



ecosupport



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Report	Updated Preliminary Ecological Appraisal
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Client	Foreman Homes
Date of Issue	9 th December 2020
Status	Revised for new layout

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Executive Summary

Ecosupport Ltd was instructed by Foreman Homes to undertake a Preliminary Ecological Appraisal (PEA) of a parcel of land at 'Land to the west of Satchell Lane, Hamble' to identify any potentially important ecological features that may be affected by the proposed development. As part of this assessment, the following surveys were undertaken:

- Desktop survey submitted to the Hampshire Biological Records Centre (HBIC) 2020
- Extended phase I habitat survey (January 2018 and updated in July 2020)
- Preliminary roost assessment (buildings and trees) (January 2018 and updated in July 2020)

The following important ecological features were identified on site following the conclusion of the above survey work and may be subject to adverse impacts in the absence of suitable mitigation / compensation:

- Low potential for roosting bats within air the pill box
- Low Potential for breeding and nesting birds
- Moderate potential for foraging and commuting Badgers
- Close proximity to the Solent and Southampton Water SPA

In the absence of any mitigation measures, the proposed development is anticipated to result in, potential adverse effects. Suitable mitigation measures are outlined within this report and reports that accompany this document, following the conclusion of the additional survey work recommended.

1.0 INTRODUCTION

1.1 Brief

Ecosupport Ltd was commissioned by Foreman Homes to conduct an updated Preliminary Ecological Appraisal (PEA) of a parcel of land known as 'Land to the west of Satchell Lane' (here after referred to as 'the site') in Hamble. The purpose of this survey was to assess any ecological impacts that may arise as a result of the proposed development. The objectives of the survey were as follows:

- Assess the ecological value of the site
- Identify any signs of protected species and potential features that may support them
- Make recommendations for further survey work as appropriate.

NB If the development does not take place within 18 months of this report then the findings of this survey will no longer be considered valid and may require updating¹

1.2 Site Description & Location

The site comprises of a parcel of Land located off of Satchell Lane, Hamble Southampton, SO31 4PF (centred on OS grid reference SU482078) (**Fig 1**). The north of the site is bounded by Satchell Lane, the east and south by residential housing and the west by a large field which was formally used as an airfield.

Figure 1. Redline location plan of the site.



¹ <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>

1.3 Proposed Development

The proposals entail a residential development of 61 new houses associated landscaping and access off Satchell Lane.

2.0 RELEVANT LEGISLATION AND POLICY

2.1 Legislation

2.1.1 *The Conservation of Habitats and Species Regulations (2017)*

This transposes the EU Habitats Directive (Council Directive 92/43/EEC) into UK domestic law. It provides protection for sites and species deemed to be of conservation importance across Europe. It is an offence to deliberately capture, kill or injure species listed in Schedule 2 or to damage or destroy their breeding sites or shelter. It is also illegal to deliberately disturb these species in such a way that is likely to significantly impact on the local distribution or abundance or affect their ability to survive, breed and rear or nurture their young.

2.1.2 *The Wildlife and Countryside Act (1981) (as amended)*

This is the primary piece of legislation by which biodiversity is protected within the UK. Protected fauna and flora are listed under Schedules 1, 5 and 8 of the Act. They include all species of bats, making it an offence to intentionally or recklessly disturb any bat whilst it is occupying a roost or to intentionally or recklessly obstruct access to a bat roost. Similarly, this Act makes it an offence to kill or injure any species of British reptiles and also makes it an offence to intentionally kill, injure or take any wild bird or to take, damage or destroy their eggs and nests (whilst in use or being built).

2.1.3 *The Countryside and Rights of Way Act (2000)*

This Act places a duty on Government Ministers and Departments to conserve biological diversity and provides police with stronger powers relating to wildlife crimes.

2.1.4 *NERC Act*

The Natural Environment and Rural Communities (NERC) Act 2006 requires that public bodies have due regard to the conservation of biodiversity. This means that Planning authorities must consider biodiversity when planning or undertaking activities. Section 41 of the Act lists species found in England which were identified as requiring action under the UK Biodiversity Action Plan and which continue to be regarded as conservation priorities under the *UK Post – 2010 Biodiversity Framework*.

2.1.5 *Protection of Badgers Act*

The Protection of Badgers Act (1992) relates to the welfare of Badgers (*Meles meles*) as opposed to nature conservation considerations. The Act prevents:

- The wilful killing, injury, ill treatment or taking of Badgers and / or
- Interference with a Badger sett
- Damaging or destroying all or part of a sett
- Causing a dog to enter a set and
- Disturbing a Badger while it is occupying a sett

Provisions are included within the Act to allow for the lawful licensing of certain activities that would otherwise constitute an offence under the Act.

2.2 Policy

2.2.1 National

The revised National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2019) outlines a number of more robust measures to ensure the impacts of development upon the Country's biodiversity interests are appropriately mitigated against whilst also seeking to achieve a 'net gain'. The key policy test relating to developments and biodiversity is outlined below.

Chapter 15. Conserving and Enhancing the Natural Environment

170. Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;*
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and*
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.*

171. Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

172. Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads. The scale and extent of development within these designated areas should be limited. Planning permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:

- a) *the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;*
- b) *the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and*
- c) *any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.*

173. Within areas defined as Heritage Coast (and that do not already fall within one of the designated areas mentioned in paragraph 172), planning policies and decisions should be consistent with the special character of the area and the importance of its conservation. Major development within a Heritage Coast is unlikely to be appropriate, unless it is compatible with its special character.

Habitats and Biodiversity

174. To protect and enhance biodiversity and geodiversity, plans should:

- a) *Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*
- b) *promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.*

175. When determining planning applications, local planning authorities should apply the following principles:

- a) *if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁵⁸ and a suitable compensation strategy exists; and*
- d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.*

176. The following should be given the same protection as habitats sites:

- a) *potential Special Protection Areas and possible Special Areas of Conservation;*

- b) listed or proposed Ramsar sites; and*
- c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.*

177. The presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined.

2.2.2 Local

The Eastleigh Borough Councils Adopted Local Plan (2001 – 2011) outlines a number of policies that seek to preserve and enhance the Boroughs biodiversity. These include:

- *'21 NC – Development which is likely to adversely affect the integrity of a European nature conservation site will not be permitted.*

- *22 NC – Development which is likely to have a direct or indirect adverse effect on a SSSI will not be permitted, unless the Borough Council is satisfied that the reasons for the development clearly outweigh the harm to nature conservation value of the site.*

- *23 NC – Development which is likely to have a direct or indirect adverse effect on a Site of Importance for Nature Conservation (SINC) will not be permitted, unless it can be demonstrated to the satisfaction of the BC that benefits of the development clearly outweigh the need to safeguard the nature conservation value of the site. If development is to be permitted, the Council will require appropriate measures to be taken to mitigate for the adverse effects on the SINC.*

- *24 NC – Development will not be permitted where it would adversely affect species or habitats which are protected by legislation, unless appropriate measures are proposed which would acceptably mitigate the impact on those species.*

- *25 NC – Development which will adversely affect a habitat or feature of importance for wild fauna and flora will not be permitted, unless it can be demonstrated to the satisfaction of the Council that: i) the benefits of the development outweigh the adverse impacts; ii) the adverse impacts are unavoidable, and iii) appropriate measures are taken which would mitigate or compensate for any adverse impact.*

- *26 NC – Development proposals will be required to include measures to enhance the value of features and habitats of nature conservation importance where reasonable opportunities exists in connection with the development. '*

3.0 METHODOLOGY

3.1 Desk Study

3.1.1 Data Request

A data request was submitted to Hampshire Biodiversity Information Centre (HBIC) to ascertain any records held of nature conservation designations and protected species within 1 km of the boundary of the site.

