PHILLIPS ECOLOGY

EXTENDED PHASE 1 ECOLOGICAL ASSESSMENT AND BAT ROOST ASSESSMENT

48 SINAH LANE, HAYLING ISLAND, PO11 0HH

DRAFT REPORT

October 2020

Report conditions

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Executive Summary

- This extended phase 1 ecological and bat roost assessment report has been prepared in order to support a planning application for the proposed demolition of the existing house and the construction of a replacement dwelling and new garage, boat shed and improved sea wall at 48 Sinah Lane, Hayling Island.
- An extended phase 1 ecological assessment of the application site was undertaken on the 3rd August 2020 by Izabel Phillips.
- The survey area comprised the proposed construction footprint which comprised the existing dwelling and its surrounding garden up to and including the foreshore. A data search extended to a 2km radius for designated sites and notable habitats.
- The site is considered to support opportunities for protected and priority species including bats and breeding birds. The existing house is considered to support moderate suitability for roosting bats.
- Further survey work in accordance with Natural England standing advice and the Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition) was required to confirm the presence/absence of roosting bats and finalise the proposed mitigation.
- Two presence/absence surveys comprising a dusk survey and a dawn survey were carried out on the house during August and September 2020.
- The surveys have confirmed that the property supports two soprano pipistrelle bat day roosts.
- The demolition of the existing property will result in the loss of the identified bat roosts. As such, an EPSM licence will be required. The EPSM licence must be applied for at least six weeks before the proposed demolition is carried out.
- A mitigation strategy has been designed that would ensure the maintenance of the favourable conservation status of bats. In summary, this comprises the provision of replacement roost access/egress opportunities and the removal of roof materials by hand, under the supervision of a licenced bat worker.
- With the implementation of precautionary construction avoidance measures, impacts on breeding and wintering birds will be avoided.
- Provided the recommendations set out in section 15 are followed, the planning authority can be confident that the development would accord with relevant planning policy, legislation and caselaw.

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1 Introduction

1.1 Report purpose

This report has been prepared in order to present the extended phase 1 ecological and bat roost assessment undertaken for 48 Sinah Lane, Hayling Island.

1.2 Description of proposal

The current proposal comprises the demolition of the existing house and construction of a replacement dwelling, garage, boat shed and improved sea wall.

1.3 Report context

A planning application has been prepared for the demolition of the existing dwelling and the erection of a replacement dwelling, garage, boat shed and improved sea wall. It is anticipated that the planning authority will request that the planning application is accompanied by ecological survey assessment work. 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 3rd August 2020. 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. In addition, further surveys in the form of emergence and re-entry bat surveys were conducted during August and September 2020.

1.5 Survey area

The survey area comprised the proposed construction footprint which comprised the existing dwelling and its surrounding garden. A data search extended to a 2km radius for designated sites and notable habitats.

1.6 Limitations

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

2 Data search

2.1 Methodology

A desk-based assessment was undertaken by Phillips Ecology on the 25th August 2020 with Multi-Agency Geographic Information for the Countryside (MAGIC). The MAGIC database was consulted for records of statutory designated sites and priority habitats for the development site and a 2km radius.

2.2 Limitations

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

2.3 Results

The application site is located immediately adjacent to four statutory designated sites. These are all associated with coastal and estuarine habitat and comprise Chichester and Langstone Harbours Ramsar, Solent Maritime Special Area of Conservation (SAC), Chichester Harbour Site of Special Scientific Interest (SSSI) and Chichester and Langstone Harbours Special Protection Area (SPA). Details on these are given in table 1, below.

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

Site Name	***Approx. distance and direction from the site***	***Reason for designation***
Chichester and Langstone Harbours Ramsar	0km	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 *Charadrius hiaticula*, Black-tailed godwit *Limosa limosa islandica*, Common redshank *Tringa totanus tetanus*; Dark-bellied brent goose *Branta bernicla*, Common shelduck *Tadorna tadorna*, Grey plover *Pluvialis squatarola*, Dunlin *Calidris alpina;* and Little tern *Sterna albifrons albifrons*.

