



ecosupport

Kingscroft Farm, Havant

Preliminary Ecological Appraisal

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Foreman Homes

24/6/2022

Report	Preliminary Ecological Appraisal
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Date of Issue	24 th June, 2022
Status	For submission

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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 Kingscroft Farm, Havant 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 Biodiversity Information Centre (HBIC), May 2022
- Phase I habitat survey including UK Habs definitions (May, 2022)
- Preliminary roost assessment (buildings) (May, 2022)

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:

- Moderate potential for foraging and commuting bats.
- High potential for common reptile species.
- Moderate potential for Hazel Dormice.
- Moderate potential for foraging and commuting Badgers.
- Moderate potential for Water voles
- High potential for breeding and nesting birds.
- Moderate potential for Hedgehogs.
- Moderate potential for Otters.
- Western field support notable habitat types (S41 NERC (2006) Act)

In the absence of any mitigation measures, the proposed development is anticipated to result in, **certain adverse effects** (significance level to be determined following additional survey work). Suitable mitigation measures will be outlined within reports that will 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 a PEA of the land at Kingscroft Farm, Havant (hereafter referred to as the site). 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:

- Identify and classify any priority habitats;
- 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 necessary;
- Make recommendations for any necessary ecological avoidance and mitigation where possible at PEA stage.

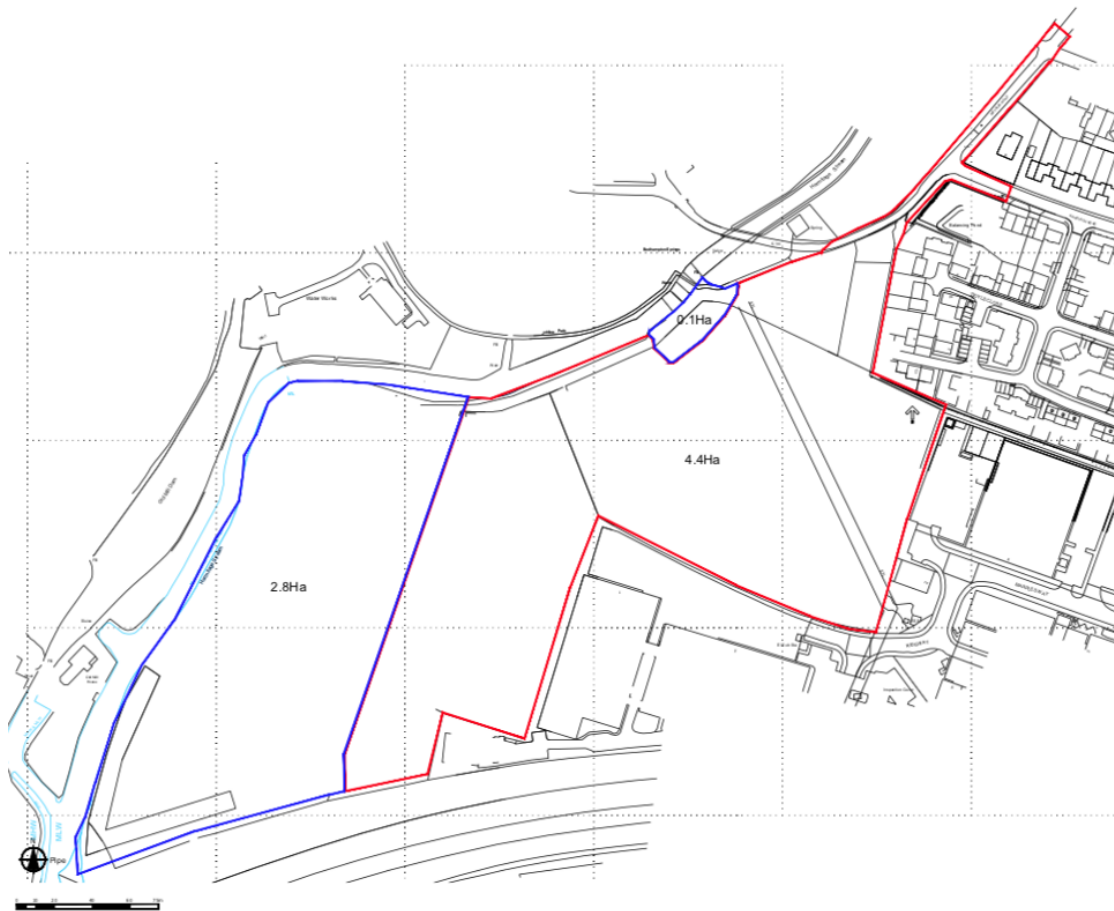
NB: If the works do not take place within 18 months of this report¹ then the findings of this survey will no longer be considered valid and may require updating.

1.2 Site Description & Location

The site comprises of a series of land parcels (some of which are used as horse pasture) located to the north of the A27, Havant, PO9 1QJ (centred on OS grid reference SU 704 061) (**Fig 1**). The north and west of the site are bounded by Hermitage Stream, the east by an industrial estate and the south by the A27. The immediate surrounding environ is predominantly urbanised although the site is located within 0.4 km of the intertidal habitats associated within the Solent area SPA, SAC and Ramsar.

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

Figure 1. Redline location plan of the site.



1.3 Proposed Development

The development will entail the construction of up to 140 new residential dwellings with landscaping and areas of POS.

2.0 RELEVANT LEGISLATION AND POLICY

2.1 Legislation

2.1.1 *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations (2019)*

This instrument makes changes to the three existing instruments which transpose the Habitats and Wild Birds Directives so that they continue to work (are operable) upon the UK's exit from the European Union (EU). These include The Conservation of Habitats and Species Regulations 2017 and The Conservation of Offshore Marine Habitats and Species Regulations 2017. This instrument also amends section 27 of the Wildlife and Countryside Act 1981 to ensure existing protections continue. The intention is to ensure habitat and species protection and standards as set out under the Nature Directives are implemented in the same way or an equivalent way when the UK exits the EU.

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.

In order for activities that would be likely to result in a breach of species protection under the regulations to legally take place, a European Protected Species (EPS) licence must first be obtained from Natural England.

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).

The Wildlife & Countryside Act (1981) states that it is an offence to 'plant or otherwise cause to grow in the wild' any plant listed in Schedule 9 part II of the Act. This list over 30 plants including Japanese Knotweed (*Fallopia japonica*), Giant Hogweed (*Heracleum mantegazzianum*) and Parrot's Feather (*Myriophyllum aquaticum*).

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

This Act strengthens the Wildlife & Countryside Act by the addition of "reckless" offences in certain circumstances, such as where there is the likelihood of protected species being present. The 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 Natural Environment and Rural Communities Act (2006)

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

Section 15 of the National Planning Policy Framework (NPPF, 2021) 'Conserving and enhancing the natural environment' states that planning policies and decisions should contribute to and enhance the natural environment. They should do this by protecting and enhancing sites of biodiversity and minimising impacts on and providing net gains for biodiversity, including establishing coherent ecological networks.