The data search covered:

- Statutory designated sites
- Non-statutory designations such as SINCs
- Ecological networks
- Records of protected and notable species.

3.1.2 Waterbodies

Any ponds located within 500 m of the proposed development were searched for using Ordnance Survey maps and available aerial images.

3.2 Field Survey

3.2.1 Habitats

The field survey work which forms the basis of the findings of this report was carried out by Adam Jessop (2017) and updated by Aaron Domblides (3 years post BSc graduation experience) on the 3rd July 2020.

The Phase 1 Habitat survey (JNCC, 2010) methodology was adopted which is a method of classifying and mapping wildlife habitats in Great Britain. It was originally intended to provide “...*relatively rapidly, a record of semi-natural vegetation and wildlife habitat over large areas of the countryside*”. The standard Phase 1 Habitat survey methodology has been ‘extended’ in this report to include the following:

- Floral species lists for each identified habitat;
- Descriptions of habitat structure, the evidence of management and a broad assessment of habitat condition;
- Mapping of additional habitat types (e.g. hardstanding);
- Identification of Priority Habitats under Section 41 of the NERC Act;
- Evidence of, or potential for, the presence of certain species/groups

3.2.2 Badger

The site was thoroughly searched for evidence of use by Badgers (*Meles meles*), with the specific aim of identifying the presence and location of any setts. In accordance with the *Badgers and Development: A Guide to Best Practice and Licensing* (Natural England, 2011) guidance, the survey accounted for a search 30m from the site’s boundary (observed where possible i.e. does not conflict with private dwellings). Evidence of Badgers could include latrines, dung pits, feeding remains and foraging evidence, trails and setts.

3.2.3 Bats

An assessment was made of the suitability of the buildings and trees on site to support roosting bats based on the presence of any Potential Roost Features (PRFs) during July 2020. This involved the use of 8 x 42 close focus binoculars and a high-powered torch (where required) for a more detailed inspection of any features. The survey conformed to current best practice guidance as described *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2016) and was carried out by Aaron Domblides (acting as an accredited agent under licence number 2015-13366-CLS-CLS).

3.3 Assessment Methodology

3.3.1 Introduction

The methodology for the assessment of the likely ecological effects of the proposed development is based on CIEEM's *Guidelines for Ecological Assessment in the UK* (CIEEM 2018). Although this assessment does not constitute a formal Ecological/ Environmental Impact Assessment, the CIEEM guidelines provide a useful framework for assessing ecological impacts at any level.

3.3.2 Valuation

Features of ecological interest are valued on a geographic scale. Value is assigned on the basis of legal protection, national and local biodiversity policy and cultural and/or social significance.

3.4 Limitations

There were not considered to be any significant limitations on the results of the survey with all areas of the site accessible and the survey conducted at a suitable time of year for vascular flowering plants.

4.0 ECOLOGICAL BASELINE

4.1 Desktop Study

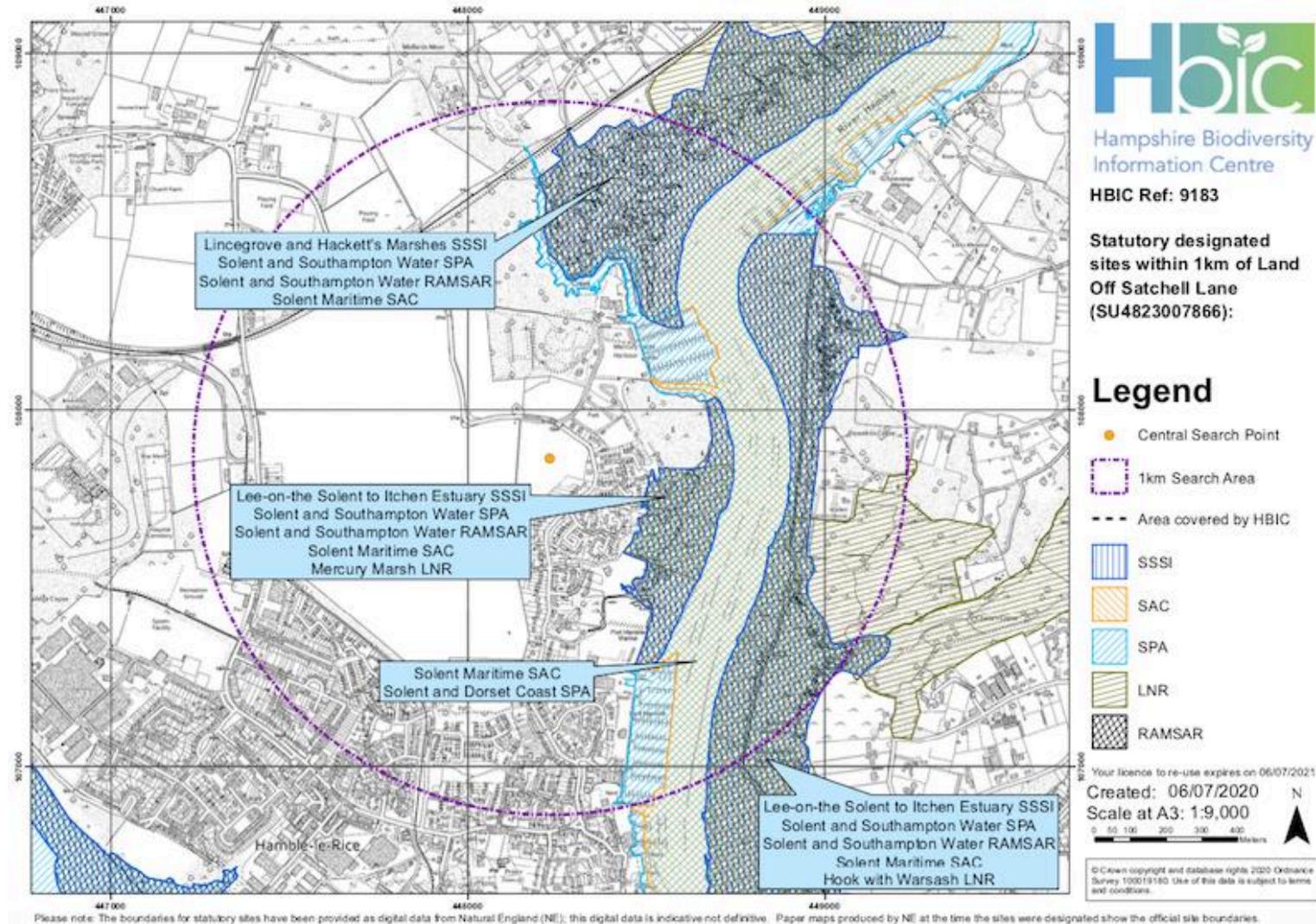
4.1.1 Statutory Designated Sites

There are multiple designated sites within 1km of the site all of which are associated with or adjacent to the River Hamble. These are listed in **Table 1** below and displayed in **Fig 2**.