Site Name	***Approx. distance and direction from the site***	***Reason for designation***
Chichester Harbour SSSI	0km	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 fields and woodlands. There is a wide range of habitats which have important plant communities.
Solent Maritime SAC	0km	Annex I habitats that are a primary reason for selection of this site: • Estuaries, • Spartina swards *Spartinion maritimae*; and • Atlantic salt meadows *Glauco-Puccinellietalia maritimae.* 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; • Salicornia and other annuals colonising mud and sand; • Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes). Annex II species present as a qualifying feature, but not a primary reason for site selection: • Desmoulin's whorl snail *Vertigo moulinsiana*
Chichester and Langstone Harbours SPA	0km	The site supports populations of European Importance of the following species listed on Annex I of the Directive: Little tern, Sandwich tern *Sterna sandvicensis*, Little egret, Bar-tailed godwit *Limosa lapponica*, Ringed plover, Black-tailed godwit, Dark-bellied brent goose, Dunlin, Grey plover; and Redshank *Tringa totanus*. The site is also a wetland of international importance, regularly supporting at least 20,000 waterfowl.

2.3.1 *Ancient woodlands*

No non-statutory ancient woodlands are located within a 1km radius of the application site.

2.3.2 *Priority habitats*

The data search revealed the following priority habitats within 1km of the application site:

- Coastal saltmarsh
- Coastal sand dunes
- Coastal vegetated shingle
- Mudflats
- Coastal and floodplain grazing marsh
- Good quality semi-improved grassland
- Lowland dry acid grassland
- Broadleaved woodland

3 Habitats

3.1 Methodology

A field survey was carried out on the 3rd August 2020 by Izabel Phillips (bat licence ref: 2015-11750-CLS-CLS, dormouse licence ref: 2016-19512-CLS-CLS, GCN licence ref: 2015-16928-CLS-CLS). 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 August which shoulders the optimal period for recording vascular plant species. Whilst certain species would not have been evident if present, it was possible to identify vegetation to effectively classify habitat types in accordance with Phase 1 habitat terminology.

3.3 Existing records

The data search revealed that priority habitats associated with the nearby coastal and estuarine landscape are the most prevalent priority habitats within a 1km radius of the site. Woodland cover is limited within the 1km data search area with only several small blocks of priority woodland recorded within 1km of the site. The majority of the surrounding area is characterised by a matrix of residential development associated with South Hayling.

3.4 Results

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

3.4.1 *Poor semi-improved grassland (J1.2)*

A high proportion of the site comprises amenity grassland in the form of a managed lawn in the front (Figure 1) and rear (Figure 2) gardens. The lawn is dominated by perennial rye-grass *Lolium perenne* with Yorkshire fog *Holcus lanatus*, sweet vernal-grass *Anthoxanthum odoratum* and lawn moss *Eurhynchium spp*. Occasional bugle *Ajuga reptans*, birds-foot-trefoi *Lotus corniculatus* and dandelion *Taraxacum officinale* were recorded. The grassland has been managed to a short sward, though this increases where the lawn meets the ornamental borders.

Figure 1 – managed lawn to the front of the existing property

Figure 2 – managed lawn to the rear of the existing property, within the construction footprint

3.4.2 *Introduced shrub (J1.4)*

The garden supports a number of introduced shrub species which are arranged around the lawn and property. A number of large and well-managed shrubs are present within the garden. These include several small fruit trees which are located along the eastern site boundary.

3.4.3 *Boundaries (J2)*

The eastern boundary to the front and rear of the property is defined by a non-native species intact hedgerow (J2.1) (Figure 3). The southern boundary is also defined by a non-native species hedgerow. The western boundary supports a species poor hedgerow with mature ash trees (J2.3) (Figure 4). The northern boundary comprises a sea wall constructed from artificial materials (J3.5) (Figure 5).

Figure 3 – eastern boundary hedgerow

Figure 4 – western boundary hedgerow

Figure 5 – sea wall at the northern boundary of the property

3.4.4 *Strandline vegetation (H5)*

An area of fiddle dock Rumex pulcher is present on shingle substrate immediately adjacent to the sea wall.

3.4.5 *Intertidal shingle*

A belt of unvegetated shingle which is submerged at high tide is located north of the strandline vegetation and sea wall.

3.4.6 *Buildings (J3.6)*

The application site contains two built structures: the house and the boat shed. These structures are described further in section 5.

3.4.7 *Hard standing*

Hardstanding in the form of paved patio and a gravel driveway are associated with the dwelling.

