



GRM Holdings Limited

College Road, Campdown

Extended Phase 1 Habitat Survey

October 2019

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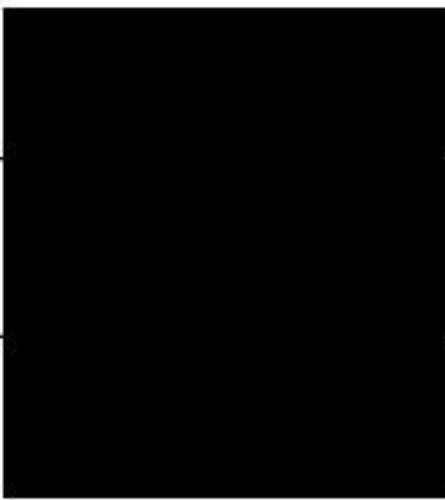
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Executive Summary

Contents	Summary
Site Location and Proposals	The proposed development site mainly consists of large semi-improved grazed grassland fields c. 31 ha in area, located to the west of Havant in Hampshire, centred on Ordnance Survey grid reference SU690069. The site is bounded by Scratchface Lane and the A3 (M) along the eastern boundary and College Road forming the western boundary. Further east of the site lies the residential area of Bedhampton. South of the site are agricultural fields with the B2177 Portsdown Hill Road and the residential dwellings of Farlington beyond. Directly north of the site is Littlepark Wood. Portsmouth Golf Course lies directly west of the site. On the north western corner of the site lies South Downs College. Further south lies Langstone Harbour, a designated Ramsar Site, Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI), along with Farlington Marshes a designated Local Nature Reserve (LNR).
Previous Reports / Surveys	WYG wintering bird surveys have been conducted at the site October 2015-March 2016. SPA qualifying species brent goose and curlew were noted on multiple occasions utilising the site.
This Survey(s)	Extended Phase 1 Habitat Survey – A habitat assessment and assessment for protected species on the site 'College Road, Campdown'.
Results	- One habitat of principal importance was noted on site: hedgerows - Suitable habitat on site for wintering birds; - Suitable habitat on site for breeding birds; - Suitable roosting sites within trees for bats; - Suitable habitats for foraging and commuting bats; - Suitable habitat on site for reptiles; - Suitable habitat on site for foraging badgers.
Recommendations	Recommendations for avoidance - It is recommended that all boundary vegetation is retained where possible; Recommendations for mitigation/enhancement - Any trees to be removed are soft felled; - Removal of vegetation is undertaken outside of the nesting bird season (March to August inclusive); - Infill and replacement planting is recommended to maintain connectivity within site and in the wider area; - Lighting must be pointed away from boundary vegetation to maintain dark corridors within the boundaries; - Bird and bat boxes, are installed throughout the site Recommendations for further surveys - A climbed bat roost assessment was completed on those mature and semi mature trees on site that hold suitability for roosting bats; - Bat emergence/ return surveys are carried out on group of trees G60 to assess the bat activity present; - Bat activity surveys are carried out once per month between April and October. - A pre-commencement badger survey is carried out three months and then up to one week prior to construction commencing.



1.0 Introduction

1.1 Background

WYG was commissioned by GRM Holdings Limited to undertake an extended Phase 1 habitat survey of a proposed development site at College Road, Campdown (hereafter referred to as 'the site'). The site location is shown in Figure 1.

This report was prepared by Sarah Cruickshank Grad CIEEM.

1.2 Site Location

The proposed development site mainly consists of large semi improved grassland fields c. 31 ha in area, located to the west of Havant in Hampshire, centred on Ordnance Survey grid reference SU690069.

The site is bounded by Scratchface Lane and the A3 (M) along the eastern boundary and College Road forming the western boundary. Further east of the site lies the residential area of Bedhampton. South of the site are agricultural fields with the B2177 Portsdown Hill Road and the residential dwellings of Farlington beyond. Directly north of the site is Littlepark Wood. Portsmouth Golf Course lies directly south west of the site. On the north western corner of the site lies South Downs College. Further south lies Chichester and Langstone Harbour, a designated Ramsar Site, Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI), along with Farlington Marshes a designated Local Nature Reserve (LNR).

1.3 Development Proposals

Development of land at Campdown for the provision of circa 735 dwellings (Use Class C3), sports facilities, formal and informal open space, landscaping, the provision of new access onto College Road and necessary associated works and infrastructure.

1.4 Survey & Reporting Objectives

The ecological investigations undertaken by WYG included the following objectives:

- A desk study to obtain existing information on statutory and non-statutory sites of nature conservation interest, and records of protected/notable species within the site and its surroundings for up to 2 km of the site;



- An extended Phase 1 habitat survey involving a walkover of the site to record habitat types and dominant vegetation, invasive species, a reconnaissance survey for evidence of protected fauna or habitats capable of supporting such species;
- An assessment of the potential ecological constraints to the proposed works at the site and recommendations for further survey, avoidance, mitigation and enhancement where appropriate.



2.0 Planning Policy & Legislation

2.1 National Planning Policy

A revised NPPF was issued in February 2019 (Ministry of Housing Communities and Local Government, 2019) and currently supplements government Circular 06/2005, Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System (Office of the Deputy Prime Minister, 2005).

Circular 06/2005 states that the presence of protected species is a material consideration in the planning process. Paragraph 170 of the NPPF also states that:

'Planning policies and decisions should contribute to and enhance the natural 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.*

The conservation and enhancement of wildlife is also specifically reference re: development within the National Parks or the Broads. Paragraph 174 then goes on to confirm that:

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 reasons 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.*

Regarding EcIAs and HRAs – any sites identified, or required, as compensatory measures for adverse effects on any Natura 2000/habitats site should also be given the same level as protection as the pSPAs and cSACs themselves. In addition, when an application is being determined, Paragraph 177 clarifies that:

"The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site. The presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site"

Paragraph 180 is also relevant as;

Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should...

- c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.*



2.1.1 Biodiversity 2020

Biodiversity 2020: A strategy for England's wildlife and ecosystem services replaces the previous UK Biodiversity action Plan and sets national targets to be achieved. The intent of Biodiversity 2020, however, is much broader than the protection and enhancement of less common species, and is meant to embrace the wider countryside as a whole.

The priority species and habitats considered under Biodiversity 2020 are those detailed under Section 41 of the Natural Environment and Rural Communities (NERC) Act, 2006 (as detailed below).

Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level), and are usually drawn up by a consortium of local Government organisations and conservation charities. Although no-longer accountable at a national level many are still managed and implemented at a local level.

2.2 Local Planning Policy

The site is located within The Campdown Strategic Area (2016), identified within the Havant Strategic Development Areas Financial Feasibility Study on behalf of Havant Borough Council. The study forms supporting evidence to the Havant Local Plan 2036.

The Havant Borough Local Plan (Core Strategy) includes Policy CS11 Protecting and Enhancing the Special Environment and Heritage of Havant Borough

Planning permission will be granted for development that:

- Has particular regard to the following hierarchy of nature conservation designations within the borough (i) Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar (ii) Sites of Special Scientific Interest (SSSI) and National Nature Reserves. (iii) Sites of Importance for Nature Conservation (SINC), Local Nature Reserves (LNR) and other Ancient Woodland.
- Protects and where appropriate enhances the borough's statutory and non-statutory 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.
- 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.



2.3 Legislation

2.3.1 Wildlife and Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK. This legislation is the chief means by which the *Bern Convention* (1982) and the *Birds Directive* (2009) are implemented in the UK. Since it was first introduced, the Act has been amended several times and includes the requirement to designate Special Protection Areas (SPAs) of particular importance to birds.

The Act makes it an offence to (with exception to species listed in Schedule 2) intentionally:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use; or
- take or destroy an egg of any wild bird.
- to disturb any bird listed within Schedule 1 without a valid licence.

In addition, the Act makes it an offence (subject to exceptions) to:

- intentionally or recklessly kill, injure or take any wild animal listed on Schedule 5;
- interfere with places used for shelter or protection, or intentionally disturbing animals occupying such places.

The Act also prohibits certain methods of killing, injuring, or taking wild animals.

Finally, the Act also makes it an offence (subject to exceptions) to:

- intentionally pick, uproot or destroy any wild plant listed in Schedule 8, or any seed or spore attached to any such wild plant;
- unless an authorised person, intentionally uproot any wild plant not included in Schedule 8;
- sell, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Following all amendments to the Act, a total of 154 species of animal, including several mammals, reptiles, amphibians, fish and invertebrates are protected under Schedule 5. Schedule 8 contains 185 protected species of flora, including higher plants, bryophytes and fungi and lichens. A comprehensive and up-to-date list of these species can be obtained from the JNCC website.



Part 14 of the Act makes it unlawful to plant or otherwise to allow to grow in the wild any plant which is listed in Part II of Schedule 9.

2.3.2 The Conservation of Habitats and Species Regulations 2010 (as amended)

The *Conservation of Habitats and Species Regulations 2010* (as amended) originally came into force in 1994 and was updated on 16th August 2012 to ensure the various provisions of Directive 92/43/EC (the *Habitats Directive*) are transposed in a clear manner. These regulations are predominately aimed at the conservation of habitats and species other than birds and complement the Wildlife and Countryside Act.

Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I or II of the *Habitats Directive* respectively) to the European Commission. These sites, if ratified by the European Commission, are then designated as Special Areas of Conservation (SACs). The 2012 amendments include that public bodies help preserve, maintain and re-establish habitats for wild birds.

The Regulations also make it an offence to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2, or pick, uproot, destroy, or trade in the plants listed in Schedule 5 (see Table 2).

2.3.3 Natural Environment and Rural Communities (NERC) Act 2006

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the, NERC Act to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 habitats of principal importance and 1,150 species of principal importance.

2.3.4 Hedgerow Regulations 1997

The *Hedgerow Regulations* were made under Section 97 of the *Environment Act* 1995 and came into force in 1997. They introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside, by controlling their removal through a system of notification. Important hedgerows are defined by complex assessment criteria, which draw on biodiversity features, historical context and the landscape value of the hedgerow.



