

Preliminary Ecological Appraisal

**Land at 15 Horndean Road
Emsworth, Hampshire**

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated only dominant species maybe recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

- 1.1 The Ecology Partnership was commissioned by Batchelor Monkhouse to carry out a preliminary ecological appraisal (PEA) of land at 15 Horndean Road, Emsworth, Hampshire, PO10 7PT.
- 1.2 This report presents the results of The Ecology Partnership's surveys in and around the site, which aims specifically to assess the site's potential to support protected species and protected habitats that may be affected by the proposed development. Potential mitigation measures and recommendations for the site are included within this report.
- 1.3 Section 2 of this report sets out the methodologies of the Ecology Partnership's surveys. In section 3, the results of the surveys are presented. Discussions and implications for development are found in section 4, including general site enhancements. Conclusions drawn from the report are presented in section 5.

Site Context and Status

- 1.4 The site is situated on land adjacent to 15 Horndean Road in Emsworth, Hampshire (SU 74581 06811). The site covers approximately 0.05ha and consists of the garden of 15 Horndean Road with grassland, scattered trees and hedgerows. The surrounding area consists of high-density housing, agricultural land and woodland. There is an SINC located adjacent to the site (on the western border) and numerous designated sites in the wider landscape.
- 1.5 The aerial photograph below (Figure 1) shows the site and its immediate surroundings. The red line depicts the approximate site boundary and survey area.

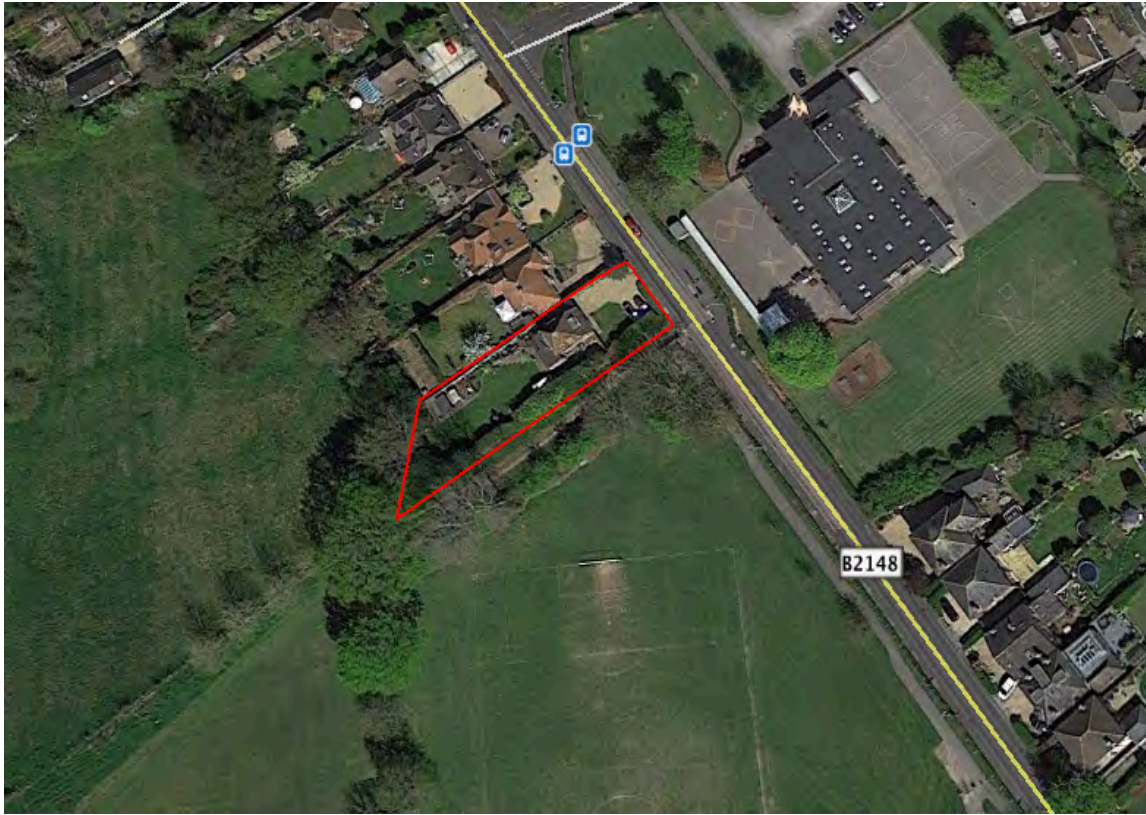


Figure 1: Approximate location of the red line boundary

Description of Proposed Development

- 1.6 The proposals to build a new dwelling within the garden of 15 Horndean Road with access adjacent to the existing house. The final plans will be informed by a number of surveys, of which ecology is one.

Planning Policies

- 1.7 National and local planning policies may have an effect on the proposed development. The following paragraphs identify relevant planning policies and discuss these in the context of the site.
- 1.8 Under the Natural Environment and Rural Communities (NERC) Act (2006), *“Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”*. In order to

comply with this 'Biodiversity Duty', planning decisions must ensure that they adequately consider the potential ecological impacts of a proposed development.

1.9 In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principle importance for conserving biodiversity. These were known as BAP habitats and species. The UK BAP lists of priority species and habitats remain an important and valuable reference certainly at county levels. However, the UK Post 2010 Biodiversity Framework (published 2012) has succeeded BAP. It was produced by JNCC and Defra, on behalf of the Four Countries' Biodiversity Group (4CBG), through which the environment departments of all four governments in the UK work together to achieve the 'Aichi Biodiversity Targets' and the aims of the EU biodiversity strategy.

1.10 National policy guidance is provided by National Planning Policy Framework (NPPF), which sets out the Government's planning policies for England and how they should be applied. Section 11 of the document is entitled 'Conserving and Enhancing the Natural Environment'. This section highlights the following:

"The planning system should contribute to and enhance the natural and local environment by:

- *Protecting and enhancing valued landscapes, geological conservation interests and soils;*
- *Recognising the wider benefits of ecosystem services;*
- *Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures."*

1.11 In addition to this, the following paragraphs are also considered to be relevant:

"In preparing plans to meet development needs, the aim should be to minimise pollution and other adverse effects on the local and natural environment. Plans should allocate land with the least environmental or amenity value, where consistent with other policies in this Framework."

“Planning policies and decisions should encourage the effective use of land by re-using land that has been previously developed (brownfield land), provided that it is not of high environmental value. Local planning authorities may continue to consider the case for setting a locally appropriate target for the use of brownfield land.”

