



EXTENDED PHASE 1 ECOLOGICAL ASSESSMENT

106 WEST LANE, HAYLING ISLAND, HAMPSHIRE PO11 0JW

February 2024

Report conditions

<i>Report title</i>	Extended Phase 1 Ecological Assessment – 106 West Lane, Hayling Island PO11 0JW		
<i>Client</i>	Hebden Design Studio on behalf of the client		
<i>Report status</i>	Draft		
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Executive Summary

- This extended phase 1 ecological assessment report has been prepared in order to support an outline planning application for the construction of a new dwelling and associated infrastructure at 106 West Lane, Hayling Island, Hampshire PO11 0JW.
- An extended phase 1 ecological assessment of the application site was undertaken on the 7th February 2024 by Trevor Codlin MCIEEM of Phillips Ecology.
- The survey area comprised the entire site within the red line boundary and immediate surrounds. A data search extended to a 2km radius for statutory designated sites and 1km radius for priority habitats and protected species.
- Eight statutory designated sites were returned within the 2km search radius. Eight priority habitats but no blocks of ancient woodland are located within a 1km radius of the site.
- Several sites identified as functional supporting land under the SWBGS for overwinter waterfowl are located within a 1km radius of the site.
- Records for common and soprano pipistrelle and brown long-eared bats were returned within a 1km radius of the site.
- The site is located in a rural location on the west side of Hayling Island, Hampshire.
- The site is typical of a mature residential garden and includes grassland, shrubs and trees.
- No buildings with bat roost suitability will be impacted by the proposals, however, numerous trees with suitable features are present. The site is considered to provide foraging suitability but is isolated from other suitable habitats.
- The site is considered to support suitability for hedgehog, common reptiles and nesting birds. No suitability was identified for hazel dormouse, GCN and wintering birds.
- Further survey work is required in relation to roosting bats in trees.
- Further surveys are considered unnecessary for foraging bats, hedgehogs, common reptiles and breeding and wintering birds with the implementation of mitigation and precautionary avoidance measures.
- Example enhancement measures aimed at improving biodiversity at the site have been provided.
- Information regarding the length of time the findings of this report are valid for can be found in Section 13.

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1. Introduction

1.1 Report purpose

This extended phase 1 ecological assessment report has been prepared in order to support an outline planning application for the construction of new dwelling and associated infrastructure at 106 West Lane, Hayling Island, Hampshire PO11 0JW centred at SU 71706 01022.

1.2 Description of proposal

The proposals for the site are for an outline planning application for the construction of a single storey dwelling to the rear of 106 West Lane, Hayling Island. Access to the new dwelling will use the existing entrance and run along the northern boundary.

1.3 Report context

Phillips Ecology have been instructed by the applicant to carry out ecological survey work at the site.

1.4 Scope of assessment

An extended phase 1 ecological assessment was carried out on the 7th February 2024. 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 and also adjacent habitats and structures within the potential zone of influence. A data search extended to a 2km radius for statutory designated sites and 1km radius for priority habitats and protected species.

1.6 Survey conditions

The survey was carried out in dry conditions, with variable cloud cover, a light north-easterly breeze and a temperature of 6°C.

1.7 Limitations

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

2. Data search

2.1 Methodology

A desk-based assessment was undertaken by Phillips Ecology on the Multi-Agency Geographic Information for the Countryside (MAGIC). The MAGIC database was consulted for records of statutory designated sites within a 2km radius and priority habitats and protected species within a 1km 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

The data search revealed eight statutory designated sites within a 2km radius of the site. The designations applying to these sites include the following: Ramsar, Special Area of Conservation (SAC), Special Protection Area (SPA), Site of Special Scientific interest (SSSI) and Local Nature Reserve (LNR). Details of each site, their designation, a summary of the reason for designation and distance and orientation from the site are provided in Table 1.

Table 1: Statutory Designated Sites located within a 2km radius of the site.

Site Name	Approx. distance and direction from the site	Reason for designation
Hayling Billy LNR	0.3km W	Afforded Local Nature Reserve status in 2010, this old route of the Hayling Billy train provides beautiful views of one of the most unspoilt sections of Langstone Harbour, and is a great place to spot rare plants.
Gutner Point LNR	1.7km, ENE	Grassland, saltmarsh and inter-tidal mudland extending into Chichester Harbour.
West Hayling LNR	1.6km NNW	West Hayling Local Nature Reserve, formerly known as the Hayling Oysterbeds, is home either permanently or on a migratory basis for tens of thousands of seabirds, which find that the thousands of hectares of intertidal mudflats contain a massive assemblage of marine invertebrate life.
Chichester and Langstone Harbours Ramsar.	0.3km W	Two large estuarine basins linked by a channel and including extensive intertidal mudflats, saltmarsh, sand and shingle spits, and dunes supporting reedbeds and some grassland. Numbers of wintering waterbirds regularly exceed 20,000 individuals and include internationally and nationally important numbers of several species. Human activities include recreation and dredging for oysters and clams.
Langstone Harbour SSSI	0.3km W	Langstone Harbour is a tidal basin which at high water resembles an almost landlocked lake. At low water extensive mud flats are exposed, drained by three main channels which unite to make a common and narrow exit to the sea. The harbour includes one of the largest areas of mixed saltmarsh

