the site boundary comprise, mudflats, sandbanks, inter- and subtidal rock, areas of saltmarsh, coastal lagoons, reedbeds, shingle banks and grazing marsh. The sediments within the site support rich populations of invertebrates which are an important resource for wintering birds. Additionally, the whole of the Solent exceeds 90,000 birds annually, the previously mentioned habitats help to provide suitable breeding and roosting grounds for these birds. Some of the identified species that are considered qualifying features for the SPA include, dark-bellied brent geese <i>Branta bernicla bernicla</i>, black-tailed godwit <i>Limosa limosa islandica</i>, common and little tern <i>Sterna hirundo</i> and <i>Sterna albinfrons</i>, and Ringed plover <i>Charadrius hiaticula</i>.
<i>Solent Maritime SAC</i>	0.53 km - SE	The sites habitats are the primary reason for its designation. The first notable habitats are the many estuaries that feed into the Solent including the Hamble. The site is the only one in the series to contain more than one physiographic sub-type of estuary and is the only cluster site. The second notable habitats are the spartina swards, being the only site in the UK for smoot cordgrass <i>Spartina alterniflora</i> and is one of two sites containing sizable amounts of small cordgrass <i>S. maritima</i>. Lastly, the Solent contains the second largest aggregation of Atlantic salt meadows in south and south-west England. One particular difference this site has to other large salt meadows is the ungrazed nature of the meadows.

Site Name	Approximate distance and direction from the site	Reason for designation
<i>Upper Hamble Estuary and Woods SSSI</i>	0km – NE	The site comprises multiple habitats all of ecological importance, including, saltmarsh, reed swamp and twelve different types of ancient woodland. The varied ancient woodland types occur due to the changes in soil conditions particularly London clay to well drained valley sands and gravel. These varied soil types help to collectively comprise one of the most ecologically diverse woodland areas in central south England. The varied habitats offer suitable conditions for a range of fauna including the purple emperor <i>Apatura iris</i> and the rare leaf beetle <i>Orsodance lineola</i> in the species rich ground flora of the ancient woodlands. The rare marshland beetle <i>Mecinus collaris</i> in the saltmarshes. Suitable breeding grounds for reed and sedge warblers in the reedbeds, with narrow mudflats supporting marine worms, crustaceans and molluscs providing a food source for several species of shorebirds.
<i>Lincegrove and Hackett's Marshes SSSI and LNR</i>	1.77km S	The site is designated for its mature saltmarsh habitat on the west bank of the Hamble estuary. The dominant vegetation includes sea purslane <i>Halimione portulacoides</i> and common cordgrass <i>Spartina anglica</i> . It is believed that reed invasion occurred after grazing of the marshes ceased earlier this century and structurally the present marshes are some of the best examples of mature saltmarsh in on the south coast.
<i>Wildern LNR</i>	1.53km N	The 9.7ha site comprises various wetland habitats including ponds, flooded meadows, woodlands and valley mire, all linked by the streams flowing throughout the site. The site supports a range of fauna including birds, dragonflies, damselflies and over 26 species of butterfly.
<i>Manor Farm LNR</i>	0km – NE	The 144ha site spans a large area of land overlapping with multiple designated sites including the Solent and Southampton Ramsar, Southampton Water SPA, Solent Maritime SAC and Upper Hamble Estuary and Woods SSSI. The woods, rivers and fields on the site offer an abundance of flora and fauna including roe deer <i>C. capreolus</i>, curlews <i>Numenius Arquata</i>, skylarks <i>Alauda arvensis</i>, various wildflowers, insects and reptiles. The site also supports over 10 different species of bat, that use the local woodland and structures to roost.
<i>Netley Common LNR</i>	1.1km NW	The 12.8ha site comprises the city's last remaining area of open heathland, with islands of scrub and gorse, grassland and surrounding woodland. Heathland supports a variety of wildlife and so are of nation biodiversity importance.

2.3.2 Ancient woodlands

Thirteen compartments of non-statutory ancient woodland are located within a 2km radius of the application site. One of these compartments forms the north-eastern ancient woodland present on site. The closest compartments are detailed in table 2, below.

Table 2 Closest ancient woodlands within 2km of the application site

*Woodland Name Approx. distance Reason for designation
and direction from
the site*

<i>Catland/Fosters/ Bottom Copses</i>	On site	This 9.1ha site is designated for its ancient and semi-natural woodland.
<i>Catland/Fosters/ Bottom Copses</i>	0.16km NE	This 1ha site is designated for its ancient and semi-natural woodland.
<i>Catland/Fosters/ Bottom Copses</i>	0.26km NE	This 1.5ha site is designated for its ancient-replanted woodland.
<i>Unnamed woodland</i>	0.26km SE	This 1.8ha site is designated for its ancient and semi-natural woodland.
<i>Catland/Fosters/ Bottom Copses</i>	0.36km N	This 3.1ha site is designated for its ancient and semi-natural woodland.
<i>Catland/Fosters/ Bottom Copses</i>	0.32km NE	This 8.1ha site is designated for its ancient and semi-natural woodland.
<i>Catland/Fosters/ Bottom Copses</i>	0.47km E	This 23.1ha site is designated for its ancient and semi-natural woodland.
<i>Catland/Fosters/ Bottom Copses</i>	1km E	This 11ha site is designated for its ancient and semi-natural woodland.

2.3.3 *Priority habitats*

The data search revealed the following priority habitats within 2km of the application site:

- Coastal saltmarsh
- Mudflats
- Coastal and floodplain grazing marsh
- Good quality semi-improved grassland
- Lowland meadows
- Purple moor grass and rush pasture
- Lowland heathland
- Lowland reedbeds
- Priority deciduous woodland
- Traditional orchards

2.3.4 Protected Species

The data search revealed records of the following protected species with a 2km radius of the site. These records relate to EPSM licences that have been issued by Natural England, the date of licence issue is included in brackets.