- 1.12 The site falls under the jurisdiction of Havant Borough Council. The Core Strategy (2011) as part of the Adopted Local Plan (2036) contains policies relating to nature conservation:

Policy CS11 – Protecting and Enhancing the Special Environment and Heritage of Havant Borough

“Planning permission will be granted for development that:

... 2. Protects and where possible enhances the borough’s statutory and non-statutory designated landscape, habitats and features of biological, hydrological or geological interest. Protection and enhancement will be achieved by appropriate adaptation and mitigation measures including wardening, education and information and the creation of new habitats, water bodies/courses planting of new trees and woodland.

3. Has particular regard to the following hierarchy of nature conservation designations within the borough (as identified on the Proposals Map):

(i) Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar [International].

(ii) Sites of Special Scientific Interest (SSSI) and National Nature Reserves [National].

(iii) Sites of Importance for Nature Conservation (SINC), Local Nature Reserves (LNR), other Ancient Woodland not identified in (ii) above [Local].

... 5. Supports an ongoing programme of survey of habitats and species and designation of Sites of Importance for Nature Conservation.

6. Incorporates partnership working with conservation organisations to improve public understanding of biodiversity and to manage public access to designated sites, particularly on the coast, to reduce harm to nature conservation interests.

7. Incorporates partnership working with landowners and developers to ensure land management practices restore, enhance and where appropriate create new valued landscapes, habitats and their

soil structure, particularly the ancient woodland remnants of the Forest of Bere and coastal salt marsh.

8. Protecting wildlife habitats and wildlife corridors to prevent the fragmentation of existing habitats and to allow species, for example Brent Geese, to respond to the impacts of climate change by making provision for habitat adaptation e.g. coastal managed realignment and species migration..."

Policy CS13 – Green Infrastructure

"Development will be permitted that:

- 1. Maintains and manages the network of green infrastructure identified at the sub-regional and local levels.*
- 2. Incorporates, where appropriate, improvements to existing green infrastructure through the restoration, enhancement or creation of additional resources.*
- 3. Does not undermine the functional integrity of the green infrastructure.*
- 4. Creates, where appropriate, new green infrastructure (including access management measures) either through on site provision or financial contributions.*

Development proposals that adversely affect green infrastructure will not be permitted unless superior alternative provision can be provided or where it is part of a service provider's plans to provide improved local services in equally accessible locations."

- 1.13 The site was surveyed to assess its ecological value and to ensure compliance with national and local plan policies. The report has been produced with reference to current guidelines for preliminary ecological appraisal (CIEEM 2013) and in accordance with BS 42020:2013 Biodiversity – Code of Practice for Planning and Development.

2.0 Methodology

Desktop Study

- 2.1 A desktop study search was completed using an internet-based mapping service (www.magic.gov.uk) for statutory designated sites and an internet-based aerial mapping

service (maps.google.co.uk) was used to understand the habitats present in and around the survey area and habitat linkages and features (ponds, woodlands etc.) within the wider landscape. Records for the site and local area (up to 2km) were purchased from the Hampshire Biodiversity Information Centre.

Preliminary Ecological Appraisal

- 2.2 An extended preliminary ecological appraisal was undertaken on 19th May 2017 by ecologist Alexia Tamblyn MA (Oxon) MSc CEnv MCIEEM FRGS. The surveyor identified the habitats present following the standard 'Phase 1 habitat survey' auditing method developed by the Joint Nature Conservancy Council (JNCC). The site was surveyed on foot and the existing habitats and land uses were recorded on an appropriately scaled map (JNCC 2010). In addition, the dominant plant species in each habitat were recorded, as was any evidence of protected species.

Badger Survey

- 2.3 A badger survey was undertaken at the site to assess if badgers were using the area and if any setts were located on the site and 30m away from the site that might constrain development. The evaluation of badger activity was based on methodology developed for the National Survey of Badgers (Creswell *et al.* 1990) and includes searching for badger field signs such as setts, badger pathways, tracks (pawprints), dung piles with latrines, badger hairs and feeding signs such as snuffle holes.
- 2.4 During the survey, all habitats potentially suitable for badgers were systematically examined for evidence of badger activity including:
- Setts: several sett types may be present within a social group territory, ranging from a single hole to numerous interconnecting tunnels. Setts can be categorised into main, annexe, subsidiary and outlier (Wilson *et al.* 1997).
 - Latrine sites: badgers characteristically deposit dung in pits, which may be located along the boundaries and within the social group territory. These sites serve as means of inter- and intra-group communication.

- Paths and runs: well used routes between setts and/or foraging areas. Often used by generations of badgers.
- Snuffle holes: areas of disturbed vegetation often formed by badgers foraging for ground dwelling invertebrates such as earthworms and larvae and the underground storage organs of plants.
- Hair: often found among spoil and bedding outside entrances to setts or snagged on fences (such as barbwire) along well-used runs.
- Footprints: easily distinguishable from other large mammal species. Often found along paths and runs or in spoil outside sett entrances.

Tree Assessment for Bats

2.5 The trees on site were assessed for their potential to support roosting bats. Bats can use trees to rest, give birth, raise young and/or hibernate. The trees were assessed visually for evidence of bats as well as for features that increase the likelihood of roosting bats, such as the following:

- Woodpecker holes, natural cracks and rot holes in trunks and branches;
- Frost cracks;
- Trunk and branch splits;
- Hollow sections of trunk and branches;
- Loose bark;
- Cavities beneath old root buttresses and coppice stools;
- Dense epicormic growth;
- Dense ivy cover.

2.6 Veteran trees typically exhibit many of these features and should usually be regarded as sites with clear potential, but any tree possessing one or more such feature, may host bats. Any tree species can be suitable but oak and beech often seem to be the preferred options. However, bats rarely restrict themselves to one tree. They change their roost sites frequently, sometimes every two to three days, looking for small differences in temperature and humidity.

2.7 Roosts of bats in trees may be identified from the following field signs:

- Black stains beneath cracks, splits and other features where bat droppings have fallen;
- Dark marks at entrance points where bats have rubbed against the wood and left natural body oils;
- Feeding remains beneath roosts, such as insect wings;
- Chattering of bats;
- Bat droppings under access points;
- Scratch marks around a feature (cavity or split) caused by bat claws;
- Urine stains below the entrance or end of split;
- Large roosts or regularly used sites may produce an odour;
- Flies around the entrance, attracted by the smell of guano.

2.8 Trees scheduled for arboricultural work should also be assessed, and may be categorised to relate the value of their features to recommended actions (Table 1). This approach allows trees to be graded according to their potential to support bat roosts. Trees may be assessed as having the potential to support bats (from an individual to a larger roost) even if no bats have been found.

Table 1: Protocol for visual inspection of trees to assess their value to bats - taken from Table 4.1 within the 'Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edition' (Bat Conservation Trust 2016)

Suitability	Roosting habitat description
Negligible	Negligible habitat features on-site likely to be used by roosting bats.
Low	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A 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.
High	A 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.

