



EXTENDED PHASE 1 ECOLOGICAL AND BAT ROOST ASSESSMENT

FIELD SIDE, ST PETERS ROAD, NORTHNEY, HAYLING ISLAND, PO11 0RT

FINAL REPORT

August 2021

Report conditions

<i>Report title</i>	Extended Phase 1 Ecological and Bat Roost Assessment – Fieldside, Hayling Island		
<i>Client</i>	Sarah Herbert		
<i>Report status</i>	Final		
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Executive Summary

- This extended phase 1 ecological assessment report and bat roost assessment has been prepared in order to support a planning application for the proposed two- and single -storey rear extension with a balcony, and refenestration at Fieldside, Hayling Island.
- An extended phase 1 ecological assessment of the application site was undertaken on the 25th May 2021 by Katy Goddard of Phillips Ecology.
- The survey area comprised the entire site within the red line boundary. A data search extended to a 2km radius for statutory designated sites and priority habitats.
- The site is considered to support opportunities for protected and priority species including breeding birds, foraging/commuting bats and hedgehogs. Features with suitability to support roosting bats were recorded on the dwelling.
- Further survey work in accordance with Natural England standing advice and the Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists: Good Practice Guideline (3rd edition) was required to confirm the presence/absence of roosting bats and finalise the proposed mitigation.
- Two presence/absence surveys comprising a dusk emergence survey and a dawn re-entry survey were undertaken on the 25th June and 9th July 2021 respectively.
- No bats were recorded roosting within the features that will be affected by the proposed works during the surveys.
- The application site is located immediately adjacent to 'Core Area' brent goose and wader site H60G in the Solent Waders and Brent Goose Strategy 'Current Use' mapping tool. 'Core Area' sites are essential to the Solent waders and brent geese ecological network. The application site is also within 2km of Sites of Special Scientific Interest, Local Nature Reserves, Special Areas of Conservation, Special Protection Areas and Ramsar sites.
- With the implementation of precautionary construction avoidance measures, impacts on protected and priority species and designated sites will be avoided.

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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 and bat roost assessment undertaken at Fieldside, Hayling Island (central grid reference: SU 73133 02976).

1.2 Description of proposal

The current proposals are for the construction of a single- and two-storey rear extension with balcony, and refestation to the existing dwelling.

1.3 Report context

Applecore have prepared a planning application for the proposed works at Fieldside, Hayling Island. The planning authority, Havant Borough Council, have requested that the planning application is accompanied by an ecological assessment. Phillips Ecology have been instructed by the Applicant to undertake this assessment.

1.4 Scope of assessment

An extended phase 1 ecological assessment was carried out on the 25th May 2021. 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 entire site within the red line boundary. A data search extended to a 2km radius for statutory designated sites and priority 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 16th July 2021 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 application 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

Five statutory designated sites are located within 2km of the application site, including Ramsar sites, Sites of Special Scientific Interest (SSSI), Special Areas of Conservation (SAC) and Special Protection Areas (SPA). Details on these are given in Table 1, below.

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

Site Name	Approx. distance and direction from the site	Reason for designation
Chichester and Langstone Harbours Ramsar	0.3km E	Two large estuarine basins linked by the channel which divides Hayling Island from the main Hampshire coastline. The site includes intertidal mudflats, saltmarsh, sand and shingle spits and sand dunes. The site supports wintering bird assemblages of international importance and bird species of international importance, including: ringed plover <i>Charadrius hiaticula</i>, black-tailed godwit <i>Limosa limosa islandica</i>, common redshank <i>Tringa totanus tetanus</i>; common shelduck <i>Tadorna tadorna</i>, grey plover <i>Pluvialis squatarola</i>, dunlin <i>Calidris alpina</i>; and little tern <i>Sterna albifrons albifrons</i>.
Chichester Harbour SSSI	0.3km E	Chichester Harbour is a large estuarine basin in which at low water extensive mud and sandflats are exposed, drained by channels. The site is of particular significance for wintering wildfowl and waders and also breeding birds both within the harbour and in the surrounding permanent pasture