- Bats - Common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared *Plecotus auratus* – 50m N (2019 - 2029).
- Bats – Common pipistrelle – 601m NNW (2015 – 2020)
- Bats – Common pipistrelle – 2000m SW (2013 – 2015)
- Bats – Common pipistrelle – 1848m W (2014 - 2015)
- Bats – Common pipistrelle – 1919m SW (2019 - 2025)
- Bats - Common pipistrelle, soprano pipistrelle, brown long-eared and Natterer's bat *Myotis nattereri* – 1977m NE (2013 - 2016).

3. Habitats

3.1 Methodology

A field survey was carried out on the 6th March 2023 by Katy Goddard and Connor Hill of Phillips Ecology. During the survey, all broad habitat types were identified, and a list was compiled of characteristic plant species within each habitat type. These habitats are described below in accordance with Phase 1 habitat terminology.

3.2 Limitations

The only limitation was that the survey was carried out during the winter months and at a time when many plant species are dormant and therefore not visible to the surveyor. However, it was still possible to make a general assessment of the vegetation types present. Further survey work would be required to form a detailed account of the woodland community and habitat condition of the ancient woodland within the site, however, this information is not required to inform the avoidance mitigation strategy which has been proposed as part of this assessment work.

3.3 Existing records

The data search revealed that priority habitats associated with the local landscape within 2km of the site comprise: coastal saltmarsh, mudflats, coastal and floodplain grazing marsh, good quality semi-improved grassland, lowland meadows, purple moor grass and rush pasture, lowland heathland, lowland reedbeds, priority deciduous woodland and traditional orchards.

3.4 Results

The site itself consists of the main dwelling, a garage to the south and multiple outbuildings situated to the north that extend into the woodland. Hardstanding and a managed garden closely surround the dwelling with amenity grassland and ornamental planting present. A large paddock is located to the east of the garden. Durncomb House Copse encompasses the entire north and west sections of the site and constitutes a small section of the wider Catlands/Forster/Bottom ancient woodland.

The surrounding landscape includes residential properties with associated gardens to the southwest, permanent pasture and arable farmland to the west and east and ancient woodland to the north and northeast. The Hamble Estuary and Woods SSSI adjoins the eastern boundary of the on-site woodland and extends across to the River Hamble that lies 1km to the east of the site.

The following Phase 1 habitat types were recorded within the application site. See Appendix 2 for the Phase 1 habitat map.

3.4.1 Mixed semi-natural woodland (A1.3.1)

The majority of the site is formed by Durncomb Copse a section of the Catland/Fosters/Bottom mixed semi-natural ancient woodland located to the north, east and west of the dwelling (Figure 1 and 2). A variety of tree species were recorded within the woodland including beech *Fagus sylvatica*, silver birch *Betula pendula*, oak spp.

Quercus spp., pine spp., *Pinus* spp., horse-chestnut *Aesculus hippocastanum*, hazel *Corylus avellana*, yew *Taxus baccata* and holly *Ilex aquifolium*. The species recorded in the woodland understorey include, *Rhododendron*, cleavers *Gallium aparine*, holly, common ivy *Hedera helix*, bracken *Pteridium*, bramble *Rubus fruticosus*, cherry laurel *Prunus laurocerasus*, pendulous sedge *Carex pendula* and soft-rush *Juncus effusus*. Greater field layer diversity would be anticipated during the optimal woodland survey period.

A mixture of broadleaved and conifer trees are also scattered throughout the site comprising the same aforementioned species.



Figure 1 – upper mixed semi-natural ancient woodland north of dwelling



Figure 2 – lower mixed semi natural ancient woodland along manor farm boundary

3.4.2 Improved grassland (B2.2)

A paddock is located at the south-eastern corner of the site, the grass was identified as improved grassland dominated by perennial ryegrass *Lolium perenne*, Yorkshire fog *Holcus lanatus* and cock's-foot *Dactylus glomerata* (Figure 3).



Figure 3 – improved grassland on site

3.4.3 Introduced shrub and amenity grassland (J1.4 and J1.2)

Areas of managed garden surround the house with both amenity grassland and ornamental planting present. The recorded ornamental and scrub species located in the garden include *eucalyptus* spp., spindle *euonymus* spp., cherry laurel, spotted laurel *Aucuba japonica*, bamboo spp. *Pleioblastus* spp., *Cotoneaster* spp., palm *Arecaceae* spp, daffodils *Narcissus pseudonarcissus*, *magnolia* spp., *cyclamen*, stinking iris *iris foetidissima*, primrose spp. *primula* spp., and pendulous sedge.

3.4.4 *Boundaries (J2)*

Fencing (J2.4) is present around the entirety of the woodland with post and rail fencing forming the eastern and southern boundary of the paddock. A beech hedgerow with hazel interspersed throughout formed the eastern boundary of the garden and western boundary of the paddock dividing the two habitats (J2.1.2).



Figure 4 – species poor hedgerow dominated by beech

3.4.5 *Buildings (J3.6)*

The application site contains multiple built structures including the main dwelling, garage and several outbuildings used for storage. The dwelling and two outbuildings are described further in section 5.

3.4.6 *Other - hardstanding (J5)*

Hardstanding surrounds the entirety of the dwelling with concrete pathways extending throughout the garden. A large driveway is present southwest of the dwelling and a patio area is located north of the dwelling which forms the footprint of the proposed extension.

3.5 **Assessment**

Overall, the ancient woodland on site is designated habitat which features a rich assemblage of native tree and scrub species, so is considered to be of high ecological value.

The area of site within the direct zone of impact of the proposed works consists of hardstanding, ornamental planting and amenity grassland. These habitats are considered to be of low botanical value.

4. Protected and notable species assessment

The scope of works, data search and habitat assessment have informed the scope of the protected and notable species assessment. On this basis, the following protected and priority species have been considered further within this report:

- Bats
- Badgers
- Hazel Dormice
- Hedgehogs
- Reptiles
- Great Crested Newts
- Breeding birds

The surveyed site has been assessed for its potential to support the above-named protected species based upon the criteria in Table 3.

