

**KANGA WARREN, PYCROFT CLOSE, HAYLING
ISLAND, HAMPSHIRE**

PRELIMINARY ECOLOGICAL APPRAISAL

Final Document

April 2022

Preliminary Ecological Appraisals • Protected Species Surveys and Licensing • NVC • EclA • HRA • Management Plans
Habitats • Badger • Bats • Hazel Dormouse • Birds • Reptiles • Amphibians • Invertebrates • Riparian and Aquatic Species

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The Preliminary Ecological Appraisal has been undertaken with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017). The survey work has been undertaken in line with references within CIEEM's Source of Survey Guidance (CIEEM, 2017).

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HAYLING ISLAND, HAMPSHIRE**

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EXECUTIVE SUMMARY

Ecological Survey and Assessment Ltd (ECOSA) have been appointed by Fiona Dodds to undertake a Preliminary Ecological Appraisal of Kanga Warren, Hayling Island. The purpose of the appraisal is to assess the site's ecological baseline and identify constraints and opportunities associated with development at the site, to inform a future planning application. The site is located within the north of Hayling Island and comprises a residential building and associated garden. The proposals include an extension of the existing building, loft conversion and an extension of the garage.

The main findings of the Preliminary Ecological Appraisal are:

- The site is situated within 600 metres of Chichester and Langstone Harbours Ramsar site, Chichester and Langstone Harbours SPA, Solent Maritime SAC and Chichester Harbour SSSI. The site is adjacent to and within 500 metres fields designated for wintering birds under the Solent Waders and Brent Goose Strategy.
- The site has been assessed as supporting common and widespread habitats with the features of relatively greater ecological interest being the boundary hedgerows.
- The site has been assessed as having suitability to support bats, badger, nesting birds, great crested newt and European hedgehog.
- The development of the site has potential to result in indirect impact on the fields identified by the Solent Waders and Brent Goose Strategy through noise, dust and run-off.
- Recommendations have been made for further survey in respect of roosting bats. A range of recommendations have been made in respect of mitigating/compensating potential impacts as a result of the scheme and opportunities for enhancement have been identified.
- If the planning application boundary changes or the proposals for the site alter, a re-assessment of the scheme in relation to ecology may be required. Given the mobility of animals and the potential for colonisation of the site over time, updating survey work may be required, particularly if development does not commence within 18 months of the date of the most recent relevant survey.

1.0 INTRODUCTION

1.1 Background

Ecological Survey & Assessment Limited (ECOSA) have been appointed by Fiona Dodds to undertake a Preliminary Ecological Appraisal to identify the ecological constraints and opportunities associated with the extension of Kanga Warren, Pycroft Close, Hayling Island, Hampshire PO11 0RZ (hereafter referred to as the site).

1.2 The Site

The site is located within the village of North Hayling, centred on National Grid Reference (NGR) SU 73030 03386 (**Map 1**).

The site consists of a residential building with associated parking and garden. Residential development bounds the site on the eastern and southern elevations. On the western boundary is arable land and a field is present on the northern boundary. As part of the field on the northern boundary there is a drainage ditch.

Within the wider landscape there is predominantly arable land with a stretch of residential development on either side of St Peter's Road. St Peter's Road is one of two roads that lead south from the north of the island and as such is likely used as a main commuting road. There are a number of drainage ditches within the wider landscape, many of which link together.

1.3 Aims and Scope of Report

The information within this report is based on a field survey and desktop study carried out during 3rd March 2022. The objectives of the appraisal are:

- To provide preliminary baseline information on the current habitats, the suitability of the site to support notable and protected species, and evidence of notable and protected species both on site and in the immediate vicinity of the site, where relevant;
- To identify the proximity of any statutory sites designated for nature conservation importance;
- To identify the likely ecological constraints associated with the proposals;
- To identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy'¹;

¹ In accordance with CIEEM Ecological Impact Assessment guidance (CIEEM, 2018) a sequential process is adopted to address impacts on features of ecological interest, with 'Avoidance' prioritised at the top of the hierarchy and 'Compensation/Enhancement' at the bottom. This is often referred to as the 'mitigation hierarchy'.

- To identify any additional surveys that may be required to inform an Ecological Impact Assessment (EclA); and
- To identify the opportunities offered by the proposals to deliver ecological enhancement

1.4 Site Proposals

The proposals include an extension of the existing building on the southern, northern and western elevations with decking on the ground floor. Within the existing house the first floor will be extended by building into the current loft voids and over the new ground floor extension. The existing garage which is located on the eastern boundary will be extended.

The appraisal made reference to an initial proposals plan produced by BLUNN. Architects (Drawing No. P1069-A-ELE-310 and P1069-A-ELE-311) (**Appendix 1**).

It is anticipated that planning permission will be sought during 2022 with construction commencing soon after permission has been granted.

2.0 PLANNING POLICY CONTEXT

2.1 Introduction

This section summarises the planning policy in relation to ecology and biodiversity within the Havant Borough Council administrative area. This information is then used to make necessary recommendations for mitigation and enhancements in order to ensure any future planning application accords with relevant planning policy.

2.2 Planning Policy

2.2.1 National Policy

The National Planning Policy Framework (NPPF) sets out the government's requirements for the planning system in England. The original document was published in 2012 with the most recent revised NPPF published in July 2021. A number of sections of the NPPF are relevant when taking into account development proposals and the environment. As set out within Paragraph 11 of the NPPF "*Plans and decisions should apply a presumption in favour of sustainable development*". However, Paragraph 182 goes on to state that "*The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.*".

The NPPF sets out that development proposals should not only minimise the impacts on biodiversity but also to provide enhancement. Paragraph 174 states that the planning system should contribute to and enhance the natural environment by "*...minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures...*".

A number of principles are set out in Paragraph 180, including that where harm cannot be adequately avoided then it should be mitigated for, or as a last resort, compensated for. Where impacts occur on nationally designated sites, the benefits must clearly outweigh any adverse impact and incorporating biodiversity in and around developments should be encouraged. Specific reference is also made to the protection of irreplaceable habitats², including ancient woodland³. Where loss to irreplaceable habitats occurs planning permission would normally be refused unless there are wholly

² The NPPF defines irreplaceable habitats as "*Habitats which would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity. They include ancient woodland, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen.*"

³ Natural England defines ancient woodland as "An area that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland and plantations on ancient woodland sites (PAWS)."

exceptional reasons and an adequate compensation strategy is in place. Paragraph 180 also states “*development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.*”. Paragraph 181 also sets out that potential SPAs, SACs and listed or proposed Ramsar sites or sites acting as compensation for SPAs, SACs and Ramsar sites, should receive the same protection as habitat sites.

In addition to the NPPF, Circular 06/05 provides guidance on the application of the law relating to planning and nature conservation as it applies in England. Paragraph 98 states “*the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat*”. Paragraph 99 states “*it is essential that the presence or otherwise of a protected species, and the extent that they may be affected by the Proposed Project Development, is established before planning permission is granted*”.

2.2.2 Local Policy

Local planning policy within Havant Borough is provided by the Havant Borough Core Strategy 2011, adopted March 2011. Two policies refer in part to ecology and biodiversity:

- **Policy CS11: Protecting and Enhancing the Special Environment and Heritage of Havant Borough**

This policy refers to protecting and enhancing designated sites and features of ecological interest including wildlife habitats and corridors; and

- **Policy DM9: Development in the Coastal Zone**

This policy states that permissions will only be granted in this zone where it can be demonstrated that there will be no harmful effects on designated sites.

In addition to the Havant Borough Core strategy 2011, The Havant Borough Council local plan (Allocations) 2014 also has weighting in a planning application decision. Two policies refer in part to ecology and biodiversity:

- **Policy DM23: Sites for Brent Geese and Waders.**

This policy refers to protecting sites that are not statutory designations that support Brent Goose and/or waders. With reference to the fact if avoidance and mitigation cannot be met then replacement habitat is required.

- **Policy DM24: Recreational Disturbance to Special Protected Areas (SPAs) from Residential Development.**

This policy references to avoiding or mitigating for recreational pressures of residential development.

Production of an updated Havant Borough Local Plan 2036 has been underway since 2016 and has been sent for examination to the Secretary of State for Housing Communities and Local Government on 12 February 2021. Five policies within the Havant Borough Local Plan 2036 refer specifically to ecology and biodiversity:

- **Policy E14: The Local Ecological Network**

This policy states that developments must result in biodiversity net gain and avoid fragmentation of the Local Ecological Network;

- **Policy E15: Protected Species**

This policy refers to avoiding impacts on protected species and their habitats, with special reference made to Bechstein's bat;

- **Policy E16: Solent Special Protection Areas (SPA)**

This policy refers to protecting SPAs within the Solent and states mitigation measures are required if significant effects on the SPAs are anticipated;

- **Policy E17: Solent Waders and Brent Goose Feeding and Roosting Sites**

This policy refers to protecting sites associated with the Solent Waders and Brent Goose Strategy (SWBGS); and

- **Policy E18: Trees, Hedgerows and Woodland**

This policy refers to protecting important trees, hedgerows and woodland and the successful implementation of landscape and tree planting schemes.