2.3.5 Protection of Badgers Act 1992

The main legislation protecting badgers in England and Wales is the *Protection of Badgers Act 1992* (the 1992 Act). Under the 1992 Act it is an offence to: wilfully kill, injure, take or attempt to kill, injure or take a badger; dig for a badger; interfere with a badger sett by, damaging a sett or any part thereof, destroying a sett, obstructing access to a sett, causing a dog to enter a sett or disturbing a badger while occupying a sett. The 1992 Act defines a badger sett as: "any structure or place which displays signs indicating current use by a badger".



3.0 Methodology

3.1.1 Desk Study

The Multi-Agency Geographic Information for the Countryside database (MAGIC) was utilised to gather details of statutory designated sites within 2km of the site. Local records and details of non-statutory sites have been requested from Hampshire Biodiversity Information Centre (HBIC) but have not yet been received.

3.1.2 Previous Surveys

Due to the close proximity to Chichester and Langstone Harbour SPA, WYG Consultant Ecologist Sarah Cruickshank Grad CIEEM conducted wintering bird surveys at the site during the survey period October 2015- March 2016. A peak count of 146 SPA qualifying species brent goose and 74 Red listed species curlew were noted utilising the site. Wintering birds have been noted regularly feeding at the site during this survey period (WYG, 2016).

3.1.3 Local Records Centre

Information was gathered from Hampshire Biodiversity Information Centre (HBIC) the ecological records centre for Hampshire regarding the presence of nature conservation designations and protected and notable species within 2 km of the boundary of the proposed development site.

The data search covers:

- Non-statutory nature conservation designations, such as Sites of Importance for Nature Conservation;
- Records of protected species, such as badgers, great crested newts and bats; and
- Records of notable species, such as those listed under Section 41 of the NERC Act 2006.

3.2 Field Surveys

An extended Phase 1 habitat survey was completed on 9th November 2016 by Consultant Ecologist Sarah Cruickshank Grad CIEEM. All areas of the site were investigated, including those parts that are not expected to be affected directly by the works but may be indirectly impacted upon.

3.2.1 Habitats

The habitat types within the site were described during the walkover survey in accordance with the categories specified for a Phase 1 Habitat Survey (Joint Nature Conservation Committee, 2010).

Dominant plant species were recorded for each habitat present.

3.2.2 Protected and Notable Species

The site was inspected for evidence of and its suitability to support protected or notable species, especially those listed under the Conservation of Habitats and Species Regulations 2010 (as amended), the Wildlife & Countryside Act 1981 (as amended), the Natural Environment and Rural Communities (NERC) Act 2006, the Countryside & Rights of Way (CROW) Act 2000 or local Biodiversity Action Plans.

The following species were considered:

Great Crested Newts

The site was appraised for its suitability to support great crested newts. The assessment was based on guidance outlined in the *Herpetofauna Workers' Manual* (Joint Nature Conservation Committee, 2003) and the *Great Crested Newt Conservation Handbook* (Langton, Beckett & Foster, 2001).

Reptiles

The site was appraised for its suitability to support reptiles. The assessment was based on guidance outlined in the *Herpetofauna Workers' Manual* (Joint Nature Conservation Committee, 2003).

Bats

All trees within the boundary of the site were appraised by an experienced ecologist from WYG for their suitability to support breeding, resting and hibernating bats using survey methods based on those outlined in the Bat Conservation Trust's Bat Surveys: Good Practice Guidelines (2012). Trees and buildings were surveyed externally from the ground only, using binoculars. Where possible, observations were made internally of the structures surveyed.

Bat roost suitability of trees is determined by a variety of factors including physical attributes of the tree, and proximity to good feeding sites and safe commuting routes. A brief summary of the known factors which influence a trees' suitability to support bats is provided in **Table 1** below.

Table 1. Features of trees used by bats and signs indicating possible use by bats (taken from Collins, 2016)

Features of trees used by bats	Signs indicating possible use by bats
• Natural holes • Woodpecker holes • Cracks/splits in major limbs • Loose bark • Behind dense, thick-stemmed ivy • Hollows/cavities • Within dense epicormic growth • Bird and bat boxes	• Tiny scratches around entry point • Staining around entry point • Bat droppings in/around/below entrance • Audible squeaking at dusk or in warm weather • Flies around entry point • Distinctive smell of bats • Smoothing of surfaces around cavity

All trees within the site boundary were visually inspected from the ground only for their bat roosting potential, including potential access points into the trees and connectivity to the wider environment. These were categorised in accordance with **Table 2.**, and the categorisation determined by a visual assessment of the trees to record the presence of features such as crevices, holes, fissures, split bark and arboreal ivy.

Table 2: Categories of trees, based on their suitability to support bat roosts (taken from Collins, 2016)

Suitability	Description -Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically.	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to



	However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.	the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (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).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats



		such as broadleaved woodland, tree lined watercourses and grazed parkland. Site is close to and connected to known roosts.
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Dormice

The site was appraised for its suitability to support dormice. The assessment was based on guidance outlined in the *Dormouse Conservation Handbook* (Bright *et al.*, 2006).

Badgers

The site was surveyed for evidence of badger setts or other badger activity such as paths, latrines or signs of foraging. Methodologies used and any setts recorded were classified according to published criteria (Harris, Cresswell & Jefferies, 1989). It is recommended in *Badgers and Development* (English Nature, 2011) that a 50m buffer around the site is investigated for evidence of badger activity where possible. This was observed around the majority of the site, except where it borders private dwellings.

Water vole

Following methods set out in the *Water Vole Conservation Handbook* (Strachan & Moorhouse, 2011), an assessment of waterbodies within and adjacent to the site was undertaken to determine their suitability to support water voles and a search for evidence of activity was conducted, including droppings, latrines, burrows, footprints and feeding lawns, of any areas considered suitable.

Other Species

The site was also appraised for its suitability to support other protected or notable fauna including mammals, birds and invertebrates in accordance with the Institute for Ecology and Environmental Management's *Guidelines for Preliminary Ecological Appraisal* (2013). Evidence of any current or historical presence of such species was recorded.

Invasive Species

The site was searched for evidence of invasive plant species, such as Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*), giant hogweed (*Heracleum mantegazzianum*), New Zealand pygmyweed (*Crassula helmsii*), horizontal cotoneaster (*Cotoneaster horizontalis*), pontic rhododendron (*Rhododendron ponticum*) and floating pennywort (*Hydrocotyle ranunculoides*).



3.3 Limitations

The comprehensiveness of any ecological assessment will be limited by the season in which surveys are completed. The updated extended Phase 1 habitat survey was completed in November which is after the optimal time for completing extended Phase 1 habitat surveys; therefore it may be possible that some species were not present at the time of the survey. Overall the classification of habitats however is not likely to have been limited by this factor.

To determine likely presence or absence of protected species usually requires multiple visits at suitable times of the year. As a result, this survey focuses on assessing the potential of the site to support protected or priority species with reference to the *National Planning Policy Framework* (NPPF, 2012) and Circular 06/2005, especially those given protection under UK or European wildlife legislation.

A 50m buffer along all boundaries of the site could not be surveyed for evidence of badger which represents a slight limitation to the extended Phase 1 habitat survey. As the areas that could not be accessed, the Golf Course to the south of the site, are considered open and disturbed in nature therefore limiting the suitability for badger sett creation, this is not considered a limitation.

This report cannot therefore be considered a comprehensive assessment of the ecological interest of the site. However, it does provide an assessment of the ecological interest present on the day of the visit and highlights areas where further survey work may be recommended.

Further ecological surveys were conducted on site until October 2017 during which time there was no change to the conditions on site. The details of this report are therefore considered to remain valid for a period of two years from that date (until October 2019). Beyond this period, if works have not yet been started, it is recommended that the findings of this assessment are reviewed in order to determine any need for update surveys.

4.0 Baseline Conditions

4.1 Designated Sites

A data search to include all national European and International Statutory Sites was undertaken on MAGIC within 2km of the site. There are six designated sites within the 2km data search radius of the site as detailed in Table 3 below.

Table 3. European and International Statutory Sites within 2km of the site.

Name	Distance	Reason for designation
Farlington Marshes LNR	1.2km south	Farlington Marshes is 125 hectares (308 acres) of flower-rich grazing marsh on the northern shore of Langstone Harbour between Portsmouth and Havant. Farlington is internationally important for the bird populations, flowers and butterflies that it supports.
Chichester and Langstone Harbour RAMSAR, SPA	1.3km south	RAMSAR designated due to the large, sheltered estuarine basins comprising extensive sand and mud-flats exposed at low tide. The two harbours are joined by a stretch of water that separates Hayling Island from the mainland. Tidal channels drain the basin and penetrate far inland. The mud-flats are rich in invertebrates and also support extensive beds of algae, especially <i>Enteromorpha</i> species, and eelgrasses <i>Zostera</i> spp. The basin contains a wide range of coastal habitats supporting important plant and animal communities. In addition, the Chichester and Langstone Harbour is designated as a SPA as it supports important overwintering populations of migratory waterfowl. It also supports important colonies of breeding terns. SPA qualifying species comprise black tailed godwit (<i>Limosa limosa islandica</i>), dark bellied brent goose (<i>Branta bernicla</i>), dunlin (<i>Calidris alpina alpina</i>), grey plover (<i>Pluvialis squatarola</i>), redshank (<i>Tringa tetanus</i>) and ringed plover (<i>Charadrius hiaticula</i>). In addition the SPA is a wetland of international importance supporting over 90,000 over wintering waterfowl including curlew (<i>Numenius arquata</i>), oystercatcher

		(<i>Haematopus ostralegus</i>), lapwing (<i>Vanellus vanellus</i>) and whimbrel (<i>Numenius phaeopus</i>).
Langstone Harbour SSSI	1.3km south	Intertidal habitat as well as areas above high water important as roosting sites for wintering birds. Considered to be suffering adverse impacts due to rising sea level which will be significantly reducing the extent of habitat exposed at low tide and hence reducing the value of the area of the area for birds.
Chichester Harbour SSSI	1.3km south	Chichester Harbour is a large estuarine basin in which at low water extensive mud and sandflats are exposed, drained by channels which unite to make a common exit to the sea. The site is of particular significance for wintering wildfowl and waders and also breeding birds both within the Harbour and in the surrounding permanent pasture fields and woodlands. There is a wide range of habitats which have important plant communities.
Solent Maritime SAC	1.3km south	Sea inlets, tidal rivers, estuaries, mud flats, sand flats, lagoons (including saltwork basins), salt marshes, salt pastures, salt steppes.
Solent & Isle of Wight Lagoons SAC	1.4km south	Primarily designated for its coastal lagoons. The lagoons show a range of salinities and substrates, ranging from soft mud to muddy sand with a high proportion of shingle, which support a diverse fauna including large populations of three notable species: the nationally rare foxtail stonewort (<i>Lamprothamnium papulosum</i>), the nationally scarce lagoon sand shrimp (<i>Gammarus insensibilis</i>), and the nationally scarce starlet sea anemone (<i>Nematostella vectensis</i>). The lagoons hold a well-developed low-medium salinity insect-dominated fauna. Species diversity in these lagoons is high and the fauna includes very high densities of <i>N. vectensis</i> .