Table 3 Protected species grading criteria

Grading criteria	Justification
<i>Negligible</i>	Site is entirely unsuitable for species. Presence of species highly unlikely.
<i>Low Potential</i>	Minimal suitable habitat present or, if present, highly degraded/fragmented. Minimal linkage to suitable habitat beyond site. Presence of species unlikely.
<i>Moderate</i>	Presence of some suitable habitat features for species. Surveyed site within/close to known range or known occurrence but factors such as isolation/fragmentation may reduce potential. Presence of species is more likely than not.
<i>High</i>	Presence of optimal habitat features for species. Surveyed site within known range/close to known occurrence. Excellent connectivity to optimal habitat. No justification for discounting presence of species.
<i>Confirmed presence</i>	Species confirmed on site through direct sighting, presence of field signs (e.g. scat, hair, prints, nest, eggs, habitation etc.) or through desk-based assessment.

5. Bats

5.1 Methodology

The survey did not depart from the Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition) which states that "A preliminary roost inspection survey is a detailed inspection of the exterior and interior of a structure to look for features that bats could use for entry/exit and roosting and to search for signs of bats".

The external features of the built structures which will be modified by the proposed works in such a way that bats or their roosts could be impacted (directly or indirectly) if present, were systematically inspected in detail to compile information on potential and actual bat access points and roosting places such as lifted or broken tiles, loose brickwork and open eaves. This included a thorough search for evidence of bat activity such as bat droppings, urine splashes and fur staining.

The interiors of the buildings were inspected in order to identify potential or actual access points and roosting places and to record any evidence of bat activity or bats themselves.

5.2 Survey equipment

Survey equipment comprised:

- High-powered torch
- Camera
- Ladders
- Binoculars

5.3 Limitations

The eaves of the house were only partially visible from inside the roof void due to a lack of access as a result of the perimeter of the void being unboarded. This made it difficult to identify potential internal access/egress features at the eaves. Despite this limitation it is still considered that a robust assessment of the buildings' suitability for roosting bats was undertaken.

5.4 Assessment methodology

The suitability of the buildings for supporting bat roosts will be assessed against the guidelines within Table 4 which have been adapted from the BCT Good Practice Guidelines.

Table 4 Building suitability assessment guidelines

<i>Suitability</i>	<i>Description of Roosting Habitats</i>
<i>Negligible</i>	Structure has no reasonable likelihood of supporting roosting bats i.e. no suitable roosting features present.
<i>Low</i>	A structure which could be used opportunistically by individual bats i.e. one or more potential roost sites which do not provide sufficient space, shelter,

	protection, appropriate conditions (e.g. temperature, light, humidity) and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats.
<i>Moderate</i>	A structure which could be used by bats but is not likely to support a roost of high conservation status (e.g. maternity roost). This structure would support features which exhibit suitable size, shelter, protection, conditions and surrounding habitat for roosting bats.
<i>High</i>	A structure which is obviously suitable for supporting larger numbers of bats, on a regular basis and for longer periods of time.

The site's suitability for supporting commuting and foraging bats will be assessed against the guidelines within Table 5 which have been adapted from the BCT Good Practice Guidelines.

Table 5 Foraging suitability assessment guidelines

<i>Suitability</i>	<i>Description of Foraging/Commuting Habitats</i>
<i>Negligible</i>	Negligible habitat features on site likely to be used by commuting or foraging bats.
<i>Low</i>	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated i.e. not very well connected to the surrounding landscape by other habitats. Suitable but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not parkland situation) or a patch of scrub.
<i>Moderate</i>	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such tree, scrub, grassland or water.
<i>High</i>	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of tree 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.

5.5 Results

5.5.1 The dwelling

The dwelling comprises a two-storey brick-built house which rises to a pitched and hipped design roof clad with clay roof, ridge and hip tiles (Figure 5). The house is oriented southwest to northeast. Clay hanging tiles are present on the top half of all existing house elevations. A two-storey pitched and hipped extension protrudes from the south-western elevation of the house and extends eastwards. An additional single-storey pitched and hipped extension protrudes from the south-eastern elevation (Figure 6). A uPVC framed conservatory set on a brick plinth extends from the north-eastern elevation of the house and is situated on a balcony overhanging the surrounding managed garden (Figure 7). The eaves are enclosed with uPVC fascia and under boards with closely adjoining uPVC guttering. A brick-built chimney extends from the central ridge of the main house and is surrounded by lead flashing. A catslide roof extends from the south-western roof face and forms an open porch roof overhang. The windows and doors are set in uPVC and wooden frames respectively, all are tight fitting to the surrounding brickwork.



Figure 5 – south-western elevation with catslide roof



Figure 6 – south-eastern hipped extension



Figure 7 – north-eastern conservatory and balcony

Internally, the dwelling supports a single roof void which extends through the main roof and into the western two-storey extension roof (Figure 8 and 9). The roof is lined with heavy-duty bitumen felt. The floor is partially boarded in the centre and insulated with fibreglass insulation. The chimney extends centrally up through the void. The space is used for storage and is heavily cobwebbed throughout.



Figure 8 – roof void of main house with central chimney



Figure 9 – roof void entrance to hipped extension

The zone of impact (ZOI) of the proposed works includes the entire roof of the dwelling, the north-western elevation of the main house and north-eastern elevation of the two-storey extension.

An account of suitable access/egress features and recorded evidence of bat activity inside the zone of impact is given in table 6.

Table 6 – Recoded features within the ZOI of the dwelling

	<i>Suitability</i>	<i>Evidence</i>
<i>Exterior</i>	The following suitable access/egress and roosting features were recorded externally: - Gaps under hanging tiles particularly at the corners of the elevations (Figure 10). - Lifted and slipped roof tiles near the chimney and hip joints (Figure 11).	No evidence of roosting activity was recorded on the external elevations of the building during the survey.
<i>Interior</i>	The roof void supports a suitable environment for bat roosting.	The following evidence of roosting activity was recorded on the internal elevations of the building during the survey: - Approximately 20 <i>Myotis</i> bat type droppings were recorded in the easternmost corner of the main void.