Site Name	Approx. distance and direction from the site	Reason for designation
		on the south coast, and extensive cord-grass <i>Spartina anglica</i> marsh in an advanced state of degeneration. The Site of Special Scientific Interest including Farlington Marshes, a peninsula of grassland and marsh on reclaimed tidal silt protected by a sea wall; and a similar but much smaller area at Southmoor in the north-east of the harbour. 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. The <i>Zostera angustifolia</i> and <i>Z. noltii</i> beds are among the largest in Britain. The harbour is among the twenty most important intertidal areas in Britain as a summer and autumn assembly ground for waders during the moult (when they require abundant high protein food) and as a post-moult wintering ground. Dunlin <i>Calidris alpina</i> often exceed 30,000 individuals, or 6% of the British winter population, or 3% of the European and North African wintering population. Grey plover <i>Pluvialis squatarola</i> and black-tailed godwit <i>Limosa limosa</i> achieve numbers which represent 1–2% of the European and North African migration flyway population; and redshank <i>Tringa totanus</i> and ringed plover <i>Charadrius hiaticula</i> do so periodically. At times as many as 20% of the black-tailed godwit, 8% of the ringed plover and 8–10% of the grey plover wintering in Britain are present in the harbour. The total numbers of waders present sometimes exceeds 40,000. Langstone Harbour and the adjoining and connected Portsmouth and Chichester Harbours form a single, coherent ecosystem which is among the ten most important intertidal areas for waders in Britain. In the 1970s and 1980s Langstone Harbour alone has consistently supported in excess of 5,000 wintering dark-bellied geese <i>Branta bernicla</i>, or 5–10% of the world population depending on fluctuating population levels. It has supported up to 2.5% of the European winter population of shelduck <i>Tadorna tadorna</i> and regularly supports substantial numbers of other ducks in autumn and winter.
Chichester Harbour SSSI	0.85km NE	Chichester Harbour is a large estuarine basin in which at low water extensive mud and sandflats are exposed, drained by channels which unite to make a common exit to the sea. 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 fields and woodlands. There is a wide range of habitats which have important plant communities. The intertidal area is fragmented in the upper reaches of the harbour by intruding tongues of land giving a very long and varied coastline. The harbour exhibits a wide range of intertidal and associated terrestrial habitats and with the neighbouring Langstone and Portsmouth Harbours is unusual in providing a large volume of sheltered saline water fed by a few streams of only low volume. The extensive intertidal mudflats are the feeding grounds, at the relevant times of year for internationally important numbers of ringed plover, grey plover, redshank, black-tailed godwit, dunlin, sanderling, curlew and greenshank (the latter two in autumn particularly). Bar-tailed godwit numbers are of European importance. Amongst the wildfowl, shelduck, teal and dark-bellied brent goose numbers are of international importance with 5% of the world population of the latter. The unimproved permanent pasture behind the sea wall provides alternative feeding sites for the geese and major high tide wader roosts. Some of this pasture is floristically rich being a red fescue

Site Name	Approx. distance and direction from the site	Reason for designation
		<i>Festuca rubra</i> sward with scarce species such as green-winged orchid <i>Orchis morio</i> and adder's tongue fern <i>Ophioglossum vulgatum</i> .
Solent Maritime SAC	0.3km W	The Solent Maritime SAC is a complex site encompassing a major estuarine system on the south coast of England. The Solent and its inlets are unique in Britain and Europe for their unusual tidal regime, including double tides and long periods of tidal stand at high and low tide. As a result, the Solent Maritime SAC is a unique suite of functionally linked estuaries and dynamic marine and estuarine habitats. The site has the largest number of small estuaries in the tightest cluster anywhere in Great Britain, with examples of coastal plain estuaries (Yar, Medina, King's Quay Shore and Hamble) and bar-built estuaries (Newtown Harbour, Beaulieu, Langstone Harbour, Chichester Harbour). It is located in one of the only major sheltered channels in Europe, lying between a substantial island (the Isle of Wight) and the mainland. Sediment habitats within the site include extensive areas of intertidal mudflats and sandflats, often supporting eelgrass (<i>Zostera</i> species), subtidal sandbanks, saltmarsh and natural shoreline transitions such as drift line vegetation. The Solent Maritime SAC is of particular interest as it is the only site to support all four species of cordgrass (<i>Spartina</i>) found in the UK, including the rare native small cordgrass (<i>Spartina maritima</i>). The Solent Maritime SAC also includes a number of coastal lagoons, sand dunes at East Head and at the time of designation supported a population of the rare Desmoulin's whorl snail (<i>Vertigo moulinsiana</i>).
Chichester and Langstone Harbours SPA	0.3km W	Chichester and Langstone Harbours Special Protection Area (SPA) is located on the south coast of England in Hampshire and West Sussex. The large, sheltered estuarine basins comprise of extensive sandflats and mudflats exposed at low tide. The two harbours are joined by a stretch of water that separates Hayling Island from the mainland. Tidal channels drain the basin and penetrate far inland. The mudflats are rich in invertebrates and also support extensive beds of algae, especially, eelgrasses (<i>Zostera</i> spp.) and <i>Enteromorpha</i> species. Qualifying Features: This site supports breeding little tern (<i>Sterna albifrons</i>) and sandwich tern (<i>Sterna sandvicensis</i>); on passage little egret (<i>Egretta garzetta</i>); overwintering bar-tailed godwit (<i>Limosa lapponica</i>) and little egret (<i>Egretta garzetta</i>). The site also supports the migratory species of ringed plover (<i>Charadrius hiaticula</i>), black-tailed godwit (<i>Limosa limosa islandica</i>), dark-bellied brent goose (<i>Branta bernicla bernicla</i>), dunlin (<i>Calidris alpina alpina</i>), grey plover (<i>Pluvialis squatarola</i>), redshank (<i>Tringa tetanus</i>) and ringed plover. The area also regularly supports an assemblage of at least 20,000 waterfowl.

2.3.2 Ancient Woodlands

No blocks of ancient woodland are located within a 1km radius of the site.

2.3.3 *Priority habitats*

The data search revealed records of eight priority habitats within a 1km radius of the site, these are listed below, with the closest location and direction in brackets.

- Coastal saltmarsh (480m, NW).
- Mudflats (345m W).
- Coastal and floodplain grazing marsh (655m, SW).
- Good quality semi-improved grassland (625m, N).
- Lowland Meadows (685m, NNW).
- Intertidal substrate foreshore (310m, W)
- Deciduous woodland (10m, W).
- Traditional Orchards (460m, E).

2.3.4 *Protected species*

The data search revealed one records for protected species relating to European Protected Species (EPS) Mitigation licences or EPS survey licence returns within a 1km radius of the site. Details of this record are provided below.

- Bat – Brown long-eared *Plecotus auritus*, Common pipistrelle *Pipistrellus pipistrellus*, and Sporano pipistrelle *P. pygmaeus*. EPS licence (2018-33706-EPS-MIT: 2018-19) – 460m SE.