4.1.1 Non- Statutory Sites

There are 43 Sites of Nature Conservation Importance within the 2km data search radius of the site, summary details are provided in **Table 4** below:

Sites of Nature Conservation Importance (SINC)

Table 4: Sites of Nature Conservation Importance within 2 km of the development site with reasons for designation key listed below. See Figure 3. for a plan of the non- statutory sites.

SINC Ref	SINC Name	Grid Reference	Reason for designation
PO0004	Land to the South of Portsdown Hill Road	SU66800638	2A/2B
HV001	London Road Fen	SU67070763	1Cii/5B
PO006	Meadow west of Farlington Avenue	SU67200633	2D
PO0026	Farlington Avenue	SU67610622	2B
HV0002	Portsmouth Golf Course West	SU67700665	2B/2D
HV0003	Fort Purbrook	SU67800650	2A/6A - sainfoin (<i>Onobrychis viciifolia</i>) and autumn lady's-tresses (<i>Spiranthes spiralis</i>)
HV0004	Purbrook Park Wood	SU67800680	1A
PO0009	Land to the north of Portsdown Hill Road	SU67840633	2B/ 2D/6A- small blue (<i>Cupido minimus</i>) and autumn lady's-tresses (<i>Spiranthes spiralis</i>)
HV0005	Sandy Dell	SU67900740	1A
PO0025	Field to West of Gillman Road	SU68000625	2B
HV0006	Fort Purbrook Paddock 1 (Havant)	SU68050645	2B/ 6A- small blue (<i>Cupido minimus</i>) and autumn lady's-tresses (<i>Spiranthes spiralis</i>)
PO010	Adjacent to Farlington Playing Fields	SU68100480	2D/4A/6A- divided sedge (<i>Carex divisa</i>) and spiny restharrow (<i>Ononis spinosa</i>)
HV0007	Fort Purbrook Paddock 2 (Havant)	SU68200640	2B/6A- autumn lady's-tresses (<i>Spiranthes spiralis</i>)
HV0009	Stakes Coppice Remnant 1	SU68270868	1B/7A
PO0019	East and West of Gillman Road	SU68300618	2B/6A- corn parsley (<i>Petroselinum segetum</i>) and flattened meadow-grass (<i>Poa compressa</i>)
HV0143	Fort Purbrook Paddock 3 (Havant)	SU68400640	2B
HV0010	Newlease Copse, Havant	SU68400830	1A
PO0027	Farlington Marshes	SU68500430	2B/6A/6C- wild celery (<i>Apium graveolens</i>); divided sedge (<i>Carex divisa</i>); sea barley (<i>Hordeum marinum</i>); golden- samphire (<i>Inula crithmoides</i>); narrow-lvd bird's-foot-



			trefoil (<i>Lotus tenuis</i>) and parsley water-dropwort (<i>Oenanthe lachenalii</i>)
HV0142	Fort Purbrook Paddock 4 (Havant)	SU68500640	2B
HV0011	Portsmouth Golf Course East	SU68500662	2B/ 2D
HV0014	Field East of Farlington Redoubt (North)	SU68790639	2D
HV0015	Stakes Coppice Remnant 2	SU68810852	1B
HV0016	Gundymoor Wood (West)	SU68850760	1A
HV0017	Portsmouth City Golf Course Copse	SU68900660	1B/6A- fly orchid (<i>Ophrys insectifera</i>)
HV0019	Camp Down Grassland Remnants	SU69000651	2D
HV0020	Gundymoor Wood (Main)	SU69000750	1A
HV0023	Stakes Coppice Remnant 5	SU69070864	1A/1B
HV0024	Forty Acres Farm B	SU69080568	6B- dark-bellied brent goose (<i>Branta bernicla bernicla</i>)
HV0025	Johnston's Coppice	SU69100790	1A/6A- hazel dormouse (<i>Muscardinus avellanarius</i>)
HV0026	Stakes Coppice Remnant 6	SU69100852	1A
HV0027	Fields off Havant Road	SU69180613	6A/6B- dark-bellied brent goose (<i>Branta bernicla bernicla</i>) and dwarf spurge (<i>Euphorbia exigua</i>)
HV0028	Farlington Marshes Grassland (North-East)	SU69200550	2A/4A
HV0029	Littlepark Wood (West)	SU69200750	1A/1Cii/6A- hazel dormouse (<i>Muscardinus avellanarius</i>)
HV0030	Meadow Adjacent to Johnston's Copse	SU69200780	1A/2B/5B/6A- hazel dormouse (<i>Muscardinus avellanarius</i>)
HV0033	Neville's Park West Wood	SU69480843	1B
HV0034	Littlepark Wood (East)	SU69500710	1A/1Cii
HV0035	Hulbert Road Meadow	SU69500800	2D/5B
HV0037	Neville's Park East Wood	SU69600850	1A
HV0038	Neville's Park Areas 4-10	SU69800810	1B/1Cii/2A/2D- meadow brome (<i>Bromus commutatus</i>)

HV0039	Neville's Park Areas 2 & 3	SU69800860	2A
HV0042	Bushy Lease	SU69900840	1A
HV0043	Manor Farm A	SU70000610	6B- dark- bellied brent goose (<i>Branta bernicla bernicla</i>)
HV0044	Broadmarsh Playing Field	SU70020563	6B- dark- bellied brent goose (<i>Branta bernicla bernicla</i>)

Woodland

- 1A ancient¹ semi-natural² woodlands.
- 1B other woodland where there is a significant element of ancient semi-natural woodland surviving.
- 1C other semi-natural woodland if;
 - (ii) they comprise important community types of restricted distribution in the County, such as yew woods and alder swamp woods

1 Ancient - refers to woodlands which have developed particular ecological characteristics as a result of their long continuity. Those identified to date which are over 2ha are included on the Hampshire Inventory of Ancient Woodlands (Provisional).

2 Semi-natural - modified types of vegetation in which the dominant and constant species are accepted natives to Britain and that locality, and the structure of the community conforms to the range of natural vegetation types.

Neutral/acid/calcareous grassland

- 2A agriculturally unimproved grasslands³
- 2B semi-improved grasslands which retain a significant element of unimproved grassland.
- 2D grasslands which have become impoverished through inappropriate management but which retain sufficient elements of relic unimproved grassland to enable recovery.

3 Agriculturally unimproved grassland - grassland that is composed of a mixed assemblage of indigenous species in essentially semi-natural communities which has been allowed to develop without the major use of herbicides or inorganic fertilisers.

Coastal habitats

- 4A Semi-natural coastal and estuarine habitats, including saltmarsh, intertidal mudflats, sand dunes, shingle, brackish ponds, grazing marsh and maritime grasslands.

Wetlands

- 5B Fens, flushes, seepages, springs, inundation grasslands etc. that support a flora and fauna characteristic of unimproved and waterlogged (seasonal or permanent) conditions.

Species

- 6A Sites which support one or more notable species⁴.
- 6B Sites which regularly support a significant population of a species which has a restricted distribution or has substantially declined in population or range. Such sites may be used seasonally or for only one part of a species life-cycle.
- 6C Sites which support an outstanding assemblage of species.

4 Notable species include Red Data Book species, Nationally Scarce species, species covered under Schedules 1,5 and 8 of the Wildlife & Countryside Act 1981, Annex 1 of the EC Bird Directive 79/409 and Annex II & IV of the EC Directive 92/43/EEC 'The Habitats Directive', and those covered by the Bern,



Bonn and Ramsar Conventions. Notable species will also include species which are considered 'County Rare' or 'County Scarce'. County Rare = those species recorded in 1% or less tetrads in Hampshire or either of the two vice-counties (11 & 12) separately. County Scarce = 4% or less tetrads.

Social value

- 7A Sites of nature conservation interest which occur in areas otherwise deficient in such interest, and/or are known to be of particularly high value to local communities e.g. community wildlife sites. Sites selected under this criteria will be rigorously confined to those which, if lost, would result in a considerable and demonstrable loss to the local community which would be very difficult/impossible to replace. Because of the widespread distribution of sites of nature conservation interest in Hampshire, and the high threshold used to define critical importance, only a limited number of sites are likely to meet this criteria.

4.2 Habitats

Habitats comprise grazed neutral semi-improved grassland with areas of dense scrub and scattered scrub, scattered semi mature trees, standing water as well as intact and defunct hedgerows comprising mature and semi-mature trees.