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
- Hedgehogs
- Badgers
- Breeding birds
- Reptiles
- Amphibians

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

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

5.2 Survey equipment

Survey equipment comprised:

- High-powered torch
- Camera
- Ladders
- Endoscope

5.3 Limitations

Limitations were not encountered during the course of the survey. All internal and external areas of the buildings were accessible.

5.4 Assessment methodology

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

Table 4 *Suitability assessment guidelines*

Suitability	***Description of Roosting Habitats***
Negligible	Structure has no reasonable likelihood of supporting roosting bats i.e. no suitable roosting features present.
Low	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.
Moderate	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

5.5.1 *Building description relevant to bats*

The application site supports two structures: the house and the boat shed.

5.5.1.1 The house

The house comprises a brick-built two-storey structure which rises to a pitched and jerkinhead style roof clad with clay roof, ridge and hip tiles. The house is oriented south-north. On all elevations the top sections of the walls are painted while the bottom sections remain as exposed brick. A flat roof extension clad with roofing felt extends from both the eastern and western elevations. The western extension is a garage and is largely covered with vegetation (Figure 6). A single-storey pitched and open gable end extension clad with machine cut roof and ridge tiles extends from the northern elevation of the eastern flat roof extension. A single-storey lean-to extension extends from the corner of the northern elevations of the main house and garage and the western elevation of the pitched extension (Figure 7). A narrow single-storey jerkinhead wing extends centrally from the southern elevation. As with the main roof, the roof of the lean-to extension and the wing are clad with clay roof, ridge and hip tiles. The apex of the southern face of the wing is clad with weatherboarding. On the pitched sections of house, the roof extends beyond the wall plate and the eaves are enclosed with wooden underboards. A dormer window extends from the western end of the northern roof face of the main section of house. The roof is clad with clay roof and ridge tiles while the dormer cheeks are clad with clay hanging tiles. Two concrete chimneys extend from the roof, one each centrally from the southern and northern roof faces of the main section of house. A roof light is situated on the eastern end of the southern roof face of the main section of house. Solar panels are situated on the western roof face of the pitched rear extension (Figure 8).

Internally, the main building supports one roof void and two wall voids. The pitched rear extension does not support a roof void. The voids are lined with heavy duty bitumen felt. The floors of the voids are uninsulated and boarded throughout (Figure 9).

Figure 6 – southern elevation of the house and adjoined garage

Figure 7 – northern elevations of the house

Figure 8 – Western elevation of the rear extension

Figure 9 – Roof void of the main section of house.

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

Table 5 *– The house 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 on the dormer window. - Gaps under roof tiles on the main section of house. - Lifted weatherboarding on southern elevation of the wing. - Gaps underneath fascia boards on the eastern extension.	The following evidence of bat activity was recorded externally during the survey: - A single pipistrelle bat type dropping was adhered to a weatherboard on the southern elevation of the property.
Interior	The following suitable access/egress and roosting features were recorded internally during the survey: - The roof voids support suitable conditions for roosting bats however the roof felt is intact and no access/egress opportunities were recorded.	No evidence of bat activity was recorded internally during the survey.

5.5.1.2 The boat shed

The boat shed comprises a simple single-storey, single-skinned wooden structure which rises to a mono-pitched roof clad with roofing felt (Figure 10).

Figure 8 – Shed situated at the northern end of the garden

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

Table 6 *– The boat shed recorded features and activity*

	Suitability	***Evidence***
Exterior	No suitable access/egress and roosting features were recorded externally during the survey.	No evidence of bat activity was recorded externally during the survey.
Interior	No suitable access/egress and roosting features were recorded internally during the survey.	No evidence of bat activity was recorded internally during the survey.

5.5.2 *Site grounds description relevant to bats*

The site grounds comprise hard-standing, managed lawn, ornamental shrubs and mature trees. Immediately to the north is Langstone Harbour and its associated coastal habitats. The nearby surrounds also comprise the residential area of South Hayling, with residential properties and associated gardens. In this context, the habitats within the footprint of the proposal are considered unexceptional for foraging and commuting bats, however, given their location within a landscape which is suitable for commuting and foraging bats, it is highly likely that bats will commute and forage through the site.

5.6 Assessment

When considered in view of the criteria set out in Table 4, the house is considered to support moderate roost suitability - i.e. a structure which could be used by bats but is not likely to support a roost of high conservation status. This suitability is associated with the original house and the flat roof extensions. 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 is anticipated that the house supports bat roosts associated with crevice features within the external fabric of the building.