Table 1. Statutory designated sites within 1km of the site as provided by HBIC.

Site name	Designation	Distance & Direction
Solent and Southampton Water	SPA, Ramsar	0.4km NE
Solent Maritime	SAC	0.3km E
Lee-on-the Solent to Itchen Estuary	SSSI	0.4 km E
Lincegrove and Hackett's Marshes	SSSI / LNR	0.6 km N
Hook with Warsash	LNR	0.7 km E
Mercury Marshes	LNR	0.3 km E
Holly Hill	LNR	1 km W

Figure 2. Statutory designated sites located within 1 km of the site as provided by HBIC.



4.1.2 Non-statutory Designated Sites

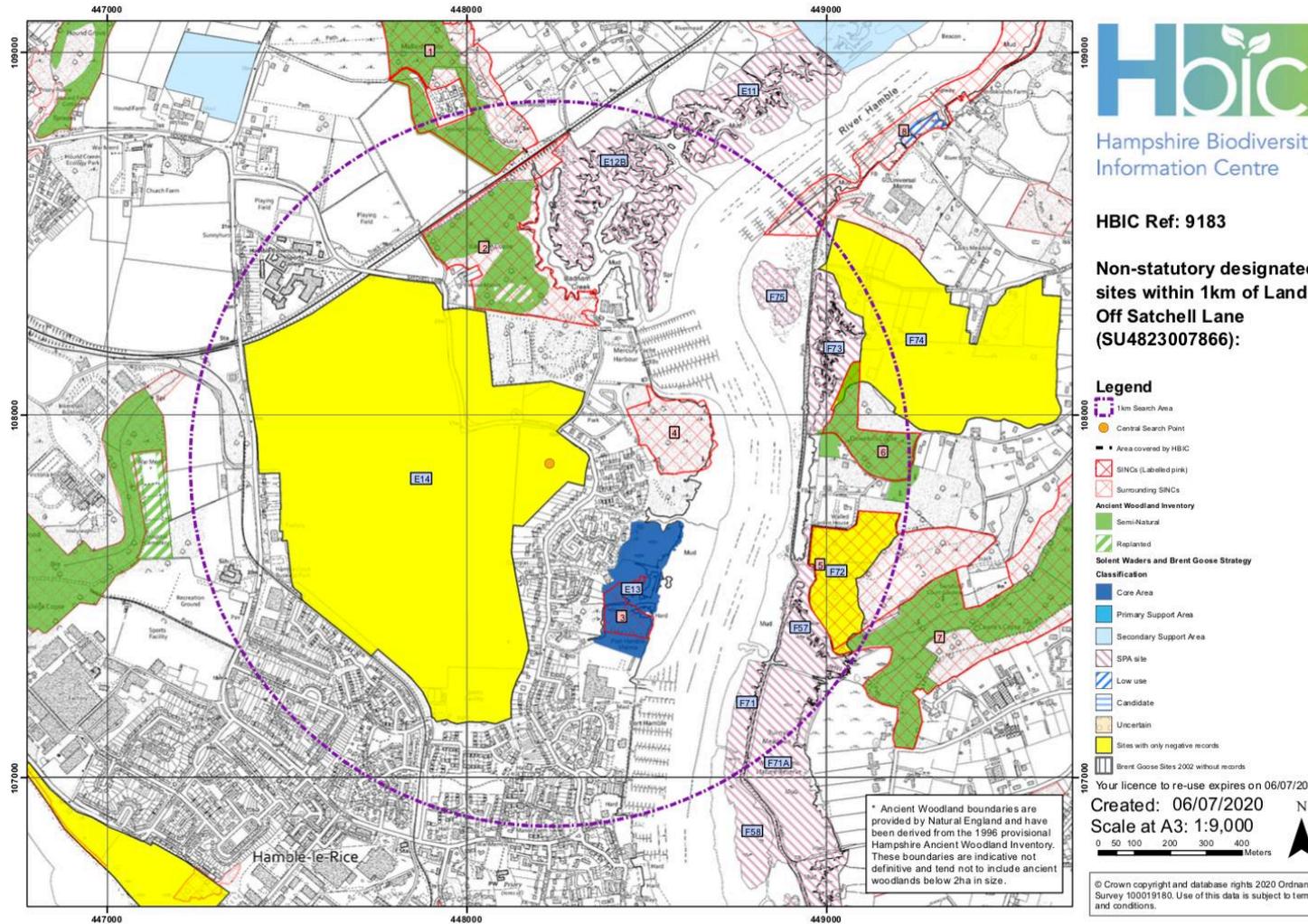
Fig 3 below displays the map provided by HBIC with the non-statutory designated sites located within 1 km of the site. These non-statutory designated sites are listed in **Table 2** below.

Table 2. Non-statutory designated sites located within 1 km as provided by HBIC

Map Label and SINC Ref	SINC Name	SINC Criteria	Species Supported that Meet Section 6 of SINC Selection Criteria
1 EA0070	Mallards Moor	1A/1Cii	-
2 EA0078	Badnum Copse	1A/1Cii/4A	-
3 EA0083	Mercury Marsh South	4A	-
4 EA0085	Mercury Marina Saltmarsh	4A/6A	<i>Puccinellia distans</i> , <i>Polypogon monspeliensis</i> , <i>Oenanthe lachenalii</i> , <i>Lotus tenuis</i> , <i>Althaea officinalis</i>
5 FA0001	Hook-With-Warsash LNR (Wendleholme)	2D	-
6 FA0002	Downkilm Copse	1A/1B	-
7 FA0007	Winnard's & Cawte's Copses	1A/1B	-
8 FA0008	River Hamble Mudflats & Saltmarsh	4A	-

Fig 2 also indicates the local land parcels surveys as part of the Solent Brent Goose and Waders Strategy (SBG&WS) with the site itself falling within the E14 parcel. This indicates that all survey work to date has returned negative records.