4.2.1 Neutral Semi-Improved Grassland

The site is predominately comprised of neutral semi-improved grassland (Photograph 1.). The site is grazed with horses and a single goat was on site during the survey visit, as well as during winter bird surveys. Dominant species within all three fields included perennial rye grass (*Lolium perenne*), Yorkshire fog (*Holcus lanatus*) with creeping thistle (*Cirsium arvense*), common knapweed (*Centaurea nigra*), narrow-leaved dock (*Rumex acetosa*), broad-leaved dock (*Rumex obtusifolius*), cock's foot, thistle (*Cirsium* sp.), mugwort (*Artemisia vulgaris*) and bristly ox-tongue (*Helminthotheca echioides*). In addition, at the eastern extent of the site lie sections of wetter areas and flushes, especially noted in consequent wintering bird surveys (WYG, 2017) during periods of heavy rain.

Photograph 1. The site comprises predominantly neutral semi-improved grassland



4.2.2 Scattered trees

Scattered semi-mature oak (*Quercus robur*) trees are located within the centre of the site. A number of mature and semi-mature trees are located within the south and north of the site (Photograph 2). Other species include ash (*Fraxinus excelsior*), horse chestnut (*Aesculus hippocastanum*) and elder (*Sambucus nigra*).

Photograph 2. Scattered trees comprise the boundaries of the site.



4.2.3 Dense Scrub

Dense scrub is located in patches throughout the site, predominantly in the centre of the site as well as dominating some of the boundaries (Photograph 3). The scrub was dominated by bramble (*Rubus fruticosus*) with goat willow (*Salix caprea*), bracken (*Pteridium aquilinum*), nettle (*Urtica dioica*), buddleia (*Buddleja davidii*), blackthorn (*Prunus spinosa*), and teasel (*Dipsacus fullonum*).

Photograph 3. Dense scrub situated in northern extent of the site.



4.2.4 Hedgerows

Seven hedgerows make up the boundaries of the semi improved grassland. The hedgerows were assessed to determine if hedgerows within the site were likely to be considered 'Important' under the Hedgerow Regulations 1997. Details of these are provided in Table 5 below.

Table 5: Details of hedgerows on site.

Hedgerow Ref	Location	Description	Woody species Present	Assessment under the Hedgerow Regulations 1997
HR1	North to south along eastern extent of site	Defunct, managed.	Hawthorn.	One species within 30m length; unlikely to be considered 'Important'
HR2	Along northern extent of site running east to west	Defunct, managed.	Hawthorn, guelder rose (<i>Viburnum opulus</i>), field maple, blackthorn.	Four species within 30m length; unlikely to be considered 'Important'
HR3	Along eastern extent of site running north to south	Defunct, unmanaged	Hawthorn, blackthorn, field maple, ash.	Four species within 30m; unlikely to be considered 'Important'
HR4	At eastern extent running east to west	Defunct, unmanaged	Ash trees with hawthorn.	Two species within 30m length; unlikely to be considered 'Important'
HR5	Running along southern boundary, east to west	Intact, unmanaged.	Guelder rose, oak, buckthorn (<i>Rhamnus cathartica</i>), bird cherry (<i>Prunus avium</i>), elder.	Five species within 30m; unlikely to be considered 'Important'
HR6	Running north to south along southern boundary	Defunct, managed	Mature oak trees present, hawthorn, elder, guelder rose.	Four species within 30m; unlikely to be considered 'Important'
HR7	Running along southern boundary east to west	Intact, managed	Hawthorn, oak, elder, field maple.	Four species within 30m; unlikely to be considered 'Important'

4.2.5 Bare ground

There is bare ground within the north eastern extent of the site in the form of poached ground caused by horses grazing the land. In addition, a bare ground pathway bisects the site from the north eastern corner to the centre of the site, running east to west.

Photograph 4. Bare ground runs east to west of the site.



4.2.6 Semi-natural broadleaved woodland

There is semi- natural broadleaved mixed woodland present in the form of a linear belt of mature and semi mature trees in the south eastern corner of the site. Species comprise predominantly oak, horse chestnut and ash. In addition, there is deadwood present in the form of a fallen oak tree within the centre of the site (TN1).

Photograph 5. Deadwood is present within the centre of the site



4.3 Protected & Notable Species

4.3.1 Great Crested Newts

Desk Study

HBIC returned no records of great crested newts (GCN) (*Triturus cristatus*) within 2km of the site.

Field Surveys

Due to the topography of the land there are ditches on site and boggy ground with standing pools of water present, predominantly within the eastern extent of the site. Ditch 1 comprises the eastern extent of the southern boundary of the site. There was no water present in the ditches at the time of the survey. However during subsequent wintering bird surveys the site has become increasingly wet and the ditches filled with water. However this period when water was present on site was within the GCN hibernation period, therefore reducing the site's suitability.



In addition a ditch is present (according to aerial photographs) adjacent to Scratchface Lane 27m north of the site. To the east, north, west and south, the site is bisected by major roads limiting dispersal of GCN and likelihood for the presence of GCN on site. There are no records of great crested newt within the area. The site is assessed as having **negligible suitability** for GCN. The species is not considered further.

4.3.2 Reptiles

Desk Study

HBIC returned 25 records of reptiles within 2 km of the site, comprising of slow worm (*Anguis fragilis*) and common lizard (*Zootoca vivipara*).

Field Surveys

The site contains a number of habitats that offer suitability for reptiles. Much of the site has been grazed by horses reducing the suitability overall, however the longer areas of semi-improved grassland and the rough grassland/scrub interfaces interspersed on site offer suitability for reptiles to shelter and forage. Hedgerow and trees within the site also offer potential sheltering/foraging habitat for reptiles. As most of the potential habitat lies in the boundary features of the site, the site is considered to hold **low suitability** to support reptiles.

4.3.3 Bats

Desk Study

HBIC returned 53 records of bats within 2 km of the site, comprising unidentified bat species, soprano pipistrelle (*Pipistrellus pygmaeus*), common pipistrelle (*Pipistrellus pipistrellus*), unidentified pipistrelle species (*Pipistrellus* sp.), brown long-eared bat (*Plecotus auritus*), whiskered bat (*Myotis mystacinus*), Brandt's bat (*Myotis brandtii*), Natterer's bat (*Myotis nattereri*), serotine (*Eptesicus serotinus*), noctule (*Nyctalus noctula*) and rare vagrant species, the parti-coloured bat (*Vespertilio murnus*).

Field Surveys

Roosting bats – Trees

There are a number of mature and semi mature trees on site that exhibit features such as cracks and crevices in the limbs that could support roosting bats. No signs of roosting bats, such as droppings, staining or scratch marks were identified during the assessment from ground level. Since the extended phase 1 habitat survey, a full climbed tree inspection has been carried out on all trees on site to assess their suitability for roosting bats.

Foraging and commuting bats



The site comprises a matrix of habitats including hedgerows, semi-improved grassland, scattered trees and dense scrub, which provide suitable habitat for foraging and commuting bats. Within the site are hedgerows with mature trees as well as scattered trees which provide linear features and connectivity to the wider area as well as suitable habitat for roosting, foraging and commuting bats. The majority of the suitability lies within the boundary vegetation which will not be affected by the proposed development, however there are hedgerows G18 and G50 intersecting the site which are proposed to be removed according to the Tree Constraints plan 340CD01.dwg). These are defunct and although potentially providing foraging habitat, do not offer connections or potential commuting routes. In addition suitable off site habitat surrounds the site, in particular in the woodland habitat of Littlepark Wood to the north of the site. However the M3 motorway to the east and Atlantis Avenue main road to the west reduces the connectivity and suitability of the site for foraging and commuting bats. The site is assessed as offering ***moderate suitability*** for foraging and commuting bats.

4.3.4 Badgers

Desk Study

HBIC returned three records of badger (*Meles meles*) within 2 km of the site.

Field Surveys

No badger setts or signs of badger activity, such as snuffle holes, latrines or hairs were identified on or within 50m of the proposed development site, where access allowed. The site is bounded by the A3 on the east which may reduce the potential for badgers slightly but is not considered to be a barrier to dispersal. It is considered there is suitable habitat off site, predominantly to the north of the site in the woodland habitats, however sett creation habitat is considered negligible on site. Due to the foraging and commuting potential within the site and off-site habitats, the site is considered to offer ***moderate suitability*** for badger.

4.3.5 Hazel Dormouse

Desk Study

HBIC returned eight records of hazel dormice (*Muscardinus avellanarius*) within 2 km of the site. The nearest record is within Littlepark Wood, a SINC to the north which is connected to the site.

Field Surveys

The habitats on site are well connected to suitable habitat for dormice offsite via the woodland just north of the site, Littlepark Wood, a SINC designated for dormouse. Hedgerows with mature and semi-mature trees as well as scattered semi-mature trees provide a suitable food sources and nesting habitat for dormice. As there are confirmed records just off site and connectivity within site to the



SINC, it is assumed dormouse are present on site and the site is assessed as offering **high suitability** to support dormice.

4.3.6 Birds

Desk Study

HBIC provided 148 species of birds, those protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) within 2 km. Species likely to be found on site are the following Red Listed Birds of Conservation Concern (BoCC), herring gull (*Larus argentatus*), lapwing (*Vanellus vanellus*), hobby (*Falco subbuteo*), mistle thrush (*Turdus viscivorus*), curlew (*Numenius arquata*), barn owl (*Tyto alba*), cuckoo (*Cuculus canorus*), house sparrow (*Passer domesticus*), starling (*Sturnus vulgaris*), linnet (*Carduelis cannabina*), swallow (*Hirundo rustica*), dunnoek (*Prunella modularis*), bullfinch (*Pyrrhula pyrrhula*) and house martin (*Delichon urbicum*).

Field Surveys- Wintering Birds

The site lies within 1.3 km of Chichester and Langstone Harbour SPA and comprises grazed semi-improved grassland which is open in nature. There is a public footpath running through the site however the site remains fairly undisturbed by people, therefore overall providing **high suitability** for wintering birds to forage.

WYG Wintering bird surveys were carried out at the site between October 2015 and March 2016. Notable bird species recorded on site included dark-bellied brent goose, curlew, house sparrow, song thrush (*Turdus philomelos*), starling, herring gull, linnet, meadow pipit (*Anthus pratensis*), lesser black-backed gull (*Larus fuscus*), and black headed gull (*Chroicocephalus ridibundus*). For further details please refer to the WYG Wintering Bird Survey Report (WYG, 2016).