The rear extension of the house and the boat shed are considered to support negligible suitability for roosting bats.

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 Survey

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). Two 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 Sonobat bat call analysis software to confirm species identification.

6.2 Surveyor/s

The surveys were conducted by two suitably experienced bat surveyors, Katy Goddard and Oliver Lonsdale.

6.3 Survey area

The survey area comprised the southern and northern elevations of the main section of the existing house. 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 5. The emergence survey 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 5 *survey dates and timings*

Survey type	*Date*	*Start*	*Finish*	*Sunset/sunrise*
Emergence	13/08/2020	20:12	21:57	20:27
Re-entry	11/09/2020	05:04	06:49	06:34

6.5 Survey equipment

Survey equipment comprised:

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

6.6 Weather conditions

Weather conditions during the surveys are provided in Table 6:

Table 6 *emergence and re-entry weather conditions*

Survey	Date	Precipitation		Temperature		Wind		Cloud Cover	
		Start	*Finish*	*Start*	*Finish*	*Start*	*Finish*	*Start*	*Finish*
Emergence	13/08/2020	Nil	Nil	22.0°C	21.0°C	Bf 0	Bf 0	50%	40%
Re-entry	17/07/2020	Nil	Nil	11.0°C	14.0°C	Bf 0	Bf 0	90%	90%

6.7 Results

6.7.1 *Visit 1 –13th August 2020 – Dusk Emergence Survey*

A single bat was recorded emerging from the property during the emergence survey. This comprised a soprano pipistrelle *Pipistrellus pygmaeus* bat. The soprano pipistrelle emerged from a gap under the last course of roof tiles on the southern roof face of the main house, where it meets the eastern flat roof at 20:59. The emerging pipistrelle bat commuted south west. Small numbers of common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle bats were recorded foraging within the grounds close to the property for the duration of the survey.

6.7.2 *Visit 2 – 11th September 2020 – Dawn Re-entry Survey*

A single bat was recorded re-entering the property during the dawn re-entry survey. This comprised a soprano pipistrelle bat. The soprano pipistrelle re-entered the property on the southern elevation of the eastern flat roof extension at 06:23. The bat was recorded approaching the property from the south east and swarming before it re-entered the property. Small numbers of common pipistrelle and soprano pipistrelle bats were recorded foraging within the grounds close to the property for the duration of the survey.

Figure 11 – roost locations on southern elevation of the house

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 during the survey. However, the site does support suitable foraging habitat for badgers in the form of permanent grassland. No evidence of a badger sett was recorded within the application site, however, suitable habitat for the formation of a sett is present within the local area.

7.4 Assessment

Badger setts are considered to be absent from the site, however, there is considered to be moderate potential for badgers to utilise foraging opportunities within and surrounding the 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 stretches of hedgerow and tree line along the western, eastern, and southern site boundaries do not support the resources that would be required to support dormice. The remainder of the site is considered to be wholly unsuitable for supporting dormice.

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 was recorded.

9.2 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.

9.3 Results

The mature 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 high 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

The managed lawn and hardstanding that dominate the site do not exhibit sufficient cover to support reptiles.

10.4 Assessment

There is considered to be negligible 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 European-protected great crested newt, each waterbody is normally assessed using the Habitat Suitability Index (HSI) system (Oldham et al., 2000) and assigned a grading score between zero (poor suitability) and 1 (excellent suitability).

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 a waterbody and the desktop survey has revealed that no waterbodies are located within 500m of the application site.

11.4 Assessment

Given the absence of waterbodies with suitability for supporting great crested newts within 500m of the application site, there is considered to be negligible potential for great crested newts 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

Limitations were not encountered during the course of the survey.

12.3 Results

The following bird species were recorded within the application site during the course of the survey: chaffinch *Fringilla coelebs*, robin *Erithacus rubecula*, goldfinch *Carduelis carduelis*, blue tit *Cyanistes caeruleus* and great tit *Parus major*. The trees, shrubs and hedgerow within the site provide nesting opportunities.

12.4 Assessment

The hedgerows, shrubs and trees within the site are considered to support nesting opportunities for the species recorded during the survey. Overall, the site is considered to support high 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 Habitats Directive, which is transposed into UK law by 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 EU Directive, and

b) is unlikely to be granted an EPS licence from Natural England to allow the development to proceed under a derogation from the law (under licence).