Figure 3. Non-statutory designated sites located within 1 km of the site as provided by HBIC with the site also falling within the E14 parcel of the SW&BGS (which indicates negative only records).



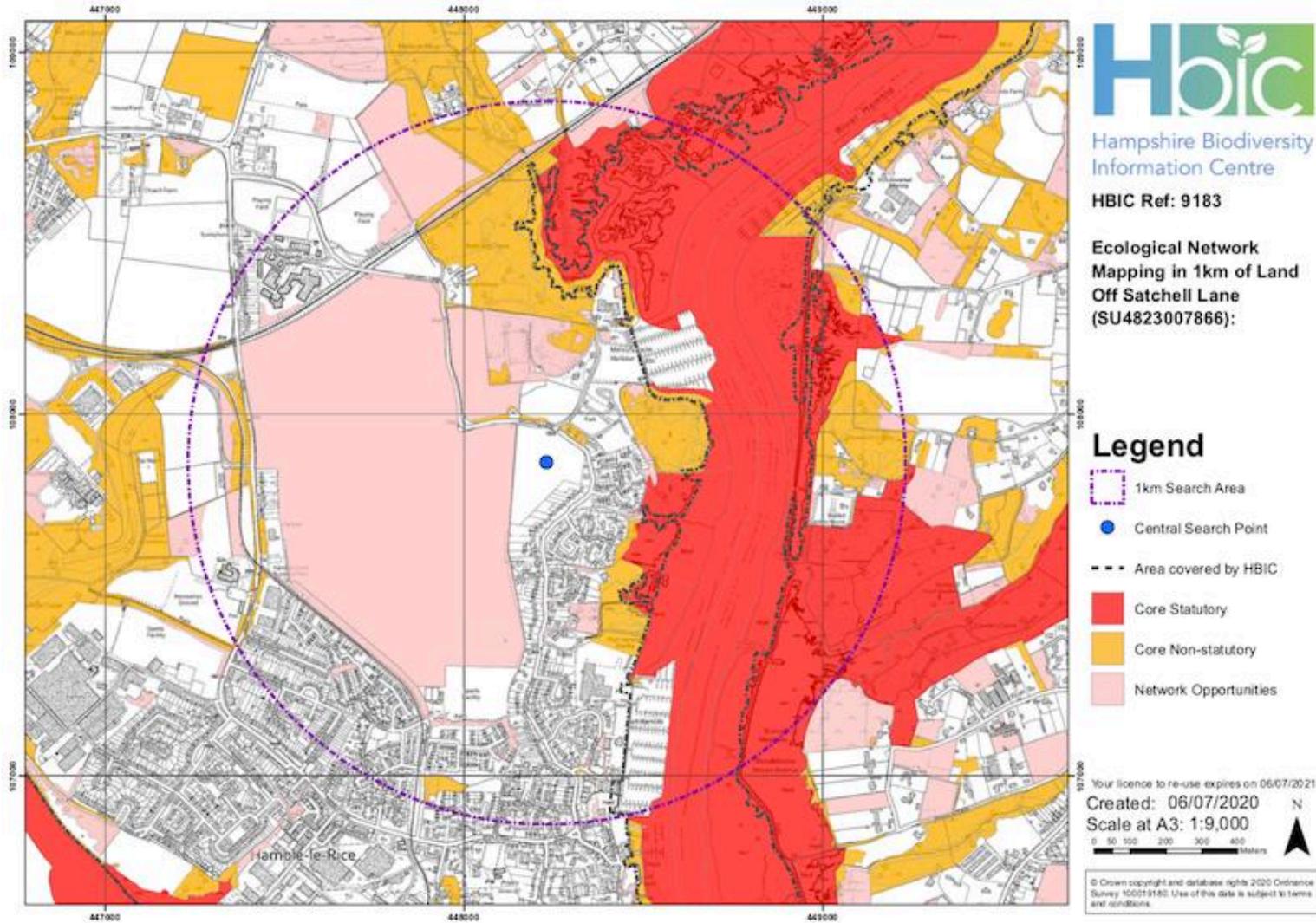
4.1.3 Ecological Network

A recent addition to the data received from HBIC now includes the provision of information about the local Ecological Network designations, the aim of which is to:

- Improve the quality of current wildlife sites by better habitat management;
- Increase the size of existing wildlife sites
- Enhance connections between sites, either through physical corridors or through 'stepping stones'
- Create new sites; and
- Reduce pressure on wildlife by improving the wider environment (Court & Ritter, 2016)

For this scheme, habitats included within the network within a 1 km radius are shown in **Fig 4** below. None of the habitat on site or immediately bordering the site are considered to form part of the Ecological Network, however some small areas of habitat on the opposite site of Satchell Lane do fall within the core non-statutory designation. However, these areas of habitats are not to be impacted upon by the proposed plans.

Figure 4. Ecological network mapping within 1 km of the site as provided by HBIC.



4.2 Vegetation Survey Results

The vegetation within the site has been described below using the broad Phase I habitat classification terminology as described with JNCC (2010). The below species noted should not be considered an exhaustive list and instead refer to dominant, characteristic and other noteworthy species associated with each community within the survey area. The habitat types on site comprise:

- Semi-improved grassland
- Broadleaved woodland / tree line
- Hedgerow
- Building
- Dry Ditch

4.2.1 Semi-improved Grassland

This is the dominant habitat on site and appeared to be relatively species rich despite the site being heavily grazed by horses. Species noted included Cocks Foot (*Dactylis glomerata*), False Oat Grass (*Arrhenatherum elatius*), Perennial Rye Grass (*Lolium perenne*), Annual Meadow Grass (*Poa annua*), Daisy (*Bellis perennis*), Creeping Buttercup (*Ranunculus repens*), Dandelion (*Taraxacum* spp), Scentless Mayweed (*Tripleurospermum inodorum*), Common Nettle (*Urtica dioica*), Common Ragwort (*Jacobaea vulgaris*), Curled Dock (*Rumex crispus*), Greater Plantain (*Plantago major*), Common Fleabane (*Pulicaria dysenterica*), White Clover (*Trifolium repens*), Red Clover (*Trifolium pratense*), Selfheal (*Prunella vulgaris*), Yarrow (*Achillea millefolium*), Dovesfoot Cranesbill (*Geranium molle*), Creeping Thistle (*Cirsium arvense*), Field Bindweed (*Convolvulus arvensis*), Ladies Bedstraw (*Galium verum*), Bramble (*Rubus fruticosus*), Hogweed (*Heracleum sphondylium*), Ribwort Plantain (*Plantago lanceolata*), Wild Carrot (*Daucus carota*), Spear Thistle (*Cirsium vulgare*), Cow Parsley (*Anthriscus sylvestris*), Hop Trefoil (*Trifolium campestre*), Ivy (*Hedera helix*), Common Catsear (*Hypochaeris radicata*), Lesser Stitchwort (*Stellaria graminea*), Common Centaury (*Centaurea erythraea*), Common Chickweed (*Stellaria media*), Scarlet Pimpernel (*Anagallis arvensis*), Ground Ivy (*Glechoma hederacea*), Mallow (*Malva sylvestris*), Common Knapweed (*Centaurea nigra*), Cut Leaved Cranesbill (*Geranium dissectum*) and Corky Fruited Water Dropwort (*Oenanthe pimpinelloides*) (Fig 5).