Figure 10 – gaps under hanging tiles on top half of elevations



Figure 11 – lifted tiles on roof face of the main dwelling and south-eastern extension

5.5.2 *Outbuildings to be demolished*

In addition to the proposed works for the dwelling, two of the existing outbuilds are to be demolished.

The first building comprises a wooden built shed with a pitched and gable end roof clad with roofing felt (Figure 12). The building is oriented east to west. The structure shows signs of wear with holes present in the woodwork (Figure 13). Despite the presence of damaged cladding which allows permanent access to the building, no evidence of roosting activity was recorded internally on surfaces which had accumulated dust and debris. No suitable roosting features were recorded externally.



Figure 12 – wooden built shed outbuilding



Figure 13 – holes in shed woodwork

The second outbuilding features a mono-pitched roof clad with corrugated metal sheets (Figure 14). The building is oriented east to west. The eastern elevation of the structure is permanently open and the elevations are clad with uPVC weather boards (Figure 15). Light ivy growth is present on the roof and elevations of the building. No suitable roosting features or evidence of bat activity was recorded when surveying the open outbuilding.



Figure 14 – open eastern elevation of outbuilding



Figure 15 – northern and western elevations of the outbuilding

5.5.3 Site grounds description relevant to bats

The site grounds that will be directly impacted by the proposed works include managed lawn, ornamental planting, and hardstanding. These habitats offer little in the way of foraging resource for bats, however, the surrounding woodland, paddock and hedgerow habitats are considered to be highly suitable for foraging and commuting bats. Due to this, it is likely that bats will commute and forage through the site.

5.6 Assessment

When considered in view of the criteria set out in Table 4, the dwelling is considered to support high roosting suitability - i.e. *“A structure which is obviously suitable for supporting larger numbers of bats, on a regular basis and for longer periods of time.”* This assessment is based on the presence of *Myotis* type bat droppings located in the void, the gaps present under the roof and hanging tiles and the high suitability of the surrounding landscape for foraging and commuting bats.

When considered in view of the criteria set out in Table 4, both the outbuildings to be demolished are considered to support negligible roosting suitability due to an absence of evidence of bat activity and suitable roosting features.

With regard to foraging bats, when considered against the criteria in Table 5, the suitability of the site for foraging and commuting bats is considered to be high, i.e., *“Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of tree and woodland edge.”*

This assessment is on the basis that the existing woodland and scattered trees present in the wider site are outside the ZOI of the proposed works.

6. Badgers

6.1 Methodology

The survey involved a detailed investigation of the site to identify evidence of badger residence, foraging or territorial activity. This includes badger setts, latrine sites, dung piles, well-used trails, prints and hairs. Particular emphasis was placed on locating badger setts, paths and signs of territorial activity such as dung piles and latrines.

6.2 Limitations

Limitations were not encountered during the course of the survey.

6.3 Results

High levels of badger activity were recorded within the woodland on site including multiple active sett entrances (approximately 12 recorded), freshly dug latrines and a pile of badger hairs. Furthermore, evidence of mammal foraging was recorded in the paddock adjoining the woodland. There are no barriers between the woodland and other habitats on site offering open access for badgers to commute and forage throughout the site.

6.4 Assessment

An active badger sett is present within the wider site boundary; however, the entrance holes are located at least 30m outside the boundary for the ZOI of the proposed works. The habitats inside the ZOI offer little in the way of resource for badgers compared to the surrounding landscape. There is considered to be moderate potential for badgers to utilise foraging opportunities within the ZOI of the proposals.

7. Dormice

7.1 Methodology

An assessment was made of the suitability of habitat on site to support hazel dormice. Key habitats are woodland, scrub and hedgerows, particularly where these offer dense vegetation within which to nest/hibernate and key resources such as hazel nuts, fruiting/nectar-rich plants (e.g. hawthorn, bramble) to provide a continuum of food resources throughout the active season and honeysuckle *Lonicera periclymenum* (for nesting material). Landscape-scale habitat linkages such as hedgerows are fundamental for dormouse presence where small scale or sub-optimal habitats are recorded within a site.

7.2 Limitations

Limitations were not encountered during the course of the survey.

7.3 Results

The ancient woodland supports optimal habitat for dormice. The beech hedgerow that divides the managed garden and paddock on site could be utilised by expanding dormice populations due to its connectivity to a wider network of hedgerows and woodlands. The available habitats within the zone of impact of the application site (managed lawn, ornamental planting, buildings and hardstanding) do not provide suitability for dormice due to a lack of connected cover and poor foodplant species diversity provided by the vegetation.

7.4 Assessment

Overall, the ancient woodland on site provides optimal habitat and vegetation for dormice, therefore when assessed against the criteria in table 3, it is considered to provide high

suitability for hazel dormice. The ZOI of the proposed works is considered to support negligible suitability for dormice.

8. Hedgehogs

8.1 Methodology

The site was assessed for its suitability to support hedgehogs based on the presence of favoured habitats such as woodland edges, hedgerows, grassland and suburban habitats.

Hedgehogs are most abundant within gardens, parks and amenity land close to or within human settlements. They are generally scarce in areas of coniferous woodland, marshes and moorland, probably because of a lack of suitable sites and materials for the construction of winter nests (Morris, 2006). Any evidence of hedgehog activity such as prints or droppings was recorded.

8.2 Limitations

Low detections rates are associated with evidence of hedgehog activity; therefore, absence of evidence does not confirm the absence of hedgehogs. For this reason, the assessment of the likely presence/absence of hedgehogs has largely been informed by the species' local distribution and the habitats within the site and local area.

8.3 Results

No direct evidence of hedgehog activity was noted during the survey. However, the areas of planting including the ornamental shrub, scrub, hedgerows in conjunction with the surrounding woodland offer highly suitable habitat for foraging hedgehogs.