Habitat Suitability for Reptiles

2.9 Habitat surveys were carried out to assess the potential of the site to hold populations of reptile species. This involved looking for the presence of factors that would increase the suitability of the site for reptiles such as:

- Scrub and grassland (long sward) mosaic across the site;
- Features that can be potential hibernation sites for common reptiles such as log piles;
- Grass tussocks within the grassland that can act as shelter and burrowing sites;
- Water bodies or damp places on site (grass snakes);
- Compost heaps or decaying vegetation (slow worms);
- Features that can act as refugia on the ground such as disused roofing felt.

Other Protected Species

2.10 The site was also inspected for indications of the presence of other protected species, as follows:

- Relevant habitat for dormice such as dense deciduous woodland, coppice and thick shrubbery
- Ponds and associated habitat suitable to support great crested newts
- The presence of ditches for water voles
- The presence of fresh water stream/rivers for otters
- Suitable nesting places for birds
- Other potential protected species

Limitations

2.11 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment. The site was visited over the period of one site visit, as such seasonal variations cannot be observed and potentially only a selection of all species that potentially occur within the site have been recorded. Therefore, the survey provides a general assessment of potential nature conservation value of the site and does not include a definitive plant species list.

- 2.12 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on site, based on the suitability of the habitat and any direct evidence on site. It should not be taken as providing a full and definitive survey of any protected species group. The assessment is only valid for the time when the survey was carried out. Additional surveys may be recommended if, on the basis of this assessment, it is considered reasonably likely that protected species may be present.

3.0 Results

Desktop Study

- 3.1 The site does not fall within or adjacent to any statutory designated areas but there are four within 2km of the site. These are:
- Brooks Meadow (Emsworth) Local Nature Reserve (LNR) approximately 700m southeast;
 - Chichester and Langstone Harbours Special Protection Area (SPA) and Ramsar approximately 1.3km south;
 - Solent Maritime Special Area of Conservation (SAC) approximately 1.3km south.
- 3.2 In terms of non-statutory designations, there are numerous SINCs within 2km of the site. However, there are two SINCS which lie within the immediate area of the site. These are:
- Land West of Emsworth Recreation Ground which is located adjacent to the western border of the site. This site has been designated for its semi-improved grasslands which retain a significant element of unimproved grassland.
 - Stream West of Emsworth Recreation Ground, which is linked to the above SINC. This habitat has been designated due to the presence of *Alisma lanceolatum* (Narrow-Leaved Water-Plantain) which is considered to be a notable species.
- 3.3 There are numerous priority habitats within 2km of the site, including ancient woodland, saltmarsh, lagoons and marshland (Figure 2). The closest of these to site is priority deciduous woodland approximately 400m south and marshland approximately

550m southeast. The agricultural habitats located to the east of the site are considered within the Wader and Brent Geese strategy, although surveyed in 2010 no positive results for these species were recorded.

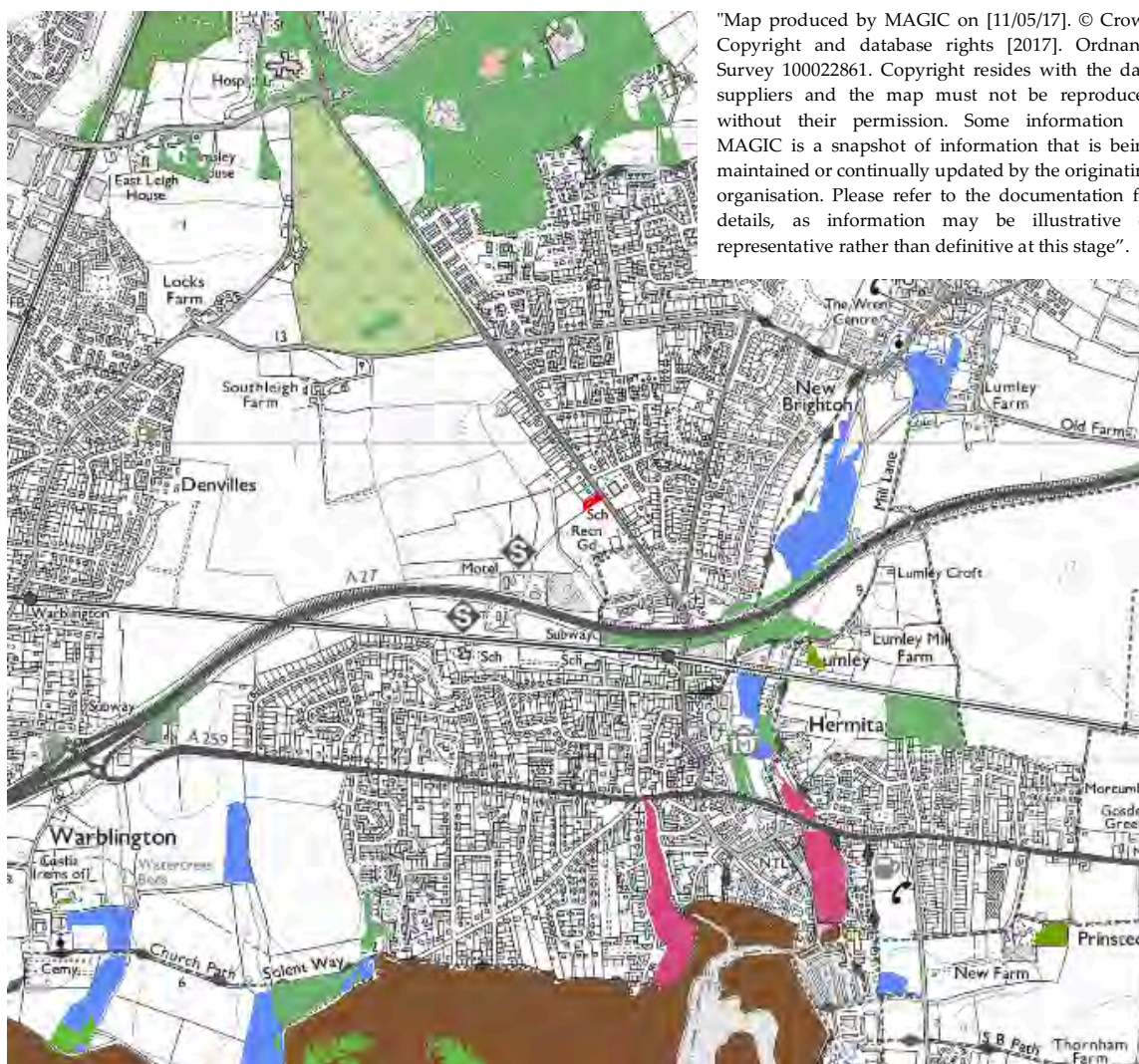


Figure 2: Important habitats within 2km of the red line boundary

[Priority deciduous (dark green), ancient woodland (brown hatches), parkland and woodpasture (tree symbol), coastal and floodplain grazing marsh (blue), saline lagoons (pink), mudflats (brown), coastal saltmarsh (light green)]

- 3.4 Satellite imagery revealed no ponds on site or within 250m of the red line boundary.
- 3.5 A 2km radius data search was requested from the Hampshire Biodiversity Information Centre. Notable protected species from this search are outlined below (Table 2). Only records from within the last ten years and those closest to site have been included.