Figure 5. Semi-improved grassland with short sward height through horse grazing.



4.2.2 Broadleaved Woodland / Treeline

The northern boundary of the site is marked by broadleaved woodland / treeline which supports Silver Birch (*Betula pendula*), Hazel (*Corylus avellana*), Oak (*Quercus* spp), Hawthorn (*Crataegus monogyna*), Holly (*Illex aquifolium*), Ash (*Fraxinus excelsior*), Elder (*Sambucus nigra*) and Field Maple (*Acer campastre*). The understorey of this feature supports Bramble (*Rubus fruticosus* agg), Ivy (*Hedera helix*), Bracken (*Pteridium aquilinum*) Broadleaved Dock (*Rumex obtusifolius*), Foxglove (*Digitalis purpurea*), Bluebell (*Hyacinthoides non-scripta*), Red Campion (*Silene dioica*), Herb Robert (*Geranium robertianum*) and occasional Butchers Broom (*Ruscus aculeatus*) (an ancient woodland indicator species) (**Fig 6**).

Figure 6. Woodland / treeline on the northern boundary.



4.2.3 Hedgerow

The south eastern hedgerow which marks the rear gardens of the residential dwellings located on the boundary comprised a mix of Leylandii, managed Beech (*Fagus sylvatica*), Hawthorn and Blackthorn (*Prunus spinosa*). The western boundary hedgerow which runs adjacent to a public footpath was dominated by Hawthorn, Blackthorn and Hazel with occasional Ash, Elder and Field Maple (**Figs 7 and 8**).

Figure 7. Hedgerow located on the site's western boundary.



Figure 8. Hedgerow on the eastern boundary.



4.2.4 Building

The only building on site is a single pill box present within the northern boundary tree line. This has been described in greater detail in **section 4.3.3** below with respect to any bat roosting potential / evidence noted.

4.2.5 Dry Ditch

A ditch is located along the northern boundary of the site. This was dry at the time of the survey (as well as in the original survey conducted in February 2018) and the absence of any aquatic vegetation would suggest it would only hold water temporarily and after exceptionally high levels of rainfall (**Fig 9**).

Figure 9. Dry ditch within the northern boundary tree line



4.3 Bat Survey Results

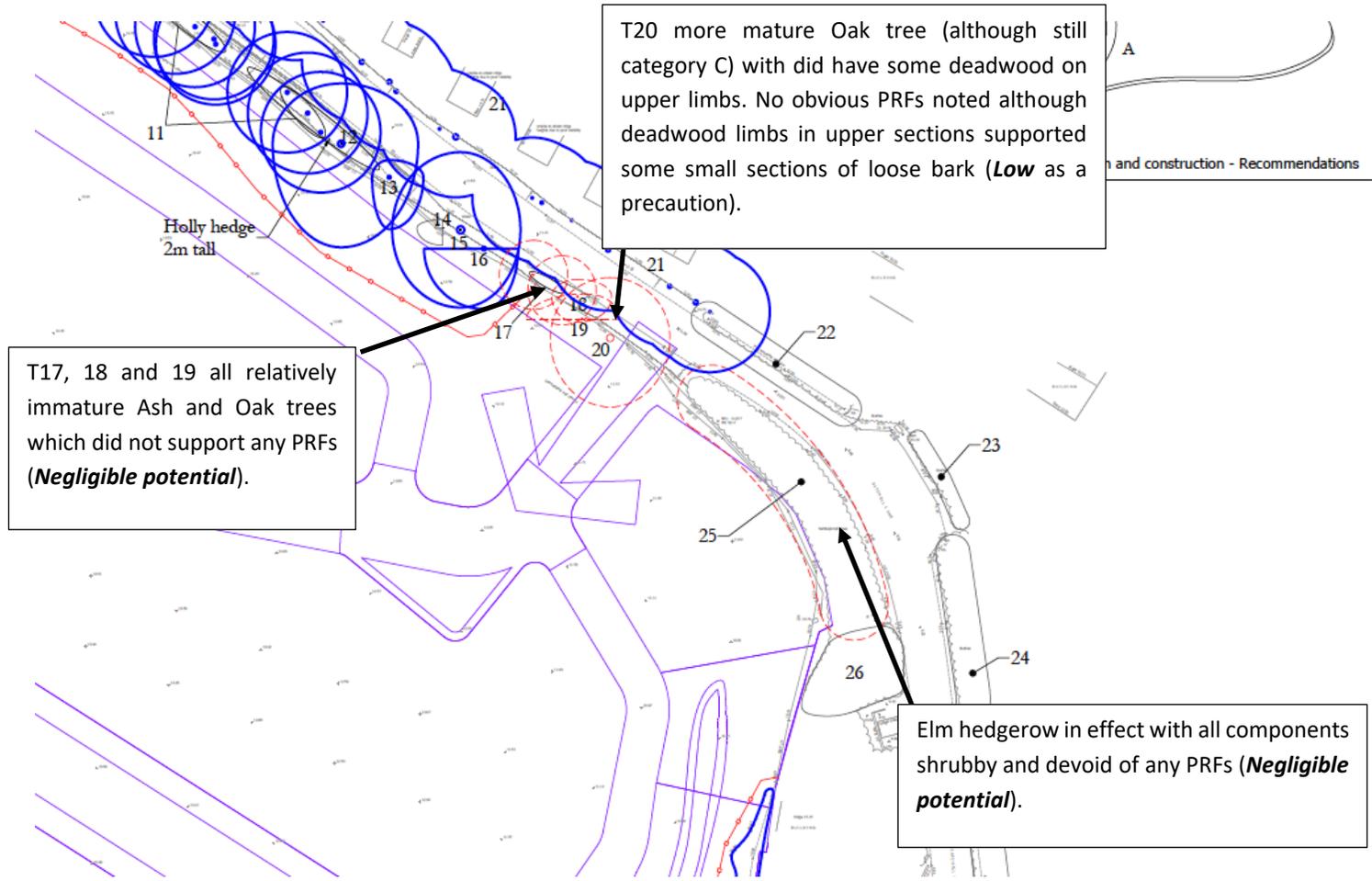
4.3.1 Pre-existing Data

HBIC have provided records for the following bat species from within 1 km; Serotine (*Eptesicus serotinus*) (7 records), Whiskered bat (*Myotis mystacinus*) / Brandt's bat (*Myotis brandtii*) (1 record), Natterer's bat (*Myotis nattereri*) (2 records), Noctule (*Nyctalus noctula*) (12 records), unidentified Pipistrelle bat (*Pipistrellus* spp.) (20 records), Common Pipistrelle (*Pipistrellus pipistrellus*) (18 records), Soprano Pipistrelle (*Pipistrellus pygmaeus*) (18 records), a Long-eared bat species (*Plecotus* spp.) (5 records) and Brown long-eared bat (*Plecotus auritus*) (3 records).