3.0 METHODS

3.1 Introduction

This section details the methods employed during the Preliminary Ecological Appraisal. Any significant limitations to the survey methods are also considered.

3.2 Zone of Influence

To define the total extent of the study area for this appraisal (Zone of Influence⁴), the proposed scheme was reviewed to establish the spatial scale at which ecological features could be affected. The appropriate survey radii for the various elements of the appraisal (i.e., desktop study and field survey) have been defined in the relevant sections below. These distances are determined based on the professional judgement of the ecologist leading the appraisal, taking into account the characteristics of the site subject to appraisal, its surroundings and the nature and scope of the proposals (if known when the appraisal was undertaken). Determination of the Zone of Influence is an iterative process and will be regularly reviewed and amended as the project evolves.

3.3 Scoping

Protected species considered within this appraisal are those species/species groups considered likely to be encountered given the geographical location and context of the site. These are discussed within the results section (Section 4.0) of the current report. Where such a species is unlikely to be present on site a justification for likely absence is provided. Species considered likely absent from the site are not then considered in the potential ecological constraints and mitigation measures section (Section 5.0) of this report.

3.4 Desk Study

3.4.1 Multi-Agency Geographic Information for the Countryside

The Multi-Agency Geographic Information for the Countryside (MAGIC) database (DEFRA, 2022) was reviewed on 4th March 2022 to establish the location of statutory designated sites located within the vicinity of the site. This included a search for all internationally and nationally designated sites such as Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Wetlands of International Importance (Ramsar sites), Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) and Local Nature Reserves (LNRs) within one kilometre of the site. Where appropriate, the desk study search area has been extended to take account of any appropriate statutory designated sites which need consideration in terms of potential in-direct effects and which support particularly mobile species, particularly those specifically mentioned in local planning policy. The Impact Risk Zones (IRZ) were also

⁴ The Zone of Influence, as defined by CIEEM, is the area over which ecological features may be subject to significant effects as a result of the proposed project and associated activities.

obtained from MAGIC, which are used to help guide and assess planning applications for likely effects on SSSIs.

Sites within two kilometre of the site boundary where European Protected Species Mitigation (EPSM) licences have been granted were reviewed. This information allows a greater understanding of the potential for European protected species to be present in the local area.

3.4.2 Other Sources of Information

Online mapping resources, at an appropriate scale, were used to identify the presence of habitats such as woodland blocks, ponds, watercourses and hedgerows, in the vicinity of the site. These habitats may offer resources and connectivity between the site and suitable habitat in the local area, which may be exploited by local species populations.

The presence of ponds or other waterbodies within a 500 metre radius of the site in particular are noted in relation to great crested newt. The 500 metre radius is a standardised search radius to assist in the assessment of the suitability of a site and its surrounding habitat to support this species, based on current Natural England guidance (English Nature, 2001).

3.5 Field Survey

The field survey broadly followed standard Phase 1 habitat survey methodology (JNCC, 2010) and comprised/included a search for evidence of, and an assessment of the site's suitability to support, protected and notable species as recommended by CIEEM (CIEEM, 2017). The field survey covered all accessible areas of the site, including boundary features. Habitats described in Section 4.0, have photographs provided, where relevant.

3.5.1 Phase 1 Habitat

An assessment was made of all areas of vegetation within the site based on the standardised Phase 1 habitat survey methodology (JNCC, 2010)⁵. This involved identification of broad vegetation types, which were then classified against Phase 1 habitat types, where appropriate. A list of characteristic plant species for each vegetation type was compiled and any invasive species⁶ encountered as an incidental result of the survey recorded.

⁵ The standard JNCC Phase 1 habitat survey methodology involves the production of a Phase 1 map showing the location and extent of habitat types, however, given the limited size and complexity of the site surveyed a Phase 1 habitat map has not been produced in this instance.

⁶ Plant species included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). The survey was not specifically aimed at assessing the presence of these species and further specialist advice may need to be sought.

3.5.2 Protected and Notable Species Appraisal

A preliminary appraisal of the site's suitability to support legally protected and notable species was carried out. The following species/species groups were considered during the appraisal.

Bats

The survey conformed to current Bat Conservation Trust guidelines (Collins, 2016). An assessment was made of the suitability of buildings and trees on the site and immediately on the site boundary to support roosting bats based on the presence of Potential Roosting Features such as loose or missing roof tiles or lifted lead flashing for buildings and holes, cracks, splits, loose bark and ivy cladding for trees. A detailed external and internal inspection of accessible structures was undertaken to compile information on potential and actual bat entry/exit points; potential and actual bat roosting locations; any evidence of bats found.

An assessment was made of the suitability of the site and the surrounding landscape to support foraging and/or commuting bat species. The assessment of the suitability of the site to support roosting, foraging and commuting bats is based on a four-point scale as detailed in **Appendix 4**.

Otter

The otter appraisal was based on an assessment of the suitability of the habitat present within the site to support otter by reference to habitat type (such as rivers, streams, ditches, wetlands, reed beds, lakes, ponds and reservoirs), proximity of the site to freshwater and potential important feeding resources (such as fisheries), presence of habitat features which could provide opportunities for resting places and/or holts (such as tunnels, hollows at the base of trees and presence of dense, undisturbed habitat). During the survey attention was paid to the presence of evidence such as spraints, feeding remains, footprints and slides.

Badger

The survey involved an assessment of the suitability of the site to support badger. Evidence of the species was recorded as an incidental result of the Phase 1 habitat survey and included locating badger setts, paths, and signs of territorial activity such as latrine sites.

Hazel Dormouse

The appraisal for the suitability of the site to support hazel dormouse was based on an assessment of habitat features that may indicate that the species is present. This includes the presence of key food sources such as hazel and bramble, or plants used as nesting material such as honeysuckle and clematis. Additionally, the species requires a continuum of food supply so that habitat structure, diversity and connectivity

to adjacent areas of woodland/scrub are important features in determining the suitability of the site for hazel dormouse.

Water Vole

The water vole appraisal was based on an assessment of the suitability of the habitat present within the site to support water vole by reference to habitat type (such as rivers, streams, ditches, wetlands, reed beds, lakes, ponds and reservoirs), bank structure and the bank side vegetation. Water voles generally require sloping banks in which to burrow and well-developed bank side vegetation to provide shelter and food. During the survey attention was paid to the presence of burrows, latrines, feeding remains, trails and footprints.

Birds

The appraisal of breeding birds on the site was based on the suitability of habitat present to support nesting bird communities, the presence of bird species that may potentially nest within the available habitat and evidence of nesting such as old or currently active nests.

The assessment of wintering birds was based on an assessment of the suitability of the habitat on site to support important wintering bird species and populations. Particular attention was paid to the suitability for the site to support wintering farmland bird species, waders and wildfowl.

Reptiles

The reptile appraisal was based on an assessment of the suitability of the habitat present within the site to support a population of reptiles. Reptiles particularly favour scrub and rough grassland interfaces and the presence of these is a good indication that reptiles may be present on site. In addition, reptiles may utilise features such as bare ground for basking, tussocky grassland for shelter and compost heaps and rubble piles for breeding and/or hibernating.

Great Crested Newt

The appraisal of the site to support great crested newt included establishing the presence of suitable aquatic habitats such as ponds, lakes or other waterbodies within or adjacent to the site and the presence of suitable terrestrial habitat. Waterbodies that are densely shaded, highly eutrophic or that contain fish are likely to be less suitable for this species. The suitability of on-site ponds and terrestrial habitat is considered in relation to the presence of ponds within the wider area, as identified within the desktop study (Paragraph 3.4.2), and their suitability to be used as a network.

Invertebrates

An assessment was made of the suitability of the site to support diverse communities of invertebrates. The assessment was based on the presence of habitat features which may support important invertebrate communities. These features include, for example, an abundance of dead wood, the presence of diverse plant communities, varied woodland structure, sunny woodland edges with a diverse flora, waterbodies and water courses and areas of free draining soil exposures. During the field survey there was no attempt made to identify species present as this is a more specialist area of ecological assessment reserved for targeted surveys.

Other Relevant Species

An assessment was made of site suitability for other notable species such as more rarely encountered protected species, Species of Principal Importance for the Conservation of diversity in England notified under Section 41 of the NERC Act 2006 and as listed in the England Biodiversity List, and Local Biodiversity Action Plan (LBAP) species⁷, specific to the study region.

Invasive Species

During the field survey any incidental records of invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were recorded. However, it should be considered that the survey was not specifically aimed at assessing the presence of these species and further specialist advice may need to be sought.