2.3.5 *Solent Waders and Brent Goose Strategy (SWBGS)*

In addition to the statutory protected areas revealed by the data search, the site is located in an area where several nearby fields are identified as functionally supporting land to the Chichester and Langstone Harbours SPA. These fields are graded according to the numbers of birds (that are qualifying or supporting features of the SPA) that use them. Within a 1km radius of the site the supporting areas are assessed as providing Core, Primary, Secondary, Low use and Candidate sites.

None of the sites overlap the application site itself but the boundaries of Core and Primary Support Areas (H48F and H48E, respectively) abut the western side of West Lane, close to the western site boundary. H49G, a Low Use site, abuts the eastern site boundary.

3. Habitats

3.1 Methodology

A field survey was carried out on the 7th February 2024 by Trevor Codlin MCIEEM of Phillips Ecology. During the survey, all broad habitat types were identified and a list of characteristic plant species within each habitat type was compiled. 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 in February, a time when many plant species are dormant and therefore not visible to the surveyor. However, some species were still visible, and therefore it was still possible to make a general assessment of the vegetation communities present.

3.3 Existing records

The data search revealed eight priority habitats within a 1km radius of the site, but no blocks of ancient woodland. None of these priority habitats are present on the site itself, however, the habitats in the immediate surrounds are wooded and an area to the west of West Lane, approximately 10m west of the site, is categorised as deciduous woodland.

3.4 Results

The site comprises part of a large and mature garden, with access using the existing entrance off West Lane, running east along the northern boundary to the north-eastern part of the site. The immediate surrounds comprise detached dwellings set in a predominantly wooded area, however, beyond the woodland, the landscape is intensively farmed and to the south, developed. Intertidal mudflats are located beyond the arable fields to the west.

The site is typical of a detached dwelling set in large and mature grounds. The grounds are partly laid to lawn, with ornamental flower and shrub beds and both scattered and small groups of trees.

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

3.4.1 *Semi-improved (neutral) grassland (B2.2)*

Areas of grassland are located throughout the site, with the largest expanse in the north-eastern part which is the proposed location of the new dwelling. Here the grassland is managed, but not intensively, with a mown circular path through less well-managed areas (Figure 1). Overall, the sward was uniformly short and moderately herb rich, but included introduced species such as daffodil *Narcissus pseudonarcissus* ssp. and snowdrop *Galanthus nivalis* ssp (Figure 1). The dominant species recorded during the survey were lesser celandine *Ranunculus ficaria*, primrose *Primula vulgaris* spp., common sorrel *Rumex acetosa*, ground-ivy *Glechoma hederacea*, creeping buttercup *Ranunculus repens*, lord's and ladies *Arum maculatum*, daisy *Bellis perennis*, dandelion *Taraxacum* spp., sycamore *Acer pseudoplatanus* saplings and mosses. Grasses included cock's-foot *Dactylis glomerata*, creeping bent *Agrostis stolonifera*, and red fescue *Festuca rubra*.



Figure 1: Main area of grassland (footprint of proposed dwelling).



Figure 2: Extreme north-east corner of site.

In the extreme north-east corner where the grassland is less well-managed the species assemblage includes lesser celandine, cow parsley *Anthriscus sylvestris*, green alkanet *Pentaglottis sempervirens*, ragwort *Senecio jacobaea*, creeping bent, daisy, creeping buttercup, herb-Robert *Geranium robertianum*, false brome *Brachypodium sylvaticum*, red dead-nettle *Lamium purpureum* and primrose (Figure 2).



Figure 3: Managed grassland along proposed driveway.



Figure 4: Managed grassland along proposed driveway, between garage and greenhouse.

Two other areas of managed grassland are located along the north of the site, along the route of the proposed driveway. The species composition was broadly similar to the other managed areas.

3.4.2 Tall ruderal (C3.1) and scrub

The western boundary is formed by a vegetated bank, with a deciduous hedgerow beyond (Figures 5 and 6). The bank is vegetated with a mix of native and introduced species including bramble *Rubus fruticosus* agg., ivy *Hedera helix*, butcher's-broom *Ruscus aculeatus*, stinking iris *Iris foetidissima*, common nettle *Urtica dioica*, cherry plum *Prunus cerasifera*, buddleja *Buddleja davidii*, cow parsley, green alkanet, Cock's-foot, lesser celandine, lords-and-ladies and a dock species *Rumex* sp.



Figures 5 & 6: Vegetated bund running along the northern boundary.

3.4.3 Scattered trees (A3.1)

Scattered and small groups of trees are located throughout the site. These are mostly located around the margins and therefore will not be impacted by the proposals, however, at the entrance to the site a group of ash *Fraxinus excelsior* trees are located. These trees appear in poor health and suffering from canker.

A group of lime species *Tilia* sp. trees are located to the south of the proposed new dwelling location. The shrub layer included holly *Ilex aquifolium* and butcher's-broom. Two horse chestnut *Aesculus hippocastanum* trees and a pair of silver birch *Betula pendula* trees are located along the eastern boundary and a lone fruit tree is present in the grassland.

3.4.4 Scattered scrub (A2.2) and Introduced shrub (J4)

As is typical of a residential garden, introduced shrubs are present throughout, however, some native species are also present. A line of hawthorn *Crataegus monogyna* dominated vegetation runs along the proposed driveway, towards the eastern end of the site (Figure 7). This has been managed to form a section of hedgerow but does not form a boundary feature.



Figure 7: Managed hawthorn dominated scrub.



Figure 8: Patch of butcher's-broom and ivy.

More extensive areas of introduced shrub are located in the northwest corner (western end of the proposed driveway). Some clumps of butcher's-broom are present here and the ground layer is formed by dense common ivy in places (Figure 8).

3.4.5 Open water (G1)

A pond is located within the lawn in the eastern part of the site. At the time of the survey there was barely any water present, and a closer inspection revealed a liner, which was in poor condition and leaking. Some aquatic species were still present, including marsh marigold *Caltha palustris* and an iris species *Iris* sp., but the majority of the pond was vegetated with mosses, grasses and herbs including lesser celandine and primrose, suggesting it has not held water for a prolonged period.



Figure 9 & 10: Mostly dry pond located in the east of the site.