4.3.2 Trees

The majority of the trees on site are being retained with the exception of a group of Ash, 3 English Oak and a group of Elm to facilitate site access (as per the screen shot of the tree removal / protection plan in **Fig 10** below). The annotated roost assessment of these trees is also provided in **Fig 10**.

Figure 10. Screen shot of the tree removal plan with the trees (No's 17, 18, 19, 20 and 25) that are proposed for removal to facilitate site access / visibility splays.



4.3.3 Buildings

There is a single pill box building located along the northern boundary (perhaps just outside of redline) situated within the tree line (**Fig 11**). This is a brick-built structure, which has open access points which bats would be able to use to access the internals. During the initial survey in February 2017 and the updated survey in July 2020 no evidence of bat occupation was noted within the internals, with only limited internal features where a larger roost could form. The building was therefore considered to be of **Low Potential** for roosting bats.

Figure 11. View of one of the access points into the pill box.



4.3.3 Foraging and Commuting Habitat

The site comprises a well grazed horse pasture with a mix of species poor hedgerows and tree lines bounding parts of the site. Based on the nature of the habitats on site and immediately surrounding the site (which are also of low and moderate quality comprising residential gardens, and large grassland areas) it is considered to be of **Low** potential.

4.4 Badgers

4.4.1 Pre-existing Information

HBIC hold a single record of Badger presence from within 1 km of the site, however this is from Holly Hill on the opposite side of the River Hamble.

4.4.2 Site Survey

During the Phase I survey no evidence of resident Badger was noted on the site however it was considered to be of **Moderate** quality for foraging and commuting. The flat nature of the

main field was also not considered particularly suitable for sett building however the banked areas around the margins of the site are more suitable in places.

4.5 Reptiles

4.5.1 Pre-existing Data

HBIC hold records for the following reptile's species from within 1 km; Slow Worms (*Anguis fragilis*) (4 records) and Common Lizard (*Zootoca vivipara*) (2 records).

4.5.2 On site Habitat Assessment

It is current heavily grazed / poached state (as per **Fig 5**), the grassland habitats on site are not considered suitable for common reptiles as the required structure and heterogeneity is not present. Based on this, the site is considered to be of **Negligible** potential for reptiles.

4.6 Great Crested Newts

4.6.1 Pre-existing Data

HBIC only hold records of GCN (*Triturus cristatus*) from within the Bursledon nature haven (which is understood to have been introduced) over 0.7 km from the site.

4.6.2 Water Bodies within 500m

Based on an assessment of available OS and aerial imagery, there are no ponds located within 500m of the site. A wet ditch is shown within 200 m to the east however given this leads from and runs into the Hamble, it will likely have some saline influences and therefore can be considered highly unlikely to be suitable for breeding GCN.

4.7 Hazel Dormouse

4.7.1 Pre-existing Information

No records of Dormice (*Muscardinus avellanarius*) are held by HBIC from within 1km of the site.

4.7.2 Site Assessment

The potentially suitable habitats on and adjacent to the site for Dormice comprises species poor managed hedgerow along with more mature tree lines (with ground flora indicative of some degree of ancient remnants) and a native species hedge. Some of these features are connected to a wider network of hedgerows in adjacent sites and so given that the Dormouse Conservation Handbook (Bright et al., 2006) states that '*the presence of Dormice should be assumed within any areas of woody habitat within their range*' the site can be considered of **Moderate** potential.

A nesting tube survey was conducted on site during the 2017 active season by Ecosupport. During this, no Dormice were recorded on site meaning that the site is considered to have a likely absence of Dormice. Given that the habitats on site have not changed since the Dormouse surveys were undertaken and the lack of records within a 1km radius of the site it is considered highly unlikely that the status of Dormice has changed on site.

4.8 Wintering birds

4.8.1 Pre-existing information

Table 3 below provides the local records held for Brent Geese (*Branta bernicla*) within 1 km of the site. The majority of the records are from the Warsash side of the Hamble with the nearest on Hamble side approximately 0.3 km to the east (within parcel E13 as shown on **Fig 3**). The site itself is also shown (in **Fig 3**) as having been surveyed as part of the Solent Brent Goose and Waders Strategy (King, 2010) without a positive result.

Table 3. Records of Brent Geese from within 2 km of the site.

Species	Grid Ref	Location	First – Last Year	No of Records	Max Count
<i>Branta bernicla</i>	SU4706	Hamble	2018	8	200
<i>Branta bernicla</i>	SU4806	Bunny Meadows - Warsash	2006	2	2
<i>Branta bernicla</i>	SU4806	Hamble Common	2016	1	55
<i>Branta bernicla</i>	SU4806	Hook with Warsash	2016	1	1
<i>Branta bernicla</i>	SU4806	Hamble Common	2018	7	205
<i>Branta bernicla</i>	SU4806	Hook with Warsash	2018	1	105
<i>Branta bernicla</i>	SU4806	Bunny Meadows - Warsash	2012	2	83
<i>Branta bernicla</i>	SU4806	Bunny Meadows - Warsash	2013	1	11
<i>Branta bernicla</i>	SU4806	Hamble Common	2015	1	12
<i>Branta bernicla</i>	SU4806	Hook with Warsash	2008 - 2012	6	359
<i>Branta bernicla</i>	SU4806	Hook with Warsash	2014	1	100
<i>Branta bernicla</i>	SU4807	Bunny Meadows - Warsash	2004 - 2006	9	272
<i>Branta bernicla</i>	SU4807	Bunny Meadows - Warsash	2017 - 2018	4	120
<i>Branta bernicla</i>	SU4807	Bunny Meadows - Warsash	2012	1	42
<i>Branta bernicla</i>	SU4807	Bunny Meadows - Warsash	2015	1	150