8.4 Assessment

Due to both the on-site habitat and surrounding habitat providing suitable conditions for hedgehogs, there is considered to be high potential for hedgehog to occur on site within the ZOI of the proposed works.

9. Reptiles

9.1 Methodology

An assessment was made of the site's suitability to support reptile populations. Key habitat features include: tussocky/patchy grassland; scrub edge; linear watercourses; ponds; compost heaps; brash piles and rubble/soil heaps. Linkage to suitable habitat within the surrounding landscape will increase the potential for reptiles to occur, although populations can occur within isolated/fragmented habitats even within urban areas.

9.2 Limitations

Limitations were not encountered during the course of the survey.

9.3 Results

The site's woodland could offer potential for reptile species. However, the connected canopy, dense understorey vegetation and evergreen trees interspersed throughout the woodland will limit basking opportunities due to heavy shading. If reptiles are present on site, they would likely reside along the southern woodland edge and beech hedgerow where sunlight is more readily accessible adjacent to cover.

The mature garden within the ZOI of the proposed works could support more widespread reptile species, such as slow-worm. However, the managed condition of the grassland and ornamental planting reduces the overall suitability of the site. Nevertheless, it is possible that transient reptiles will disperse through the site or use the site opportunistically given its connectivity to suitable habitat within the wider area. Without management, the ZOI area could establish habitat features which have greater suitability for reptiles.

9.4 Assessment

There is considered to be moderate potential for reptile species to be present in and around the woodland, paddocks and mature hedgerows on site. The remainder of the site including the ZOI of the proposed works is considered to support low suitability for reptile species.

10. Great Crested Newts

10.1 Methodology

Great crested newts are only present in their breeding ponds during the spring and early summer – for the rest of the year, they will be dispersed across the surrounding area, generally in grassland, scrub, woodland and hedgerows, although they may be found in gardens and brownfield sites. They can travel some distance from their breeding ponds, and as a general rule, developments within 500m of such a pond may have the potential to have an impact on GCN, although to a certain extent, this does depend on any intervening habitat or barriers to dispersal.

An assessment was made of any waterbodies and terrestrial habitat within the site for their suitability to support populations of amphibians. Suitable waterbodies will generally be characterised by the presence of good quality water, diverse macrophyte cover and an absence of fish. For the European-protected great crested newt, each waterbody is normally assessed using the Habitat Suitability Index (HSI) system (Oldham et al., 2000) and assigned a grading score between zero (poor suitability) and 1 (excellent suitability).

10.2 Limitations

The HSI for great crested newts is a measure of habitat suitability. In general, ponds with high HSI scores are more likely to support great crested newts than those with low scores. However, in isolation, the system is not sufficiently precise to allow the conclusion that any particular pond with a high score will support newts, or that any pond with a low score will not do so (Oldham et al., 2000).

10.3 Results

The desktop survey has revealed that three waterbodies are located within 500m of the application site.

The first pond is situated 327m northeast of the site. When viewing historical aerial imagery, the waterbody appears to be ephemeral in nature drying out periodically each year making it unsuitable for GCN to utilise for breeding.

The second waterbody is located 229m south of the site and comprises a large ornamental pond. The expansive size and ornamental nature of the pond indicates it is likely to support fish, nevertheless, if fish are absent from the waterbody there are extensive optimal terrestrial habitats in the form of mature hedgerows and blocks of woodland between the site and pond.

The final waterbody is located 300m northwest of the site and consists of a small ornamental pond. The waterbody is disconnected from the site due to physical barriers including roads, residential and agricultural buildings. The on-site ancient woodland is also situated between the pond and ZOI of the proposals.

Regarding the latter two ponds, it is unlikely that GCN would disperse across roads, residential/agricultural properties, and numerous optimal terrestrial habitats to utilise the sub-optimal terrestrial habitats within the ZOI of the application site.

10.4 Assessment

Given the lack of suitable terrestrial habitat within the ZOI of the application site, there is considered to be low potential for great crested newt to occur within the impacted areas.

11. Breeding Birds

11.1 Methodology

An assessment was made of the site's suitability to support breeding bird species. Nesting birds will utilise a broad range of habitats, including: built structures, trees, scrub, isolated shrubs, dense herbaceous vegetation (terrestrial and aquatic) and open grassland. All bird species and evidence of breeding activity (active or inactive) observed on site were recorded.

11.2 Limitations

Limitations were not encountered during the course of the survey.

11.3 Results

The hedgerows, scattered trees and woodland present on site are considered to support nesting opportunities for breeding birds. Buzzards *B. bueto* have been previously observed nesting within the woodland on site, on a personal account of one of the current residents.

11.4 **Assessment**

The habitats on site within the woodland and boundary vegetation are considered to support high potential for breeding birds, while the habitats within the ZOI of the proposed works are considered to support moderate potential for breeding birds.

12. Discussion and Assessment of Impacts

12.1 Relevant legislation and policy

Circular 06/2005 identifies that applicants should not be required to provide information on protected species unless there is a reasonable likelihood that they will be present and affected by the proposed development. The site is considered to support habitats with suitability and potential for protected species and these may be affected by the proposed development. Therefore, the proposal triggers 'reasonable likelihood' under the Circular.

The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (commonly referred to as the Habitats Regulations) may apply should protected species be confirmed on site.

In the case that a European protected species (bats in this case) is found to be present and impacted by the proposal, the local planning authority will be required to engage with the Habitat Regulations. Permission will be granted unless:

- a) the development is likely to result in a breach of the Habitats Regulations, and
- b) is unlikely to be granted an EPS licence from Natural England to allow the development to proceed under a derogation from the law (under licence).

When considering whether Natural England would not be unlikely to grant a licence for the identified impact, the local planning authority must consider the three tests which are set out in the Habitat Regulations:

1. the consented operation must be for 'preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment'; (Regulation 53(2)(e))
2. there must be 'no satisfactory alternative' (Regulation 53(9)(a)); and
3. the action authorised 'will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range' (Regulation 53(9)(b)).