Site Name	Approx. distance and direction from the site	Reason for designation
		fields and woodlands. There is a wide range of habitats which have important plant communities.
Langstone Harbour SSSI	1.4km W	Langstone Harbour is a tidal basin which at high water resembles and almost land-locked lake and at low water extensive mudflats are exposed. The site includes Farlington Marshes and Southmoor. The harbour is of international importance as a rich intertidal system supporting high densities of intertidal invertebrates and large populations of migrant and overwintering waders and wildfowl, dependent upon them and upon the extensive beds of eelgrass <i>Zostera</i> species.
Solent Maritime SAC	0.7km E	Annex I habitats that are a primary reason for selection of this site: • Estuaries, • <i>Spartina</i> swards <i>Spartinion maritimae</i>; and • Atlantic salt meadows <i>Glaucopuccinellietalia maritimae</i>. Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • Sandbanks which are slightly covered by sea water all the time; • Mudflats and sandflats not covered by seawater at low tide; • Coastal lagoons; • Annual vegetation of drift lines; ▪ Perennial vegetation of stony banks; • <i>Salicornia</i> and other annuals colonising mud and sand; • Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes). Annex II species present as a qualifying feature, but not a primary reason for site selection: • Desmoulin's whorl snail <i>Vertigo moulinsiana</i>
Chichester and Langstone Harbours SPA	0.3km E	The site supports populations of European Importance of the following species listed on Annex I of the Directive: Little tern, sandwich tern <i>Sterna sandvicensis</i> , little egret, bar-tailed godwit <i>Limosa lapponica</i> , ringed plover, black-tailed godwit, dark-

Site Name	Approx. distance and direction from the site	Reason for designation
		bellied brent goose, dunlin, grey plover; and Redshank <i>Tringa totanus</i> . The site is also a wetland of international importance, regularly supporting at least 20,000 waterfowl.

2.3.2 Non-statutory designated sites

Four Local Nature Reserves (LNRs) are located within 2km of the application site. Additionally, the application site is within proximity of a network of Solent Waders and Brent Goose Strategy (SWBGS) sites which highlights the importance of the of the local area for Brent geese and wading birds. Details on these sites are given in Table 2, below.

Table 2 Non-statutory designated sites within 2km of the application site

Site Name	Approx. distance and direction from the site	Reason for designation
<i>Eames Farm LNR</i>	2km NE	Eames Farm is a 132.47ha site which was afforded Local Nature Reserve status in 2000. The farm lies in the heart of Chichester Harbour AONB and comprises extensive coastal grazing marsh which is of national and international importance for its plant and bird life.
<i>Hayling Billy LNR</i>	1.4km W	Hayling Billy is a 42.02ha site afforded Local Nature Reserve status in 2010. The site comprises the old route of the Hayling Billy train.
<i>Gutner Point LNR</i>	1.1km SE	Gutner Point is a 68.99ha site afforded Local Nature Reserve status in 1994. The site is comprised of grassland, saltmarsh and intertidal mudland which extend into Chichester Harbour.
<i>West Hayling LNR</i>	1.4km W	West Hayling is a 76.23ha site afforded Local Nature Reserve status in 2000. The site is home to tens of thousands both permanent and migratory seabirds.
<i>SWBGS Site H60G</i>	0km W	The site is immediately adjacent to SWBGS 'Core Area' site H60G in the Solent Waders and Brent Goose Strategy 'Current Use' mapping tool. 'Core Areas' are considered essential for the Solent waders and brent geese ecological network.

2.3.3 *Ancient woodland*

No compartments of non-statutory ancient woodlands are located within 2km of the application site.

2.3.4 *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
- Reedbeds
- Broadleaved woodland
- Traditional orchard

3. Habitats

3.1 Methodology

A field survey was carried out on the 25th May 2021 by Katy Goddard 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 habitat survey was carried out during May which shoulders the optimal period for recording vascular plant species. Therefore, it was possible to identify vegetation to effectively classify habitat types in accordance with Phase 1 habitat terminology and no limitations were encountered.

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, reedbeds, broadleaved woodland and traditional orchard.