Field Surveys- Breeding Birds

The scattered semi-mature trees, dense scrub, hedgerows with mature and semi-mature trees and semi-improved grassland within the site boundary offer a matrix of habitats that are likely to support a range of breeding bird species. The extended Phase 1 habitat survey was undertaken outside of the breeding bird season therefore no breeding birds were recorded nesting during the survey. The site is assessed as offering **high suitability** for a range of breeding bird species.

No trees on site were identified as offering potential to support roosting or nesting barn owls during the extended Phase 1 habitat survey. In addition, there is limited foraging habitat within the boundaries of the site as much of the semi-improved grassland on site is grazed by horses. The site provides **negligible suitability** for nesting barn owl and is not considered further.



4.3.7 Water vole and otter

Desk Study

HBIC returned 35 records of water vole within 2km of the site.

Field survey

The ditch along the southern extent of the site was dry at the time of the survey and no waterbodies with suitable habitat for the species were noted on site during the extended Phase 1 habitat survey therefore the site is considered to hold **negligible suitability** for water vole and otter. No further surveys are recommended for water vole and otter.

4.3.8 Invertebrates

Desk Study

HBIC provided over 90 invertebrate species within 2km of the site, including stag beetle (*Lucanus cervus*), box bug (*Gonocerus acuteangulatus*), dingy skipper (*Erynnis tages*), white admiral (*Limenitis camilla*), grayling (*Hipparchia semele*), chalkhill blue (*Polyommatus coridon*), cinnabar (*Tyria jacobaeae*) and garden tiger (*Arctia caja*).

Field Surveys

The scattered trees, standing water, dense scrub, tall ruderal, hedgerows and semi-improved grassland provide a matrix of habitats that may support a large number of invertebrate species. These habitats are however widespread and common within the area, and throughout Great Britain and thus the site is assessed as offering **low suitability** to support notable invertebrates.

4.3.9 Hedgehog

Desk Study

HBIC returned nine records of hedgehog within 2km of the site.

Field Survey

The site provides woodland edge habitat and hedgerows on site which provide nest sites and suitable foraging habitat for hedgehogs. In addition, the site is set within a semi-rural area with garden habitat therefore providing connectivity to the wider area. The site provides **high suitability** for hedgehog.



4.4 Invasive Species

No invasive species were noted within the development site at the time of the extended Phase 1 habitat survey.

5.0 Constraints & Opportunities

5.1 Designated Sites

Statutory Designated Sites

There are six statutory designated sites located within 2km of the site that are at risk of increase of visitor pressure as a result of the development, Chichester and Langstone Harbour RAMSAR and SPA, Solent Maritime SAC, Farlington Marshes LNR, Solent & Isle of Wight Lagoons SAC, Chichester Harbour SSSI and Langstone Harbour SSSI. They are all situated within 1.4km south of the site. As there are no direct hydrological connections to the site, it is unlikely there will be any direct impacts to the Solent Maritime. To help offset impacts from potential increase in visitor pressures from the development, contributions per dwelling in line with the latest charging schedule of the Solent Disturbance and Mitigation Project is required. There are likely to be direct adverse impacts from the development towards the Chichester and Langstone SPA due to the loss of habitat for brent geese which are a qualifying species for the SPA. To mitigate this, offsite brent goose mitigation will be required in the form of habitat compensation.

Non-Statutory Designated Sites

There are 43 Sites of Nature Conservation Importance within the 2km. The closest are Gundymoor Wood, Littlepark Wood (east) and Littlepark Wood (west) located directly north of the site. Gundymoor Wood is designated for supporting ancient semi-natural woodlands. Littlepark Wood is designated for supporting ancient semi natural woodlands as well as supporting semi-natural woodland comprising important community types of restricted distribution in the County, such as yew woods and alder swamp woods. Little Park Wood (west) in addition is designated for supporting populations of hazel dormouse. Johnston's Coppice, is designated for supporting ancient semi natural woodlands as well as populations of hazel dormouse.

It is possible that the development will have negative impacts on Littlepark Wood as is located directly adjacent and there is already a public footpath running through it. Johnston's Coppice also has recreational routes running through the site so is susceptible from additional recreational pressures from the development. A trim trail is proposed around the site as part of the public open space provision which will act to keep much of the anticipated recreation from new visitors on site. No direct effects are anticipated as there will be no loss of SINC habitat. Indirect effects, such as from



drainage, are not anticipated as the topography of the site requires all drainage to run from North to South. Other SINCS are located further away, generally considered outside of walking distance from the site.

5.2 Habitats

Hedgerow G18 and G50 are to be removed according to the Tree Constraints plan (340CD01.dwg). As all hedgerows are habitats of 'Principal Importance' under Biodiversity 2020 and the NERC Act 2006 and potential hazel dormouse habitat will be lost and fragmented through the removal of hedgerow on site; replacement of native species planting or reinforcement elsewhere will be needed.

5.3 Protected & Notable Species

5.3.1 Reptiles

All species of native reptiles are protected under the Wildlife and Countryside Act 1981 (as amended).

Habitats within the site boundary have been assessed as being suitable to support reptiles. Given that the majority of the site is grazed by horses, the site is considered to offer **low suitability** for reptiles along the scrub and hedgerow peripheries of the site. A full suite of reptile surveys is therefore not recommended at this stage as it is proposed that the majority of the peripheral suitable habitat will not be impacted by development. It is recommended that if small areas of suitable habitat are to be impacted they are subjected to vegetation manipulation under the supervision of an Ecological Clerk of Works (ECoW) to displace reptiles prior to development commencing to avoid accidental killing or injury. Translocation of reptiles out of the construction area may be necessary where it is not possible to retain reptile habitat within the proposed development. This approach should be agreed with the Local Planning Authority Ecologist.

5.3.2 Bats

Roosting bats

All species of British bats and their roosts are fully protected under the *Wildlife & Countryside Act 1981* (as amended) and the *Conservation of Habitats and Species Regulations 2010* (as amended).

Many of the trees on site are semi-mature and mature oak trees which have features such as cracks, crevices and ivy which may be suitable for roosting bats. It is recommended that boundary trees are retained within the proposed development wherever possible, with a 10m buffer from development. If any suitable trees are to be impacted by development, it is recommended that these trees are subject to a climbed tree assessment with an endoscopic camera prior to development to further assess their suitability for roosting bats.



Following the results of the climbed inspection, there is potential that dusk emergence and dawn return surveys may be needed for trees found to have high suitability to support roosting bats which are to be impacted by development. These surveys should be completed between April and September, with the peak season being May to August.

Foraging and Commuting Bats

Linear features on site include mature and semi mature trees, hedgerows and dense scrub which could provide commuting and foraging habitat for bats. When foraging, pipistrelle bats favour woodland edge and hedgerow habitat and noctule bats are known to circle over woodland and pasture. Brown long-eared bats are a gleaning species that pick insects off twigs, trees, bushes and even the ground. The presence of tree lines and hedgerows within the site is favourable for foraging and commuting bats. Given the suitable linear features on site as well as the woodland habitat north of the site, the site provides **low suitability** for foraging and commuting bats.

In accordance with updated guidelines from the Bat Conservation Trust (BCT, 2016) further **bat activity surveys are recommended**. It is recommended that the site is subjected to one activity survey per season (spring, summer, autumn) between March and October. One autumn bat activity survey has already been completed at the site during October 2016.

In addition to this, an automated bat detector should be left at one location on site for five consecutive nights for each of the activity surveys between March – October. This will help gain an understanding of the usage of the site by bats, including potentially important areas for bat commuting and foraging. This will then be used to help to inform the site masterplan and recommendations for avoidance, mitigation, compensation and enhancement for bats, as well as informing detailed lighting and landscape design.

5.3.3 Badgers

Badger and their setts are protected under the *Protection of Badgers Act 1992* and the NPPF which stipulates that considering their welfare and mitigating for damage to their habitat are material considerations when considering planning applications.

No signs of badger were noted during the extended phase 1 habitat survey. However the site provides suitable foraging and commuting badger habitat and is connected to suitable habitat within the wider area. In addition, multiple badger records have been recorded in the area. The site has been assessed as offering **moderate suitability**. As badgers are highly mobile animals it is recommended that a pre- commencement badger survey is carried out at the site three months prior to and then a maximum of one week prior to development commencing.

5.3.4 Hazel Dormouse

The hazel dormouse is protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 (as amended). Taken together, both levels of protection make it an offence to kill, capture, injure, possess or sell an individual. Furthermore, it is also an offence to deliberately disturb or destroy any site used for breeding by dormice. Dormouse is a species of high conservation concern nationally and as such is included as a Priority Species in Section 41 of the NERC Act (2006).

Hazel dormice are an arboreal species often found in woodlands, hedgerows and scrub. A number of locally designated sites off site have confirmed presence of dormice. Hazel dormice are known to be present Littlepark Wood adjacent to the northern boundary of the site, as such are assumed to be present within the hedgerows, dense scrub and woodland present on site. It is considered that the site has **high suitability** for dormice and a suite of dormouse presence/likely absence survey is recommended. This would involve installation of dormouse nest tubes within suitable habitat within the site and checking the tubes once a month in order to achieve 20 survey points, considered to be a reasonable survey effort based on the index of probability scoring system, (Bright *et al*, English Nature, 2006). The points system varies throughout the year as nest tubes are most likely to be occupied during May and August / September.

Table 6: Index of probability of finding dormice present in nest tubes in any one month.

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



5.3.5 Breeding Birds

All nesting birds are protected from disturbance whilst nesting by the *Wildlife and Countryside Act 1981* (as amended).

The site holds **high suitability** for breeding birds in the form of dense scrub, intact and defunct hedgerows as well as scattered semi-mature and mature trees. As the development proposes for the removal of suitable nesting habitat for notable birds, such as hedgerow and dense scrub, it is necessary that compensatory habitat is provided within the proposals. If this is provided, breeding bird surveys are deemed unnecessary.