The plan states to protect and enhance biodiversity plans should identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks. This includes the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them. Plans should identify the protection and recovery of priority species and opportunities for securing measurable net gains for biodiversity.

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

- if significant harm to biodiversity resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- 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;

- 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 reasons and a suitable compensation strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

2.2.2 Local – Havant Borough Council Core Strategy (2011)

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

Planning permission will be granted for development that:

- 1. Ensures the key landscape and built form principles set out in the Havant Borough Townscape, Landscape and Seascape Character Assessment are protected and where possible enhanced by partnership working with developers, groups and the wider community.*
- 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].*
- 4. Protects and where appropriate enhances the borough's statutory and nonstatutory heritage designations by appropriately managing development in or adjacent to conservation areas, listed buildings, scheduled ancient monuments, historic parks and gardens, archaeological sites, buildings of local historic or architectural interest.*
- 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. Protects 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.*
- 9. Maintains undeveloped gaps between the settlements of Emsworth/Havant; Havant/Waterlooville; Havant/Portsmouth; Emsworth/Westbourne and Leigh Park/Rowlands Castle as shown on the Proposals Map.*
- 10. Protects the best and most versatile agricultural land that has the greatest potential for local food security.*
- 11. Responds to the emerging evidence from the Solent Disturbance and Mitigation Project, the published recommendations, and future related research.*

3.0 METHODOLOGY

3.1 Desk Study

3.1.1 Data Request

A data request was submitted to Hampshire Biodiversity Information Centre in 2022 in order to ascertain any records held of nature conservation designations and protected species within 2 km of the boundary of the site.

The data search covered:

- Statutory designated sites
- Non-statutory designations such as SINCs
- 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 updated field survey work which forms the basis of the findings of this report was carried out by Ashley James BSc (Hons) ACIEEM (project ecologist with Ecosupport) on the 2nd May 2022. Weather conditions during the survey comprised temperatures of 14 °C, light winds and sunny spells.

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 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

The assessment of the buildings / trees noted on site was undertaken by Ashley James during the initial walkover survey under class level 1 survey licence number (2021-10059-CL17-BAT). This followed BCT (Collins (ed) 2016) best practice survey guidelines searching for any PRFs / evidence of bat occupation and assigning a roost potential assessment as outlined in **Table 1** below.

Table 1. Guidelines for assessing the potential suitability of a built structure for roosting bats (reproduced from BCT (Collins (ed) 2016).

Suitability	Description of Roosting Habitats
Negligible	Negligible habitat features on site are likely to be used by roosting bats
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ² and/or suitable surrounding habitat to be used on a regular basis or by a large number of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A structure 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 (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure 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.

² For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

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

3.4.1 Habitats

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

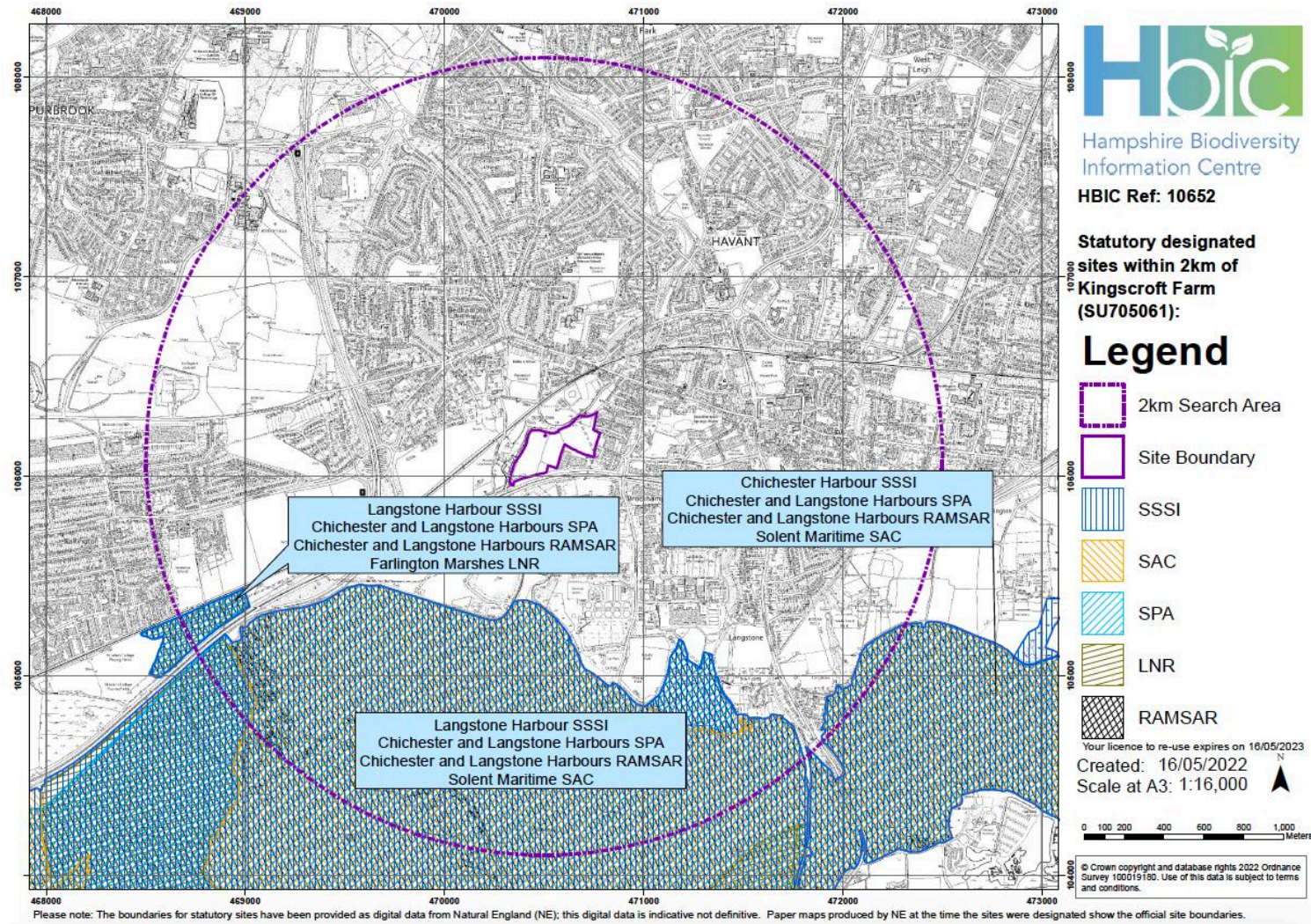
4.0 ECOLOGICAL BASELINE

4.1 Designated Sites

4.1.1 Statutory

The statutory designated sites located within 2km of the site as provided by HBIC are provide in **Fig 2** below where the following was identified:

- Langstone Harbour SSSI - is located 800m south of the site.
- Chichester and Langstone Harbours SPA - is located 800m south of the site
- Chichester and Langstone Harbours Ramsar - is located 800m south of the site
- Solent Maritime SAC - is located 800m south of the site.
- Chichester Harbour SSSI - is located 800m south of the site.
- Farlington Marshes LNR - is located 1.8km south west of the site.