3.4 Results

The following Phase 1 habitat types were recorded within the survey site.

3.4.1 *Amenity grassland (J1.2)*

To the west of the dwelling the rear garden is largely comprised of a managed lawn which is mown to a short sward (Figure 1). Yorkshire fog *Holcus lanatus* grass is present in the sward, which is interspersed with species including cut-leaf geranium *Geranium dissectum*, lesser trefoil *Trifolium ducum*, dandelion *Taraxacum* spp., common mouse-ear *Cerastium fontanum* and speedwell *Veronica* spp..



Figure 1 – managed lawn to the west of the dwelling, looking south west

3.4.2 *Introduced shrub (J1.4)*

The application site supports several introduced shrubs within the rear garden.

3.4.3 *Boundaries (J2)*

The boundaries of the site are comprised of a combination of fences (J2.4) and brick walls (J2.5) to the north with introduced shrubs adjacent to them (Figure 2). The southern boundary is comprised of a fence with common ivy *Hedera helix* growth and bay laurel *Laurus nobilis* and elder *Sambucus nigra* immediately adjacent. The western boundary is comprised of a hedgerow (J2.1) dominated by hawthorn *Crataegus monogyna* and bay laurel.



Figure 2 – wooden fence panels defining the northern boundary and hedgerow defining the southern boundary of the site to the rear of the dwelling, looking north west

3.4.4 *Buildings (J3.6)*

The application site contains a single built-structure: the house. This structure is described further in Section 5.5.

3.4.5 *Hardstanding*

To the east of the dwelling the site comprises a tarmac driveway. Paved patio paths are also present immediately adjacent to the dwelling to the north and west (Figure 3).



Figure 3 – paved patio within the foot print of the proposed extension adjacent to the western elevation of the house, looking south west

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
- Badgers
- 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</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. Preliminary Bat Roost Assessment

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 structure 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 roof materials, 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 interior of the building was 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

- High-powered torch
- Ladders
- Camera

5.3 Limitations

Limitations were not encountered during the course of the survey.

5.4 Assessment methodology

The site's suitability 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 Suitability assessment guidelines

Suitability	Description of Roosting Habitats
<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.

High

A structure which is obviously suitable for supporting larger numbers of bats, on a regular basis and for longer periods of time.

5.5 Results

The house comprises a two-storey brick-built structure which rises to a pitched and gable end design roof clad with interlocking concrete roof and ridge tiles (Figure 4). The house is oriented east-west. A cross gable extends from the southern end of the eastern elevation. The top half of the elevations support clay hanging tiles while the bottom half remain as exposed brickwork. The roof extends beyond the wall plate and the eaves are enclosed with plastic underboards (Figure 5). An adjoined flat with hipped edges roofed double garage extends from the north eastern corner of the house (Figure 6). The eastern elevation of the garage supports two metal up and over garage doors. A single-storey flat with hipped edges roof extends centrally from the western elevation of the house. The roof extends beyond the wall plate and the eaves are enclosed with wooden underboards. Two narrow lean-to shelters extend from the northern elevation of the house. The hipped edges of the garage, extension and the roofs to the lean-tos are clad with clay roof, ridge and hip tiles. The windows are set in recessed plastic frames and have been installed with no gaps between them and the surrounding brickwork. Two brick-built chimneys extend from the ground from the roof, one each on the northern and southern elevations. Lead flashing is present above the top row of the hanging tiles and covering the joins between the chimneys and the roof.

Internally the building supports a single roof void. The void is lined with heavy duty bitumen felt and insulated with spun rockwool insulation (Figure 7). The bitumen lining does not overlap the ridge of the roof. The floor is partially boarded.



Figure 4 – western elevation of the house with the single storey extension



Figure 5 – plastic underboards enclosing the eaves on the western elevation of the house



Figure 6– eastern elevation of the house



Figure 7– internal view of the roof void, looking north

An account of suitable access/egress features and recorded evidence of bat activity is given in table 5.