3.4.6 Built-up areas (J3.6)

The only unvegetated areas on the site are the footprint of a shed and greenhouse (Figure 11), and adjacent gravel and the gravel driveway leading off West Lane (Figure 12). An existing block-built garage will not be impacted by the proposals but is assessed in section 5 for its bat suitability.



Figure 11: Gravel area between shed and greenhouse.



Figure 12: Gravel drive leading off West Lane.

3.5 Assessment

The site is typical of a mature garden located in a semi-rural location and includes mature deciduous trees, native and introduced shrubs and areas of grassland. The site is influenced by its woodland location (deciduous woodland priority habitat is present west

of West Lane) and includes some species that indicate a history of woodland, including butcher's-broom, stinking iris and holly, however, these are sparsely located across the site.

The habitats present are largely modified with no assemblages of noteworthy species recorded. The mature trees are of greatest ecological value, however, some of these are in poor health and will require remedial work.

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 protected and priority species that have been considered further within this report are detailed below. Otter *Lutra lutra*, water vole *Arvicola amphibus*, white-clawed crayfish *Austropotamobius pallipes* and are not considered further due to the lack of any streams and rivers on or adjacent to the site.

- Bats
- Badger *Meles meles*
- Hazel dormouse *Muscardinus avellanarius*
- Hedgehog *Erinaceus europaeus*
- Reptiles
- Great crested newt *Triturus cristatus*
- Breeding birds
- Wintering birds

The surveyed site has been assessed for its potential to support the above-named protected species/species groups based upon the criteria in Table 2.

Table 2: Protected species grading criteria

Grading criteria	Justification
Negligible	Site is entirely unsuitable for species. Presence of species highly unlikely.
Low	Minimal suitable habitat present or, if present, highly degraded/fragmented. Minimal linkage to suitable habitat beyond site. Presence of species unlikely.
Moderate	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.
High	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.
Confirmed presence	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

5.1.1 Survey Description

The survey did not depart from the Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th 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 only structures on the site are a greenhouse and wooden shed, both of which are considered unsuitable for bat roosting and are therefore not considered further in this report. There is a detached block-built garage, located immediately adjacent to the proposed access route, whilst the proposals do not involve any works to this building, it has been assessed for its bat suitability due to its proximity to the application site, and potential for indirect impacts on bats, should they prove to be present.

The survey of this building involved a detailed investigation of the external and internal features of the structure. The external and internal features 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 side panels and open eaves. This included a thorough search for evidence of bat activity such as bat droppings, urine splashes and fur staining on the internal and external elevations.

The survey did not depart from the Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition) which states that *"A Ground Level Tree Assessment (GLTA) is a detailed inspection of the exterior of the tree from the ground to look for features that bats could use for roosting (Potential Roost Feature (PRF))"*.

The aim of the survey was to determine the available bat roosting resource on any buildings or trees that could be impacted (directly or indirectly).

5.1.2 Survey Equipment

Survey equipment comprised:

- High-powered torch
- Camera
- Video endoscope
- Ladder
- Binoculars (8x magnification)

5.2 Assessment methodology

The suitability of the building and trees for supporting bat roosts will be assessed against the guidelines within Table 3 which have been adapted from the BCT Good Practice Guidelines.

Table 3: Suitability assessment guidelines

<i>Suitability</i>	<i>Description of Roosting Habitats</i>
<i>Negligible</i>	A building or tree that has no reasonable likelihood of supporting roosting bats i.e. no suitable roosting features present.
<i>Low</i>	A building or tree 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 building or tree 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 building or tree 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 4 which have been adapted from the BCT Good Practice Guidelines.

Table 4: 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.

5.3 Limitations

The primary limitation with GLTAs is that potential roosting features at height may not be visible to the surveyor, since they may be on the upper face of a limb, or obscured by vegetation, particularly if the tree is still in leaf.

5.4 Existing records

The data search revealed a record for a common and soprano pipistrelle and brown long-eared bat EPS mitigation licence approximately 460m SE of the site.

5.5 Results

5.5.1 *Building assessment relevant to bats and their roosts*

The only building with any suitability for bat roosting is located adjacent to the southern edge of the proposed driveway. This building comprises a detached, single-storey block-built garage with a pitched and gabled ended roof. The roof is orientated west/east and is partly shaded by the presence of a deciduous tree. The roof is clad with pressed clay tiles with ornate clay ridge tiles. Soffits are present in the gables, no soffits are present along the side elevations and the roof rafters extend beyond wall plate (Figures 13 and 14).



Figure 13: West facing gable of garage.



Figure 14: Northern elevation of garage.

Internally the garage is vaulted, and the underside of the roof is visible. The roof tiles are clad below with a bitumen type felt underlay.



Figures 15 & 16: Internal view of underside of the roof in the garage.

Externally, numerous features were identified that could provide bats access. These included.

- Gaps beneath raised roof tiles (Figure 18).
- Gaps beneath ridge tiles.
- Above the wall plate on the northern and southern elevations.
- Into the soffit on the east facing gable, where rotten (Figure 17).



Figure 17: Rotten soffit on south-east corner.



Figure 18: Raised roof tile leading to void between tile and felt underlay.

Internally, suitable roosting locations were identified as follows.

- Against the ridge board in the apex of the roof.
- In the gap between roof rafters and end elevations.

No evidence of bat activity was recorded, either internally or externally on the building, however, suitable access locations were recorded on the exterior, and roosting locations present on the interior.

5.5.2 *Tree assessment relevant to bats and their roosts.*

There are several mature trees and standing dead wood located on the site that were considered to be of an age and structure that could support roosting opportunity for bats. These are detailed below, with the locations identified by an online generated 10-figure grid reference.

1. SU 71698 01012 – two apparent dead trees are located within the clump of lime trees located in the southern part of the application site. The suitable bat roosting features recorded on the trees are large woodpecker holes, indicative of use by green woodpecker *Picus viridis* (Figure 19) and flaking bark (Figure 20).



Figure 19: Woodpecker hole in standing dead tree.



Figure 20: Flaking bark of standing dead tree.