Figure 2. Map of statutory designated sites within 2 km of the site as provided by HBIC .

4.1.2 Non-statutory & Solent Waders & Brent Goose Strategy

Fig 3 below displays the map provided by HBIC with the non-statutory designated sites located within 2 km of the site, with the details of the sites in **Table 2** below. This map includes Solent Wader and Brent Goose sites for which the site is referenced as H10B and states the entire site having only negative records for waders and Brent geese.

Figure 3. Non-statutory designated sites and SWBG sites located within 2km of the site as provided by HBIC. The site is listed under code H10B but only has negative records.

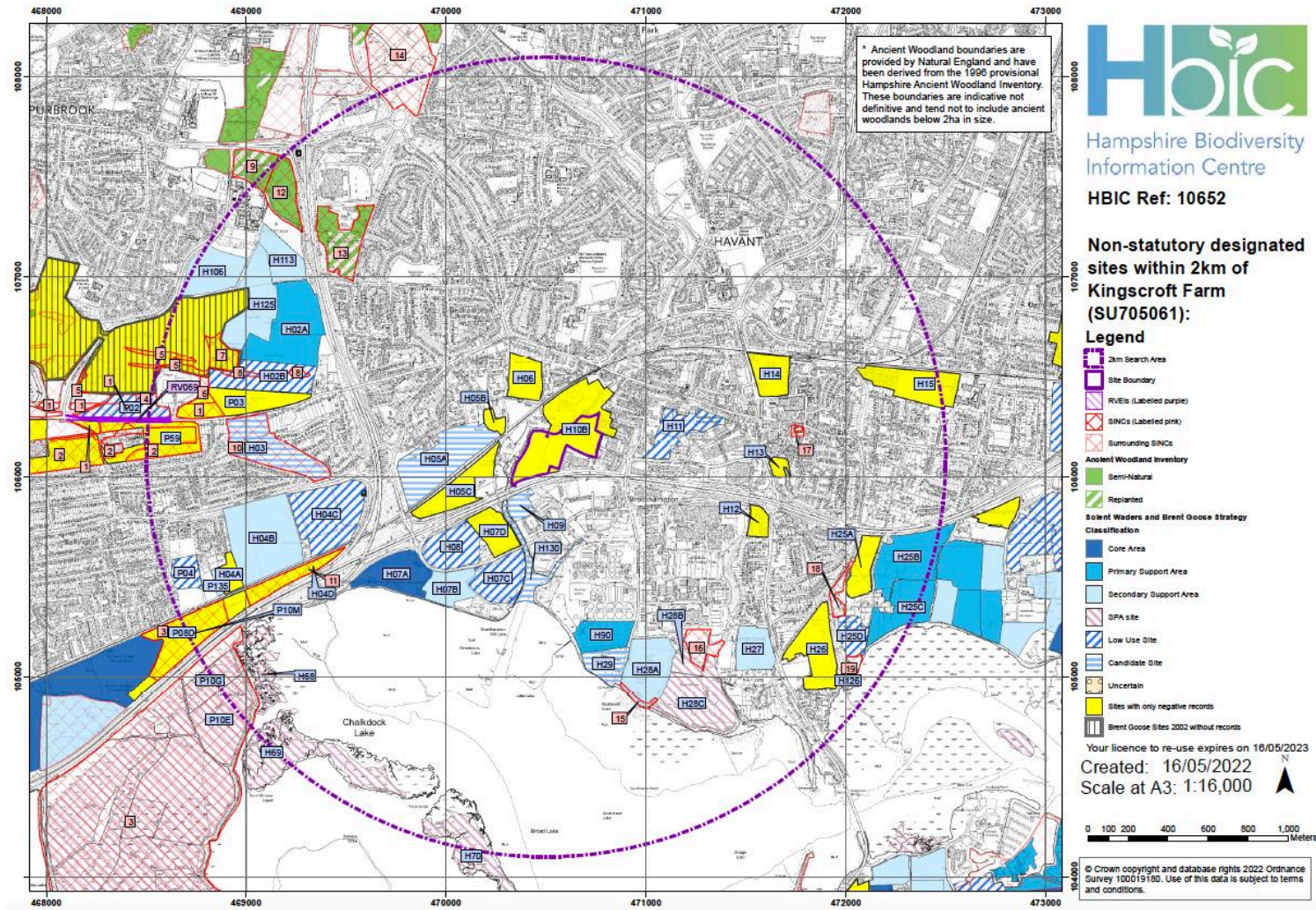


Table 2. Non-statutory designated sites located within 2km of the site as per **Fig 3** above. Assessed potential impacts take PROW into account where the information is available.