<i>Branta bernicla</i>	SU4807	Hook with Warsash	2012	1	179
<i>Branta bernicla</i>	SU4807	Hook with Warsash	2013 - 2014	2	100
<i>Branta bernicla</i>	SU4808	Hamble Estuary (below M27)	2007	1	100
<i>Branta bernicla</i>	SU4808	Lower Swanwick	2005	1	302
<i>Branta bernicla</i>	SU4808	Hamble Estuary (below M27)	2016	1	200
<i>Branta bernicla</i>	SU4808	Hamble Estuary (below M27)	2018	1	1
<i>Branta bernicla</i>	SU4808	Swanwick - Crableck	2017	5	150
<i>Branta bernicla</i>	SU4808	Hook with Warsash	2010 - 2012	2	134
<i>Branta bernicla</i>	SU4808	Upper Hamble Estuary (above M27)	2010 - 2012	2	150
<i>Branta bernicla</i>	SU4808	Upper Hamble Estuary (above M27)	2015	3	150
<i>Branta bernicla</i>	SU483085	Hamble Estuary (below M27)	2017	1	60
<i>Branta bernicla</i>	SU483085	Hamble Estuary (below M27)	2014	1	45
<i>Branta bernicla</i>	SU487069	Hamble Estuary (below M27)	2015	1	42
<i>Branta bernicla</i>	SU488070	Bunny Meadows - Warsash	2016	1	8
<i>Branta bernicla</i>	SU488070	Bunny Meadows - Warsash	2017	1	289
<i>Branta bernicla</i>	SU488070	Bunny Meadows - Warsash	2015	1	36
<i>Branta bernicla</i>	SU488073	Hamble Estuary (below M27)	2015	1	6
<i>Branta bernicla</i>	SU489073	Hook with Warsash	2008	1	349
<i>Branta bernicla</i>	SU489075	Hamble Estuary (below M27)	2015	1	8

Records are also held for a number of waders (some of which are on the Solent and Southampton Water SPA designation) including Little Ringed Plover (4 records), Ringed Plover (62 records), Black tern (1 record), Black-headed gull (21 records), Snipe (22 records), Oyster Catcher (39 records), Little Gull (4 records), Lesser Black Backed Gull (7 records), Great Black Backed Gull (10 records), Bar Tailed Godwit (15 records), Curlew (47 records) Mediterranean Gull (24 records), Common Tern (*Sterna hirundo*), Sandwich Tern (*Sterna sandvicensis*) and

Black Tailed Godwit (*Limosa limosa*) (94 records) although none of these records are from within the site itself.

4.8.2 Site Assessment

With a close short grazed sward (required by overwintering birds for grazing and clear sight lines), and given the close proximity to the River Hamble, the site can be considered to provide a **Suitable habitat** for over wintering birds. This is however caveated that the site is somewhat small to support Brent Geese in particular, is currently heavily poached by the horses present and is enclosed by the boundary hedgerows / tree lines. In addition to this a wintering bird survey was conducted by Ecosupport during January – March 2017 (Ecosupport 2017a). During this, no Brent Geese or waders were noted onsite and given the site is also classified as having only negative records within the 2020 HBIC data (as per **Fig 3**), it is considered highly unlikely that the use of the site has changed on site.

4.9 Birds of Conservation Concern (BoCC) / Notable Birds

4.9.1 Pre-existing Information

HBIC hold a number of records for BoCC within 2km including (but not limited to) Lesser Redpoll (*Acanthis caberat*) (1 records), Skylark (*Alauda arvensis*) (3 records), Ruff (*Calidris pugnax*) (3 records), Cuckoo (*Cuculus canorus*) (15 records), Linnet (*Linaria cannabina*) (8 records), Yellow Wagtail (*Motacilla flava*) (3 records), Grey Wagtail (*Motacilla cinerea*) (8 records), House Sparrow (*Passer domesticus*) (4 records), Black Redstart (*Phoenicurus ochruos*) (2 records), Firecrest (*Regulus ignicapilla*) (53), Whinchat (*Saxicola rubetra*) (4 records), Woodcock (*Scolopax rusticola*) (2 records) and Siskin (4 records).

4.8.2 Site Assessment

Many of these species rely on woodland and longer grassland habitats which are not present on site, with trees and hedgerows limited to site boundaries which are to be largely unimpacted upon. Based on the nature of the habitats on site and the low level of anticipated impact upon suitable habitats, the site is considered to be of **Low** potential for BoCC.

5.0 LIKELY ECOLOGICAL IMPACTS IN ABSENCE OF MITIGATION

5.1 Introduction

The CIEEM guidelines (CIEEM 2018) require that the potential impacts of the proposals should be considered in absence of mitigation. In order for a significant adverse effect to occur, the feature being affected must be at least of local value. However, in some cases, features of less than local value may be protected by legislation and/or policy and these are also considered within the assessment. Although significant effects may be identified at this stage of the assessment, it is often possible to provide appropriate mitigation.

5.2 Site Preparation and Construction

5.2.1 Impacts to Habitats

The works will take place on semi-improved grassland and will involve the removal of a small section of hedgerow / treeline along the northern boundary to facilitate access. These habitats are considered to be of Local value. Therefore, the proposed plans would have a **certain adverse impact** to habitats of local value.

5.2.2 Impacts to Wildlife

The proposals will result in the creation of excavations which could cause badgers to be become trapped and lead to the injuring or even death of badgers. Consequently, **an adverse impact is possible** at the **local Scale**.

The removal of any trees / shrubs and buildings could result in the disturbance of nesting birds and damage to their nests, although the area of habitat to be removed is small in extent. Therefore, an **adverse impact is possible** at the **Local Scale**.

The demolition of the bomb shelter or the removal of trees (prior to the recommended survey work) could result in the destruction of active bat roosts. Therefore, an **adverse impact is possible** at the **Local – County scale** (subject to the results of the recommended survey work).

5.3 Site Operation

5.3.1 Impacts to Nocturnal Wildlife

The development will result in an increase in lighting within the general area from street lights and external lights on the dwellings. This can affect the behaviour, particularly foraging, of nocturnal wildlife. Therefore, an **adverse impact is likely** on nocturnal species.

5.3.2 Loss of Breeding and Nesting Bird Habitat

The works will involve the selective removal of tress / hedgerow for site access , resulting in a deficit of breeding and nesting bird habitat on site post-development. Therefore, it is considered there will be a **potential minor adverse impact** upon local breeding and nesting birds.

5.3.3 Increased Visitor Pressure on Designated Sites

The site is located within the 0.3km of the Solent Southampton SAC and its therefore well within the defined 5.6 km zone within which any net increase in residential dwellings has the

potential to result in increased recreational pressure on SAC. This is therefore considered to potentially result in a ***certain adverse impact*** at the ***international level*** of significance.

6.0 MITIGATION & RECOMMENDATIONS

6.1 Introduction

The below sections outline a number of recommendations for further survey work required to fully assess the potential ecological impacts of the development and ensure and proposed mitigation and compensation appropriate and proportionate. In addition to this, measures are outlined to protect the existing features of value and provide enhancements post development.

6.2 Bats

6.2.1 Roosting Bats

Due to the **Low** potential of the shelter, the lack of bats or evidence of bats during the initial survey in Feb 2018 and the updated survey in July 2020, combined with the dense vegetation surrounding the shelter obscuring the view, the most appropriate and reliable method of surveying this building would be to endoscope the limited features present within the internals (i.e gaps under the wood attached to the wall and cracks in the brickwork). This will be undertaken during the active survey between May and August (as per the survey effort requirements from BCT 2016 **Table 3**). In the unlikely case that any evidence of bats is found during this survey, additional survey work will be required.