- 3.6 Numerous records for birds are present within 2km of the site. However, the majority of the bird species were recorded at Elmsworth Harbour and Warblington Castle Farm. Other bird species were recorded within Brook Meadow, a LNR located to the south east of the site. The majority of the bird species recorded in the harbour habitats are unlikely to be present within a garden habitats.

Table 2: Notable species recorded within 2km of site over the last 10 years

Species	Status	Nearest Record	Record year
Slow Worm <i>Anguis fragilis</i>	Wildlife and Countryside Act (1981 as amended) Schedule 5; NERC Act (2006) Section 41; Bern Convention Appendix 3	Approximately 750m SW (Brook Meadows)	2016
Common toad <i>Bufo bufo</i>	NERC Act (2006);	Approximately 750m SW (Brook Meadows)	2016
Water vole <i>Arvicola amphibius</i>	Wildlife and Countryside Act (1981 as amended) Schedule 5; NERC Act (2006) Section 41; Bern Convention Appendix 3	Approximately 850m SW (Brook Meadows)	2009
Western European Hedgehog <i>Erinaceus europaeus</i>	NERC Act (2006); Bern Convention Appendix 3	Approximately 1km S	2015
Eurasian Badger <i>Meles meles</i>	Protection of Badgers Act (1992); Bern Convention Appendix 3	Within 2km	2006
Serotine <i>Eptesicus serotinus</i>	Conservation of Habitats and Species Regulations (2010) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	Within 200m	2015
Bechstein's bat <i>Myotis bechsteinii</i>	As above	800m NE	2009
Brandt's bat <i>Myotis brandtii</i>	As above	1.2km S	2007
Daubenton's Bat <i>Myotis daubentonii</i>	As above	Approximately 850m SW (Brook Meadows)	2016

Whiskered bat <i>Myotis mystacinus</i>	As above	1.7km NE	2009
Natterer's bat <i>Myotis nattereri</i>	As above	1.7km NE	2009
Leisler's <i>Nyctalus leisleri</i>	As above	1.6km N	2013
Noctule <i>Nyctalus noctula</i>	As above	Within 500m	2016
Common Pipistrelle <i>Pipistrellus pipistrellus</i>	As above	Within 200m	2015
Soprano Pipistrelle <i>Pipistrellus pygmaeus</i>	As above	Within 200m	2015
Brown long eared bat <i>Plecotus auritus</i>	As above	Within 400m	2013

Phase 1 Habitat Survey

- 3.7 The site was supported several differing habitat types including well managed lawn, ornamental planting along the borders of the site and within a small island, a hedgerow and areas of hardstanding and several shed structures.

Neutral amenity grassland

- 3.8 A large proportion of the rear garden supported a well mown lawn. The lawn was comprised of Yorkshire fog (*Holcus lanatus*), perennial rye grass (*Lolium perenne*), daisy (*Bellis perennis*), yarrow (*Achillea millefolium*) and dandelion (*Taraxacum agg*) with patches of moss.

Ornamental Planting/ Garden Planting

- 3.9 Along the edges of the rear garden supported a range of ornamental species including ceanothus species, heather (*Calluna vulgaris*), rhododendron (*Rhododendron ponticum*), hebe species, mint (*Mentha sp*), cherry (*Prunus avium*), oak (*Quercus sp*) with species such

as herb Robert (*Geranium robertianum*), ivy (*Hedera helix*) bindweed (*Calystegia sepium*), nettles (*Urtica dioica*), lords and ladies (*Arum maculatum*), and honesty (*Lunaria annua*) present.

- 3.10 The front garden supports largely a gravel frontage with small pockets of ruderal edges supporting spices such as bluebells (*Hyacinthoides* sp), ragwort (*Senecio jacobaea*), lords and ladies, ivy, rose, cleavers (*Galium aparine*), thistles with a variegated holly (*Ilex aquifolium* 'variagata') tree located on the north eastern corner of the front of the site.

Hedgerows and scattered trees

- 3.11 One hedgerow extended along southern border of the site, which lies adjacent to an access track and field system. This hedgerow included species such as; cherry laurel (*Prunus laurocerasus*), cypress trees, cotoneaster, elder (*Sambucus nigra*), ivy, holly (*Ilex aquifolium*), dogwood (*Cornus sanguinea*), with wood avens (*Geum urbanum*), creeping thistle (*Cirsium arvense*), cow parsley (*Anthriscus sylvestris*), lords and ladies, dandelion, bramble (*Rubus fruticosus*) and common nettles present within and adjacent to the feature. Several poplars (*Populus* sp) had been removed and their ivy covered trunks were located within the hedgerow. Several small poplar trees were recorded on the access track side of the hedgerow.
- 3.12 A small ornamental hedgerow was located on the eastern side of the site, adjacent to Horndean Road. This was a small and well managed hedge of cypress trees with some rose species present.
- 3.13 Several large mature oak trees are located on the very southwestern aspect of the site. It is likely that these trees are outside the red line boundary, however, these should be considered within the design of the scheme as their root systems would be far reaching.

Wood Pile / Compost Heap

- 3.14 The rear garden supported a single shed, a green house and one covered log pile (with tarpaulin) and another stacked area of logs on the northern side of the rear garden. A compost heap was located on the very south western aspect of the site.

Protected Species

Bats

- 3.15 All the trees on site were restricted to the boundaries of the site and many were considered to be immature and therefore lacking the potential to support complex growth forms, cracks and crevices, which are traditionally associated with roosting bats. The poplars which had been largely reduced to the main trunk supported a light covering of ivy, however, no obvious features which bats could exploit were recorded. The oak trees located to the far south western section of the site also supported a light covering of ivy. These were mature oaks and therefore considered to have 'low' potential to support roosting bats.
- 3.16 There were no buildings on site which were considered suitable for roosting bats. The main house will remain in situ and will not be impacted by the proposed development.
- 3.17 The linear features on site, including the hedgerow along the southern aspect of the site, may provide foraging opportunities for bats in the local area. This feature also provides connectivity into the wider landscape.

Other Species

- 3.18 There are no ponds on site or ponds recorded within 250m of the site boundaries (as reviewed from OS Maps and from aerial imagery). The habitats on site were largely considered to be sub optimal for species such as great crested newt to the well managed garden habitat.
- 3.19 The habitats within the red line boundary were not considered suitable for reptiles. The mown grass habitat was considered to have negligible potential to support reptiles. The log piles which are generally covered, could provide some opportunities for a range of common reptiles. The compost heap could provide some opportunities for common species such as slow worm.