Table 5 - Recorded features and activity

	Suitability	Evidence
Exterior	The following suitable access/egress and roosting features were recorded externally during the survey: - Gaps underneath hanging tiles (Figure 8). - Gap between the underboards and chimney on the southern elevation.	No evidence of bat activity was recorded externally during the survey. Some hanging tiles above the garage and rear extension have restricted flight path upon exit reducing their suitability. However, the large majority of the tiles are suitable. The gaps on the southern elevation are outside the zone of impact of the proposed works.
Interior	The following suitable access/egress and roosting features were recorded internally: - Gap between the bitumen lining and ridge beam, exposing the ridge tiles and top roof tiles (Figure 9).	No evidence of bat activity was recorded internally during the survey. On closer inspection, the gaps at the ridge were found to be filled with cobwebs and debris. In addition, no suitable access points were identified externally.



Figure 8 – lifted hanging tiles on the western elevation of the house



Figure 9– exposed roof and ridge tiles between the bitumen lining and the ridge beam of the roof void

5.5.1 *Site grounds description relevant to bats*

The site grounds comprise hard-standing, managed lawn, ornamental shrubs and a children's play area. Beyond this, landscape comprises blocks of residential properties, arable farmland, permanent pasture and hedgerow. Further afield, Chichester and Langstone Harbours and their associated coastal habitats surround Hayling Island.

5.6 **Assessment**

When considered in view of the criteria set out in Table 4, the existing dwelling is considered to support moderate roost suitability - i.e. which could be used by bats but is not likely to support a roost of high conservation status (e.g. maternity roost). This assessment is based on the level of evidence and the number of features recorded during the survey.

Based on the features and evidence recorded during the survey, it was anticipated that the dwelling supports bat roosts associated with crevice features within the external fabric of the building.

In the context of the wider landscape, the habitats within the footprint of the proposal are considered unexceptional for foraging and commuting bats. They are, nevertheless, suitable for commuting and foraging bats and it is highly likely that bats will commute and forage through the site as a compartment of their wider foraging range.

6. Bat Emergence /Re-entry Surveys

6.1 **Methodology**

The emergence and re-entry surveys were undertaken in accordance Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). Three surveyors were positioned in order to provide sufficient coverage of

property when stationary. All emergences, re-entries and general activity were recorded during the course of each survey. Recordings were later analysed using Kaleidoscope bat call analysis software to confirm species identification.

6.2 Surveyor/s

The surveys were led by Katy Goddard, a level 1 licenced bat surveyor (licence ref: 2021-51994-CLS-CLS), with suitably experienced bat surveyors: Peter Clark, Hayley Swann, Mark Ison, Gina Burlinson and Thomas Green.

6.3 Survey area

The survey area comprised all elevations of the existing property that will be impacted by the proposed works. Therefore, the survey area comprised the eastern and western elevations. This enabled survey coverage of all suitable access/egress and roosting features which were recorded during the preliminary bat roost assessment.

6.4 Survey date

The date and timings of the emergence and re-entry surveys are presented in Table 6. The emergence surveys commenced 15 minutes prior to sunset and continued for at least 1.5 hours and the re-entry survey commenced at least 1.5 hours before dawn and continued for 15 minutes after dawn.

Table 6 survey dates and timings

Survey type	Date	Start	Finish	Sunset/sunrise
<i>Emergence</i>	25/06/2021	21:06	22:51	21:21
<i>Re-entry</i>	09/07/2021	03:31	05:16	05:01

6.5 Survey equipment

Survey equipment comprised:

- Wildlife Acoustics Echo Meter Touch 2 Pro detector
- Elekon Batlogger M detector

6.6 Weather conditions

Weather conditions during the surveys are provided in Table 7:

Table 7 emergence and re-entry weather conditions

Survey	Date	Precipitation		Temperature		Wind		Cloud Cover	
		<i>Start</i>	<i>Finish</i>	<i>Start</i>	<i>Finish</i>	<i>Start</i>	<i>Finish</i>	<i>Start</i>	<i>Finish</i>
<i>Emergence</i>	25/06/2021	Nil	Nil	16.0°C	14.0°C	Bf 1	Bf 1	10%	10%
<i>Re-entry</i>	09/07/2021	Nil	Nil	13.0°C	15.0°C	Bf 1	Bf 1	40%	10%