Table 3. Recommended minimum number of survey visits (from Table 7.3 (BCT, 2016).

Low Roost Suitability	Moderate Roost Suitability	High Roost Suitability
One survey visit. One dusk emergence or dawn re-entry survey.	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey*.	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third could be either dusk or dawn.
May – August	May – September with at least one of the surveys between May - August	May – September with at least two surveys between May and August

6.2.2 Foraging and Commuting

Based on the **Low** habitat suitability assessment for foraging and commuting bats, in accordance with the latest BCT guidelines (Collins (ed) 2016) (as shown in Table 8.3 from the guidelines) *'One survey visit per season will be required in appropriate weather conditions for bats. Further surveys may be required in these survey visits reveal higher levels of bat activity than predicted by habitat alone'*. In addition to this automated / static detector surveys are also required with *'One location per transect, data to be collected on five consecutive nights per season'*.

As April – June has been missed, if during the first survey (i.e. July) a higher number and greater diversity of bats calls is noted than anticipated (i.e. in line with a low habitat suitably assessment), then the survey effort will be correspondingly increased. This data will then be

used in combination with the data recorded during the original surveys undertaken during the 2017 active season to inform an impact assessment and provide appropriate mitigation.

6.2.3 Trees

The current BCT guidelines (Collins (ed) 2016) suggest the following procedures when dealing with trees that have low suitability for roosting bats (i.e. one or two PRFs):

'Where there are low suitability PRF's, precautionary measures may be appropriate during felling / pruning activities.'

To this end, the Oak (T20) that was identified as being of **Low** potential will have the features soft felled under the supervision of any ecologists to ensure there are no bats present. If any bats are encountered, works will stop and Natural England will be consulted.

6.2.4 Pill Box

Although a single emergence survey was undertaken of the pill box as part of the work completed in 2017 (Ecosupport, 2017), given the nature of the PRFs, it was not considered an updated survey would be necessary as any features within bats could roost are readily accessible to view for occupancy. As such, it is considered the most appropriate actions would be for the pill box to be subjected to an updated inspection by a licenced ecologist immediately prior to demolition. This should be done during the active bat season (April – October) to avoid (the albeit low) risks of potentially coming across hibernating / torpid bats.

6.3 Reptiles

Provided the field remains grazed by horses with a short sward height, no further surveys are considered with regards to reptiles as there is an absence of suitable habitat. Should this change and the site become unmanaged, then a review of the habitat suitability may be required which may lead to a recommendation of presence / likely absence surveys.

6.4 Dormice

Due to the habitats remaining the same since the original surveys in 2017 and the absence of Dormouse records within 1km of the site, it is not considered necessary to update the survey, with an absence of Dormice still considered likely on site. Therefore, no further works in regards to Dormice are required.

6.5 Protection of Hedgerows and Trees

All the existing hedgerows / trees that would be retained and trees should be protected from damage during the works. All the hedgerows should be fenced using Heras fencing or similar to prevent access by machinery. Where large mature trees are present, they should be protected using standard arboricultural tree protection measures which include protection of the canopy and prevents root compaction.

6.6 Nesting birds

To avoid disturbance of nesting birds or damage to their nests, clearance of any hedge, trees, scrub or buildings should be undertaken outside of the bird-nesting season (typically March – August, dependant on weather). If this is not possible, the area to be cleared should be thoroughly checked by an ecologist immediately prior to clearance. If any active nests are

found they should be left undisturbed with a suitable buffer of undisturbed vegetation (ca. 5m) until nestlings have fledged.

6.7 Solent and Southampton Water SPA

The site lies within the vicinity of the Solent SPA. In order to mitigate for the likely increases in residential pressure upon this SPA, due to the high densities of wildfowl and waders for which the area is predominantly protected, the Solent Recreation Mitigation Strategy (SRMS) has been introduced in collaboration with Natural England, comprising a partnership of all local councils. Mitigation towards the SPA must be provided for all new recreational developments within the 5.6km disturbance zone of the SPA.

The simplest method of providing a necessary suitable and appropriate level of mitigation towards the SPAs associated with the Solent is via financial contributions. These contributions are used to enable the continued use of the coastline in a way that reduces the risks to the bird species of international importance that use the area, for example funding a team of rangers and implementing initiatives to encourage responsible dog walking (Solent Recreation Mitigation Partnership, 2014). It is considered that the contribution, in compliance with the recommendations presented within the SDMP, provides a suitable level of mitigation for the potential adverse impacts associated with the proposed scheme upon the Solent SPA.

In April 2018 a sliding scale of contribution, based upon the number of dwellings per residential unit, was introduced and the figures below are the updated figures as of April 2020:

- £356 for 1 bedroom dwelling
- £514 for 2 bedroom dwelling
- £671 for 3 bedroom dwelling
- £789 for 4 bedroom dwelling
- £927 for 5 bedrooms or more

Therefore, where there will be a net increase, a contribution can be made as follows either prior to planning permission being granted or by completing the SDMP Agreement and sending the completed form along with mitigation contribution to the Planning Agreements Officer at the Local Planning Authority or by completing a Unilateral Undertaking before planning permission is granted with an undertaking that the per dwelling payment will be made before the development is implemented.

6.8 Other Protected Sites

There are a number of SINC's present within 1 km of the proposed development site. The closest of these is Mercury Marina Saltmarsh approximately 0.3 km to the east. There are additional fields in between the proposed site and this SINC with no discernible public rights of way present either. Direct impacts on these designations, as well as ones (SINC's) further afield, are therefore not anticipated.

6.9 Badgers

As the site is of moderate potential for foraging and commuting badgers, the following mitigation steps are required. During the construction phase, any open excavations left

overnight should either be covered to prevent falling in or escape ladders should be used to prevent them from becoming trapped. Further to this a walkover of the site to check for any evidence of badger setts should be undertaken no earlier than 2 weeks before works commence.

6.10 Enhancements

Based on previous experience, it is considered the most appropriate means of securing ecological enhancements (such as bird and bat boxes, native species planting, provisions for hedgehogs ect) would be through a suitably worded planning condition requiring a Biodiversity Enhancement and Mitigation Plan (BEMP).

7.0 REFERENCES

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Langton, T., Beckett, C., & Foster, J., (2001) Great Crested Newt Conservation Handbook, Froglife

Ministry of Housing, Communities & Local Government (2018) National Planning Policy Framework (February 2019)

Natural England, 2011 *Badgers and Development: A Guide to Best Practice and Licensing*



Legend

-  Site Boundary
-  Target Note - Pill box
-  Semi-improved grassland
-  Broadleaved woodland - semi-natural
-  Species-poor hedge
-  Fence



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Map	Phase I Habitat Survey
Site	Land to the West of Satchell Lane
Client	Foreman Homes
Date	07/07/2020

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