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

1. the consented operation must be for 'preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment'; (Regulation 53(2)(e))

2. there must be 'no satisfactory alternative' (Regulation 53(9)(a)); and

3. the action authorised 'will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range' (Regulation 53(9)(b)).

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

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

13.2 Designated sites

The application site is located immediately adjacent to Chichester and Langstone Harbours Special Protection Area (SPA), the Chichester and Langstone Harbours Wetland of International Importance under the Ramsar Convention (Ramsar site), the Solent Maritime Special Area of Conservation (SAC) and the Chichester Harbour Site of Special Scientific Interest (SSSI).

The designated sites support a range of habitats and bird species that are vulnerable to impacts arising from development such as disturbance and pollution during the construction and operational phases of a development. As such, the proposals have the potential to impact the abovementioned designated sites.

Regarding the proposed sea wall improvements and property construction, if undertaken between the 1st October and the 31st March, the presence of plant and contractors on site during this period is likely to impact SPA bird species through visual and noise disturbance. 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. However, it is noted that birds frequenting the habitats adjacent to the survey area are generally accustomed to disturbance associated with the residential properties and so a degree of habituation can be expected.

The proposed sea wall improvement works could also impact the designated sites if appropriate pollution prevention measures are not implemented during the construction phase.

The existing property is located 130m from the designated sites and the proposed property is located approximately 70m from the designated sites. At this distance, the proposed demolition and construction works are unlikely to indirectly impact the designated sites through airborne or waterborne pollution.

13.3 Habitats

The main habitats which will be directly impacted are species-poor semi-improved grassland, a mature ash tree and ornamental shrubs and fruit trees. As the vegetation to be removed is managed, 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

The emergence and re-entry surveys have confirmed that the property supports soprano pipistrelle bat day roosts.

The bat mitigation guidelines identify that day roosts used by more widespread species such as those recorded on site are of low conservation status.

The proposal will result in the loss of the identified roosts and works to demolish the building would potentially cause the killing, injury or disturbance to any bats present within roost features when works are undertaken.

The assessment of the roost characteristics, the nature of the development and the conservation status of the roosts which will be impacted by the proposed development has informed a strategy which will avoid, mitigate and compensate for the identified impacts.

13.5 **Badgers**

The site supports moderate suitability for badger. Therefore, impacts to badgers could occur during construction if trenches are left open. Impacts on badgers associated with loss or damage of setts or loss of foraging habitat are not anticipated.

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 foraging or nesting habitat associated with a mature garden.

13.8 **Reptiles**

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

13.9 **Great crested newts**

Impacts on great crested newts not anticipated given the distance of the site from suitable water bodies.

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 Bats

In order to provide robust confirmation on the presence and status of bat roosts 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's standing advice and the BCT Good Practice Guidelines was undertaken of the property.

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

Given the scale of the proposal, further survey is considered unnecessary for understanding impacts on foraging and commuting bats subject to precautionary avoidance measures including a sensitive lighting scheme.

14.2 Badgers

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

14.3 Hazel dormice

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

14.4 Hedgehog

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

14.5 Reptiles

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

14.6 Amphibians

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

14.7 Breeding birds

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

15 Mitigation recommendations

15.1 Designated sites

In order to ensure that adverse effects on the identified designated sites are avoided, the following measures are proposed during the sea wall construction phase:

- The sea wall improvement works will be completed between the period 1st April and 30th September to avoid disturbance to overwintering birds that feed and roost in the area.
- Only materials suitable for use in the marine environment will be used in the construction of the sea wall.
- The key factor in safeguarding against water pollution during the construction phase will be the diligence of the site manager and operatives. Therefore, the site manager and all site operatives should be made aware of the presence of the designated sites and should understand the requirement to ensure that construction works do not encroach into the designated sites beyond the footprint of the sea wall.
- Any temporary site compound set out for the storage of equipment, materials or machinery and cutting or mixing materials associated with the construction works should be located as far from the designated sites as possible and not within 10m of the sea wall. Any temporary compound and all associated construction materials will be removed on completion of the works.
- Any machinery required for the works will be located landward of the sea wall.
- If possible, store fuel and oils off site. If this is not possible then a proprietary bunded storage facility of the smallest practicable size located as far from the designated sites as possible and in all cases at least 10m landward from the high-water line.
- If possible, undertake refuelling off site. If this is not possible refuelling should take place as far from the designated sites as possible on an impermeable surface. In practice this is likely to comprise a hardstand portion of the site.
- A spill kit must be maintained on site.