6.7 Results

6.7.1 Visit 1 – 25th June 2021 – Dusk Emergence Survey

During the course of the emergence survey carried out on the 25th June 2021, no bats were recorded emerging from the building. The first bat recorded was a common pipistrelle bat foraging to the south of the dwelling. Common pipistrelle *Pipistrellus pipistrellus* bats were then regularly recorded foraging around and commuting across the site until 22:48, foraging in particular to the west of the dwelling, where up to 3 individuals were seen at any one time. Four registrations of induvial soprano pipistrelle *Pipistrellus pygmaeus* bats commuting or foraging were recorded between 21:51 and 22:29.

6.7.2 Visit 2 – 9th July 2021 – Dawn Re-entry Survey

During the course of the dawn re-entry survey carried out on the 9th July 2021, no bats were recorded re-entering the building. A single long-eared bat *Plectus* sp. was recorded foraging to the east of the dwelling at 03:53. All other registrations were for common and soprano pipistrelle bats which were foraging regularly throughout the survey. The first and last bats recorded were common pipistrelle bats at 03:47 and 04:31 respectively, the former of which was recorded by all three surveyors. Between 03:56 and 04:31 pipistrelle bats were almost constantly foraging in the rear garden to the west of the dwelling, across into neighbouring gardens and around the dwelling. Up to 5 individuals were recorded at any one time.

7. Badgers

7.1 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.

7.2 Limitations

Limitations were not encountered during the course of the survey.

7.3 Results

No evidence of badger activity was recorded within the site during the survey and no setts were present within the application site. The garden is surrounded by intact fencelines with no evidence of badger access/egress recorded.

7.4 Assessment

Badger setts are considered to be absent from the site and overall there is negligible potential for badgers to occur on site.

8. Dormice

8.1 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.

8.2 Limitations

Limitations were not encountered during the course of the survey.

8.3 Results

The site majority lacks mature vegetation and therefore is considered wholly unsuitable for dormice. The boundaries of the site include some species which provide suitable resources to be used by dormice, however, the site is isolated from adjacent optimal habitat by a fragmented hedgerow network. Therefore dormice are considered to be absent from site.

8.4 Assessment

Overall, the site is considered to support negligible potential for dormice.

9. Hedgehogs

9.1 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 would be recorded.

9.2 Limitations

Low detection 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.

9.3 Results

The garden habitat within the site has the potential to support foraging hedgehog although no direct evidence was noted.

9.4 Assessment

There is considered to be moderate potential for hedgehog to occur on site.

10. Reptiles

10.1 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.

10.2 Limitations

Limitations were not encountered during the course of the survey.

10.3 Results

Established gardens such as this can support populations of more widespread reptile species, such as slow-worm. However, the well managed condition of the lawn and boundary vegetation reduce the site's overall suitability. Nevertheless, it is likely that transient reptiles may disperse through the site or use the site opportunistically given the sites connectivity to suitable habitat within the wider area. Without management, the site could establish habitat features which have greater suitability for reptiles. It is possible that transient reptiles may disperse through the site or use the site opportunistically given the sites connectivity to a network of suitable habitat.

10.4 Assessment

There is considered to be moderate potential for reptiles to occur on site.

11. Great Crested Newts

11.1 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 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).

11.2 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).

11.3 Results

The site does not support any standing freshwater waterbodies or suitable terrestrial habitat for great crested newts. In addition, the desktop study has revealed that only a single pond is present within 500m of the application site.

11.4 Assessment

Given the absence of a network of waterbodies with suitability for supporting great crested newts within 500m of the application site and the lack of suitable terrestrial habitat on site, there is considered to be negligible potential for great crested newt to occur on site.

12. Breeding birds

12.1 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.

12.2 Limitations

The survey was undertaken during the arrival period of summer migrant bird species. Therefore, the assessment partially relied on the presence of suitable habitats and inactive nests for later arriving species. No other limitations were encountered during the course of the survey.