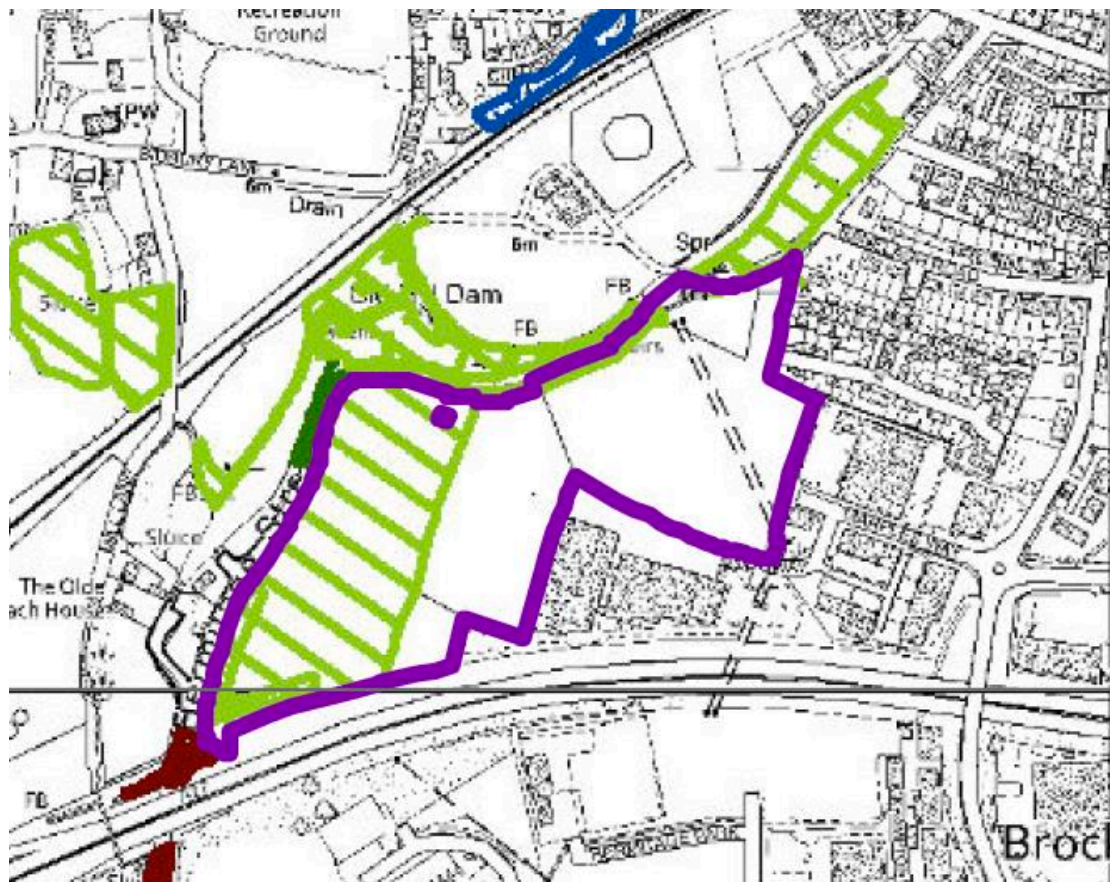
SINC Map Label	Distance from Site	SINC Name	SINC Sub-Ref	SINC Criteria	Potential Impacts
1	1.8 km W	Land to the north of Portsdown Hill Road	PO0009	2B/2D/6A	Considered unlikely
2	1.8 km W	East and West of Gillman Road	PO0019	2B/6A	Considered unlikely
3	1.8 km SW	Farlington Marshes	PO0027	2B/6A/6C	Potential increase in visitor numbers
4	1.9 km W	Fort Purbrook Paddock 4 (Havant)	HV0142	2B	Considered unlikely
5	1.9 km W	Portsmouth Golf Course East	HV0011	2B/2D	Potential increase in visitor numbers
6	1.9 km W	Field East of Farlington Redoubt (North)	HV0014	2D	Considered unlikely
7	1.8 km W	Portsmouth City Golf Course Copse	HV0017	1B/6A	Considered unlikely
8	1.7 km W	Camp Down Grassland Remnants	HV0019	2D	Considered unlikely
9	1.8 km NW	Gundymoor Wood (Main)	HV0020	1A	Considered unlikely
10	1.1 km W	Fields off Havant Road	HV0027	6A	Considered unlikely

11	1.1 km SW	Farlington Marshes Grassland (North-East)	HV0028	2A/4A	Likely increase in visitor numbers
12	1.8 km NW	Littlepark Wood (West)	HV0029	1A/1Cii/6A	Considered unlikely
13	1.6 km NW	Littlepark Wood (East)	HV0034	1A/1Cii	Considered unlikely
14	1.9 km NW	Neville's Park Areas 4-10	HV0038	1B/1Cii/2A/2D	Considered unlikely
15	1.2 km SE	Southmoor - Big Field (south edge)	HV0054	4A	Considered unlikely
16	1 km SE	Southmoor Reserve	HV0058	2A/4A/5B/6A	Likely increase in visitor numbers
17	1.3 km E	St Faith's Churchyard	HV0150	2B/7A	Considered unlikely
18	1.5 km SE	Wade Court Park	HV0083	6B/6C	Potential increase in visitor numbers
19	1.8 km SE	Langstone Mill Pond	HV0084	4A/5B/6A	Potential increase in visitor numbers

4.1.3 Priority Habitats

Fig 4 below displays the map provided by HBIC indicating the west and south-western section of the site adjacent to the Hermitage Stream supports coastal grazing marsh priority habitat.

Figure 4. HBIC priority habitat map provided indicating the extent of the coastal floodplain grazing marsh priority habitat (green hatching) on site (purple outline).



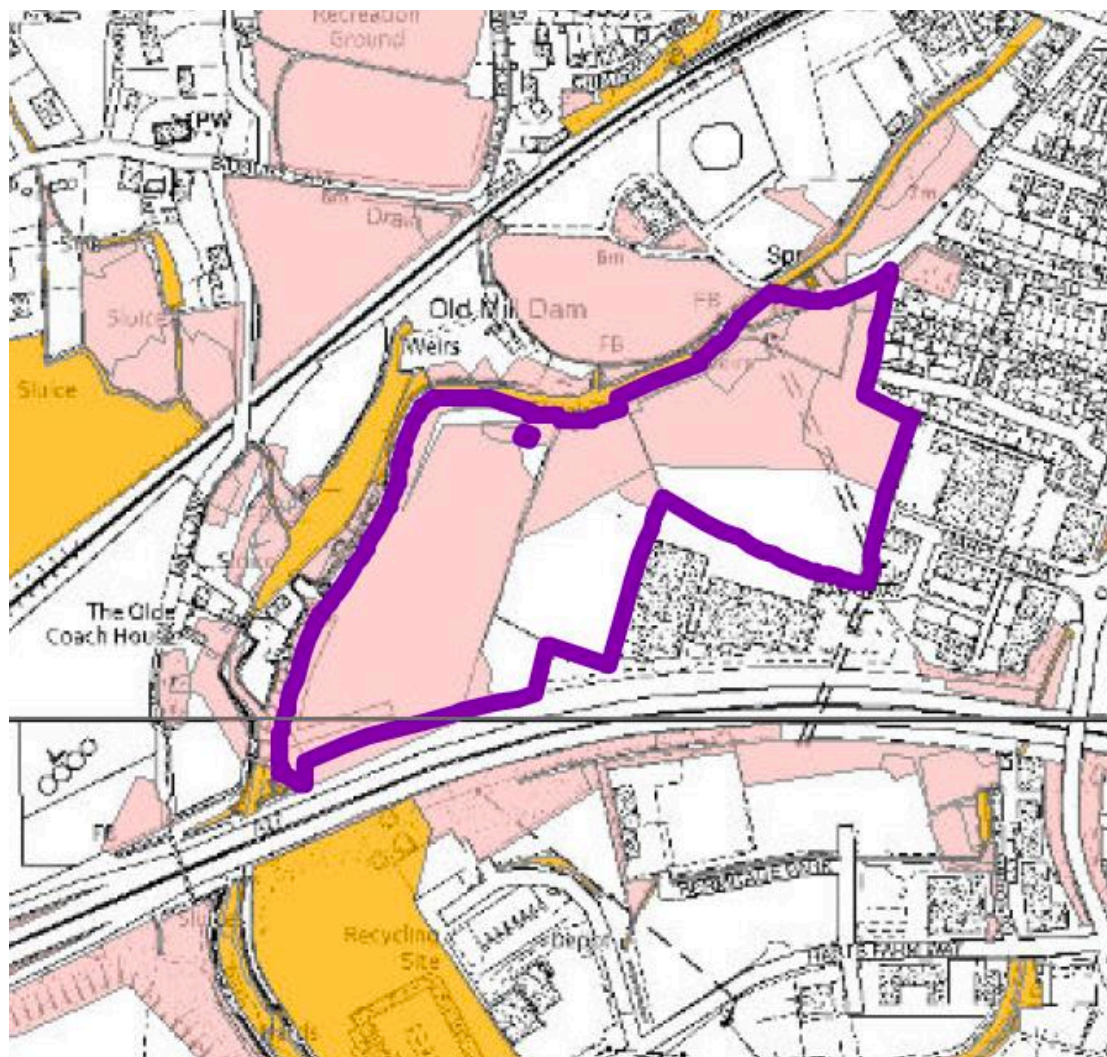
4.1.4 Ecological Network

The data received from HBIC also 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)

As per **Fig 5** below, the majority of the habitats on site are within the 'network opportunities' classification.