In order to ensure that adverse effects on the identified designated sites are avoided, the following measures are proposed during the property construction phase:

- A suitable temporary visual screen will be installed along the northern boundary of the construction site between 1st October and the 31st March. This could be herras fencing with dust netting or fencing panels.
- Any temporary site compound set out for the storage of equipment, materials or machinery and cutting or mixing materials associated with the construction works

should be located as far from the designated sites as possible and preferably to the south of the proposed property.

15.2 Bats

15.1.1 *Licensing*

As this work will result in the destruction of bat roosts, an EPSM licence will need to be obtained from Natural England before the proposed demolition works. A licence can be applied for once planning permission has been obtained. Natural England will grant the relevant licence to allow the developer to legally carry out the work that would otherwise be illegal – i.e. to destroy a bat roost and disturb / take bats. Provided the development accords with other national and local planning policy in terms of being an acceptable development that will provide a modern, energy efficient dwelling and helping the Local Authority meet local housing needs, the first two tests should be passed.

The Bat Mitigation Strategy set out below will ensure the development passes the third of the derogation tests, that of maintaining the favourable conservation status of bats.

15.1.2 *Demolition mitigation strategy*

- The destructive search will be carried out during the active season i.e. April to late-October. A toolbox talk will be given to contractors prior to the roof stripping works commencing. The toolbox talk will provide an introduction to the legal protection afforded to bats, the status of bats at the site including likely species and roosting locations, evidence to look out for and the protocol which will be followed if a roosting bat is identified. Appropriate signage will be provided and displayed on site to inform contractors of the required protocol when working where a bat roost has been recorded.

- The destructive search works will be led by a licensed bat worker, accompanied by construction contractors. There will be no disturbance of identified and potential roost features without the supervision of a bat worker. This is because during the proposed tile stripping period bats, if present, may be very difficult to locate and easily be overlooked.

- Immediately prior to the tile and fascia stripping works commencing, inspections of known bat roosting areas and potentially suitable areas will be carried out by a licensed bat worker, using an endoscope where required, to check for the presence of roosting bats.

- All suitable bat roosting features supported by the building will be removed by/under the supervision of the licensed bat worker using hand tools. The works will be carried out from a suitably erected scaffold.

- Any bats which are found during the destructive search works will be captured by the licenced bat worker with the use of thin gloves or a hand net. The bat will immediately be transferred to a holding bag before being placed within one of the previously erected bat boxes within the site grounds. Any injured bats will immediately be taken into care.

- Once the licensed bat worker is satisfied that all features that may provide bat roosting opportunities have been safely removed, the contractors can complete the demolition.
- If a bat is found during unsupervised works, all works will cease and the supervising bat worker will be contacted immediately.

15.1.3 *Provision of new roosting sites*

Two Schwegler 2F bat boxes or similar will be installed on the mature trees located to the south of the existing property to provide compensation for the lost roost features.

In order to limit any effects on foraging and commuting bats and ensure that the proposed mitigation is functional, external lighting to the new dwelling should be limited to only that which is absolutely necessary for safety purposes. The brightness of the lighting should be as low as possible and kept at a low level and directed away from the boundaries of the site and any bat mitigation features. Lighting on sensors should not be so sensitive that foraging bats trigger them.

15.3 **Hedgehogs**

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

- Any leaf litter or garden waste piles will be dismantled by hand in a sensitive and careful manner.
- No bonfires will be made or lit on site.

15.4 **Badgers**

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

15.5 **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. If occupied nests are present then the nest must not be removed, and works around the nest can only recommence once the nest becomes unoccupied of its own accord.

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.

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 open fronted and two hole-entranced nest boxes. These could be installed in suitable locations within the wider site.
- Additional bat roost features which are additional to what is required to mitigate identified impacts will be installed to deliver ecological enhancement. This will likely take the form of wooden Kent bat boxes which will be installed within the site.