2. SU 71719 01015 – a semi-mature horse chestnut tree has a hollow that extends up into the main trunk (Figure 21).



Figure 21: Hollow leading up into main trunk.

3. SU 71650 01076 – A group of six ash trees at the site entrance are in poor health and appear canker ridden. Numerous suitable bat roosting features are present on these trees including woodpecker and knot holes, loose bark, wounds and canker (Figures 22 – 25).



Figure 22: Woodpecker hole.

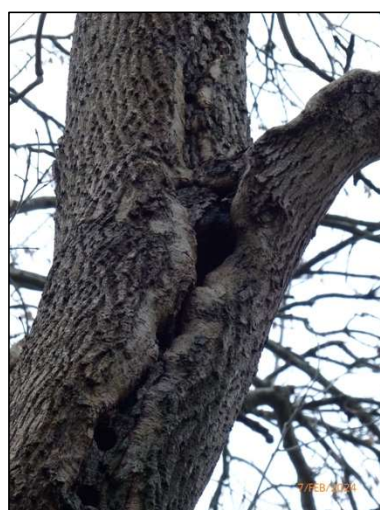


Figure 23: Canker wound.

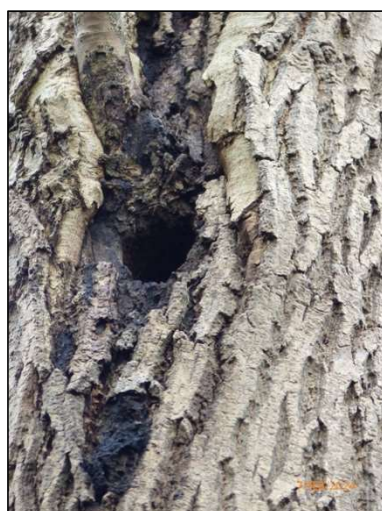


Figure 24: Canker wound with woodpecker hole.



Figure 25: Knot hole.

5.5.3 Foraging potential

The site and immediate surrounds are characterised by the presence of mature deciduous woodland, however, beyond that the surrounding habitat is flat and consists of intensively farmed agricultural land. The woodland habitats are considered to provide excellent foraging habitat for bats, since they provide a sheltered environment in an otherwise flat landscape situated in a coastal location.

This foraging resource will be of value for any bats roosting nearby, however, due to the lack of connectivity between areas of suitable habitat, the woodland and site are unlikely to be within the core sustenance zone of bats roosting further afield.

5.6 Assessment

When assessed against the criteria in Table 3, the garage is assessed as providing moderate suitability for bat roosting i.e. *“a building or tree which could be used by bats but is not likely to support a roost of high conservation status (e.g. maternity roost).”*

When assessed against the criteria in Table 3, the trees with suitable features described above are considered to provide high suitability for bat roosting (PRF-M under the new guidance) for bat roosting.

When assessed against the criteria in Table 4, the site is considered to provide low suitability for bat foraging. This assessment is based on the presence of suitable foraging habitat on the site and in the immediate surrounds, but the lack of connectivity to the wider landscape.

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. Emphasis was placed on locating badger setts, paths and signs of territorial activity such as dung piles and latrines.

6.2 Limitations

No limitations to the badger survey were identified.

6.3 Existing records

A literary search confirms that badgers are absent from Hayling Island.

6.4 Results

No evidence of badger activity was recorded during the survey. However, some mammal trails were located leading onto/exiting the site from the eastern boundary. These trails were indicative of a mammal but were considered likely to be fox *Vulpes vulpes* due to the aroma of fox territorial scent marking.

6.5 Assessment

When assessed against the criteria in Table 2, the site is considered to provide negligible suitability for badgers, based on the lack of evidence and known absence of the species from Hayling Island.

7 Hazel Dormouse

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 Existing records

The data search revealed one accepted record of hazel dormouse within the 1km search radius to the south of the site along West Lane, however, a literary search suggests the species is absent from Hayling Island (Durnell & Walters, 2001).

7.4 Results

The application site is not considered to support suitable habitat for hazel dormouse. The shrub layer is mostly absent, and where present mostly consists of introduced, evergreen shrubs.

The wider woodland block that the site is situated within is considered to provide suitability for hazel dormouse, however, it is isolated from other areas of suitable habitat along West Lane.

No conclusive evidence of hazel dormouse, such as hazel nuts opened in the distinctive manner or nests within dense vegetation, was recorded during the survey.

7.5 Assessment

When assessed against the criteria in Table 2 the site is considered to support negligible suitability for the species.

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 would be 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 Existing records

Phillips Ecology is aware of the species' presence on Hayling Island, and in the vicinity of the site, as a result of other surveys carried out on Hayling Island.

8.4 Results

The combination of grassland, woodland and shrub located on the site and in the wider area is considered highly suitable for the species. During the survey, no conclusive evidence of hedgehog activity was recorded, however, the survey was carried out at a time of year when hedgehogs should be hibernating.

8.5 Assessment

When assessed against the criteria in Table 2 there is considered to be high suitability for hedgehog to occur on site.

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 Existing records

Phillips Ecology is aware of the presence of the four common reptile species (adder *Vipera berus*, grass snake *Natrix natrix*, slow-worm *Anguis fragilis* and common lizard *Zootoca vivipara*) on Hayling Island.

9.4 Results

The grassland habitats, where more unmanaged and tussocky, have the potential to support common reptile species, particularly slow-worm and common lizard, although the shaded nature of the site, due to the presence of mature trees, may limit the extent of suitable habitat present for basking.

A compost heap located towards the western end of the northern boundary could be used for egg laying by species such as grass snake *Natrix natrix*, although the presence of evergreen shrubbery around the compost pile may limit the suitability of this habitat feature for the species.

The intensively farmed nature of the area surrounding the woodland block that the site sits within will limit the availability of connected habitat for common reptile species.

9.5 Assessment

When assessed against the criteria set out in Table 2, the site is considered to provide low suitability for common reptiles. This assessment is based on the isolated nature of the

site itself and immediate surrounds, and intensively managed agricultural land beyond the habitat that the site sits within.

10 Great-crested Newt

10.1 Methodology

Great-crested newts (GCN) 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).