- 3.20 There were no badger setts on site and no evidence of badgers using the site, such as foraging signs or badger paths.
- 3.21 The trees, hedgerows and shrubs on site have the potential to support nesting birds.
- 3.22 One of the poplar trunks appeared to support an active bees nest, with bees noted during the survey.
- 3.23 The habitats on site were not considered suitable for a range of species such as dormice, water voles or otters.

4.0 Discussion

Site

- 4.1 The site does not fall within or adjacent to any statutory or non-statutory designations. However, the site is located within 2km of Chichester Harbour SSSI, Chichester and Langstone Harbours Ramsar, Solent Maritime SAC and Chichester and Langstone Harbours SPA.
- 4.2 The EU Habitats Directive requires that any project which may have a significant effect or impact (either alone or in combination with other plans or projects) on the integrity of one or more European site(s), and which is not necessary for the management of the site, must be subject to a process of Habitat Regulations Appraisal (HRA).
- 4.3 European Sites, in this context, include Special Areas of Conservation (SACs) and Sites of Community Importance (SCIs) designated under the Habitats Directive (92/43/EEC) and Special Protection Areas (SPAs) designated under Council Directive (2009/147/EC) on the conservation of wild birds (the 'Birds Directive'). In addition, Ramsar sites (internationally important wetlands designated under the Ramsar Convention 1971) are to be subject to the same process.

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- 4.4 In the UK, the Conservation of Habitats and Species Regulations 2010 (as amended) (the 'Habitats Regulations') transpose the requirements of the EU Habitats Directive into domestic UK law. The Regulations aim to protect sites in the UK that have rare or important habitats and species in order to safeguard biodiversity.
- 4.5 Impacts can be divided in to direct and indirect impacts. Direct impacts are usually associated with development adjacent to or on land which has been designated. Indirect effects, which may not result in the loss or fragmentation of habitats, are also significant in terms of protected habitats integrity. Indirect impacts are often associated with the increase in population levels as a result of new development.
- 4.6 From the initial assessment of the development on the SPA, SSSI and Ramsar site it is considered to be no direct impacts on any of the sites under review. The direct impacts which are considered significant include:
- 4.7 Causing damage to the coherence of the site or to the Natura 2000 series (for example, presenting a barrier between isolated fragments, or reducing the ability of the site to act as a source of new colonisers);
- Causing reduction in the area of habitat or of the site;
 - Causing direct change to the physical quality of the environment (including the hydrology).
- 4.8 Due to the location of the site, there is no habitat loss, or habitat fragmentation, and there is no isolation of communities or populations from the proposed development. In addition, the location of the development is considered to have no impact on hydrological issues, lighting issues or pollution events, due to the distances involved and the habitats between the sites. Direct impacts are therefore not considered further as these are scoped out of the assessment.
- 4.9 Indirect impacts are considered to be significant in terms of specially protected sites. Indirect impacts include noise from construction work, dust and pollutions from construction and impacts on water. However, considering the distance from the

proposed development site and the protected sites, and the landscape which lies between them, it is considered that these factors would not be significant. Certainly there are no direct connections between the proposed development site and the protected habitats.

- 4.10 The most significant indirect issues are those which are associated with an increase in the local population of an area and how the increase in the population affects the surroundings and include recreational issues, associated with a greater number of people (and dogs) using designated sites for recreation. However, in this case, the site the development is for the increase of a single unit.
- 4.11 The interim 'Solent Recreational Mitigation Strategy- An interim framework to mitigate the impact on the Solent Special Protection Areas of increased visitor pressure arising from house building – December 2014 Solent Recreation Mitigation Partnership' has been reviewed. This publication has been produced by the Solent Recreation Mitigation Partnership which comprises the fifteen Solent local authorities, Natural England, the Royal Society for the Protection of Birds, Hampshire & Isle of Wight Wildlife Trust, and Chichester Harbour Conservancy. The local authorities are: Chichester District Council, East Hampshire District Council, Eastleigh Borough Council, Fareham Borough Council, Gosport Borough Council, Hampshire County Council, Havant Borough Council, Isle of Wight Council, New Forest District Council, New Forest National Park Authority, Portsmouth City Council, Southampton City Council, South Downs National Park Authority, Test Valley Borough Council, Winchester City Council.
- 4.12 Based on the research such as conducted by Footprint Ecology and the precautionary principle, it is assumed that any development which would result in additional dwellings within 5.6 kilometres of the Solent SPAs is likely to have a significant effect unless evidence specific to the development shows otherwise. The strategic mitigation approach set out in this mitigation document will enable the majority of housing developments to address this issue without the developer having to undertake an Appropriate Assessment and implement bespoke mitigation measures.

4.13 Based on the research and the principles above, the following interim package of mitigation measures will be implemented:-

- a team of rangers who will work on the ground to reduce disturbance by influencing the behaviour of visitors;
- initiatives to encourage responsible dog walking and encourage dog owners to go to less sensitive parts of the coast;
- a monitoring scheme to track the implementation of mitigation measures and to assess their effectiveness;
- a project officer who will coordinate and help implement the mitigation measures in this document, undertake monitoring and prepare the definitive mitigation strategy;
- a financial contribution towards a pilot project to test the effectiveness of providing alternative recreation opportunities.

4.14 The pilot project is the creation of the Alver Valley Country Park in Gosport Borough. It will include picnic areas, trails, footpaths, cycleways, bridleways and interpretative facilities together with a visitor centre. These facilities and the Park's location in close proximity to the coast and proposed residential development sites means it has the potential to act as a Suitable Alternative Natural Greenspace and lessen pressure on the SPAs located within the Solent, including Chichester and Langstone harbour.

4.15 A contribution of £172 per dwelling is required to fund the necessary mitigation measures in perpetuity. In addition individual planning authorities may also apply an administrative charge

4.16 The authorities will require a contribution for every net additional dwelling unless the developer can demonstrate to NE that it can provide an alternative to fully mitigate the impact of the development. As in this case, the development is small scale, with a net increase of 1 dwelling, and there is no land within the development red line that can be used for recreational use except private gardens, it is considered that the developer will make the contribution to the council.