Natural England will grant a licence if the development proposal is able to meet the three tests.

Case-law (Morge vs. Hampshire County Council) has clarified that planning authorities are able to grant permission for developments that would cause a breach of the Regulations is likely (i.e. in the case of this proposal, destruction of a bat roost), provided that sufficient information is provided to give the planning authority assurance that the relevant EPSM licence is not unlikely to be granted - i.e. planning authorities also have a duty to assess planning applications against these tests.

12.2 Designated sites

The proposed development will not result in the direct loss of any of the identified designated sites. Nor will it result in the direct loss of any habitat that could be considered functionally linked supporting habitat for the species for which the sites were designated. However, a compartment of ancient and semi-natural woodland does form the entire northern and western section of the site. Additionally, a SSSI lies adjacent to the eastern border of the site.

Ancient woodlands are irreplaceable habitats which are susceptible to the edge-effects of development including the removal of adjoining semi-natural habitat, air and waterborne pollution, compaction of tree roots and light pollution. Natural England standing advice on ancient woodlands requires any new development to maintain a minimum 15m buffer zone from the woodland to avoid root damage. The proposals are for the construction of a single-storey side extension to the north of the dwelling and the conversion and extension of the dwelling's roof. These works will take place inside the 15m buffer (4m closest point) however, the only habitat the construction will take place on, outside the original footprint of the house, is pre-existing hardstanding. As such, there is little risk of tree roots from the ancient woodland being impacted by the proposals.

An additional two outbuildings which exist inside the ancient woodland boundary are also to be demolished. Impacts to the designated site could occur if heavy equipment and vehicles are used to carry out the proposed works. Recommendations on how to safely demolish the two outbuildings without directly impacting the ancient woodland are outlined in section 14.1.

The Hamble Estuary and Woods SSSI borders the eastern boundary of the on-site ancient woodland. The ZOI of the proposal is located 107m from the nearest point of the SSSI, therefore it is considered that it will not be impacted by the works.

The only potential opportunity for impacts to occur is during the construction phase, when dust and other debris, such as litter associated with the construction, could blow onto the designated sites if not properly contained. This can be resolved with the development and implementation of a Construction and Environmental Management Plan (CEMP), and as such impacts on the ancient woodland and SSSI are not anticipated.

The application site is located 0.53km west of the Solent and Southampton Water SPA. As the proposed works will not result in a net increase in residential dwellings within the 5.6km buffer zone of the Solent Special Protection Area (SPA), no impacts pertaining to a rise in recreational use are expected.

No further impacts on designated sites associated with the proposal are anticipated.

12.3 Habitats

The only habitat which will be lost to the development is hardstanding. Impacts to the managed garden habitat could also occur from machinery and vehicles needing to access the build site. These habitats are easily replicable and of low botanical value, therefore it

is considered that there will be no impact to habitats of ecological importance such as designated habitats as a result of their loss.

12.4 **Bats**

The dwelling is considered to support high roost suitability i.e. *“A structure which is obviously suitable for supporting larger numbers of bats, on a regular basis and for longer periods of time.”*

On the basis that the dwelling supports high suitability for roosting bats, there is considered to be a reasonable likelihood that bats will be present and affected by the proposed construction and conversion works which will impact the features detailed in Table 6, however, the full extent of the impact is not yet known as any roosts have not been characterised.

In the absence of avoidance measures, if bats are present then construction works to the dwelling will likely to result in the destruction of any roosts present at that location, possible damage / modification to any roosts present elsewhere, and possible killing, injury or disturbance of any bats present.

The two outbuildings to be demolished are both considered to support negligible roost suitability.

The ZOI of the application site is considered to support high suitability for foraging bats and commuting bats leaving or returning to roost. Increasing lighting could impact this behaviour which would indirectly impact roosts.

12.5 **Badgers**

The habitats present within ZOI of the proposed works support moderate suitability for badgers. Therefore, impacts to badgers could occur during construction if trenches are left open. Impacts on badgers associated with loss or damage of setts or loss of foraging habitat are not anticipated.

12.6 **Hazel dormouse**

The habitats within the ZOI of the proposal (hardstanding and managed garden) are considered to support negligible suitability for hazel dormice. Therefore, the works will not result in the loss of habitat which is considered to support suitability for dormice and so no impacts on dormice are anticipated.

12.7 **Hedgehog**

Impacts on hedgehogs are likely to occur if trenches are left open during the construction phase of the development.

12.8 **Reptiles**

The proposal will not result in the loss of habitat which is considered to support potential for reptiles. However, due to the surrounding habitat outside of the ZOI of the proposal

offering moderate suitability for reptiles, precautionary avoidance measures are suggested for the construction phase given the sites proximity to suitable habitat.

12.9 **Great crested newts**

The proposals will only impact areas of hard standing, short grassland and ornamental shrub planting with bare understorey; terrestrial habitats that are considered to be unsuitable for GCN resting places. If the species is present in waterbodies close to the site there is the possibility that individuals dispersing from them may pass through the site, however, it is considered that no suitable habitat is present within the ZOI of the proposal for individuals to reside during the terrestrial phase of their lives. Impacts could occur during the construction phase if temporary refuges (e.g., rubble piles or stored construction materials) are created and subsequently disturbed.

12.10 **Breeding birds**

The development of the site could result in the loss of suitable breeding bird habitat if ornamental planting is removed. The removal of this habitat has the potential to damage or destroy active bird nests if carried out during the breeding bird season which is generally seen as extending from March to the end of August, although may extend longer depending on local conditions.

13. Requirement for further surveys

Further surveys are required where there is a reasonable likelihood that a protected species will be present and impacted by the proposed development. An assessment into the requirement for further surveys is presented below, however in summary, further surveys are considered necessary.