3.6 Field Survey Details

The field survey was carried out by Samantha Faggetter, Ecologist of ECOSA on 3rd March 2022. The weather conditions were dry with approximately 100% cloud cover, an ambient temperature of 13°C and wind speed was under one mile per hour.

During the survey, the surveyor was equipped with a ladder, 10x40 binoculars, and a digital camera.

3.7 Limitations

Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviour. The field survey has therefore not produced a complete list of plants and animals and in the absence of evidence of any particular species should not be taken as conclusive proof that the species is absent or that it will not occur in the future.

⁷ LBAPs identify local priorities for biodiversity conservation by translating national targets for species into effective action at the local level and identifying targets for species important to the local area.

Online mapping resources provide an indication of habitat features present in the wider area, but do not provide a detailed assessment of habitat types.

A full internal search of the loft voids was not possible due to storage blocking access to the eaves of the loft voids and not all of the loft voids being boarded.

4.0 BASELINE ECOLOGICAL CONDITIONS

4.1 Introduction

This section details the results of the Preliminary Ecological Appraisal undertaken for the site. It assesses the baseline ecological conditions of the site at the time the desktop study was completed and based on the ecological features recorded during the field survey.

4.2 Statutory Designated Sites

There are four statutory designated sites of nature conservation interest situated within one kilometre of the site boundary. These are:

- Chichester and Langstone Harbours (Ramsar site) – Located approximately 540 metres, at the closest point, to the east of the site. The Ramsar site is designated for meeting three of the criteria in relation to international importance. The criteria are: Ramsar criterion 1 - Two large estuarine basins linked by the channel which divides Hayling Island from the main Hampshire coastline which includes intertidal mudflats, saltmarsh, sand and shingle spits and sand dunes, Ramsar criterion 5 - Assemblages of international importance which are species with peak counts in winter: 76480 waterfowl (5 year peak mean 1998/99-2002/2003) and Ramsar criterion 6 – species/populations occurring at levels of international importance.
- Chichester and Langstone Harbours (SPA) – Located approximately 540 metres, at the closest point, to the east of the site. The SPA is designated for being a wetland of national importance due to it supporting overwintering populations of birds that are of European importance
- Solent Maritime (SAC) – Located approximately 590 metres, at the closest point, to the north and east of the site. The SAC is designated for Annex I habitats present and for the Annex II species Desmoulin's Whorl Snail *Vertigo moulinsiana*.
- Chichester Harbour (SSSI) – Located approximately 540 metres, at the closest point, to the east of the site. The SSSI is designated for the mosaic of mud, sandflats, pasture fields and woodlands which support a variety of wildfowl and waders.

In addition to the above, the Solent Wader and Brent Goose Strategy (Whitfield, 2020) was also consulted for records of sites which are present within one kilometre of the site boundary. The Solent Wader and Brent Goose Strategy cover sites that provide supporting habitat for species designated as part of the Solent SPAs and Ramsar sites.

The following Solent Wader and Brent Goose Strategy sites were identified as part of this search:

- H60F Candidate site – adjacent to western boundary
- H60E Candidate site – adjacent to northern boundary
- H69D Core area – 145 metres east of the site
- H69B Secondary support site – 210 metres to the north-east of site
- H69E Core area – 230 metres to the south-east of the site
- H65 Core area – 360 metres to the north of the site
- H60D Core area – 370 metres to the west of site

Further details of the statutory designations listed above are provided in **Appendix 2**.

Further information on sites designated for nature conservation are provided in **Appendix 3**.

4.3 Habitats

4.3.1 Desktop Study Results

No notable habitats on or adjacent to site were returned from the desktop study however this does not confirm the absence of notable habitat within the local area.

4.3.2 Field Survey Results

Habitats are described in general terms using standard Phase 1 habitat survey terminology. The main habitats recorded on site during the Phase 1 habitat survey were as follows:

Amenity Grassland

Amenity grassland was present in the north of the site and in patches in the south of the site (**Figure 1**). The grassland shows evidence of regular management most likely through mowing, at the time of survey the sward was approximately three centimetres high. Species present within the habitat include dandelion *Taraxacum officinale* aggregate daisy *Bellis perennis*, dove's-foot crane's-bill *Geranium molle*, ribwort plantain *Plantago lanceolata*, cleavers *Galium aparine*, common nettle *Urtica dioica*, perennial rye-grass *Lolium perenne*, white clover *Trifolium repens*, yarrow *Achillea millefolium*, creeping buttercup *Ranunculus repens*, false oat-grass *Arrhenatherum elatius*, lesser celandine *Ranunculus ficaria*, creeping cinquefoil *Potentilla reptans*, cow parsley *Anthriscus sylvestris*, cock's-foot *Dactylis glomerata*, garden grape-hyacinth

Muscari armeniacum, Spanish bluebell *Hyacinthoides hispanica*, greater periwinkle *Vinca major*, hawkbit *Leontodon* species, sow thistle *Sonchus* species, dock *Rumex* species and crane's-bill *Geranium* species.



Figure 1: Grassland within the southern half of the site

Hedgerows

There are a total of two hedgerows on site, H1 and H2.

Hedgerow H1 is a non-native defunct hedgerow with standard trees and is gappy in nature (**Figure 2**). H1 is located on the western boundary and is approximately one and a half metres high on average by half a metre wide. The hedge is managed, and box cut. Species within the hedgerow included cherry laurel *Prunus laurocerasus*, silver birch *Betula pendula*, hawthorn *Crataegus monogyna*, rhododendron *Rhododendron ponticum*, common nettle, cow parsley, ivy *Hedera helix*, and lords-and-ladies *Arum maculatum*.

Hedgerow H2 is very similar to H1 in terms of management but with no standard trees and is intact (**Figure 3**). H2 is approximately two metres high and half a metre wide and has less gaps than hedgerow H1. Hedgerow H2 forms the eastern boundary of the site. Species present include cleavers, common nettle, cherry laurel, bramble *Rubus fruticosus* aggregate, ivy, rose *Rosa* species and cotoneaster *Cotoneaster* species.

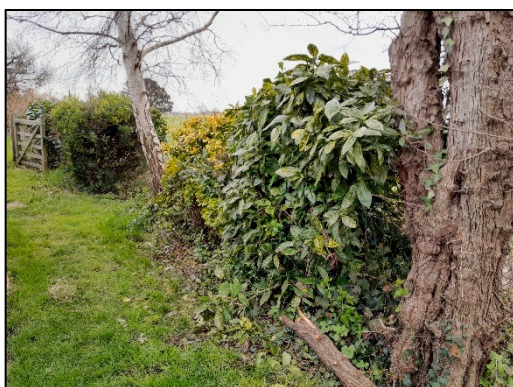


Figure 2: Hedgerow H1



Figure 3: Hedgerow H2

Buildings and Hardstanding

The hardstanding around the building is mostly concrete but at the front of B1 there is gravel. The full details of the building descriptions are provided in in paragraph 4.4.1. Overall, the hardstanding is in good condition with the occasional gap where vegetation is beginning to grow through. Vegetation growing in the gaps includes perennial ryegrass cow parsley, and bittercress *Cardamine* species.

4.3.3 Summary

The habitats within the site are common and widespread. Within the context of the site the hedgerows are of relative ecological value.

4.4 Notable and Legally Protected Species

4.4.1 Bats

Desktop Study Results

The MAGIC search identified the presence of two EPSM licences in respect of bats within two kilometres of the site boundary, both of which were granted for the destruction of a resting place of natters *Myotis nattereri*. One of the licences also included common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared bat *Plecotus auritus*. The nearest of the two was granted approximately 285 metres north of the site in 2010.

Building Assessment

There are a total of three buildings on site, B1 to B3. The results of the building assessment for roosting bats are provided in **Table 1**.

Tree Assessment

No trees on site or adjacent to site were identified as having suitability to support roosting bats. Therefore, tree roosting bats are not considered further in this report.

Foraging and Commuting Habitat

The hedgerows along the eastern and western boundary's provide suitable linear features for foraging and commuting bats. These also connect with a tree line at the northern boundary that extends off site. The site offers low suitability to support foraging and commuting bats.