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 Existing records

The data search revealed a record of GCN on Hayling Island, to the north-east of the site in Northney. No other records of GCN were recorded within a within the 1km search area.

10.4 Results

The only pond located on the site is the ornamental pond, with a damaged liner, located in the west of the site. At the time of the survey the pond was barely holding water, and the vegetation within, being largely terrestrial in nature, suggests that the pond regularly dries out.

10.5 Assessment

When assessed against the criteria in Table 3, the site is considered to be unsuitable as a breeding or foraging location for GCN.

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

No limitations were identified during the survey.

11.3 Existing records

Phillips Ecology has extensive knowledge of the breeding bird species located on Hayling Island and sites in close proximity to the application site.

11.4 Results

The site itself is small however it does support habitats that are considered suitable for nesting birds, including dead wood and evergreen and deciduous shrubbery. Suitable nesting features are present throughout the site and evidence of past woodpecker nesting, considered to be green woodpecker based on the size of the holes, was recorded.

During the survey the following species were recorded on, or adjacent to the site; mistle thrush *Turdus viscivorus*, wren *Troglodytes troglodytes*, dunnock *Prunella modularis*, robin *Erithacus rubecula*, starling *Sturnus vulgaris*, jackdaw *Corvus monedula*, wood pigeon *Columba palumbus*, goldfinch *carduelis carduelis*, great tit *Parus major*, blue tit *Cyanistes caeruleus*, house sparrow *Passer domesticus* and green woodpecker *Picus viridis*.

All of these species could potentially breed on the site however given its size and the limited extent of habitat present, it is likely that sufficient habitat is present for only small numbers.

11.5 Assessment

When assessed against the criteria detailed in Table 3 it is considered that there is high suitability for bird nesting on the site with breeding by green woodpeckers confirmed.

The recent publication of The Birds of Conservation Concern 5 has highlighted that 70 species are now included on the red list due to significant declines in their respective populations. Of the species recorded on the site, the species included on the red list, due to significant declines in their breeding populations are starling, mistle thrush and house sparrow. The species included on the amber list due to moderate declines in their respective breeding populations are wren, dunnock and woodpigeon.

12 Wintering birds

12.1 Methodology

An assessment was made of the site's suitability to support over-wintering bird species associated with the Chichester and Langstone Harbours SPA. This involved an assessment of the onsite habitats, such as extensive areas of clover-rich grassland or arable fields with winter wheat growing. Any species associated with the SPA were recorded during the survey.

12.2 Limitations

No limitations were identified during the survey.

12.3 Existing records

Phillips Ecology has a good understanding of the over-wintering bird species present on Hayling Island and the south coast of Hampshire. In addition, the SWBGS online mapping tool was reviewed in order to identify the locations and ranking of the nearby sites included in this strategy.

12.4 Results

The site itself is not included as part of the SWBGS strategy and the survey has confirmed that the habitats are unsuitable for the species included within the SPA designation. Whilst some grassland is present, this is limited in its extent and mature deciduous trees surround it. Typically, overwintering waders and waterfowl prefer large open spaces with long sight and flight lines in order to see approaching threats and enable them enough space to take flight.

During the survey, a mixed flock of gulls, including black-headed *Chroicocephalus ridibundus* and Mediterranean *Larus melanocephalus* was recorded foraging, loafing and bathing in a puddle on the field to the east of the site boundary. This field is included in the SWBGS as H49G, a Low Use site. At the time of the survey the crop type was considered unsuitable for use by waders and brent geese, being too tall with dead vegetation present, thereby offering no nutritional value.

A large flock of dark bellied-brent geese *Branta bernicla bernicla* was recorded on the fields north of the site, H49B and H48C and H48D. These fields have been used by in excess of 1000 birds this winter, but it is considered that these fields are outside the zone of impact for this project.

12.5 Assessment

Given the type and limited extent of the habitats present, the site is considered to provide negligible suitability for over-wintering waders and wildfowl associated with the Chichester and Langstone Harbours SPA.

13 Discussion and Assessment of Impacts

13.1 Overview

The proposals for the site involve the construction of a detached single-storey dwelling, with associated access within the grounds of an existing dwelling. Access to the site will be from West Lane, initially using the existing entrance before running east along the northern boundary through an area of mixed shrub and grassland. A group of ash trees will need to be removed to facilitate access, however, these trees are already in poor health and will require remedial work. Impacts will be assessed against these proposals.

13.2 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 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.

13.3 Designated sites

There are eight statutory designated sites located within a 2km radius of the site. These sites are mostly designated for the habitats or species associated with the coast, such as the assemblage and/or numbers of waders, ducks and geese that use these habitats (in the case of the SPA), and the intertidal mud and coastal vegetation (in the case of the SAC). The closest of these designated sites is 300m to the west, which is considered to be beyond the zone of impact for a project of this size.

Functionally supporting land to the Chichester and Langstone Harbours SPA is present between the site and the SPA. These fields are identified through the SWBGS, with the closest being a Low Use site H49G, which lies adjacent to the eastern site boundary. This site was not being used by wintering birds during the survey, because the crop type was not suitable, and its future use by wintering birds will be determined by its future land use. The proposals do not involve any encroachment on to H49G and therefore any potential impacts will result from indirect impacts, such as increases in noise during the construction phase.

The application site is situated in an area that already supports small scale residential development, and a works yard with an operating business, to the east of the site, and north of H49G. During the survey this yard was periodically producing loud clanging noises, which are likely to be louder than any noises produced during construction or occupation of the new dwelling and therefore it is considered that one new dwelling will not increase noise levels to such an extent that waders, ducks and geese that may choose to use H49G if its condition was more suited, would be disturbed.

However, there are two impact pathways which could lead to likely significant effects on the network of European designated sites and supporting habitats that have been identified through this ecological assessment. These are increased levels of nitrates entering the Solent from wastewater arising from the new dwelling and recreational disturbance on the Solent coastline through an increase in population from the new residential dwelling.

13.4 Habitats

The habitats on site are typical of a mature residential garden and did not include any rare or notable assemblages of species at the time of the survey. Some native and ornamental shrubs and part of the semi-improved lawn will need to be removed; however, the loss of these features is not considered to be significant. The features of highest value ecologically are the semi-mature trees, however some of these, in particular the ash trees at the entrance, will need to be removed regardless of the application due to their poor health and proximity to the highway, West Lane.