12.3 Results

The more established boundary vegetation and introduced shrubs are considered to support nesting opportunities for bird species. Starlings *Sternus vulgaris* were recorded on site and the client noted that starlings use the south eastern corner of the roof to nest.

12.4 **Assessment**

Habitats which are considered to support nesting opportunities for various bird species are present within the site. Overall, the site is considered to support moderate potential for breeding birds.

13. Discussion and Assessment of Impacts

13.1 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 protected species 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.

13.2 Designated sites

The proposal will not result in the direct loss of any designated sites. Nor will it result in the direct loss of any habitat that could be considered functionally linked supporting habitat for any designated site. The proposals will not result in a net gain of dwellings therefore there is no anticipated increase in disturbance due to recreational pressures.

The farmland immediately to the west of the site is identified as a compartment of 'Core Area' brent goose and wader site code H60G in the Solent Waders and Brent Goose Strategy 'Current Use' mapping tool. 'Core Area' sites are sites that are considered

essential to the continued function of the Solent waders and brent goose ecological network and have the strongest functional link to the designated Solent SPAs in terms of frequency and continuity of use of SPA features. Birds are susceptible to disturbance, resulting in avoidance behaviours such as flight which may in turn affect feeding behaviour and ultimately impact the birds' health and productivity. While it is noted that the birds frequenting the habitats near to the survey area are generally accustomed to activity levels from the adjoining residential areas, the expected level of activity from the construction phase of the development is greater than what the birds are accustomed to. The proposed construction works will generate novel/unpredictable movements and noise that qualifying species, notably dark-bellied brent goose are unaccustomed too. This species is particularly sensitive to noise and has been shown to react to noise when roosting or loafing at a distance of 205m (Smit and Visser, 1993). Cutts et al. (2013) suggest that if geese are within 400m of works then consideration should be given to mitigation for visual disturbance.

Therefore, in the absence of mitigation measures, construction work between the 1st October and the 31st March has the potential to adversely affect qualifying birds utilising the SPA and strategy sites.

The structures and trees associated with the properties to the north, east and south of the site would screen any visual disturbance arising from the proposed construction activity on site from the other nearby SWBGA sites. The existing hedgerow on the site's western boundary will somewhat screen the H60G SWGBA site from disturbance but not sufficiently enough.

Unless it can be confirmed that qualifying species are absent from the SPA and H60G when construction activities take place, the proposed development has the potential to adversely affect birds utilising functionally linked supporting habitat between the 1st October and the 31st March.

Given the existing use of the site and the minimal changes that are proposed to the application site, impacts on birds which utilise H60G are not anticipated in the long-term.

No further impacts on designated sites (such as from waterborne or airborne pollution) are anticipated given the nature of the proposal and the nature of the habitats which characterise the adjacent supporting habitat i.e. farmland.

13.3 Habitats

The main habitats which will be directly impacted by the proposed development are hardstanding and managed lawn. As the vegetation to be removed is easily replicable and of low botanical value, it is considered that there will be no impact to habitats of ecological importance such as priority habitats as a result of its loss.

13.4 Bats

On the basis that the dwelling supports moderate suitability for roosting bats, there was considered to be a reasonable likelihood that bats would be present and affected by the proposed construction works which will impact the features detailed in Table 5.

However, no bats were recorded emerging or re-entering from the property during the emergence and re-entry surveys carried out during June and July 2021.

As such, there is considered to be no reasonable likelihood that roosting bats will be present and affected by the proposed works.

The application site is considered to support suitability for foraging and commuting bats leaving or returning to roost. Increasing lighting could impact foraging and commuting bats.

13.5 **Badgers**

The proposal will not result in the loss of habitat which is considered to support suitability for badgers. Therefore, no impacts on badgers are anticipated.

13.6 **Hazel dormouse**

The proposal will not result in the loss of habitat which is considered to support suitability for dormice. Therefore, no impacts on dormice are anticipated.

13.7 **Hedgehog**

Impacts on hedgehogs are likely to be associated with the removal of a portion of the managed lawn and during the construction phase if trenches are left open.