Table 1: Building Assessment – Summary of Features with Bat Roost Potential and Evidence of Bat Roost Activity

Surveyed Feature	Figure	Building Description	Description of Potential Bat Roost Features	Evidence of Bat Roost Activity and Location	Assessment of Suitability for Roosting Bats
Building B1	 Figure 4: Building B1  Figure 5: Lifted tiles on the roof 	The building is a two-storey red brick residential unit (Figure 4). It is in active use as a family home. There is a multipitch roof with clay tiles and clay ridge tiles. There is a chimney on the western elevation which is in active use with a wood burner. The soffit is constructed of plastic and is in good condition. Internally there are two loft voids. One on the eastern elevation and one on the western elevation that extended as far north and south as the building footprint. Both loft voids are in active use for storage. Both have internal lighting. Lv1 is approximately two and a half metres at the apex by seven metres long by three metres wide (Figure 6). The construction of the void is consists of wooden beams, joists rafters, and pearling's. MDF boarding is used to cover the floor. There is fibreglass insulation on the floor and attached to the walls of the first-floor roof using a plastic mesh. The roof of the void is lined using bitumen felt. Lv2 is approximate two metres high at the highest apex, seven metres long and six metres wide at the widest section (Figure 7). The void is L shaped. The	There are a number of potential roost features for bats including lifted tiles on the roof allow access to the space between the liner and the tiles which could support multiple bats (Figure 5). Lifted tiles were visible on all elevations. The lifted tiles provide crevice opportunities which each could support a bat. Within loft void lv2 there were rips in the liner allowing access into the internal space. One inside the loft void there are crevice opportunities between the wooden beams, behind the matter that has been stored within the void and above the first-floor room. The stuff being storage within the loft void is mostly not piled high leaving space for bats to fly around. During the internal inspection both loft voids were thermally stable. Both are very dark when main light switched off, however day light can be seen where the lining is ripped in lv2.	One potential bat dropping found near the northern elevation in lv2. Where it was darkest. It is only a potential dropping due to there only being one and it having the characteristic crumble response to pressure however that meant it could not be sent off for DNA analysis to confirm that it was a bat dropping.	High suitability

Surveyed Feature	Figure	Building Description	Description of Potential Bat Roost Features	Evidence of Bat Roost Activity and Location	Assessment of Suitability for Roosting Bats
	Figure 6: Loft Void lv1  Figure 7: Loft Void lv2	structure of the void is the same as lv1.			
Building B2	 Figure 8: Building B2  Figure 9: Gap at the eaves of the building	The building is a red brick single storey garage in active use for storage (Figure 8). The roof is a single clay tiled pitch with no liner. The structure of the roof is prefab with wooden beam, rafters and supporting rafters. No insulation is present. There are two doors one is an up and over door and the other is a standard wooden door. The soffit is open having wooden supports and a wooden front but no bottom panel.	Gaps at the eaves allow bats access into the internal space (Figure 9). Once inside bats could use the crevices between wooden structure or at the back of the internal shelf (Figure 10).	No evidence of roosting bats found.	Low Suitability

Surveyed Feature	Figure	Building Description	Description of Potential Bat Roost Features	Evidence of Bat Roost Activity and Location	Assessment of Suitability for Roosting Bats
	 Figure 10: Internal shelf and storage				
Building B3	 Figure 11: Building B3	A wooden shed. Consisting of wooden door and walls. Single sloped roof (Figure 11).	Building is entirely sealed. No gaps found.	No evidence of roosting bats found	Negligible

4.4.2 Otter

Desktop Study Results

No granted EPSM licences in respect of otter *Lutra lutra* were returned within the two kilometres search area on the MAGIC database.

Field Survey Results

The habitat on site is unsuitable for otter and therefore the species is not considered further in this report.

4.4.3 Badger

Field Survey Results

No evidence of badger *Meles meles* was recorded within the site. The site provides suitable habitat for foraging or commuting badger. However, the site was not deemed suitable for sett building due to ground being very level. The adjacent habitat is also suitable support foraging, commuting and also resident badger, it is therefore considered that the species is likely present within the local area and could potentially be on site on occasion entering the site through the hedgerows.

4.4.4 Hazel Dormouse

Desktop Study Results

The MAGIC database search did not identify any granted EPSM licence in respect of hazel dormouse *Muscardinus avellanarius* within two kilometres of the site.

Field Survey Results

The site provides some sub-optimal habitat for hazel dormouse in the form of hedgerows which connect well to mature tree line that extends offsite. The offsite tree line does not connect with any woodland and therefore this habitat is very isolated. The proposals do not include the removal of the hedgerows and therefore any hazel dormice that may be present will not be subject to habitat loss or major disturbance. Therefore, dormice are not anticipated to be adversely affected and are not considered further in this report.

4.4.5 Water Vole

Field Survey Results

No wet streams or ditches were identified on site therefore habitat on site is unsuitable for water vole *Arvicola amphibius* as such, the species is not considered further in this report.

4.4.6 Birds

Field Survey Results

During the field survey blue tit *Cyanistes caeruleus*, jackdaw *Coloeus monedula*, robin *Erithacus rubecula* were recorded. Habitat in the form of trees and hedgerows on site provide suitable habitat to support nesting birds. Also, the gaps in the eaves of building B2 provides access to an internal space where birds could make a nest. Given the location of the site it is likely that wintering birds may use the site on occasion however given the habitats present this will not be a notable or significant abundance of birds.

4.4.7 Reptiles

Field Survey Results

All the grassland on site is mown on a regular basis and is not suitable for foraging or commuting reptiles. Additionally, the adjacent habitat is sub-optimal as such it is unlikely that reptiles will enter the site. It is therefore deemed that the site is unsuitable for reptiles and this species group is not considered further in this report.

4.4.8 Great Crested Newt

Desktop Study Results

The MAGIC search did not identify any granted EPSM licence in respect of great crested newt *Triturus cristatus* within two kilometres of the site.

A review of online aerial photography and 1:25,000 OS mapping did identify two waterbodies within 500 metres of the site boundary. However, these ponds are approximately 300 metres to the north-west of the site and are well separated from the site by a busy commuting road and existing development. A single drainage ditch is adjacent to the site at the northern boundary and there is a network of drainage ditches to the south-west of the site.

Field Survey Results

There are no waterbodies present within the site and therefore there are no breeding opportunities at the site. All the grassland on site is mown on a regular basis as such it is unlikely to support resident great crested newt. Additionally, the adjacent habitat is sub-optimal as it is arable land. Should great crested newt be present in the local area there is a potential they may cross through the site while commuting.

4.4.9 Invertebrates

Field Survey Results

The site supports habitat for a variety of terrestrial invertebrate species in the form of the less intensively grazed areas of grassland, and hedgerows. Similar habitats are

present in the local area. It is likely given the habitat types on site that the invertebrates present are common and widespread species as such this species group is not considered further in this report.

4.4.10 Other Relevant Species

Field Survey Results

The grassland and hedgerows provide suitable foraging and refuge opportunities for west European hedgehog *Erinaceus europaeus* with other suitable habitats such as hedgerows, tree lines and gardens present in the surrounds.

4.5 Summary of Key Ecological Features

The following features are those with greatest ecological value that lie within the site's Zone of Influence:

- Suitability to support roosting bats in buildings;
- Suitability to support nesting birds;
- Suitability to support foraging and commuting badger;
- Suitability to support commuting great crested newt; and
- Suitability to support European hedgehog.

5.0 POTENTIAL ECOLOGICAL CONSTRAINTS AND RECOMMENDATIONS

5.1 Introduction

This section identifies potential constraints to the proposed development scheme based on the key ecological features as identified in Section 4.0 and summarised in Paragraph 4.5. Recommendations are included for mitigation and compensation based on the identified ecological constraints, and opportunities for enhancement are discussed.

5.2 Further Survey

Further ecological survey work will need to be undertaken prior to the submission of any planning application in order to allow the Local Planning Authority to fully assess the potential effects of the proposals on protected species. At this stage, it is therefore not possible to confirm that the proposals for the site meet the requirements of NPPF and Havant Borough Council (refer to Section 2.0). The full detail of mitigation measures cannot be established without the results of more detailed survey work. The results of the additional survey work will be incorporated into an Ecological Impact Assessment (EclA) report, which will provide an updated assessment of the ecological effects of the proposal and detailed mitigation, compensation and enhancement recommendations in light of the survey findings. The more detailed survey work recommended for the site are:

- Bat emergence/re-entry surveys (paragraph 5.5.2)

Details of the survey requirements including survey effort and timings are provided in the relevant sections below.

5.3 Designated Sites

5.3.1 Potential Constraints

There are no statutory designations within or adjacent to the site and the proposals will not result in an increase in recreational pressure on the statutory designations within one kilometre of the site. In addition, the proposals are small in scale and are restricted to plot of land that has already been developed.

As part of the Solent Wader and Brent Goose Strategy the adjacent fields to the west and north of the site are designated as candidate sites. The development has the potential to cause an adverse effect on these fields from disturbance to wintering birds and run off from construction work.

5.3.2 Potential Mitigation and Compensation Measures

It is recommended that a Construction Environment Management Plan (CEMP), with input from an ecologist be prepared and implemented at the site prior to the starting of work at the site. This will include measures such as control of surface run off into the offsite drainage ditches, particularly the one that bounds the site to the north, prevention of dust and spills and safe storage of materials to ensure that no degradation occurs to habitats that are hydrologically linked. As part of the CEMP it will state that all disturbance works will be undertaken outside of the wintering bird period to avoid impacts on wintering birds using the strategic sites.