Figure 5. Screenshot from the ecological network map as provided by HBIC highlighting the areas on site that are within the 'network opportunities' classification (pink shading).



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) (with the corresponding UK Habs habitat type also provided using Habitat Definitions Version 1.1 (UKHab Ltd., 2020). 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 (approximate spatial extent shown in the Phase 1 habitat map appended):

- Semi improved grassland (g3c, other neutral grassland)
- Coastal and floodplain grazing marsh & ruderal (g3, grassland with secondary habitat codes 25 and 17)
- Blackthorn Scrub (h3a, mixed scrub)

- Hedgerows (h2a, hedgerow)
- Buildings (u1b, developed land / sealed surface)

4.2.1 Semi Improved Grassland (g3c)

This was the dominant habitat type on-site (would be classified as g3c 'other neutral grassland'), the majority of which (other than very minimal boundary areas), is being used for horse pasture with the fields divided up into smaller plots with post and wire fencing.

Some plots currently are grazed and other are in rest from grazing and have some flowering herbs, these included common forbs dominated by Dandelion (*Taraxacum spp.*), Yarrow (*Achillea millefolium*), Meadow Buttercup (*Ranunculus acris*), Dock (*Rumex spp.*), Creeping Cinqfoil (*Potentilla reptans*), Black Knapweed (*Centurea nigra*), Daisy (*Bella perennis*), Cut-leaved Cranesbill (*Geranium dissectum*), Redshank (*Polygonum persicaria*), Red Clover (*Trifolium repens*) and White Clover (*Trifolium pratense*) (**Fig 6**). Some areas of the fields have significant disturbance from the ponies and horses producing areas of bare ground in well-trodden locations.

Figure 6. View of the unmanaged semi improved grassland which is the dominant habitat type on site with abundant Buttercups (taken May, 2022).



4.2.2 Coastal and flood plain grazing marsh (g3) (25) & Ruderal (17)

Within the western and south-western areas of the site grazing is present although grazing seems to have not been so intense here. This area is interesting and holds diverse grassland and herb structure. Differing grassland heights include the species as noted within the other fields to the east but in addition including (*Atriplex spp.*) and (*Polygonum aviculare*),

Some areas of taller ruderal vegetation is also present with Fleabane (*Pulucaria dysenterica*),

Hemp Agrimony (*Eupatorium cannabinum*), Common Nettle (*Urtica Dioica*), Hairy Sedge (*Carex hirta*) and Glaucous Sedge (*Carex flacca*) (and would be classed as g3 'grassland' with secondary code 17, Ruderal.)

An interesting feature of the central and southern areas is that it includes several channels and depressions which were filling with tidal water while on site during the survey. Along these channels typical salt loving and salt tolerant plants were present including (including DAFOR) (Fig 7);

- Common Saltmarsh Grass (*Puccinellia maritima*) (A)
- Creeping Bent (*Agrostis stolonifera*) (F)
- Divided Sedge (*Carex divisa*) (F)
- Spreading Meadow-grass (*Poa humilis*) (F)
- Marsh Foxtail (*Alopecurus geniculatus*) (O)
- Brass Buttons (*Cotula coronopifolia*) (A)
- Saltmarsh Sand Spurry (*Spergularia marina*) (F)
- Silverweed (*Potentilla anserina*) (F)

Areas of this section of the site have very likely been subject to reclamation, importation of soils and rubble as pockets of rubble could be seen scattered in various area. Areas of increased ground grade could be seen and are dominated by Creeping thistle (*Cirsium arvense*) and Stinging nettles. HBIC data shows this western section of the site as listed as priority habitat, see (Fig 4).

Figure 6. View of the Coastal and floodplain grazing marsh (Taken May, 2022).



4.2.3 Blackthorn Scrub (h3a)

A linear area of out grown scrub from a fence line is dominated by Blackthorn (*Prunus spinosa*), and is situated orientated north to south across that site (**Fig 8**) (and would be classed as h3a, Blackthorn scrub.) Some light Bramble (*Rubus fruticosus*) coverage is also situated in isolated areas around the site. The site boundaries are marked by differing degree of mature well-established outgrown scrub and trees particularly along the boundary of the A27 and along the site's boundary to the Hermitage stream. The Hermitage stream can only be seen intermittently from the site due the coverage of scrub growing along the bankside. **Fig 9** shows a stretch of the stream that can be viewed from the site and where no scrub or trees do not allow observation of the stream side. Further interspersed scrub amongst taller herb community is present too in the southern area of the identified coastal grassland. Various species are present including Hawthorn (*Crataegus monogyna*), Elder (*Sambucus nigra*), Guelder Rose (*Viburnum lantana*), Ivy (*Hedera helix*), Grey Willow (*Salix caprea*), Ash (*Fraxinus excelsior*) and Field Maple (*Acer campestre*).

Figure 8. View of the linear blackthorn scrub (taken May, 2022).



Figure 9. View of Hermitage stream (taken May, 2022).



4.2.4 Hedgerows (h2a)

Hedgerows are present on-site to the south bordering the industrial units (**Fig 10**) (and would be classed as h2a, hedgerows). The hedgerows consist of the following species; Hawthorn, Blackthorn and Bramble interspersed with trees such as Willow (*Salix spp*), Oak (*Quercus robur*) and Ash (*Fraxinus excelsior*).

Figure 10. View of the hedgerow located on the site's southern boundary (taken May, 2022).



4.2.5 Buildings (U1B)

Several temporary horse stable and shelter structures are present on-site (**Fig 11**). (and would be classed as u1b, developed land;sealed surface) These are all of wooden structure and consist of single walled skin with either corrugated tin roofing or wooden with bitumen lean too type pitched roofs. A single old Swallow (*Hirundo rustica*), nest was found in one of the buildings and there could potentially be further nests not identified at time of survey of the same or different species present.

Figure 11. View of one of several horse stable/shelter structures present on-site (taken May, 2022).



NB no non-native / invasive species were recorded on site during the habitat survey

4.3 Bat Survey Results

4.3.1 Pre-existing Data

HBIC have provided the following bat records from within 2 km of the site; (**Table 3**).