It is recommended to avoid any impacts to breeding birds that any vegetation removal required is carried out between October and February inclusive (i.e. outside the bird nesting season). If this is not possible, a thorough check for nesting birds should be made no more than 24 hours prior to clearance by a suitably qualified Ecologist. If any active nests are found they must remain in situ until all the young have fledged with an appropriate buffer zone around, a minimum of 5m, depending on the species involved, in order to avoid an offence under Section 1 of the *Wildlife and Countryside Act 1981* (as amended).

As an enhancement measure, it is recommended that bird boxes, are installed throughout the site as part of the development proposals. Details of suitable bird boxes can be found in Appendix A.

5.3.6 Wintering Birds

Due to the close proximity of the site from Chichester and Langstone Harbour SPA, wintering bird surveys have been conducted at the site between October 2015 and March 2016. A peak count of 146 SPA qualifying species brent goose and 74 curlew were noted utilising the site. Wintering birds have been noted regularly feeding at the site during this survey period (WYG, 2016).

Following the guidance in the Solent Disturbance and Mitigation Project, it is recommended that a further suite of wintering bird surveys are carried out at the site during the winter of 2016/17. The results and recommendations of these surveys will be given in a separate WYG wintering bird report.

The entire site holds suitability for wintering birds and any development will therefore have to provide habitat off site to compensate for the loss of wintering bird habitat on site. It is considered that with enhancement measures to a suitable offsite mitigation site, there will be negligible adverse effect to the wintering birds of the Chichester and Langstone Harbour SPA as a result of the development.



5.3.7 Invertebrates

The scrub, grassland and scattered trees habitat within the site boundary are likely to offer suitable habitat for a range of invertebrate species. Habitats on the site are likely to be of low value to invertebrates and further invertebrate surveys are deemed unnecessary.

5.3.8 Hedgehog

The site provides high suitability for hedgehog as well as connectivity throughout the site to the wider area. Hedgehogs are BAP and NERC species therefore to protect the hedgehog habitats on site, it is recommended that gardens are left open in nature and boundaries are retained with a buffer to retain suitability on site for hedgehog. For more information on suitable native species planting see Appendix B.



6.0 Conclusions

6.1.1 Avoidance recommendations

- It is recommended that all boundary vegetation including mature and semi mature trees are retained where possible to maintain connectivity to the wider landscape. It is recommended to avoid any impacts to breeding birds that any vegetation removal required is carried out between October and February inclusive (i.e. outside the bird nesting season). If this is not possible, a thorough check for nesting birds should be made no more than 24 hours prior to clearance.
- Supervised reptile displacement in areas of suitable habitat to the retained boundary vegetation.

6.1.2 Mitigation/ enhancement recommendations

- Any development will have to provide habitat off-site to compensate for the loss of wintering bird habitat on site.
- As an enhancement measure, it is recommended that bird and bat boxes, are installed throughout the site as part of the development proposals.
- As an enhancement measure for hedgehogs that may be on site, it is recommended that gardens of the new development are open in nature to maintain the connectivity to the suitable wider area.

6.1.3 Survey recommendations

- Following the guidance in the Solent Disturbance and Mitigation Project, it is recommended that further wintering bird surveys are carried out at the site in the winter of 2016/17.
- It is recommended that hazel dormouse presence/likely absence surveys are undertaken at the site, once per month between April and September.
- Climbed tree assessment of trees to be impacted for their suitability for roosting bats. It may be necessary to carry out further dusk emergence/dawn return surveys on suitable trees to be impacted to confirm presence/likely absence.
- It is recommended that the site is subjected to one bat activity survey per season (spring, summer, autumn) with placement of an automated detector for a minimum of 5 nights each season.
- It is recommended that pre-commencement badger check is carried out on site three months and one week prior to development works commencing.



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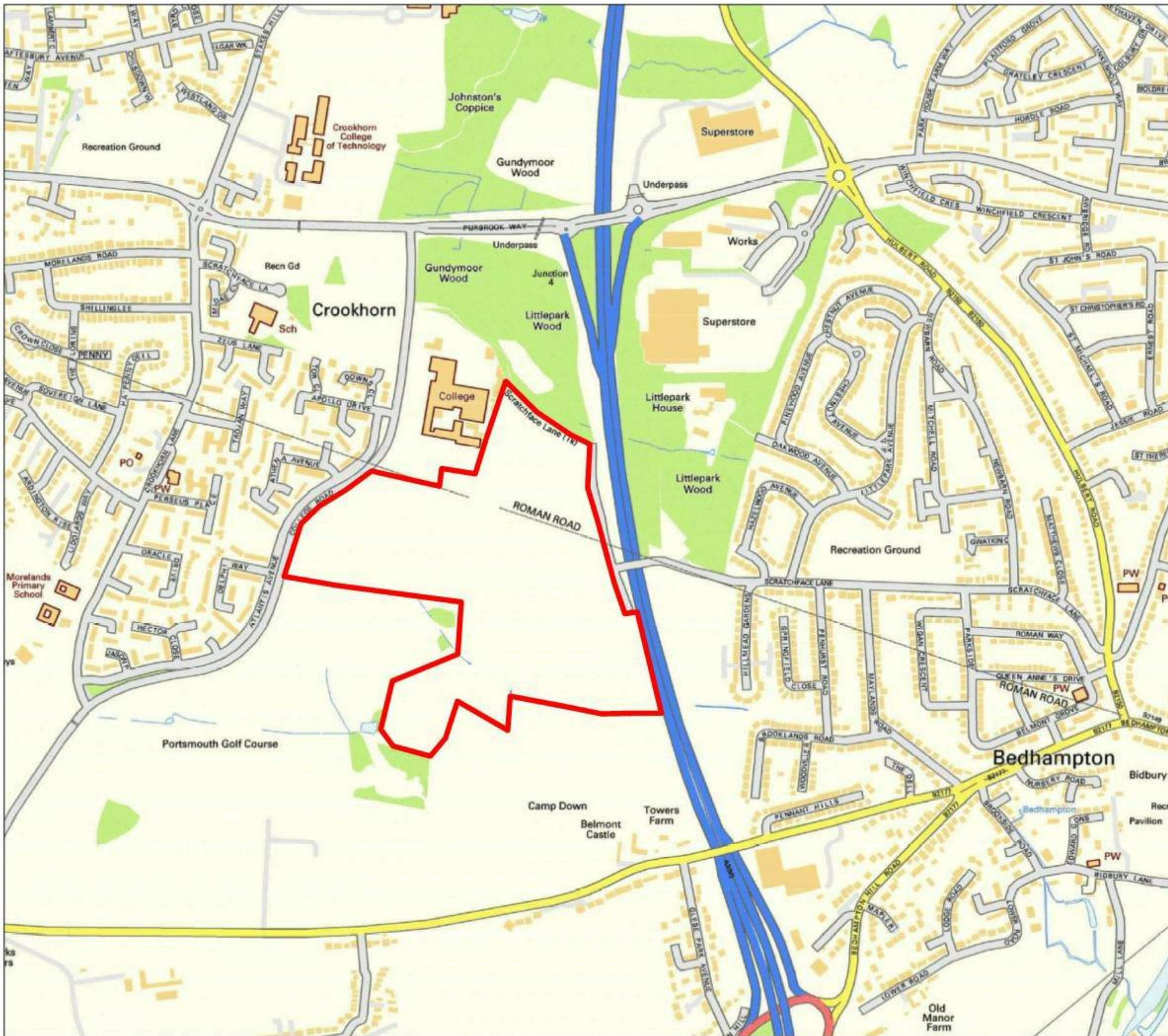


FIGURES

Figure 1 – Site Location Plan

Figure 2- Phase 1 Habitat Plan

Figure 3 – SINC Location Plan



Legend

— Site boundary

The Pavilion, 1st Floor
Bottleigh Grange Office Campus
Hedge End
Southampton
Hants
SO30 2AF