5.3.3 Enhancement

No enhancement measures in relation to designated sites are recommended.

5.4 Habitats

5.4.1 Potential Constraints

The habitats on site are common and widespread within the surrounding area. The loss of the amenity grassland to the proposals is of minimal ecological significance due to this habitat supporting a widespread and common range of species. The boundary hedgerows while non-native have some ecological value. The hedgerows are to be retained as part of the proposals and therefore do not constitute a constraint on this development.

5.4.2 Mitigation and Compensation Measures

No mitigation and compensation measures are recommended in relation to habitats.

5.4.3 Enhancement Opportunities

There is an enhancement opportunity with hedgerow H1 due to it having a gappy structure. It is recommended this hedgerow be planted with native species in the gaps to improve the hedgerow structure.

5.5 Bats

5.5.1 Potential Constraints

The buildings on site have the potential to support roosting bats and are to be affected as part of the proposals by the partial loss of the loft voids to facilitate the development, as such bats are anticipated to form a constraint to this development.

In England, bats and their habitat are fully protected under the Wildlife and Countryside Act 1981 through inclusion in Schedule 5. In addition, all bat species are protected under the Conservation of Habitats and Species Regulations 2017. Refer to for details.

5.5.2 Further Survey

Due to building B1 having been assessed to be of high suitability and building B2 having been assessed as having low suitability to support roosting bats due to the presence of suitable potential roosting features and the surrounding habitat, further bat emergence/re-entry surveys are required in order to ascertain the presence/ likely absence of roosting bats within the building.

In accordance with the current best practice guidelines (Collins, 2016) for a building assessed as having high suitability to support roosting bats two dusk emergence surveys and a single dawn re-entry survey will be required. Whereas for a building assessed as having low suitability a single dusk emergence or dawn re-entry survey is required. Where the presence of roosting bats is confirmed, the data also allows for an assessment of the status of the roost present. The surveys must be undertaken within the bat survey season (May to September, inclusive) with two of the surveys undertaken during the peak bat survey season (May to August, inclusive). Surveys must be undertaken at least two weeks apart from one another.

The dusk emergence surveys will commence approximately 15 minutes before sunset until approximately two hours after sunset. The dawn re-entry survey will commence approximately two hours before sunrise until 15 minutes after sunrise. Four surveyors will be required in order to provide sufficient coverage of the building, with one surveyor positioned at each corner of the house. Surveyors will be suitably experienced and will be equipped with specialised bat detectors. Upon completion of the surveys, identification of the bats present through bat call analysis can be undertaken to reveal the species utilising the site.

5.5.3 Potential Mitigation and Compensation Measures

The mitigation and compensations measures for roosting bats will be provided on completion of the further surveys. If bats are confirmed to be roosting within Building B1 or B2 during the emergence/re-entry surveys, a Natural England Protected Species Licence would be required prior to the commencement of works. The bat emergence/re-entry survey data would be incorporated into the bat licence application to inform an appropriate mitigation strategy, which would include sensitive timing of works, sensitive working methods and the provision of compensatory roosting features, if required. This may entail the installation of bat access tiles, access to roof void for roosting or creation of crevices for roosting individuals. If bats are recorded roosting within the internal roof void bitumen roofing felt will be required instead of Breathable Roofing Membrane (BRM).

5.5.4 Enhancement Opportunities

Opportunities for enhancement should be tailored accordingly with the results of the bat emergence/re-entry surveys, in order to provide maximum benefit to the species present on site. Enhancement measures could include the provisioning of built-in bat access tiles into the areas of roof replacement or the installation of bat boxes onto suitably mature off-site trees within the wider ownership boundary.

5.6 Badger

5.6.1 Potential Constraints

The removal of grassland habitat at the site has the potential to disrupt badger commuting pathways and foraging opportunities, if present at the site. Badger are protected from killing and injury, and their setts protected from damage and interference, under the Protection of Badgers Act 1992. Refer to **Appendix 5** for details.

5.6.2 Potential Mitigation and Compensation

To mitigate against potentially killing and/or injury a badger during the construction phase it is recommended the following measures are put in place:

- Covering of all excavations over night or providing means of escape so that badgers do not become trapped overnight;
- Any exposed pipes, of more than 150mm diameter, blanked off at the end of each working day; and
- Any open excavations will be checked each morning to ensure no badger has become trapped. Should a badger become trapped then works will stop a means of escape provided and the badger allowed to escape of its own accord.

5.6.3 Enhancement

No enhancement measures are recommended in relation to badger.

5.7 Birds

5.7.1 Potential Constraints

On site there are opportunities for nesting birds in the form of hedgerows and gaps at the eaves of building B2. None of the vegetation will be lost as part of the proposals. However, the proposals include the removal of the roof on building B1 to be replaced with a flat roof. Therefore, nesting birds are considered a constraint to the development. All birds, their nests, eggs and young are legally protected, with certain exceptions, under the Wildlife and Countryside Act 1981. Refer to **Appendix 5** for details.

5.7.2 Potential Mitigation and Compensation Measures

The proposed works, that may cause disturbance to wintering birds, on building B2 should be undertaken outside of the wintering bird season (November to March) to avoid disturbance issues. If works on building B2 take place in breeding bird season (March to August, inclusive) a suitably qualified ecologist should inspect the building immediately prior to the roof removal. Any active nests encountered should be left with an undisturbed five to ten metre buffer area until the chicks have fledged and/or the nest is no longer in use.

To compensated for the loss of suitable nesting habitat integrated bird boxes are recommended to be installed within the extension. The integrated boxes would be installed as high up as possible and placed on a north or north easterly elevation. Alternatively access to suitable featured for nesting birds could be incorporated into the planning application.

5.7.3 Enhancement

For enhancement for nesting birds at the site it is recommended that one bird box be integrated within the proposed extension to building B2. The recommended type of box is Vivara Woodstone Single Chamber House Sparrow Nest Box, or similar. These should be installed as high up as possible on the extension and face north or north-east.

5.8 Great Crested Newt

5.8.1 Potential Constraints

There will be no loss or direct impacts to drainage ditches that may be suitable for great crested newt. In the absence of mitigation, it is possible that offsite suitable great crested newt breeding habitat may become degraded during the construction phase and in the long-term through dust and surface run-off entering the drainage ditches that the site, if carried out during the breeding season of the species which runs from March to June.

In terms of terrestrial habitat, all hedgerow bases are due to be retained and will remain available to great crested newt in the long-term. Access across the site will also remain open to the species due to gaps in deer proof fencing mesh. The amenity grassland and hardstanding not suitable for great crested newt and it is unlikely that individuals will be affected during the construction work.

In England, great crested newt and their habitat are fully protected under the Wildlife and Countryside Act 1981 through inclusion in Schedule 5. In addition, this species is protected under the Conservation of Habitats and Species Regulations 2017. Refer to **Appendix 5** for details.

5.8.2 Potential Mitigation and Compensation Measures

As described in Paragraph 5.3.2, a CEMP will be prepared and implemented on site for the duration of the construction phase. This will include measures such as control of surface run-off into the drainage ditches bounding the fields, prevention of dust and spills and safe storage of materials to ensure that no degradation occurs.

5.8.3 Enhancement

No enhancement measures in relation to great crested newt are required.

5.9 Other Relevant Species

5.9.1 Potential Constraints

European hedgehog has been identified as posing a potential constraint to the development. The loss of the grassland to the proposals is likely to result in a reduction in foraging and commuting resources for this species.

European hedgehog is listed on Schedule 6 of the Wildlife and Countryside Act 1981 which makes it illegal to kill or capture wild hedgehogs with certain methods. It is also a species of 'principal importance' under the NERC Act.

5.9.2 Potential Mitigation and Compensation Measures

The European hedgehog will be mitigated for through the same methods as for badger (see section 5.6.2 above for details)

5.9.3 Enhancement

No enhancement measures in relation to European hedgehog are required.

6.0 CONCLUSION

6.1 Conclusion

The habitats recorded during the field survey are of little to negligible ecological value as such the partial loss of these habitats on site to the proposals is not a significant ecological constraint. The site has been identified as having potential to support roosting bats, badger, birds, great crested newt and European hedgehog. Further surveys in respect of roosting bats have been recommended.

Potential constraints to the development have been identified and possible mitigation and compensation measures have been recommended. It is considered that on completion of the further surveys and that all recommended compensation and mitigation measures are followed then the development has the potential to accord with all relevant Havant Borough Council and national planning policy

6.2 Updating Site Survey

If the planning application boundary changes or the proposals for the site alter, a re-assessment of the scheme in relation to ecology may be required. Given the mobility of animals and the potential for colonisation of the site over time, updating survey work may be required, particularly if development does not commence within 18 months of the date of the most recent relevant survey.