Table 3. List of Bat records within 2 km of the site provided by HBIC.

Taxon Name	Species Name	Number of Records	Further Information
<i>Nyctalus noctula</i>	Noctule	78	Max count 5 all commuting and foraging.
<i>Myotis mystacinus</i>	Whiskered Bat	2	Historical records
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	317	Max count 12, all Foraging and commuting.
<i>Myotis daubentonii</i>	Daubenton's Bat	9	Commuting.
<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	260	Max count 14 all commuting and foraging
<i>Plecotus auritus</i>	Brown Long-eared Bat	6	1 roosting remainder commuting
<i>Myotis nattereri</i>	Natterer's Bat	10	Commuting.
<i>Eptesicus serotinus</i>	Serotine	134	Max count 33, a large number of double digit counts appears to be several maternity roosts.
<i>Nyctalus leisleri</i>	Leisler's Bat	5	All commuting
<i>Pipistrelle nathusii</i>	Nathusius Pipistrelle	20	All commuting
<i>Barbastella barbastellus</i>	Western Barbastelle	3	All commuting
<i>Rhinolophus ferrumequinum</i>	Greater Horseshoe	1	Commuting

4.3.2 Trees

A full assessment of the trees on site was not undertaken as it is understood that no mature trees are to be impacted by the proposed plans (this assessment will need to be updated should any trees require removal once plans for the scheme are finalised).

4.3.3 Buildings

All buildings on site are of temporary structure (**Fig 11**) being constructed of wood / metal to provide stabling and shelter for the grazing horses and ponies on site. The structures were not considered to provide suitable day roosting opportunities for bat species due to the nature of the constructional materials and the lack of internal features (such double skin walls). Consequently, these were considered to be of **Negligible** roost potential.

4.3.4 Foraging and commuting habitat

The site comprises of a mosaic grassland, grazing marsh, watercourse and mature hedgerows which would provide a valuable resource for foraging and commuting bats in what is a largely urbanised landscape. Based on the nature of the habitats on site and immediately surrounding the site and the range of bat records returned by the HBIC (including rarer species such as Nathusius's Pipistrelle and *Myotis* spp as per Wray et al., 2010), the site is considered to be of **Moderate potential** for foraging and commuting bats.

4.4 Badgers

4.4.1 Pre-existing Information

HBIC returned a single record of Badger presence located 1.7km away within the 2 km search radius of the site.

4.4.2 Site Assessment

No evidence of resident (i.e. setts) or foraging / commuting Badger was identified however the site could provide suitable habitat for foraging Badgers with significant amount of varying grassland and scrub interface present. The site is therefore considered to be of **Moderate potential** for foraging and commuting badgers.

4.5 Reptiles

4.5.1 Pre-existing Information

HBIC holds 5 recent records of Slow-worms (*Anguis fragilis*) within a 2 km radius of the site.

4.5.2 On site Habitat Assessment

Although grazed by horses, the site comprises of several habitats that offer potential for reptiles with areas of the semi-improved grassland, scrub and tall ruderal/herb communities, showing a heterogenous landscape. The suitability of the habitats on site, the surrounding habitat and the fact that several records show Slow-worms being recorded within the southern area of the site it is considered the site to be of **High** potential to support reptiles.

4.6 Great Crested Newts

4.6.1 Pre-existing Information

HBIC do not hold any GCN records from within 2 km of the site.

4.6.2 Ponds within 500m

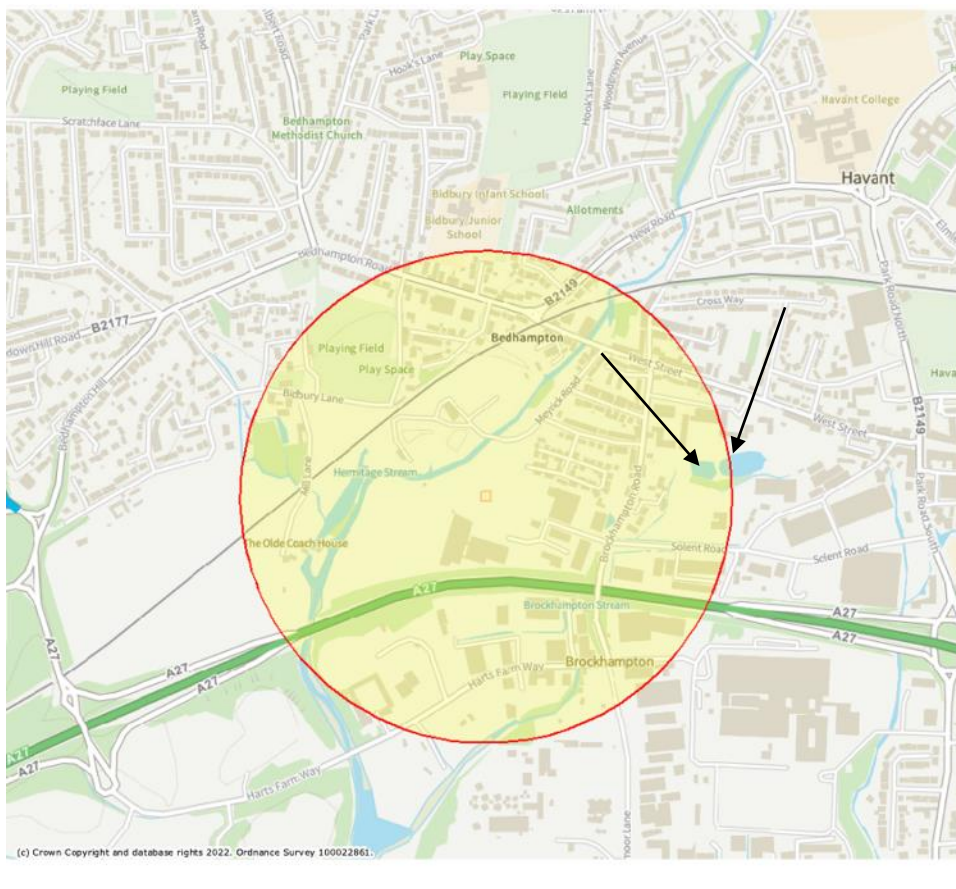
Two ponds are located within 500m of the site (**Fig 12**) which are both large ponds / lakes associated with the grounds of Portsmouth Waters offices.

4.6.3 Site Assessment

The terrestrial habitat on-site comprises of semi-improved grassland, scrub and tall ruderal/herb communities all good habitats for terrestrial GCN, however no records have been identified within 2km and the ponds identified within the 500m radius do not have dispersal routes linking to the site and are separated from site via residential houses and

Brockhampton Road. Taking this into consideration the terrestrial habitat on-site is considered to be of **Negligible potential** for transient GCN.

Figure 11. Map produced using Magic map showing the ponds within 500m of the site.