It is important that planning decisions are informed by current ecological survey data. Due to this, there is a limited time frame that phase 1 and phase 2 surveys are valid before becoming outdated. This time frame can vary depending on any changes in project circumstances or plans but it is generally considered that phase 1 ecological surveys are valid for a period of 18 months (CIEEM, 2019). Projects that take place over periods longer than 18 months might be required to carry out further ecological surveys to ensure planning authorities have the necessary up-to-date information to make well informed, evidence-based decisions.

13.1 Designated sites

Subject to the precautionary mitigation measures set out in Section 14, no further surveys are considered necessary.

13.2 Habitats

No further surveys are considered necessary.

13.3 Bats

In order to provide robust confirmation of the status of bat roosts at the site and the extent that they may be affected by the proposed development as required by Circular 06/2005, further survey work in accordance with Natural England standing advice and the BCT Good Practice Guidelines is required for the dwelling. This same survey work will be used to inform the third test of the Habitat Regulations.

In accordance with these guidelines, further survey effort will take the form of dusk emergence and dawn re-entry presence/absence surveys undertaken during the bat active season. The recommended minimum number of presence/absence surveys for buildings with high roost suitability is three. Surveyors will be equipped with high-specification time expansion or full spectrum bat detectors with digital recording capability.

The surveyors will remain in place monitoring and recording bat activity from 15 minutes before sunset to up to 1.5 - 2 hours after sunset for a dusk visit or 2 hours before sunrise until up to 15 minutes after sunrise for a dawn visit. There needs to be a minimum of two weeks between the visits.

The bat active season extends from April until October. For a building with high suitability, it is recommended that all surveys are undertaken between May and September with at least two surveys undertaken during the peak period.

The affected areas of habitat within the site are not of significant value as a foraging or commuting resource. Therefore, further survey effort is considered unnecessary for understanding impacts on foraging and commuting bats, beyond the presence/absence surveys, subject to precautionary avoidance measures including a sensitive lighting scheme.

13.4 Badgers

Subject to the precautionary mitigation measures set out in Section 14, no further surveys are considered necessary.

13.5 Hazel dormice

As impacts on dormice are not anticipated, no further recommendations relating to dormice are considered necessary.

13.6 Hedgehog

Subject to the precautionary mitigation measures set out in Section 14, no further surveys are considered necessary.

13.7 Reptiles

Subject to the precautionary mitigation measures set out in Section 14, no further surveys are considered necessary.

13.8 Great crested newts

Subject to the precautionary mitigation measures set out in Section 14, no further surveys are considered necessary.

13.9 Breeding birds

Subject to the precautionary mitigation measures set out in Section 14, no further surveys are considered necessary.

14. Mitigation recommendations

14.1 Designated sites

Indirect impacts on the adjacent ancient woodland, could occur given its proximity to the development site. In order to ensure that impacts to Catlands/Fosters/Bottom Copses woodland are avoided during the construction and operational phases of the development, the following measures will be implemented:

- Sensitive lighting strategy as described in section 14.2 'Bats' to avoid illumination of the boundary of the woodland.
- Production of a Construction Environment Management Plan that will set out the measures that will be implemented during construction to avoid and minimise impacts to the ancient woodland including pollution prevention measures, lighting controls and avoidance of encroachment of machinery accessing the site during the construction phase of the development.

The works to carry out the demolition of the two outbuildings inside the boundary of the ancient woodland should only be completed using soft demolition practices to avoid impacts to the surrounding habitat. These includes:

- Taking the buildings apart piece by piece carefully as to not leave rubble or materials in the woodland during and after the works are complete.
- All works should take place during the day as artificial lighting could impact nocturnal species present within the woodland at night.
- The buildings will be demolished by hand using only handheld tools. Vehicles and machinery should not be used as to avoid any damage to tree roots and the understorey vegetation.
- No new substrate should be introduced to the footprints of the removed structures to ensure that non-native or invasive species are not inadvertently introduced to the woodland.

14.2 Bats

Further survey work is required to determine the impact of the scheme on bats and ensure that any mitigation is fit for purpose. If bats roosts are confirmed on site, a EPSM licence will be required in accordance with section 13.1 prior to any works which will impact roosting bats. Mitigation is likely to entail the provision of alternative roosts which are proportionate to the status of any identified roost, supervised removal of any identified roost features, exclusion of bats from crevice features and timing constraints on these works to minimise impacts on bats as necessary.

In order to limit any effects on foraging and commuting bats, external lighting should be limited to only that which is absolutely necessary for safety purposes, both during the

construction phase and once the proposals are complete. The following lighting measures are required:

- Lighting to the completed dwelling should be as low brightness as possible, kept at a low level and directed away from all structures, boundaries and the designated site. Lighting on sensors should not be so sensitive that foraging bats trigger them.
- All lighting must follow the Bat Conservation Trusts and Institute of Lighting Professionals guidance on bats and artificial lighting (BCT, 2018).

14.3 **Badgers**

In order to avoid harm to badgers during the construction works, any trenches will either be covered at night or fitted with a soil or plank ramp to enable any badgers which fall in to leave on their own accord.

14.4 **Hedgehogs**

In order to avoid harm to hedgehogs during construction works the following precautionary measures will be employed:

- Any trenches will either be covered at night or fitted with a soil or plank ramp to enable any hedgehogs that fall in to leave of their own accord.
- Any leaf litter or garden waste piles will be dismantled by hand in a sensitive and careful manner.
- No bonfires will be made or lit on site.

14.5 **Reptiles and great crested newts**

Given the limited potential for reptiles and GCN to be present within the habitats that will be impacted by the proposal it is not considered necessary to carry out further detailed surveys. However, it is recommended that a precautionary approach to the construction phase is adopted:

- All waste shall be placed directly into a skip so that rubble piles and therefore potential hibernation or terrestrial resting areas are not created in areas which will subsequently be disturbed by site works.
- All construction related materials and equipment will be stored on areas of hardstanding or gravel to ensure that habitats outside the works area are not disturbed or damaged.
- Piles of loose sand or other granular materials into which reptiles and GCN could bury are not to be left around the site. All such materials will ideally be delivered in bags and kept in such bags until required for use. Bags should be stored on pallets. If it is essential that they are delivered loose, they should only be dug into by hand.