17 Conclusion

The extended phase 1 ecological assessment has confirmed that the site supports opportunities for a range of protected species including breeding birds, hedgehog and bats. However, given the scale of the proposal, it is possible to deliver a scheme which avoids impacts on the majority of identified protected and priority species. 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. This survey work has confirmed that the house supports soprano pipistrelle bat day roosts. The proposed demolition will result in the loss of the identified bat roosts. A mitigation strategy has been designed that would provide alternative roosting opportunities within the development. The mitigation strategy also sets out recommended timings and methods and recommends that a European protected species licence is obtained before any works to the property starts.

18 References

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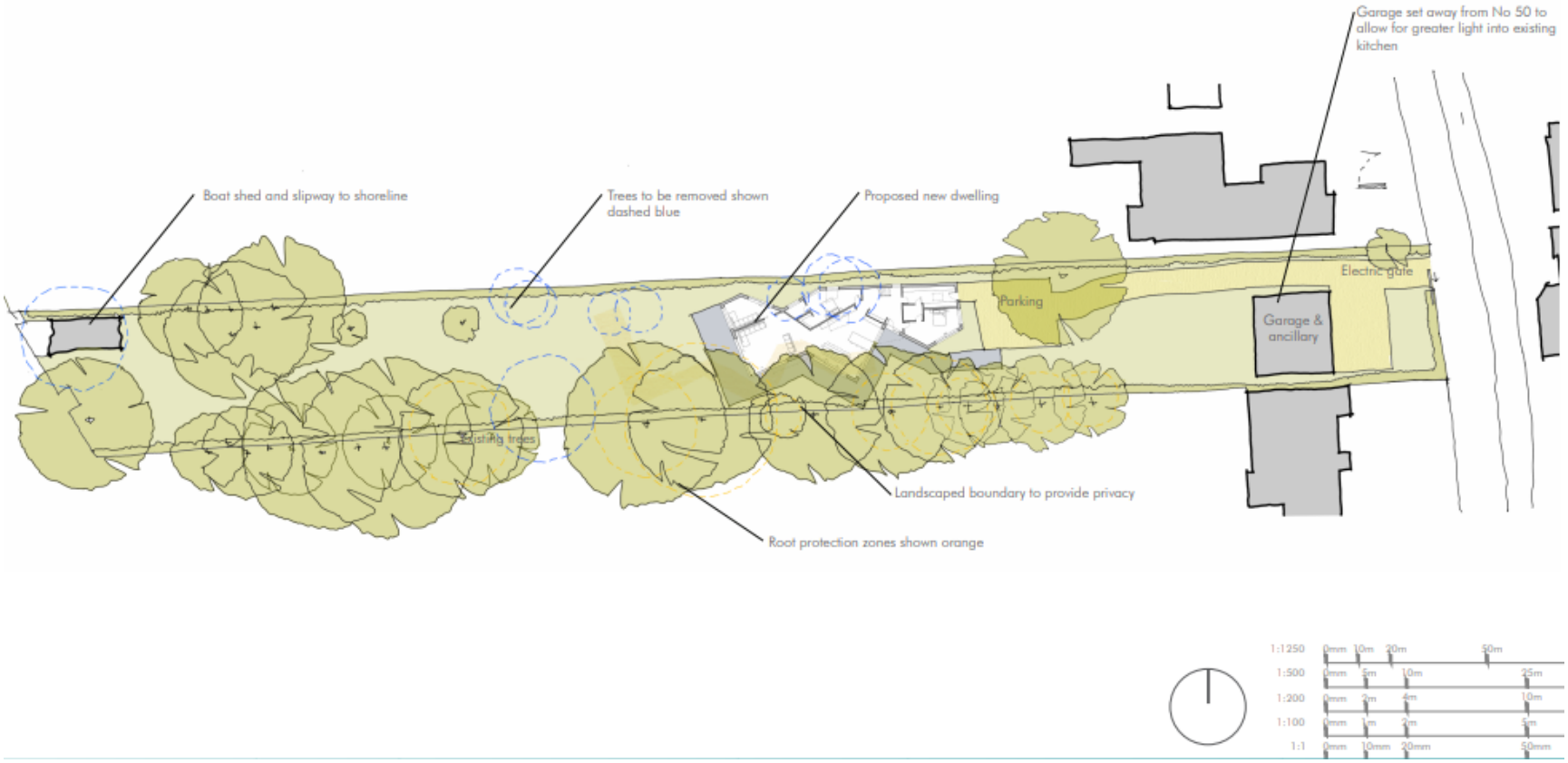
Appendix 1 – Proposed Site Plan



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