13.5 Bats

The garage was assessed as providing moderate suitability for bat roosting, however, the proposals do not involve any works to this building and therefore direct impacts are not anticipated. Indirect impacts could occur during the construction phase, particularly if the

building is illuminated during the hours of darkness. It is considered that indirect impacts can be avoided through the implementation of sensitive working practices.

Several trees with high suitability for bat roosting were recorded on the site. It appears that the proposals do not involve the removal of the trees with features in the east of the site, and therefore impacts on roosting bats that could be using these trees are not anticipated. However, if the proposals change and require the removal of these trees, further bat activity surveys may be required.

The group of ash trees located at the site entrance in the west are in poor health and will likely require remedial works irrespective of this application. Numerous features considered suitable for supporting bat roosting were located on these trees, and they were all assessed as providing high suitability and therefore require further survey work prior to removal.

The site and woodland habitats beyond the site boundary are considered suitable for bat foraging and therefore impacts on foraging bats could result from any increases in lighting at the site as result of the proposals.

13.6 **Badgers**

No conclusive evidence of badgers was recorded on the site and the desk study and literary search suggest that the species is absent from Hayling Island. Impacts on badgers are therefore not anticipated.

13.7 **Hazel dormouse**

No conclusive evidence of hazel dormouse was recorded during the survey and much of the application site area lacks suitable habitat for the species. The desk study revealed an accepted record of the species, to the south of the site along West Lane, however a literary review suggests that the species is absent from Hayling Island.

The potential for the species to be present on the site is considered negligible and therefore impacts are not anticipated.

13.8 **Hedgehog**

The site is considered highly suitable for the species and therefore impacts on hedgehog will be associated with the loss of foraging habitats or if deep excavations are left uncovered during the construction phase.

13.9 **Reptiles**

The suitability of the site to support common reptiles will be dependant on the extent to which it is managed during the summer months. Impacts will be associated with the loss of suitable foraging, basking and resting habitat or the compost heap during the grass snake egg laying or hatching period, which extends from early June to mid-July and beginning of August to the end of September, respectively.

12.10 **Great-crested newts**

The only pond located on the site has a damaged liner and at the time of the survey was barely holding water. This pond was assessed as being unsuitable for GCN.

The species is known to be present on Hayling Island, with a record 2.3km NE of the site. This pond is located beyond the residential areas of Fleet and Stoke and east of the main A3023 which runs down the centre of the island. If the species is still present in that identified pond, the potential for it to reach the site is considered highly unlikely. The site itself does not support any ponds suitable for GCN breeding, or suitable terrestrial habitat for the species, except along the southern and western boundary. It is therefore considered that impacts on GCN are unlikely and therefore impacts are not anticipated.

12.11 **Breeding birds**

Suitable nesting habitat for birds is present where patches of mature shrubs and trees are located. The removal of any suitable bird nesting 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.

12.12 **Wintering birds**

The proposals do not involve any works to the coastal SPA or functionally linked land. There is the potential for indirect impacts to occur during the construction phase, however, this is only considered possible if the Low Use site H49G is in a suitable condition for supporting wintering birds during the construction phase.

Impacts during the operational phase will be linked to increases in recreation and nitrate discharges. These can be mitigated through engagement with the relevant mitigation schemes.

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, further surveys are considered necessary for roosting bats.

It is important that planning decisions are informed by the most up-to-date ecological survey information. As a result, 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 to the proposed project plans, but it is generally considered that phase 1 ecological surveys are valid for a period of 18 months (CIEEM, 2019). Where projects run for a longer period than 18 months, there may be the requirement to carry out further ecological surveys to ensure planning authorities have the most up-to-date survey information in order that they can make well informed, evidence-based decisions.

14.1 Designated Sites

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

14.2 Habitats

No further surveys are considered necessary for understanding the habitats on the site.

14.3 Bats

No further surveys are considered necessary for the detached garage, since the proposals do not involve any works to building. In addition, no further survey works are considered necessary for the trees with suitable bat roosting features located in the east of the site. This assessment is based on the understanding that these trees will not be impacted by the proposals. If the plans change and works is required on these trees further survey work may be required.

With regard to the ash trees at the entrance, these have been assessed as providing high suitability for roosting bats, and therefore further works are required. These trees appear in poor health and given their proximity to West Lane and the risk that they may fall at any time, it is recommended that a more detailed investigation is carried out from a Mobile Elevation Working Platform (MEWP) and using an endoscope. If it is possible to conclusively confirm that a potential roost feature is not being used by bats, the inspected tree can be 'soft-felled'. If it is not possible to confirm conclusively that bats are current absent, further emergence surveys may be required.

It is recommended that works are carried out under a method statement and that has been agreed by the Natural England licencing team and the Borough Council's ecologist.

Further surveys are considered unnecessary for understanding impacts on foraging and commuting bats, subject to a review of the proposed lighting plans at the site. Precautionary mitigation measures for lighting at the site are set out in Section 15.

14.4 Badgers

No further surveys are considered necessary.

14.5 Hazel dormice

No further surveys 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 newt

No further surveys 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.

14.10 Wintering birds

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

15 Mitigation recommendations

15.1 Introduction

The overarching aim of the ecological survey and assessment work carried out at the site is to inform the planning proposals in order to demonstrate how the development can proceed whilst avoiding or mitigating impacts on ecological receptors. The 'mitigation hierarchy' is an accepted approach which guides this process. The first consideration should always be to design a scheme that avoids the identified impact. Where this is not possible the next step should be to mitigate any impacts that cannot be avoided. The third, which should be used as a last resort, is compensation: this should only be used to offset any unavoidable impacts.

15.2 Designated sites

Recreational disturbance mitigation

Havant Borough Council has adopted a strategy whereby a scale of developer contributions has been agreed that would fund the delivery of measures to address impacts on the coastal designated sites and to demonstrate that HBC as a competent authority under the provisions of the Habitats Regulations has had regard for any potential impacts that the project may have.