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- 4.17 Each individual local planning authority, in this case Havant Borough Council, will decide which legal mechanisms to use to secure developer contributions from schemes within its area with legal agreements in place prior to the commencement of development. The authorities which receive payment will pool the developer contributions and implement the mitigation measures (which are discussed above).
- 4.19 It is considered that the redevelopment of the site, which will result in financial contributions, will not result in significant impacts predicted on the designated sites within the wider landscape. The mitigation as discussed above is considered to be sufficient for such a development.
- 4.20 The site is also located adjacent to an SINC, in this case the SINC lies adjacent to the rear of the site on its western boundary. The SINC is Land West of Emsworth Recreation Ground and has been designated for its semi-improved grasslands which retain a significant element of unimproved grassland. The proposed development will not result in the loss of fragmentation or isolation of this designated habitat, and the increase of a single unit is not considered not be significant in terms of recreational pressure.
- 4.21 However, whilst no direct or indirect impacts are predicted on the adjacent SINC it is considered that the construction of the single unit would have to ensure a CEMP is in place to reduce any construction impacts such as dust levels and pollution events. It is considered that this could be conditioned as part of the permission.
- 4.22 It is also recommended that tree protection measures are installed prior to development to protect the hedgerow and the mature trees which are located on the edge of the site boundaries.

Habitats

- 4.23 The habitats on site are considered to be common and widespread and of value at site level only. The habitats are dominated by well managed lawn, with areas of hardstanding and ornamental planting. These habitats are not considered to be of any significant value and the loss of a portion of such habitats would not result in alteration

of the nature conservation value of the site or indeed the wider landscape. However, recommendations for enhancing the site and maintaining features of the site are included in this report.

- 4.24 It is recommended that the hedgerow along the southern boundary of the site is retained within the development. This hedgerow must be protected during site works with Heras fencing. In addition to the hedgerow, the mature oak trees located just on the border or slightly outside the red line boundary, should be considered in terms of root protection areas.
- 4.25 The potential for the site to support protected species is discussed below.

Protected Species

Bats

- 4.26 None of the buildings on site had potential to support bats, with the green house and shed being of negligible suitability for bats. The residential dwelling is to remain in situ and will not be impacted by the proposals. The majority of the trees on site were immature and limited in terms of features which bats could exploit. However, the mature oaks located on the southwestern edge of the site did support a light covering of ivy and were of an age and structure that was considered to have 'low' roosting potential. It is understood that these trees are to be retained and unaffected by the proposals.
- 4.27 Trees and hedgerow habitats were considered to provide good opportunities for foraging bats. These habitats are also connected to the wider landscape ensuring that bats can move with ease across this area using the tree-lines for shelter and protection and opportunistic foraging. Boundary features, such as species-poor hedgerow, trees should therefore be maintained or enhanced, where possible.
- 4.28 The Bat Conservation Trusts document: Bat Surveys Good Practice Guidelines 3rd Edition, states that in Table 4.1 '*Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be*

applied using professional judgement'. It is important that proportionality is employed when recommending further survey work for bat species on a proposed development site. As stated within section 8.2.7 of Bat Surveys Good Practice Guidelines 3rd Edition, the following points need to be taken into account with regard to planning activity surveys:

- Likelihood of bats being present;
- Likely species concerned;
- Number of individuals;
- Type of habitat affected;
- Predicted impacts of the proposed development on bats;
- Type and scale of proposed development.

4.29 It is understood that current proposals will involve the development of a single unit within the site. The exact position of this dwelling has been finalised and it is clear that the southern hedgerow, and mature trees on site will be left in situ post development and incorporated into the design. These habitats are the most significant for bats on site providing foraging and commuting habitat with development occurring within the amenity grassland habitats.

4.30 Considering the above, the small scale nature of the development proposals and the limited value of the site in itself in terms of suitable bat habitat, it is considered that no further survey work for bats would be required. Furthermore, it is considered that the development of a single unit would not impact upon the ecological functionality of the local landscape and will not sever or fragment landscape links or green corridors. It is therefore considered that the proposals will not impact upon the favourable conservation status of bats in the local area.

4.31 However, any proposed lighting scheme as part of the development will have to take into account bats in the surrounding area as well as on site. All bat species are nocturnal, resting in dark conditions in the day and emerging at night to feed. Bats are known to be affected by light levels which can affect both their roosting behaviour as well as their foraging behaviour. This needs to be taken into account, with a sympathetic lighting scheme for the development. Recommendations include:

- Lighting should only be installed if there is a significant need;
- Light levels should be kept low, the use of low pressure sodium lamps or high pressure sodium instead of mercury or metal halide lamps where glass glazing is preferred due to its uv filtration characteristics;
- Lighting should be avoided near woodland, tree-lines or hedgerows, with light angled away from these areas, bats use linear features such as treelines to commute across the landscape to forage; and
- Lights should have focussed luminance on their target area, preventing light spill and pollution into other areas of the site and local area.

4.32 To enhance the local bat population and provide roosting opportunities, it is recommended that boxes should be hung on mature trees or buildings around the site.

Recommended boxes include:

- Schwegler 2F Bat Box – These boxes are attractive to small bats such as pipistrelles and long-eared bats and can be hung on trees (Figure 3).
- Schwegler 2FN Bat Box – This is slightly larger than the 2F and provides opportunities for the larger bats such as noctules. These should be hung on mature trees.
- Schwegler 1FD Bat Box - This box has been designed specifically for smaller bats and provides opportunities as a maternity roost (Figure 3).



Figure 3: Schwegler 2F (left) and 1FD (right) bat boxes

Other Species

- 4.33 The site was not considered to be suitable to support a range of species such as dormice, water voles, otters, or amphibians such as great crested newts, simply due to the lack of suitable habitats present within the site or within the wider landscape. No records for GCNs or indeed dormice were found to be present within 2km of the site. Water voles are known to be present in the local area, however, no features on site or immediately adjacent to the site were recorded to be suitable to support such species. As such no further surveys for these species are required.
- 4.34 Reptiles, notably slow worms, are known to be present in the local landscape. The site itself does not support the tussocky grassland that is often favoured by reptiles. However, the log piles and the compost heap may provide some shelter for such species. It is recommended that if these features are to be removed, then they must be done by hand. If any evidence of reptiles are found the works should stop and the advice of a suitable qualified individual should be sought. It is not considered necessary to undertake further surveys of the habitats on the site as these habitats, which are to be lost, have negligible potential to support reptile species.
- 4.35 Log piles can also be utilised by species such as hedgehogs. As such the careful removal of the log piles will ensure that if such a species is present then it will not be harmed.
- 4.36 No evidence of the site being used by badgers was identified. It is considered that the site is not constrained by the presence of badgers and no further surveys for this species is recommended.
- 4.37 Breeding birds are likely to use the trees and hedgerows on site. It is recommended that as many trees as possible be retained and the boundary features should be left in situ. Any tree or shrub removal which needs to be carried out should be done outside of the breeding bird season (March-September inclusive) or immediately after a nesting bird check by a suitably qualified ecologist. If active nests are identified, works in the vicinity of the nest must cease until the birds have fledged the nest.