Tel: 02382 022800
email: ecology@wyg.cor



WYG Planning & Environment

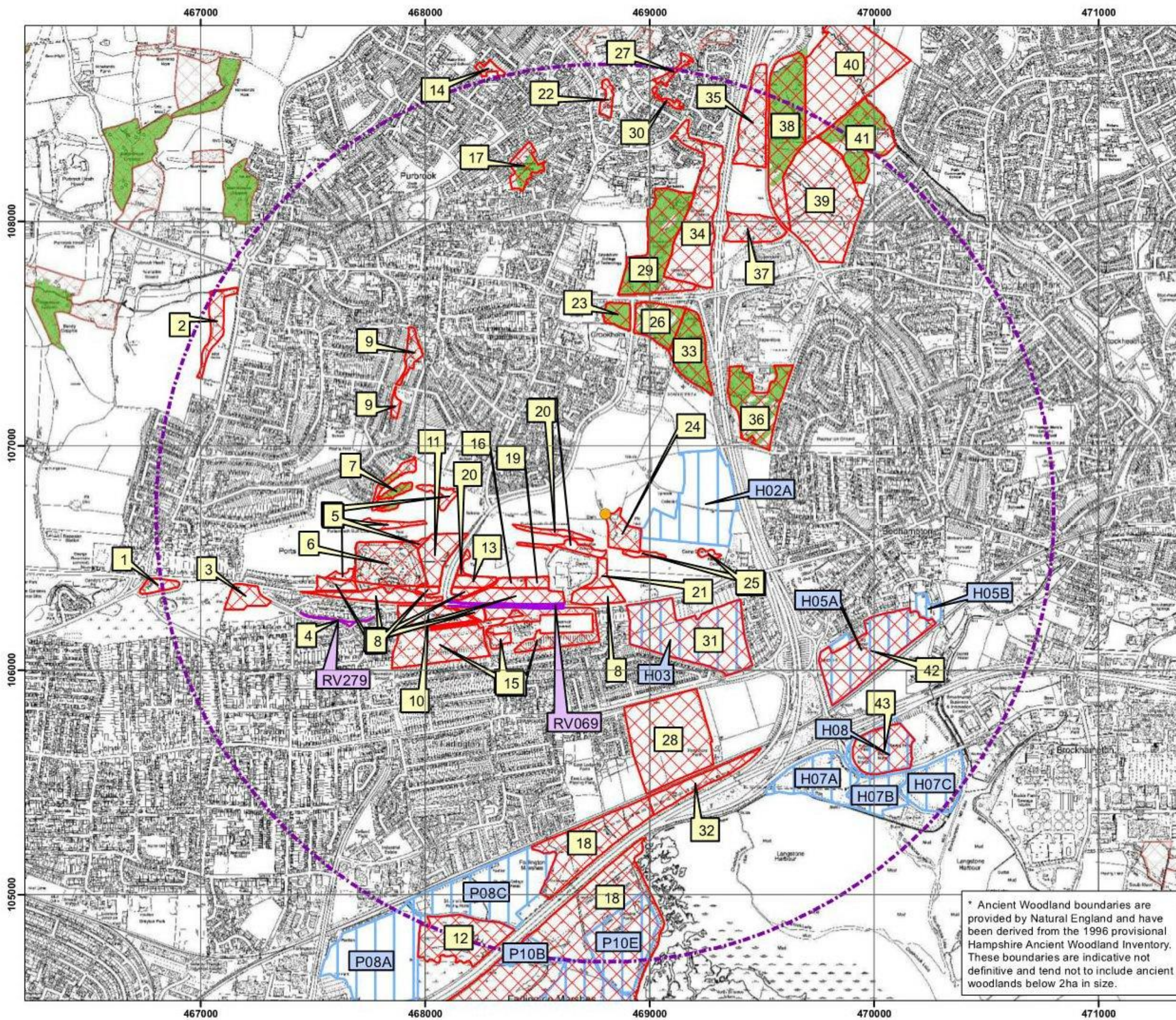
creative minds safe hands

Campdown, Havant

Site location plan

Scale at A3:	Drawn by: SC	Date: 02/02/17	Checked By: JS	Date: 23/03/2017	Approved By: DW	Date: 23/03/2017
Project No: A100376	Office: 45	Type: 94	Drawing No: Figure 1.	Revision		

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Hampshire Biodiversity
Information Centre

HBIC Ref: 6552
Non-statutory designated
sites within 2km of College
Road, Campdown (SU688067):

Legend

- 2km Search Area
- Central Search Point
- SINC (labelled)
- Surrounding SINC
- RVEs (Labelled Purple)

Ancient Woodland Inventory

- Semi-Natural
- Replanted

Waders and Brent Interim April 2015

- Waders and Brent Interim April 2015

Created: 21/ 11/ 2016
Scale at A3: 1:16,000

0 125 250 500 750 1,000 Meters

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



Appendix A – Wildlife Boxes



Introduction

The information in this appendix relates to bat and bird boxes that can be easily incorporated into building and landscape plans. The information provided is not exhaustive and provides examples of some of the types of boxes available.

Including bat and bird boxes throughout the development site has a number of benefits:

- Any roosting or resting places lost as a result of the work will be replaced;
- The ecological value of the site will be enhanced;
- Priority species within the UK and local Biodiversity Action Plans (BAPs) will be encouraged.

Bats

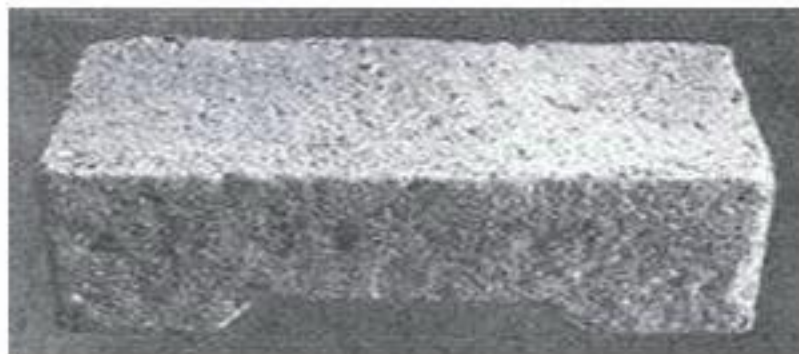
For Buildings

The inclusion of a variety of bat bricks, tubes and boxes for buildings is recommended to encourage a diversity of bat species. Bat bricks and tubes require no maintenance.

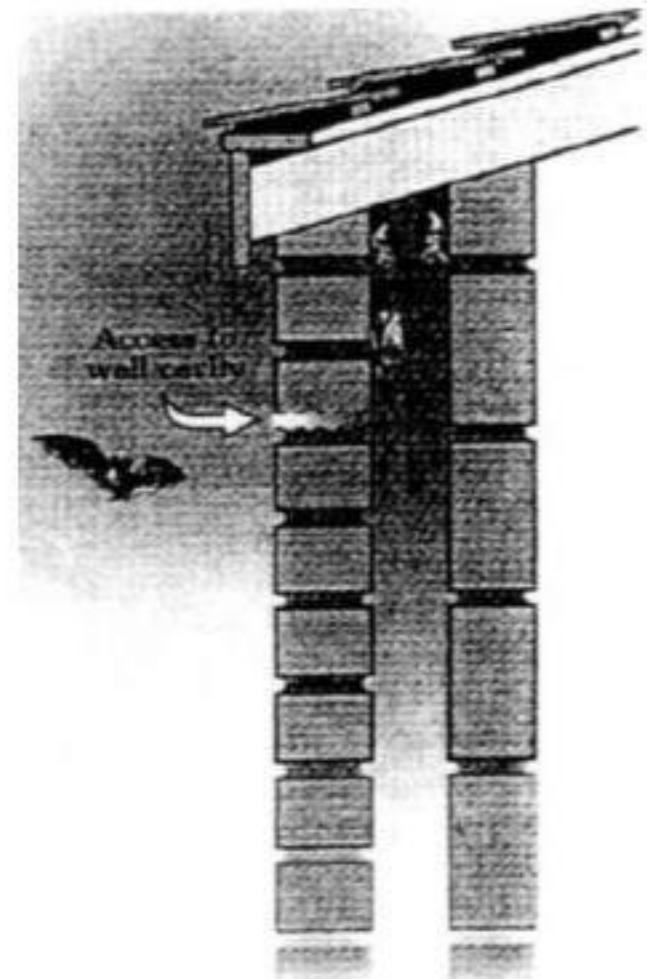
Bat Access and Roost Bricks

Source: Marshalls Clay Products (approved by the Bat conservation Trust)

'... Marshall Clay Products have been producing a Bat Access Brick specially designed to help the country's badly depleted bat population by provided access to wall cavities or roof spaces where most bat colonies tend to be (see diagram). In recent years bats have been declining at an alarming rate. Nearly all colonies tend to be on the outside of houses, in wall cavities, under slates, flashing or tiles, et c. ... Contrary to popular opinion, bats do not make pests and do absolutely no damage to buildings or roof timbers, indeed many people encourage bat colonies in their area because of the large number of insect pests, woodworm, et c. which they eat. Most colonises will use a house for only a few weeks in summer before dispersing in autumn.'



Marshall's Bat Access Brick, which is now also available in stone.



A Bat Brick should ideally be placed as high as possible at the gable apex or close to the soffit.

Marshalls Clay Products - Quarry Lane, Howley Park, Woodkirk, Dewsbury, West Yorkshire, WF12 7JJ – Tel: (01132) 203535, Fax: (01132) 203555.



Bat Tube

Brick bat tubes are designed for buildings, or underneath bridges, arches or tunnels, where conditions are relatively humid. They are particularly useful for new buildings or bridges to attract bats, or to provide new roost sites where existing buildings with bats are being renovated.

This long box can be installed within brick masonry, beneath plasterwork or wood panelling, or incorporated into concrete structures such as factory buildings or bridges. Inside it contains a woodcrete surface, a roughened wood board, and a metal mesh, providing a choice of roosting areas depending on the weather conditions and the bats' habits. This box is maintenance-free as the entrance slit is at the bottom.

No painting required, but if painting is necessary a natural breathable paint should be used.

Width: 20cm; Height: 47.5cm; Depth: 12.5cm; Entrance Width: 15cm; Entrance Depth: 2cm; Weight: 13kg



Bat Box

This type of box is made of woodcrete and is expected to last approximately 25 years. It has a narrow crevice-like internal space to attract Pipistrelle and Noctule bats. Woodcrete (75% wood sawdust, concrete and clay mixture).

Width: 27cm; Height: 43cm; Weight: 8.3kg.



For Trees

Woodcrete boxes have the highest rates of occupation of all box types. The 75% wood sawdust, concrete and clay mixture allows natural respiration, stable temperature, and durability. They are long lasting (approx. 25 years) and are rot- and predator-proof. Hang from a tree branch near the trunk, or fix to a trunk with the supplied 'tree-friendly' aluminium nail. Attractive to smaller British bats.

Material: Woodcrete (75% wood sawdust, concrete and clay mixture); Diameter: 16cm; Height: 33cm; Weight: 4kg.



Bird Boxes

A variety of bird box designs could be installed throughout the development site to attract a diversity of species. Open fronted boxes will attract species such as robins, pied wagtails and spotted flycatchers, while boxes with entrance holes will attract tits, wrens and tree sparrows. Roost pockets will be used by roosting birds over the winter and by smaller species, such as wrens, for nesting in the spring.

Open Fronted Boxes

This box is attractive to robins, pied wagtails, spotted flycatcher, wrens and black redstarts and is best sited on the walls of buildings with the entrance on one side.

These woodcrete boxes are designed to mimic natural nest sites and provide a stable environment for chick rearing and winter roosting. They can be expected to last 25 years or more without maintenance.



Boxes with Entrance Holes

This box is attractive to smaller birds such as tits, wrens and tree sparrows. Sparrow terraces are also available.



Insect Boxes

As with the bat and bird boxes, a variety of insect boxes is recommended to encourage a diversity of species.