7.0 REFERENCES

CIEEM, 2017. *Chartered Institute of Ecology and Environmental Management Website*.
[Online]

Available at: www.cieem.net

CIEEM, 2017. *Guidelines for Ecological Report Writing*. 2nd ed. Winchester: Chartered Institute of Ecology and Environmental Management.

CIEEM, 2017. *Guidelines for Preliminary Ecological Appraisal*. 2nd ed. Winchester: Chartered Institute of Ecology and Environmental Management.

CIEEM, 2018. *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Winchester: Chartered Institute of Ecology and Environmental Management.

Collins, J., 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 3rd ed. London: Bat Conservation Trust.

DEFRA, 2022. *Multi-Agency Geographic Information for the Countryside (MAGIC) Map Application*. [Online]

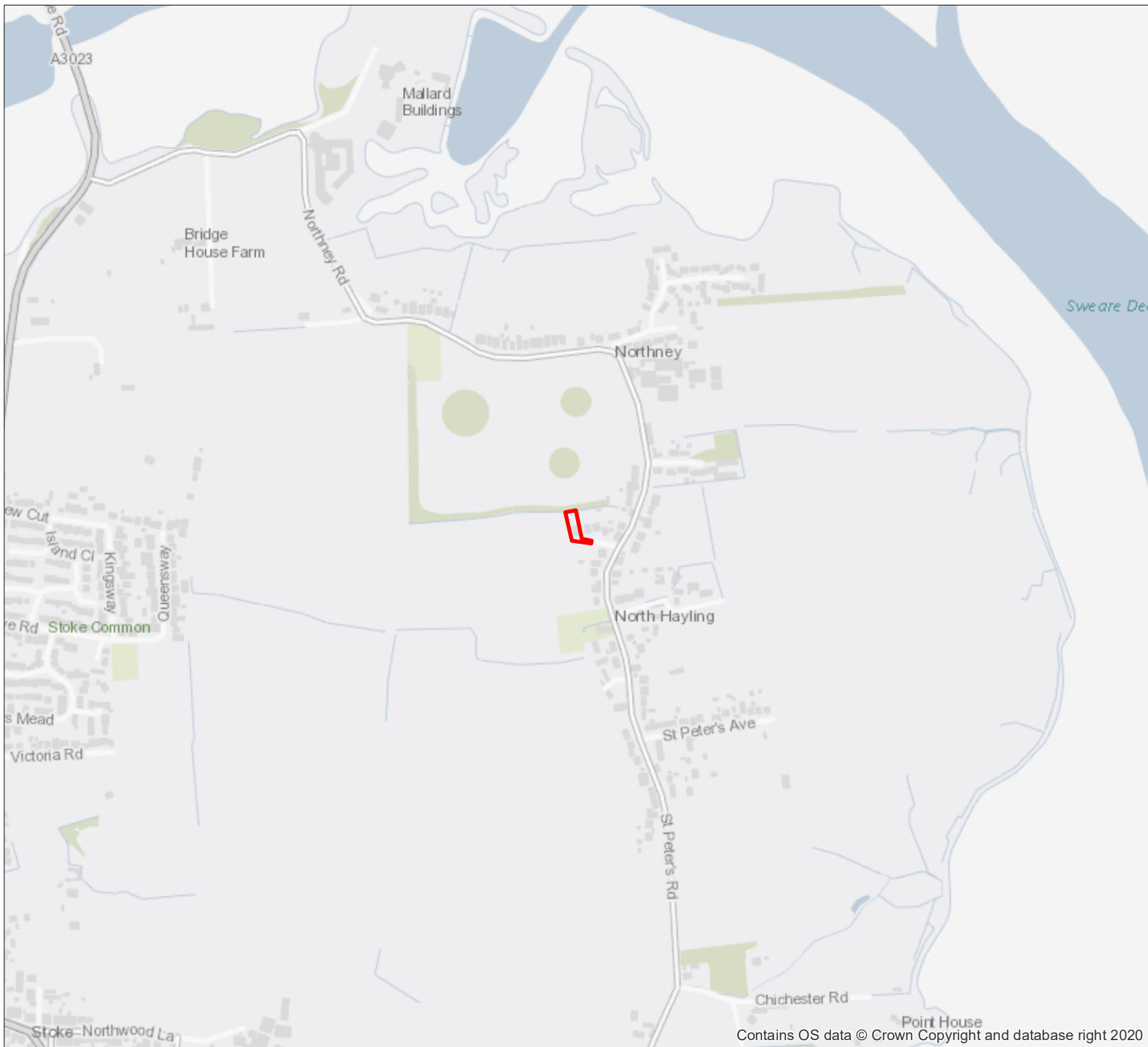
Available at: www.defra.magic.gov.uk

English Nature, 2001. *Great Crested Newt Mitigation Guidelines*. Peterborough: English Nature.

JNCC, 2010. *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. Peterborough: Joint Nature Conservation Committee.

Whitfield, D., 2020. *Solent Waders and Brent Goose Strategy Hampshire and Isle of Wight Wildlife*. Curdridge: s.n.

Map 1 Site Location Plan



KANGA WARREN, PYCROFT CLOSE, HAYLING ISLAND, HAMPSHIRE

PRELIMINARY ECOLOGICAL APPRAISAL

Map 1 - Site Location Plan

Client:	Blunn Architects
Date:	March 2022
Status:	Final

KEY

Site Boundary



Scale at A4: 1:10,000

0 100 200 400 Metres



Prepared by: EV	Date: 150322
Last amended by: N/A	Date: N/A

ECOSA

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Appendix 1 Site Proposals Plan

General Notes

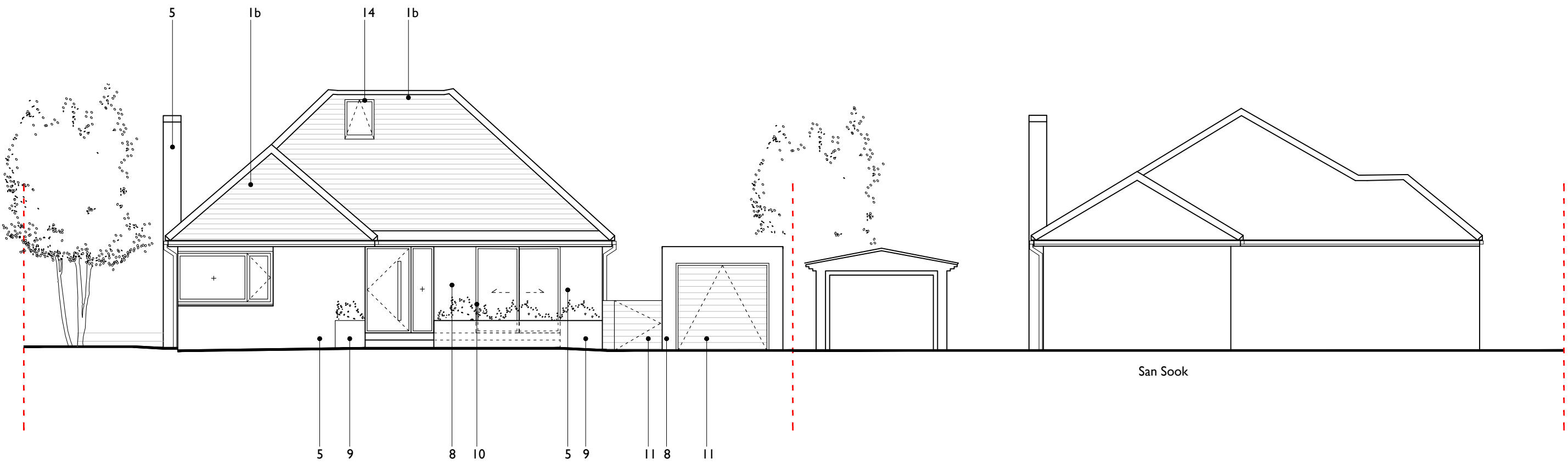
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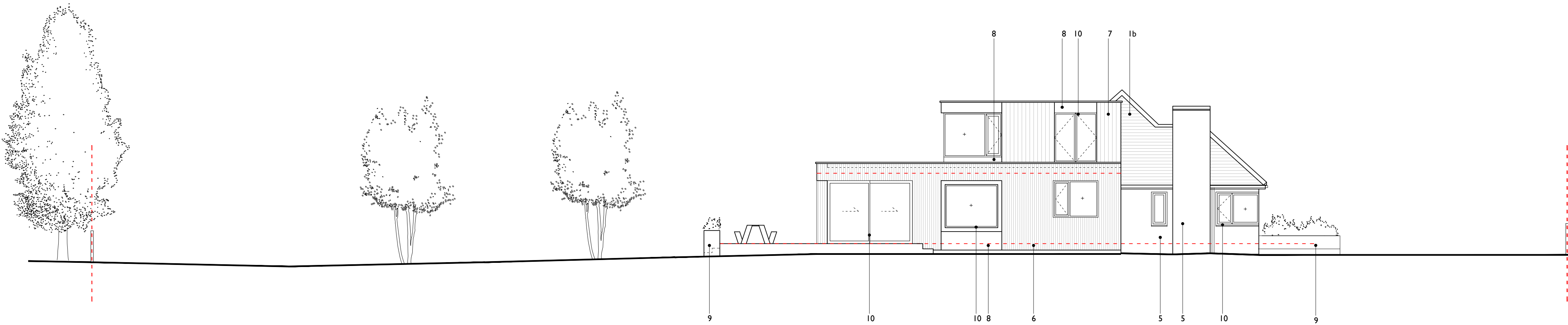
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Notes:

- Key
- 1a existing clay tiles
 - 1b proposed grey tiles
 - 2 red/brown brick
 - 3 PVC windows & doors
 - 4 white painted bargeboard
 - 5 light grey render
 - 6 vertical timber cladding
 - 7 black painted timber battens
 - 8 dark grey PPC aluminium
 - 9 grey brick
 - 10 dark grey aluminium windows & doors
 - 11 timber finish door
 - 12 flat roof
 - 13 proposed clay roof tiles
 - 14 proposed roof light
 - 15 proposed pergola



01 Proposed Front (South) Elevation 1:100



02 Proposed Side (West) Elevation 1:100

FOR PLANNING

Rev	Date	Description	Drawn	Check

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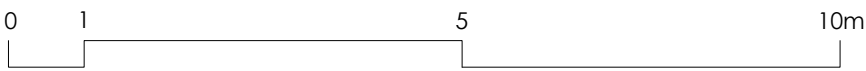
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tel:01962 275835
07977 148516

Kanga Warren
Pycroft Close, Hayling Island

Proposed North and East Elevations
Scale 1:100 @ A1 / 1:200 @ A3

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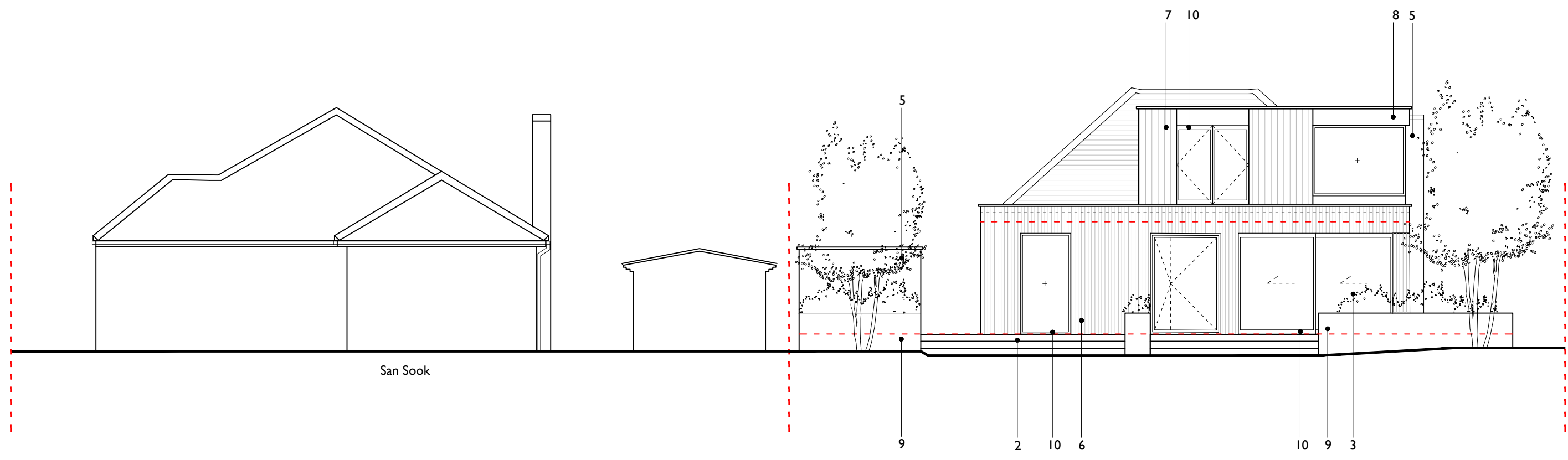
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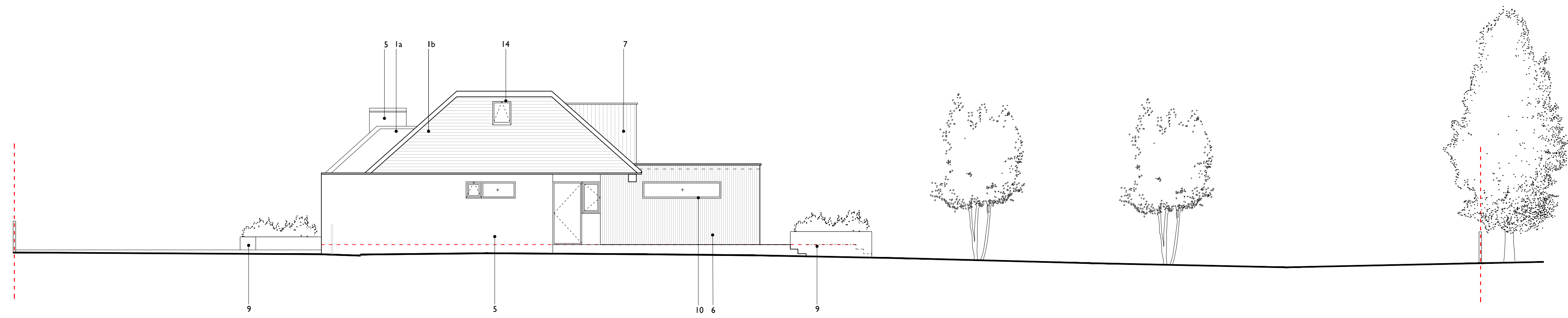
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 - 8 dark grey PPC aluminium
 - 9 grey brick
 - 10 dark grey aluminium windows & doors
 - 11 timber finish door
 - 12 flat roof
 - 13 proposed clay roof tiles
 - 14 proposed roof light
 - 15 proposed pergola

01 Proposed Rear (North) Elevation 1:100



02 Proposed Side (Eat) Elevation 1:100



FOR PLANNING

Rev	Date	Description	Drawn	Check

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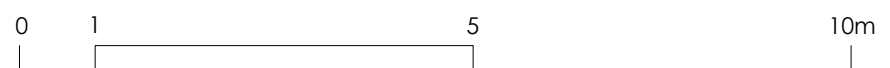
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Kanga Warren
Pycroft Close, Hayling Island

Proposed South and West Elevations
Scale 1:100 @ A1 / 1:200 @ A3

P1069-A-ELE-311



Appendix 2 Statutory Designated Sites within the Desktop Study Area

Details of statutory designated sites within the desktop study area, as listed in Paragraph **Error! Reference source not found.**, are provided in **Table 2**.

Table 2: Statutory Designated Sites Located Within the Desktop Study Area

Site Name	Chichester and Langstone Harbour
Site Designation	Ramsar
Approximate Relative Location	540 metres, at the closest point, to the east of the site
Reasons for Designation:	
This site is designated for meeting: Ramsar criterion 1 - 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. Ramsar criterion 5 - Assemblages of international importance. Species with peak counts in winter: 76480 waterfowl (5 year peak mean 1998/99-2002/2003). Ramsar criterion 6 – species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation) with peak counts in spring/autumn: ▪ Ringed plover <i>Charadrius hiaticula</i>, Europe/Northwest Africa, 853 individuals, representing an average of 1.1% of the population (5 year peak mean 1998/9-2002/3). ▪ Black-tailed godwit <i>Limosa limosa islandica</i>, Iceland/W Europe 906 individuals, representing an average of 2.5% of the population (5 year peak mean 1998/9-2002/3). ▪ Common redshank <i>Tringa totanus totanus</i>, 2577 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3). Species with peak counts in winter: ▪ Dark-bellied brent goose <i>Branta bernicla bernicla</i>, 12987 individuals, representing an average of 6% of the population (5 year peak mean 1998/9-2002/3). ▪ Common shelduck <i>Tadorna tadorna</i>, NW Europe 1468 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3). ▪ Grey plover <i>Pluvialis squatarola</i>, E Atlantic/W Africa -wintering, 3043 individuals, representing an average of 1.2% of the population (5 year peak mean 1998/9-2002/3). ▪ Dunlin <i>Calidris alpina alpina</i>, W Siberia/W Europe, 33436 individuals, representing an average of 2.5% of the population (5 year peak mean 1998/9-2002/3). Species/populations identified subsequent to designation for possible future consideration under criterion 6. Species regularly supported during the breeding season: Little tern <i>Sterna albifrons albifrons</i>, W Europe, 130 apparently occupied nests, representing an average of 1.1% of the breeding population.	
Site Name	Chichester and Langstone Harbours
Site Designation	SPA
Approximate Relative Location	540 metres, at the closest point, to the east of the site

Reasons for Designation:

The site qualifies for supporting the following Annex I species:

Breeding

- Little Tern *Sterna albifrons*, 100 pairs representing up to 4.2% of the breeding population in Great Britain; and
- Sandwich Tern *Sterna sandvicensis*, 158 pairs representing up to 1.1% of the breeding population in Great Britain.