4.38 Nest boxes could be installed in order to provide new nesting opportunities for birds and to achieve ecological enhancements in line with policies set out by the local planning authority. These can be hung on the buildings or surrounding mature trees post-development. Recommended boxes include:

- Schwegler 1N Deep Nest Box – gives added nest protection from predators;
- Schwegler 1B Bird Box – general purpose bird box, suitable for many species;
- Schwegler Bird House – This is suitable for all common garden birds and may be attached to a building or wall so is suitable for siting behind climbing plant.

Site Enhancements

4.39 A number of enhancements can be made to the final development to help reduce potential ecological impacts. It is important to utilise native species of local provenance in landscaping schemes to enhance the ecological value of a development.

4.40 Newly formed areas of amenity grassland post-development could be supplemented by integrating a variety of native plant species. Patches of bare soil can be sown with wildflower seed mixes to increase the biodiversity of the site and also offer aspects of aesthetic appeal.

4.41 Log and brush piles should be created under hedgerows to provide refugia and hibernacula for amphibians, reptiles, small mammals and invertebrates. Log piles should be located in a variety of locations, such as damp places, with some situated in more sunny locations. These should be stacked and perhaps some amounts of leaf litter added. Planting around log piles with such species as honeysuckle or clematis can also add value.

5.0 Conclusions

5.1 The site does not lie within or adjacent to any statutory designated sites. It is considered unlikely that the development will cause adverse effects to any nearby statutory designations or the surrounding landscape. However, due to the Solent SAC and the

Chichester Harbour SPA and Ramsar site located within 2km, suitable mitigation in the form of a payment per new dwelling will be required by the local planning authority.

- 5.2 The site lies immediately adjacent to an SINC land west of Elmsorth Recreational Grounds. The proposals will not result in the loss or fragmentation to the SINC, and the addition of a single unit is not considered to be significant in terms of indirect impacts. However, it is recommended that a CEMP is conditioned to reduce any potential construction impacts on the adjacent habitat, such as pollution events.
- 5.3 The majority of the habitats on site are common and widespread throughout the local area and the UK as a whole and considered to be of limited ecological interest. The most ecologically valuable habitats on site were considered to be the hedgerow along the southern boundary which is to remain *in situ*.
- 5.4 The habitats on the site were not considered suitable for dormice, amphibians, water voles or badgers and no further surveys are recommended. The wood piles and the compost pile should be hand removed to ensure that if species such as reptiles or hedgerows are present, then they will not be harmed.
- 5.5 The buildings on site are not considered to be suitable for bats. The hedgerow and the mature trees provide some opportunities for foraging bats. These are to be retained within the scheme. Considering the extent of the site and the habitats present within the red line boundaries it is considered that no further surveys for bats are required. Consideration for lighting is recommended.
- 5.6 Nesting birds are likely to use the trees and shrubs on site. Any vegetation clearance should be undertaken outside of the breeding bird season (March-September inclusive) or immediately after a nesting bird check by a suitably qualified ecologist.
- 5.7 Recommendations for enhancements have been made within this report, aimed at improving the ecological value of the site and providing a net gain in biodiversity post-development.

6.0 References

Bat Conservation Trust (2016) *Bat Surveys – Good Practice Guidelines*. Bat Conservation Trust, London.

Creswell, P., Harris, S. & Jeffies, D.J. (1990) *The history, distribution status and habitat requirements of the badger in Britain*. Nature Conservancy Council, Peterborough.

Gent, T. & Gibson, S. eds. (1998) *Herpetofauna Workers Manual*. Joint Nature Conservation Committee, Peterborough.

Joint Nature Conservation Committee (2010) *Handbook for Phase 1 habitat survey – a techniques for environmental audit*. JNCC, Peterborough.

Natural England (2001) *Great Crested Newt Mitigation Guidelines*. Natural England, Peterborough.

Internet resources:

Google Maps: www.google.co.uk/maps

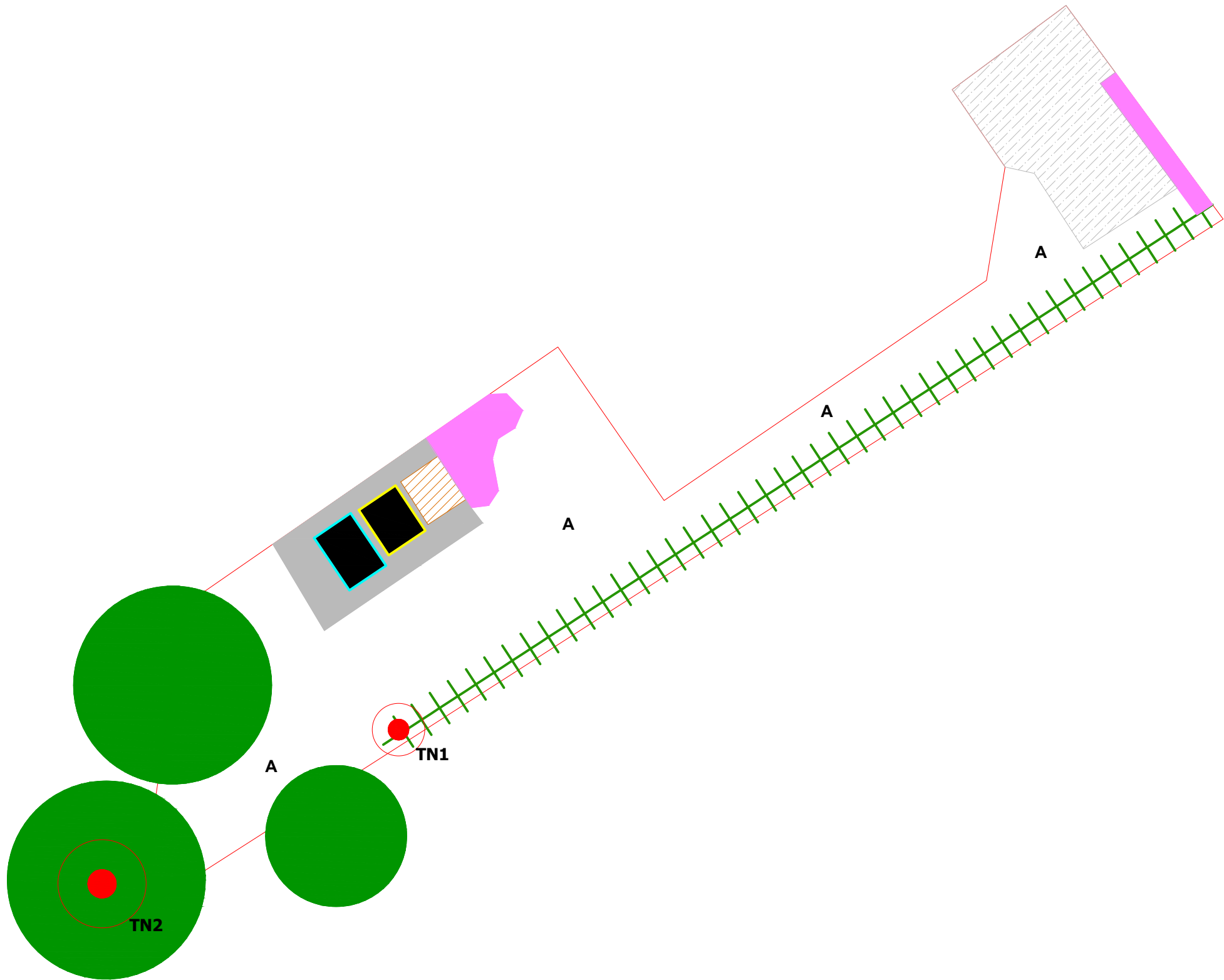
Magic Interactive Map: www.magic.gov.uk

Appendix 1: Phase 1 Habitat Map

Key

- A

Amenity grassland
- Ornamental species
- Hedgerow
- Gravel
- Hardstanding
- Greenhouse
- Shed
- Log pile
- Mature tree
- Target Note 1: Bees
- Target Note 2: Low potential bat tree
- Survey boundary



Site: 15 Horndean Drive, Emsworth, Hampshire

Client: Batchelor Monkhouse

Surveyor: A.Tamblyn

Survey Date: 19th May 2017

Drawing Title: Habitat Map



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Appendix 2: Photos

Photo 1: Front of the site adjacent to Horndean Road



Photo 2: The side of the site, southern edge of the site



Photo 3: Overview of the rear of the site



Photo 4: Log pile, green house and shed



Photo 5: Western edge of the site



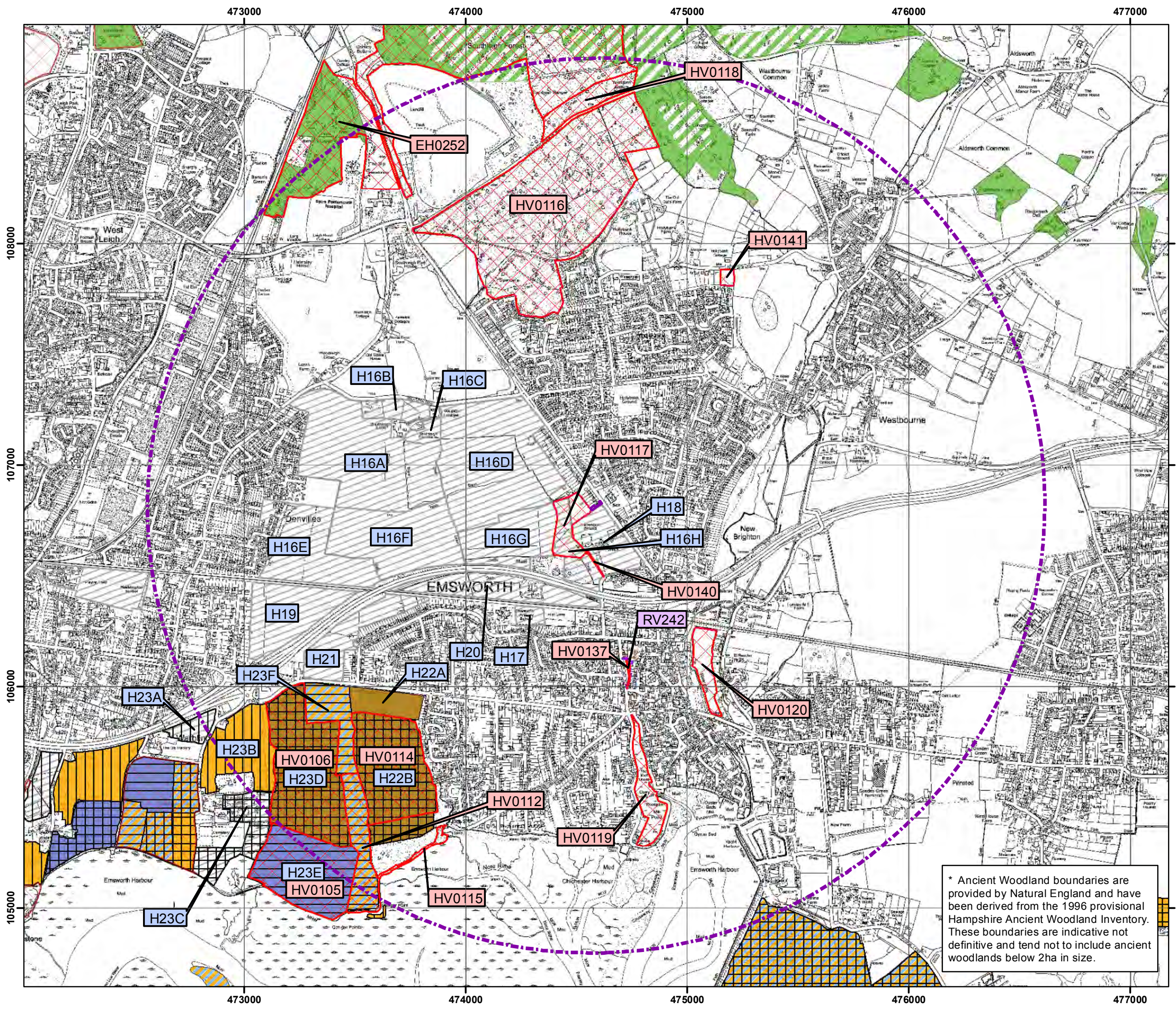
Photo 6: Outside the red line boundary along the access track to the south of the site. The hedgerow is shown from the southern aspect



Photo 7: The mature oak to the south west of the site



Appendix 3: Biodiversity Records



Hampshire Biodiversity
Information Centre

HBIC Ref: 6928
**Non-statutory designated
sites within 2km of 15
Horndean Road, Emsworth
(SU7458106811):**

Legend

- Search Area
- Site
- RVEIs
- SINCS (Labelled red)
- Surrounding SINCS
- Ancient Woodland Inventory**
 - Semi-Natural
 - Replanted
- Wader and Brent Interim Layer, Jan09-April15 (Labelled blue)**
 - Waders Recorded
 - Brent Geese Recorded
- Wader and Brent Geese Strategies (Labelled blue)**
 - Surveyed for 2010 strat. without pos. res.
 - Brent in 2010 strategy
 - Waders in 2010 strategy
 - Waders and Brent in 2010 strategy
 - Positive records from 2002 strategy only

Created: 22/05/2017
Scale at A3: 1:16,000

0 100 200 400 600 800 1,000 Meters

* Ancient Woodland boundaries are provided by Natural England and have been derived from the 1996 provisional Hampshire Ancient Woodland Inventory. These boundaries are indicative not definitive and tend not to include ancient woodlands below 2ha in size.

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