13.8 **Reptiles**

The proposal will result in the loss of small areas of habitat which are considered to support moderate suitability for commuting common species of reptile, and during the construction phase if trenches are left open. Therefore, there is considered to be potential for impacts upon these species associated with the proposal.

13.9 **Great crested newts**

Impacts on great crested newts are not anticipated given the absence of a suitable network of waterbodies within 500m of the application site and the lack of suitable terrestrial habitat on site.

13.10 **Breeding birds**

The proposal will result in the loss of suitable breeding bird habitat. 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. The proposal will also result in a net loss of bird nesting opportunities.

14. 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, no further surveys are considered necessary.

14.1 Designations

No further surveys are considered necessary.

14.2 Habitats

No further surveys are considered necessary.

14.3 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 was undertaken.

In accordance with these guidelines, further survey effort took the form of one dusk emergence and one dawn re-entry presence/absence surveys undertaken during the bat active season. No further surveys in respect of roosting bats are considered necessary.

The affected areas of habitat surrounding the property are not of significant value as a foraging or commuting resource. Therefore, further survey is considered unnecessary for understanding impacts on foraging and commuting bats, beyond the two presence/absence surveys already undertaken.

14.4 Badgers

No further surveys are considered necessary.

14.5 Hazel dormice

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

14.6 Hedgehog

Subject to the precautionary mitigation measures set out in Section 15, no further surveys are considered necessary.

14.7 Reptiles

Subject to the precautionary mitigation measures set out in Section 15, no further surveys are considered necessary.

14.8 Great Crested Newts

As impacts on great crested newts are not anticipated, no further recommendations relating to great crested newts are considered necessary.

14.9 Breeding birds

Subject to the precautionary mitigation measures set out in Section 15, no further surveys are considered necessary in respect of breeding birds.

15. Mitigation recommendations

15.1 Designated sites

Appropriate avoidance and mitigation measures will be required to ensure that the proposed construction works do not adversely impact the nearby designated sites and supporting habitat.

The following measures are proposed during the construction phase of the development:

- The use of heavy machinery (2 tonnes and above) for the purposes of earth works (i.e., in preparation for the construction of the foundations) on site will be restricted to between the 1st April and 30th September to avoid disturbance to overwintering birds that feed and roost in the area.
- If it is not possible to restrict the above to the specified time frames, the response of any dark-bellied brent geese using the habitat near to the construction works will be monitored by a suitably qualified ecologist and compared with any disturbance behaviour observed prior to the works commencing. Where significant disturbance over and above baseline levels is identified, remedial action will be taken which will include halting works until a suitable solution is identified and agreed with the ecologist.
- A suitable temporary visual screen will be installed along the western boundary of the construction site between 1st October and the 31st March. This could be hedges fencing with dust netting or fencing panels. This will ensure that construction works are screened.
- Any construction lighting must be directed away from the site's western boundary at all times.
- Pollution prevention measures must be implemented during the construction phase to ensure that dust and water run-off do not impact the adjacent supporting habitat.

14.1 Bats

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 development should be as low brightness as possible, kept at a low level and directed away from all structures and boundaries. 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).

14.2 **Hedgehogs**

In order to avoid harm to hedgehogs during the construction works, any trenches will either be covered at night or fitted with a soil or plank ramp to enable any hedgehogs which fall in to leave on their own accord. Any accumulations of brash, including those already existing within the footprint of the proposal, will be dismantled by hand in a sensitive and careful manner. In addition, no bonfires will be made or lit on site.

14.3 **Reptiles**

There is limited potential for reptiles to be present and to be impacted by the development works given the nature of the habitats present and the scale of the proposed works. However, as no detailed surveys have been undertaken, a precautionary approach to the site development is recommended. The following precautionary measures will be employed:

- The site must be maintained in its current condition with the grassland not being allowed to become overgrown. If vegetation was to become more established, further surveys would be required before any works commence.
- All waste shall be placed directly into a skip so that rubble piles and therefore potential hibernation areas are not created in areas which will subsequently be disturbed by site works.
- Piles of loose sand or other granular materials into which reptiles 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, including those already existing, will be dismantled 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.
- No bonfires will be made or lit on site.