4.7 Hazel Dormouse

4.7.1 Pre-existing Information

HBIC have returned 5 records of records of Dormice (*Muscardinus avellanarius*) from within 2km of the site the most recent being in 2009. All of these are associated with habitats adjacent to the A3 1.7 km to the north west of the site (**Fig 12**).

Figure 12. Locations of the 5 Dormouse records returned by HBIC approximate 1.7 km to the NW of the site.



4.7.2 Site Assessment

The majority of the habitat on site is considered to be of limited value to Dormice (i.e. grassland) however the boundary scrub / hedgerows (including the planting along the A27) and the outgrown scrub within the central area of the site and around the perimeter are considered favourable for the species (as per Bright et al., 2006). Given the previously recorded presence within 2 kilometres and considering the suitable scrub habitats, the site is considered to be of **Moderate** potential for Dormice.

4.8 Water Vole

4.8.1 Pre-existing Information

Thirty-three records have been returned for Water Vole (*Arvicola amphibious*) within 2 km of the site. Several records show the species having been recorded within streams in urban settings within Havant town.

4.8.2 Site Assessment

No records came back from HBIC to show the species having been recorded in the section of Hermitage stream adjacent to the site. However, the riverine habitats along the stream are considered of reasonable favourable suitability for the species with much aquatic and

marginal vegetation though the banks of the stream could not be viewed other than a stretch of the river which has been subject to brick retention and weir construction. It is likely that the species may occur along this section of the stream albeit if only transitory. It is therefore considered that the stream is of **Moderate potential** for Water Vole.

4.9 Notable and Birds of Conservation Concern (BoCC)

4.9.1 Pre-existing Information

HBIC have provided an extensive list of BOCC within 2 km of the site with the following considered to be some of the more relevant species listed below (***NB the majority of these records are for waders / Brent Goose but as part of the survey work for the SW&BGS, the site has only had negative results for these species***) (Table 4)

Table 4. Records of notable bird species for within 2 km of the site as returned by HBIC.

Taxon Name	Species Name
<i>Alauda arvensis</i>	Skylark
<i>Apus apus</i>	Swift
<i>Branta bernicla subsp. Bernicla</i>	Dark-bellied Brent Goose
<i>Delichon urbicum</i>	House Martin
<i>Hirundo rustica</i>	Swallow
<i>Linaria cannabina</i>	Linnet
<i>Motacilla cinerea</i>	Grey Wagtail
<i>Passer domesticus</i>	House sparrow
<i>Ardea cinerea</i>	Grey Heron
<i>Egretta garzette</i>	Little Egret
<i>Emberiza schoeniclus</i>	Reed Bunting
<i>Pyrrhula pyrrhula</i>	Bullfinch
<i>Sturnus vulgaris</i>	Starling
<i>Turdus iliacus</i>	Redwing
<i>Turdus philomelos</i>	Song Thrush
<i>Turdus pilaris</i>	Fieldfare
<i>Tyto alba</i>	Barn owl
<i>Gallinago gallinago</i>	Snipe

<i>Phoenicurus Phoenicurus</i>	Redstart
<i>Saxicola rubetra</i>	Whinchat
<i>Tadorna tadorna</i>	Shelduck
<i>Tringa ochropus</i>	Green Sandpiper

Pre-existing records show several species having been recorded from the Hermitage stream including Green Sandpiper and Grey Wagtail . It is quite likely that Grey Wagtail nest along the stream and that the coastal grazing marsh within the southern area of the site provides suitable feeding and resting area for Green Sandpiper during migration and potentially during the winter months.

4.9.2 Site Assessment

One of the horse shelters on site was noted to have a single old nesting Swallow (*Hirundo rustica*), in the structure. Further to this the scrub and scattered trees on site provides suitable nesting habitat that would potentially support a range of breeding birds. As a result of the habitat on site combined with the surrounding habitat, the site is assessed as offering **High** potential for breeding birds. In addition, given the occurrence of scrub and grassland interface, the Hermitage stream, tidal channels and the vicinity of the coast the site also provides opportunities for migrant birds in terms of foraging and sheltering resources during migration periods.

4.10 Hedgehogs

4.10.1 Pre-existing Information

There are 21 records of records of Hedgehog (*Erinaceus europaeus*) are held by HBIC from within 2km of the site. A single record shows the species having been recorded within 50 metres of the site.

4.10.2 Site Assessment

The site provides suitable foraging and potentially nesting features within the hedgerows and scrub habitat on-site, it is therefore considered the site to be of **Moderate** potential for Hedgehogs.

4.11 Otter

4.11.1 Pre-existing Information

There are no records of Otter (*Lutra lutra*) held by HBIC from within 2km of the site.

4.11.2 Site Assessment.

Given the increase in records and distribution of this species it is considered that the site potentially can provide a natural dispersal corridor and resource for the species. The site therefore has **Moderate** potential for Otters

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

Subject to further botanical survey investigation, the majority of the site shows limited ecological value, as the development it is understood will take place largely on well grazed semi-improved grassland with the only other habitats being impacted being small areas of scrub and tall herb. However, the coastal grassland with tidal influence shows much greater interest and biodiversity with tall herb and upper coastal grassland communities being present. The area is also identified as being of priority habitat and having ecological network value. Therefore, without adequate mitigation and compensation **a certain adverse impact is likely** upon habitats of **Local - County value**.

5.2.2 Impacts to Wildlife

The proposals will result in the demolition of the existing temporary buildings on site which have been identified as containing at least one bird nest. Therefore, without adequate mitigation and compensation **an adverse impact is certain**. Further to this, the removal of any trees / shrubs and the potential disturbance to other areas could result in the disturbance of nesting birds and damage to their nests. Therefore, without adequate mitigation and compensation an **adverse impact is likely**.

The proposals will result in the removal of areas of longer grass, scrub and tall ruderal on site and therefore should these areas be directly impacted upon by works (i.e. loss / disturbance of habitat), reptiles may be killed and / or injured (if present). Therefore, without adequate mitigation **an adverse impact is likely (scale determined by size of population and species present)**.

The proposals will result in the removal and permanent loss of dense scrub on site and could result in the harming / killing of Dormice and on site if present. Therefore, without adequate mitigation and compensation an **adverse impact is likely**.

Although no Badger setts were identified on site, the site is suitable for foraging and commuting Badgers as well as Hedgehogs. As the proposed development will result in the permanent loss of this habitat as well as the creation of large excavations during the construction period (causing a potential hazard to Badgers and other mammals), without adequate mitigation an **adverse impact is likely**.

If there is the loss of the highlighted coastal grassland (Priority Habitat) area this would have implications to foraging and dispersing wildlife in the area using the riverine corridor and **adverse impact** is likely.

5.3 Site Operation

5.3.1 Impacts to Wildlife

The development will result in an increase in lighting within the general area from street lights and external lights on the new houses. This can affect the behaviour, particularly foraging, of nocturnal wildlife. Therefore, an **adverse impact is likely** on Badgers, Bats and Dormice (should they be present on-site).