With respect to the Solent sites, funding is to be provided to the Solent Recreation Mitigation Partnership (SRMP). The scale of the contribution is set per dwelling, on a sliding scale. The costs for the sliding scale are:

- £488.15 for 1-bedroom dwelling
- £693.95 for 2-bedroom dwelling
- £898.70 for 3-bedroom dwelling
- £1,052.00 for 4-bedroom dwelling
- £1,230.50 for 5-bedroom dwelling

These charges came into effect from 1st April 2023 and will be updated each year in line with the Retail Price Index.

Therefore, the application's contribution to the strategic solution would be considered to address potential impacts on the coastal designated sites from increased recreational disturbance.

Indirect impacts to adjoining Solent sites and supporting habitat mitigation

Appropriate avoidance and mitigation measures will be required to ensure that the proposed construction works do not adversely impact on the function of any nearby SWBG sites and indirectly impact the adjacent Solent sites and NNR through pollution.

The following measures are proposed during the construction phase of the development if the adjacent H49G site is in a suitable condition (supporting grassland or a short cereal crop) for supporting wintering birds during the construction phase. :

- 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 the 1st April and 30th September to avoid disturbance to overwintering birds that feed and roost in the area.
- The use of chainsaws and machine mounted cutting tools for the removal of any trees will be restricted to the 1st April and 30th September to avoid disturbance to overwintering birds that feed and roost in the area. Please note that September will be the optimal month for carrying out this work - an ecologist will need to supervise the removal of trees during all other months in this period to check for breeding birds.
- If it is not possible to restrict either of the above to the specified time frames, the response of any dark-bellied brent geese and waders using the habitat near to the construction noise and movements 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.

Production of a Construction Environment Management Plan (CEMP) that will set out the measures that will be implemented during construction to avoid and minimise impacts to the Solent sites including pollution prevention measures and lighting controls. The CEMP should address the following impacts:

- Visual screening (for SPA birds),
- Noise/visual/vibrational impacts,
- Storage of construction materials/chemicals and equipment,
- Dust suppression,
- Chemical and/or fuel run-off from construction into designated sites, and
- Waste disposal.

15.3 Bats

15.3.1 Roosting bats

Further survey work is required to determine the impact of the scheme on bats with regard to the ash trees located at the entrance to the site and devise an appropriate mitigation strategy. A Natural England EPSM licence may be required in accordance with section 4.2 prior to any works which will impact roosting bats. The mitigation strategy will likely entail the provision of alternative roosts which are proportionate to the status of those identified. In addition, it will require the supervised removal/soft felling of any identified

roost features. If it is not possible to confirm that bats are absent from a roost feature, further bat emergence surveys may be required.

15.3.2 *Foraging and commuting 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:

- Construction works between March and October should be undertaken during daylight hours only to avoid disturbance to bats that may forage and commute through or near the site.
- All lighting must follow the Bat Conservation Trusts and Institute of Lighting Professionals guidance on bats and artificial lighting (BCT, 2018).
- The brightness of the lighting should be as low as possible (for example bollard lighting) and kept at a low level and directed away from the boundary features. Lighting on sensors should not be so sensitive that foraging bats trigger them and, should be turned off when not required.

15.4 **Hedgehogs**

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

- Any accumulations of brash, including those already existing, will be dismantled by hand in a sensitive and careful manner.
- No bonfires will be made or lit on site.
- All trenches will be left covered at night. They must be checked in the morning before they are filled in.

15.5 **Reptiles**

Given the limited extent of the site to be developed 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.

- The ground layer of the western boundary and compost heap should be protected during the construction phase through the erection of a Heras type fence a minimum of 1.5 metres from the boundary.
- No accumulations of brash or rubble should be stored against this boundary, to prevent reptiles from using it for basking and/or egg laying.
- 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.

- Materials must be stored on unvegetated areas of the site, and not the wider site, where suitable reptile habitats will be retained.
- 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.

15.6 **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 either need to be undertaken outside of this period or else checked by an experienced ecologist to ensure that no nesting birds are present within 24 hours of its proposed removal. If occupied nests are present then the nest must not be removed, and clearance can only recommence once the nest becomes unoccupied of its own accord.

16 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.

Enhancement measures should look to build on the ecological features of the local area, thereby providing addition habitat for species that are already present in the local area, such as bats and birds.

There are opportunities for ecological enhancements at the site, some examples are detailed below:

- The creation of a native species hedgerow along the western, eastern and southern site boundaries would be a valuable enhancement for the site. The following species mix is suggested: hawthorn *Crataegus monogyna* (25%), hazel *Corylus avellana* (25%), beech *Fagus sylvatica* (10%), elder *Sambucus nigra* (10%), field maple *Acer campestre* (10%), holly *Ilex aquifolium* (10%) and wayfaring -tree *Viburnum lantana* (10%).

The new planting will be planted as follows:

- Specimens will be planted in two staggered rows with 5 – 7 plants per metre.
- Specimens to be minimum 90cm whips (2-3 yrs. old), bare rooted.
- Specimens to be protected using spiral tree guards, where there is a particular risk or damage from browsing mammals.
- Whips to be planted in late winter/early spring.
- The erection of four bat boxes on the mature trees within the site, or wider site. These will provide alternative roosting opportunity for a variety of species and should include Schwegler 1FF and 2FN bat boxes or equivalent.
- The provision of bird nesting boxes on the site. These should include boxes for species that were recorded, such as woodpeckers, treecreepers or nocturnal species such as tawny owl *Strix aluco*.

17 Conclusion

The extended phase 1 ecological assessment has confirmed that the habitats on site are well-managed and of low botanical value, with the mature trees being the habitat features of highest ecological value.

The site supports suitability for roosting and foraging and commuting bats, hedgehog, common reptiles and nesting birds and negligible suitability for hazel dormouse and great-crested newt.

Further surveys of the potential bat roosting locations are recommended. No further surveys are recommended, subject to precautionary measures detailed in Section 14 for other species.

Precautionary measures have been provided to ensure impacts on protected species are avoided.

Example opportunities for enhancements have been provided, including new hedgerow planting tree and the erection of bat and bird boxes.

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Appendix 1 – Site proposals





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