14.4 **Breeding birds**

Care should be taken that the development does not disturb breeding birds. The bird nesting season is taken to be March to August inclusive. Any removal of suitable nest habitat will need to be undertaken outside of this period before the breeding season commences. Any remaining vegetation will be cleared under ecological supervision. If occupied nests are present then the nest must not be removed, an exclusion buffer zone will be placed around the active nest identified 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 bird nesting opportunities in the form of two swift boxes. These should be installed on the northern elevation of the dwelling and at least 5m above ground. The eastern and western elevations may also be suitable provided they are well shaded.
- The provision of new bat roosting opportunities in the form two bat boxes. These should be installed as high as possible, at least 3m above ground, in different locations of sheltered positions on the southern and eastern elevations of the dwelling.
- The western boundary could be enhanced with additional native species planting. The following species mix can be utilised: blackthorn *Prunus spinosa* (25%), hawthorn *Crataegus monogyna* (25%), dog-rose *Rosa canina* (10%), elder *Sambucus nigra* (10%), field maple *Acer campestre* (10%), hazel *Corylus avellana* (10%) and wild privet *Ligustrum vulgare* (10%).

16. Conclusion

The extended phase 1 ecological assessment has confirmed that the site supports opportunities for a range of protected species including breeding birds, reptiles and foraging and commuting bats. Given the scale of the proposal, it is possible to deliver the scheme with a range of measures which avoid impacts on the identified ecological receptors. Further survey effort to confirm the presence/absence of bat roosts and assess the extent bats may be affected by the proposed works was undertaken in accordance with Natural England standing advice and BCT Good Practice Guidelines. No bats were recorded emerging or re-entering the house during the surveys. In view of the survey findings, and provided the recommendations set out above are followed, the planning authority can be confident that the development would accord with relevant planning policy, legislation and caselaw. Opportunities for ecological enhancement have been suggested for the site.

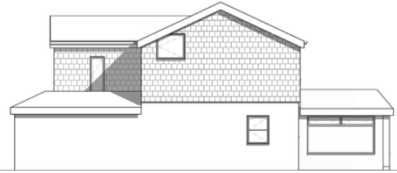
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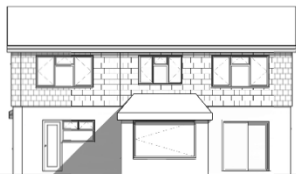
Appendix 1 – Proposed Site Plan



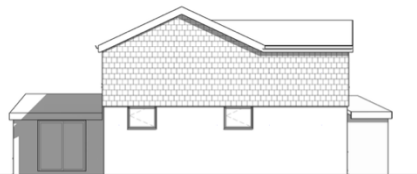
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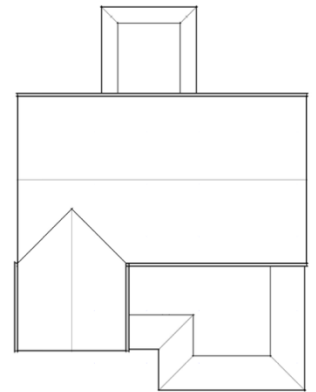
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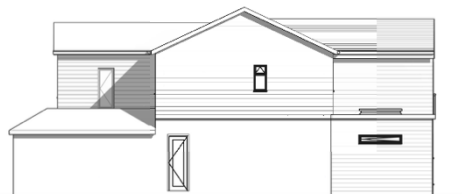
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7 3 - Existing Roof Plan
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3 Proposed East
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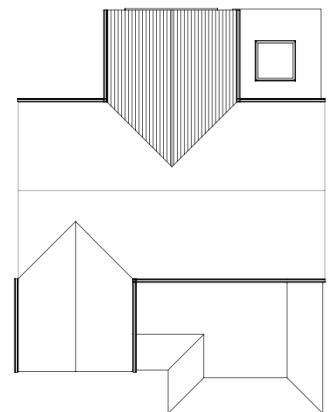
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5 Proposed West
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6 Proposed South
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7 3 - Proposed Roof Plan
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