5.3.2 Impacts on Designated Sites

The site lies within 0.4km of Solent & Southampton water SPA and without any mitigation, the development of any new dwellings will have **an adverse impact** upon the integrity of this designated sites through an increase in recreational visitor pressure. A financial contribution will be needed to help offset the recreational pressures from the additional visitor pressure, a breakdown of this can be seen in section 6.7. It is considered that this impact can be mitigated to a certain degree and impacts would therefore be minor adverse – **neutral** to habitats of **International Significance**.

Although a number of SNICs were identified as falling within 2 km of the site, accounting of the existing public rights of way within / to these sites it is considered the impact of the development upon these sites would only be **minor adverse - neutral**.

6.0 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 that proposed mitigation and compensation is 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 Bat Activity Transects

Based on the moderate habitat suitability assessment for foraging and commuting bats, latest BCT guidelines suggest that (Collins (ed) 2016) (as shown in **Table 5** below reproduced from the guidelines) *'one survey visit per month 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 *'Two locations per transect, data to be collected on five consecutive nights per month April-October'* suggested.

Table 5. Guidelines on the number of bat activity surveys recommended to achieve a reasonable survey effort in relation to habitat suitability (as per Collins, 2016).

Survey Type	Low Suitability Habitat for Bats	Moderate Suitability Habitat for Bats	High Suitability Habitat for Bats
Transect / spot count / timed search surveys	One survey visit per season (spring – April/May, summer – June/July/August, autumn – September/October) in appropriate weather conditions for bats. Further surveys may be required if these surveys visits reveal higher levels of bat activity than predicted by habitat alone	One survey visit per month (April – October) in appropriate weather conditions for bats. At least one of the surveys should comprise a dusk and pre-dawn (or dusk to dawn) within one 24 hr period.	Up to 2 surveys visit per month (April – October) in appropriate weather conditions for bats. At least one of the surveys should comprise dusk and pre-dawn (or dusk to dawn) within one 24 hr time period.
AND			
Automated/static bat detector surveys	One location per transect, data to be collected on five consecutive nights per season in appropriate weather conditions for bats	Two locations per transect, data to be collected on 5 consecutive nights per month in appropriate weather conditions for	Three locations per transect, data to be collected on 5 consecutive nights per month in appropriate weather

		bats	conditions for bats.
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NB Please note the surveys have commenced from April 2022

6.3 Reptiles

The longer areas of semi-improved grassland, scrub and tall ruderal on site has been assessed as high potential to support reptiles. It is recommended that a suite of reptile presence/likely absence surveys be completed. This would involve the laying of artificial refugia within areas of suitable habitat and checking the refugia on seven occasions in April and May or in September in suitable weather conditions. Should reptiles be present it is recommended that suitable habitats are retained and protected during works, with exclusion fencing used if necessary to ensure reptiles cannot enter the construction area. Translocation of reptiles out of construction area may also be necessary.

6.4 Dormice

Given the presence of suitable mature scrub and bramble surrounding the site, a nesting tube survey will be set up following the methodology as described within Bright et al (2006). This survey will help to establish presence / absence on site and inform any required mitigation / compensation. Surveys would require the erection of a minimum of 50 nesting tubes in suitable habitats with these then checked for the appropriate number of surveys in order to achieve an adequate survey effort score of 20 as per Bright et al (2006) in **Fig 12** below.

NB Please note the surveys have commenced from April 2022 and are to be completed by September 2022.

Figure 13. Index of probability of finding dormice present in nest tubes in any one month (based on 50 tubes)

Month	Index of probability
April	1
May	4
June	2
July	2
August	5
September	7
October	2
November	2

6.5 Avoidance of Impacts to Nesting Birds

In order to avoid disturbance of nesting birds or damage to their nests, clearance of any trees / scrub on and the demolition of the buildings on site should be undertaken outside of the bird-nesting season (typically March – August, dependent 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. 5 m) until nestlings have fledged.

6.6 Badgers

As the site has potential use by commuting Badgers, the following mitigation measures are required to be implemented:

- Pre-commencement updated walkover survey on site (1 - 2 weeks before any ground works start) to assess if activity levels remain the same.
- During the construction phase, any open excavations left overnight should either be covered to prevent falling in or escape ladders (i.e. wooden planks) should be used to prevent them from becoming trapped.

6.7 Solent & Southampton water SPA

The below text is from the Bird Aware Solent website ² regarding contributions towards offsetting impacts to the Solent area SPA.

'Most visits to the Solent Special Protection Areas (SPAs) are made by people who live within 5.6 kilometres of them. Consequently, new homes built within that 5.6-kilometre zone are likely to lead to more people visiting the SPAs with a potential to have an impact on the birds. Legislation requires that measures must be implemented to mitigate that impact.

Housebuilders can provide mitigation themselves. They will need to satisfy the local planning authority and Natural England that their proposed measures will fully mitigate the impact of the development.

In most cases, it is more straightforward for a builder to make a developer contribution towards implementing the Bird Aware Solent Strategy.

A developer contribution needs to be paid for every net additional dwelling. The Bird Aware Solent Strategy was endorsed in December 2017 and introduced a sliding scale of developer contributions based upon bedroom size. The contributions from 1st April 2022 are as follows:

- 1-bedroom property £390
- 2-bedroom property £563
- 3-bedroom property £735
- 4-bedroom property £864
- 5-bedroom property £1014

- *Flat Rate £652*

6.8 Retention of Coastal Grassland & Priority Habitat & Enhancements

It is recommended that the area classified and identified as Priority Habitat and as coastal grassland be retained and enhanced to provide biological net gain as part of any proposed development of the entire site. Opportunities are available to enable net biological gain as per Local and National Planning Policy with appropriate design and management.

Based on previous experience and the evolving nature of site layouts through the planning process, it is considered the most appropriate means of securing additional ecological enhancements (such as bird and bat boxes and native species planting) would be through the provision of a suitable condition to the outline planning permission. Such a condition would seek to secure the provision of a detailed scheme / plan of all measures to enhance the biodiversity value of the site to be submitted with reserved matters (or similar).

6.9 Enhancements

Based on previous experience and the evolving nature of sites layouts through the planning process, it is considered the most appropriate means of securing ecological enhancements (such as bird and bat boxes and native species planting) would be through the provision of a suitable condition to the outline planning permission. Such a condition would seek to secure the provision of a detailed scheme / plan of all measures to enhance the biodiversity value of the site to be submitted with reserved matters (or similar).

7.0 REFERENCES

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Legend

-  Site boundary
-  Semi-improved grassland
-  Coastal floodplain grazing marsh
-  Scrub
-  Hedgerow
-  Buildings



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Map	Phase I Habitat Survey
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Site	Kingscroft Farm
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Client	Foreman Homes
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Date	9/05/2022
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