On passage

- Little Egret *Egretta garzetta*, 137 individuals representing up to 17.1% of the population in Great Britain.

Over winter

- Bar-tailed Godwit *Limosa lapponica*, 1,692 individuals representing up to 3.2% of the wintering population in Great Britain; and
- Little Egret *Egretta garzetta*, 100 individuals representing up to 20.0% of the wintering population in Great Britain.

This site also qualifies by supporting populations of European importance of the following migratory species:

On passage

- Ringed Plover *Charadrius hiaticula*, 2,471 individuals representing up to 4.9% of the Europe/Northern Africa - wintering population.

Over winter

- Black-tailed Godwit *Limosa limosa islandica*, 1,003 individuals representing up to 1.4% of the wintering Iceland - breeding population;
- Dark-bellied Brent Goose *Branta bernicla bernicla*, 17,119 individuals representing up to 5.7% of the wintering Western Siberia/Western Europe population;
- Dunlin *Calidris alpina alpina*, 44,294 individuals representing up to 3.2% of the wintering Northern Siberia/Europe/Western Africa population;
- Grey Plover *Pluvialis squatarola*, 3,825 individuals representing up to 2.5% of the wintering Eastern Atlantic - wintering population;
- Redshank *Tringa totanus*, 1,788 individuals representing up to 1.2% of the wintering Eastern Atlantic - wintering population; and
- Ringed Plover *Charadrius hiaticula*, 846 individuals representing up to 1.7% of the wintering Europe/Northern Africa - wintering population.

The site qualifies by regularly supporting in excess of 20,000 individual waterfowl over winter.

Site Name	Solent Maritime
Site Designation	SAC
Approximate Relative Location	590 metres, at the closest point, to the north and east of the site
Reasons for Designation:	
Annex I habitats that are a primary reason for selection of this site	
▪ 1130 Estuaries ▪ 1320 Spartina swards (<i>Spartinion maritimae</i>) ▪ 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	
Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site	
▪ 1110 Sandbanks which are slightly covered by sea water all the time ▪ 1140 Mudflats and sandflats not covered by seawater at low tide	

- 1150 Coastal lagoons * Priority feature
- 1210 Annual vegetation of drift lines
- 1220 Perennial vegetation of stony banks
- 1310 Salicornia and other annuals colonizing mud and sand
- 2120 "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

- 1016 Desmoulin's whorl snail *Vertigo moulinsiana*

Site Name	Chichester Harbour
Site Designation	SSSI
Approximate Relative Location	540 metres, at the closest point, to the east of the site
Reasons for Designation:	
Chichester Harbour is a large estuarine basin in which at low tide 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 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.	

Appendix 3 Sites Designated for Nature Conservation

Statutory Sites

Internationally Designated Sites - Ramsar Sites, Special Areas of Conservation and Special Protection Areas

Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) form a network of protected sites across the European Union and United Kingdom. In the United Kingdom the primary legislative protection is afforded to these sites under the Conservation of Habitats and Species Regulations 2017 (as amended).

Ramsar sites are designated as wetlands of international importance which are afforded similar legislative protection to SPAs and SACs.

SACs are sites which support internationally important habitats or internationally important assemblages or populations of species. SPAs are designated for supporting internationally important populations of birds. SACs, SPAs and Ramsar sites are generally also designated as Sites of Special Scientific Interest.

Under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended) there is a legal requirement that competent authorities, such as local planning authorities, need to consider whether plans or projects are likely to have a significant adverse effect on SPAs, SACs or Ramsar sites, either alone, or in combination with other plans or projects. In the event that a likely significant effect cannot be ruled out, on the basis of objective information, then the competent authority must undertake an “Appropriate Assessment” to fully assess the plan or project against the site’s conservation objectives. Unless certain defined derogation tests can be met, the competent authority may not authorise nor undertake any plan or project which adversely affects the integrity of a SPA, SAC or Ramsar site.

Nationally Designated Sites – Sites of Special Scientific Interest and National Nature Reserves

Sites of Special Scientific Interest (SSSIs) receive legal protection under the Wildlife and Countryside Act 1981 (as amended). Such sites are designated to protect specific areas of biological or geological interest of national importance. Such sites also generally receive strict protection through the planning system.

National Nature Reserves (NNRs) are also usually designated as SSSIs and are specifically managed for their wildlife value. They receive legal protection through the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981 (as amended). As with SSSIs, these sites generally receive strict protection through the planning system.

Locally Designated Sites – Local Nature Reserves

Local Nature Reserves (LNRs) are designated by local authorities under the National Park and Access to the Countryside Act 1949. These are generally designated not only for their local wildlife value but also for education, scientific and recreational purposes. These sites generally receive protection from development through the planning system.

Appendix 4 Appraisal Criteria for Bats

The criteria used to assess the suitability of roosting and foraging/commuting habitat for bats is based on industry guidelines and outlined in **Table 3**⁸.

Table 3: Criteria used to Assess Suitability of Roosting and Foraging/Commuting Habitat for Bats

Suitability	Description of roosting habitats	Commuting and foraging habitats
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	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 trees 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.
Moderate	A structure of tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically/structure that does not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerows or un-vegetated stream, but isolated (i.e. not very well connected to the surrounding landscape by other habitat). Suitable, but isolated, habitat that could be used by small numbers of foraging bats such as a lone tree or a patch of scrub.
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.

⁸ Table adapted from (Collins, 2016)

Appendix 5 Relevant Legislation

Bats

All UK bat species are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017. They are afforded full protection under Section 9(4) of the Act and Regulation 43 of the Regulations. These make it an offence to:

- Deliberately capture, injure or kill any such animal;
- Deliberately disturb any such animal, including in particular any disturbance which is likely:
- To impair its ability to survive, breed, or rear or nurture their young;
- To impair its ability to hibernate or migrate;
- To affect significantly the local distribution or abundance of that species;
- Damage or destroy a breeding site or resting place of any such animal;
- Intentionally or recklessly disturb any of these animals while it is occupying a structure or place that it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any place that any of these animals uses for shelter or protection.

In addition, five British bat species are listed on Annex II of the Habitats Directive. These are:

- Greater horseshoe bat *Rhinolophus ferrumequinum*;
- Lesser horseshoe bat *Rhinolophus hipposideros*;
- Bechstein's bat *Myotis bechsteinii*;
- Barbastelle *Barbastella barbastellus*; and
- Greater mouse-eared bat *Myotis myotis*.

In certain circumstances where these species are found the Directive requires the designation of Special Areas of Conservation (SACs) by EC member states to ensure that their populations are maintained at a favourable conservation status. Outside SACs, the level of legal protection that these species receive is the same as for other bat species.

Great Crested Newt

This species is listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017. They are afforded full protection under Section 9(4) of the Act and Regulation 43 of the Regulations. These make it an offence to:

- Deliberately capture, injure or kill any such animal;
- Deliberately disturb any such animal, including in particular any disturbance which is likely, to impair its ability to survive, breed, or rear or nurture their young, to impair its ability to hibernate or migrate;
- To affect significantly the local distribution or abundance of that species;
- Damage or destroy a breeding site or resting place of any such animal;
- Intentionally or recklessly disturb any of these animals while it is occupying a structure or place that it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any place that any one of these species uses for shelter or protection.

Badger

The Protection of Badgers Act 1992 consolidates previous legislation (including the Badgers Acts 1973 and 1991 Badgers (Further Protection) Act 1991). It makes it an offence to:

- Kill, injure or take a badger;
- Attempt to kill, injure or take a badger; or
- To damage or interfere with a sett.

The 1992 Act defines a badger sett as 'any structure or place which displays signs indicating current use by a badger'.

Breeding Birds

With certain exceptions, all wild birds, their nests and eggs are protected by Section 1 of the Wildlife and Countryside Act 1981 (as amended). Therefore, it is an offence, to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; or
- Intentionally take or destroy the egg of any wild bird.

These offences do not apply to hunting of birds listed in Schedule 2 subject to various controls. Bird species listed on Schedule 1 of the Act receive further protection, thus for these species it is also an offence to:

- Intentionally or recklessly disturb any bird while it is nest building, or is at a nest containing eggs or young; or
- Intentionally or recklessly disturb the dependent young of any such bird.

Species and Habitats of Principal Importance in England

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The England Biodiversity List is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the NERC Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions. There are currently 943 species of principal importance and 41 habitats of principal importance included on the England Biodiversity List.