- Any accumulations of brash will be removed by hand in a sensitive and careful manner.
- All trenches will be left covered at night. They must be checked in the morning before they are filled in.

If during the clearance works a GCN is found all works must stop and the supervising ecologist contacted, who will contact the Natural England licensing team.

14.6 **Breeding birds**

Care should be taken that development does not impact breeding birds. The bird nesting season is taken to be March to August, inclusive. Any removal of suitable nest habitat such as ornamental shrubbery will either need to be undertaken outside of this period or else checked by an experienced ecologist to ensure that no nesting birds are present. If occupied nests are present, then the nest must not be removed and works around the nest can only recommence once the nest becomes unoccupied of its own accord.

15. Enhancements

The delivery of biodiversity enhancement on development sites is promoted by the National Planning Policy Framework (NPPF) and Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006.

Where opportunities exist it is best practice to provide enhancement features which encourage greater biodiversity within development sites in accordance with the NPPF and Local Planning Authority's responsibilities under the NERC Act.

Opportunities for enhancement which are proportionate to the scale of the development include:

- The provision of new bat roosting opportunities in the form of two bat boxes. These should be installed as high as possible, at least 3m above ground, in different locations on the existing dwelling, garage or surrounding trees.
- The provision of additional bird nesting opportunities. These could be external boxes located under the eaves of the existing house. A total of two swift boxes would be appropriate.

16. Conclusion

The extended phase 1 ecological assessment has confirmed that the site, inside zone of impact of the proposed works, supports habitats that are considered common and widespread and as such of low botanical value. However, outside the ZOI boundary, ancient woodland is present on site. The proposals do not involve the removal of any habitats associated with the ancient woodland and mitigation measures will be implemented to ensure that any indirect impacts are avoided.

The site supports opportunities for a range of protected species including bats, hedgehogs, badgers and breeding birds.

The preliminary roost assessment has confirmed that the dwelling supports high suitability for roosting bats. Therefore, further survey effort is recommended to confirm the presence/absence of roosts, characterise any bat roost/s, assess the extent bats may be affected by the proposed demolition works and devise an appropriate mitigation strategy to support the proposed works and address any breaches in the legislation. In accordance with Natural England standing advice and BCT Good Practice Guidelines, three presence/absence surveys for the dwelling should be undertaken between May and September respectively.

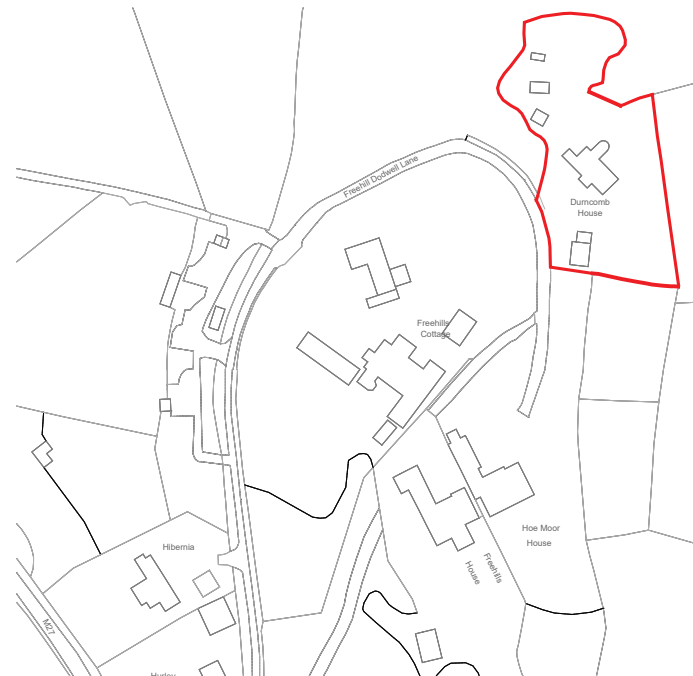
Given the scale of the proposal, it is possible to deliver the scheme with a range of measures which avoid impacts on the majority of the other identified protected and priority species. These include sensitive timing of the works and sensitive lighting.

Opportunities for ecological enhancement have been suggested for the site.

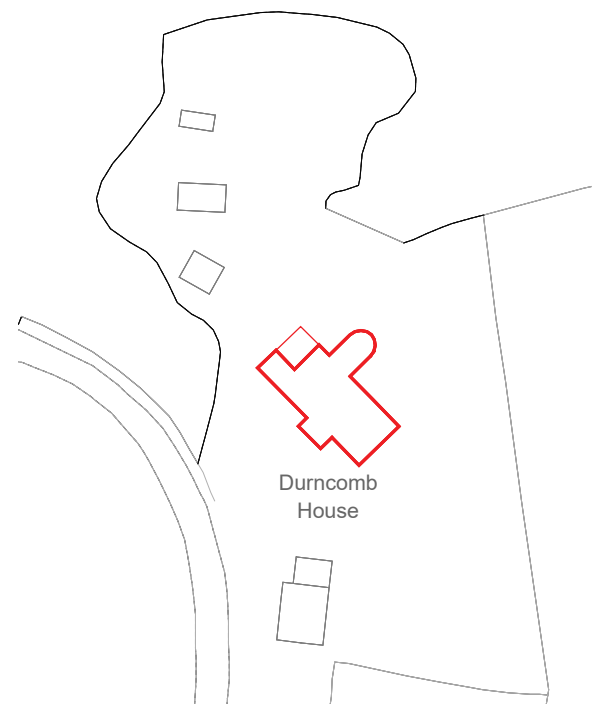
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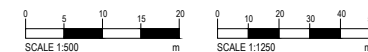
Appendix 1 – Site Location Plan



Location Plan -
SCALE 1:1250 @ A3



Block Plan -
SCALE 1:500 @ A3



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Location & Block Plan

draw no.
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Appendix 2 – Phase 1 Habitat Map





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