Wooden Insect House

A general insect habitat for beneficial insects in summer and, later in the year, overwintering ladybirds and lacewings. Locate in a sheltered place near nectar or pollen plants or by a pond.

Durable and strong construction in acacia, oak or larch with no maintenance necessary. Dimensions: 22 × 13.5 × 13.5cm.





Woodcrete Insect House

An insect nest made from long-lasting, insulating, woodcrete, with holes of different sizes providing homes for a variety of beneficial insects such as bees and solitary wasps.

Dimensions: 14 × 8 × 26cm; Weight: 3.65kg



Insect House with Inspection Tubes

This nesting and hibernation box for insects has a woodcrete exterior with a wooden front panel which can be removed for observation. Through the transparent tubes you can see the usually hidden lifecycle of many solitary types of bees and hymenoptera including egg-laying, development of larvae and sealing of brood chambers.

Typical inhabitants are wild bees and thread-waisted wasps. All the species attracted to this box are harmless non-aggressive pollinating insects. Dimensions: 33 × 21 × 51 cm; Weight: 7.1kg.





Appendix B – Wildlife-friendly Planting

Table E1 Shrub species of native origin or generally thought to be beneficial to wildlife

(Source: 'Gardening with wildlife in mind', Natural England, 2008)

Common name	Scientific name
Hazel	<i>Corylus avellana</i>
Elder	<i>Sambucus nigra</i>
Goat willow	<i>Salix caprea</i>
Hawthorn	<i>Crataegus monogyna</i>
Dog rose	<i>Rosa canina</i>
Butterfly bush	<i>Buddleia davidii</i>
Guelder rose	<i>Viburnum opulus</i>
Gorse	<i>Ulex europaeus</i>
Broom	<i>Cytisus scoparius</i>
Wayfaring tree	<i>Viburnum lantana</i>
Shrubby cinquefoil	<i>Potentilla fruticosa</i>
Raspberry	<i>Rubus idaeus</i>
Alder buckthorn	<i>Frangula alnus</i>
Wild privet	<i>Ligustrum vulgare</i>
Barberry	<i>Berberis × stenophylla</i>
Barberry	<i>Berberis vulgaris</i>
Bell heather	<i>Erica cinerea</i>
Bilberry	<i>Vaccinium myrtillus</i>
Black currant	<i>Ribes nigrum</i>
Blackthorn	<i>Prunus spinosa</i>
Buckthorn	<i>Rhamnus catharticus</i>
Butcher's-broom	<i>Ruscus aculeatus</i>
Cherry laurel	<i>Prunus laurocerasus</i>
Cowberry	<i>Vaccinium vitis-idaea</i>
Cross-leaved heath	<i>Erica tetralix</i>
New Zealand holly	<i>Olearia macrodonta</i>
Daphne	<i>Daphne odora</i>
Dogwood	<i>Cornus sanguinea</i>
Field rose	<i>Rosa arvensis</i>
Firethorn	<i>Pyracanthus angustifolia</i>
Flowering Currant	<i>Ribes sanguineum</i>
Gooseberry	<i>Ribes uva-crispa</i>
Hebe 'Midsummer Beauty'	<i>Hebe species</i>
Himalayan honeysuckle	<i>Leycesteria formosa</i>
Holly	<i>Ilex aquifolium</i>
Japanese quince	<i>Chaenomeles japonica</i>
Lilac	<i>Syringa vulgaris</i>
Mexican orange	<i>Choisya ternata</i>
Mezereum	<i>Daphne mezereum</i>
Midland Hawthorn	<i>Crataegus laevigata</i>
Oregon Grape	<i>Mahonia aquifolium</i>
Osier	<i>Salix viminalis</i>
Portugal laurel	<i>Prunus lusitanica</i>

Common name	Scientific name
Privet	<i>Lustrum ovalifolium</i>
Purple Willow	<i>Salix purpurea</i>
Snowy Mespilus	<i>Amelanchier canadensis</i> , <i>Amelanchier lamarckii</i>
Spindle	<i>Euonymus europaeus</i>
Spurge laurel	<i>Daphne laureola</i>
Sweet briar	<i>Rosa rubiginosa</i>

Table E2 Tree species of native origin or generally thought to be beneficial to wildlife

(Source: 'Gardening with wildlife in mind', Natural England, 2008)

Common name	Scientific name
Pedunculate oak	<i>Quercus robur</i>
Ash	<i>Fraxinus excelsior</i>
Wych elms	<i>Ulmus glabra</i>
Whitebeam	<i>Sorbus aria</i> agg.
Rowan	<i>Sorbus aucuparia</i>
Aspen	<i>Populus tremula</i>
Apple	<i>Malus domestica</i>
Bird cherry	<i>Prunus pardus</i>
Common alder	<i>Alnus glutinosa</i>
Crab apple	<i>Malus sylvestris</i>
Crack willow	<i>Salix fragilis</i>
Downy birch	<i>Betula pubescens</i>
Field maple	<i>Acer campestre</i>
Hornbeam	<i>Carpinus betulus</i>
Juniper	<i>Juniperus communis</i>
Large-leaved lime	<i>Tilia platyphyllos</i>
Small-leaved lime	<i>Tilia cordata</i>
Pear	<i>Pyrus communis</i>
Scots pine	<i>Pinus sylvestris</i>
Sessile oak	<i>Quercus petraea</i>
Silver birch	<i>Betula pendula</i>
Sweet chestnut	<i>Castanea sativa</i>
Wild cherry	<i>Prunus avium</i>
Wild service-tree	<i>Sorbus torminalis</i>
Yew	<i>Taxus baccata</i>

Table E3 Gardening for bats

Aim at having flowers in bloom throughout the year, including both annuals and herbaceous perennials. Below are some suggestions, but this is not an exhaustive list. Flowering times are approximate, varying dependent on region. Regular dead-heading extends flowering period in many flowers.

A=annual, HA= hardy, annual, HHA=half-hardy annual, P=perennial, W=wild flower.

Flowers for borders			
St. John's Wort	<i>Hypericum</i>	P	March
Marigolds	<i>Calendula</i>	H/A	March-October
Aubrietia	<i>Aubrietia deltoidea</i>	P	March-June
Honesty	<i>Lunaria rediviva</i>	HB	March
Forget-me-not	<i>Myosotis</i> sp.	A/P	March-May
Elephant ears	<i>Bergenia</i>	P	April
Wallflowers	<i>Erysimum</i>	B	April-June
Cranesbills	<i>Geranium</i> sp.	P	May-September
Yarrow	<i>Achillea</i>	P	May-
Poppies	<i>Papaver</i> sp.	A	May- July
Dames violet	<i>Hesperis matronalis</i>	P	May-August
Red Valerian	<i>Centranthus ruber</i>	P	May-Sept
Poached egg plant	<i>Limnanthes</i>	HA	June-August
Knapweed	<i>Centaurea nigra</i>	P	June-September
Phacelia		HA	June-September
Ox-eye daisy	<i>Leucanthemum vulgare</i>	P	June-August
Evening primrose	<i>Oenothera biennis</i>	B	June-September
Candytuft	<i>Iberis umbellata</i>	HA	June-September
Sweet William	<i>Dianthus barbatus</i>	B	June-July
Blanket flowers	<i>Gaillardia</i>	P	June -
Verbena	<i>Verbena bonariensis</i>	HHA	June-October
Scabious	<i>Knautia arvensis</i>	P	July-August
Night-scented stock	<i>Mattiola bicornia</i>	HA	July-August
Pincushion flower	<i>Scabious</i> sp.	A/P	July-September
Cherry pie	<i>Heliotrope</i>	HHA	July-October
Mexican aster	<i>Cosmos</i> sp.	A/P	July-October
Cone flower	<i>Rudbeckia</i> sp.	A/P	August-November

Mallow	<i>Lavatera sp.</i>	P	August-October
Michaelmas daisy	<i>Aster sp.</i>	P	August-September
Ice plant 'Pink lady'	<i>Sedum spectabile</i>	P	September
Herbs – both leaves and flowers are fragrant			
Fennel	<i>Foeniculum vulgare</i>		July-September
Bergamont	<i>Monarda didyma</i>		June-September
Sweet Cicely	<i>Myrrhis odorata</i>		April-June
Hyssop	<i>Hyssopus officinalis</i>		July-September
Feverfew	<i>Tanacetum parthenium</i>		June-September
Borage	<i>Borago officinalis</i>		May-September
Rosemary	<i>Rosmarinus officinalis</i>		March-May
Lemon balm	<i>Melissa officinalis</i>		
Coriander	<i>Coprianrum sativum</i>		June-August
Lavenders	<i>Lavendula sp.</i>		
Marjoram	<i>Origanum sp.</i>		
Trees, shrubs and climbers important to insects			
Oak	<i>Quercus sp.</i>		large gardens only
Silver birch	<i>Betula pendula</i>		
Common alder	<i>Alnus glutinosa</i>		Suitable for coppicing
Hazel	<i>Corylus avellana</i>		Suitable for coppicing
Elder	<i>Sambucus nigra</i>		Small
Goat willow	<i>Salix caprea</i>		Suitable for coppicing
Hawthorn	<i>Crataegus monogyna</i>		Suitable for coppicing
Honeysuckle	<i>Lonicera sp.</i>		Grow a variety for succession
Dog rose	<i>Rosa canina</i>		Climber
Bramble	<i>Rubus fruticosus</i>		Climber
Ivy	<i>Hedera helix</i>		Climber
Buddleia	<i>Buddleija davidii</i>		Shrub
Guelder rose	<i>Viburnum opulus</i>		Shrub
Gorse	<i>Ulex sp.</i>		Shrub
Plants for pond edges and marshy areas			
Purple loosestrife	<i>Lythrum salicaria</i>	W	June-August
Meadow sweet	<i>Filipendula ulmaria</i>	W	June-September
Lady's smock	<i>Cardamine pratensis</i>	W	April-June
Water mint	<i>Mentha aquatica</i>	W	July-September
Angelica	<i>Angelica sylvestris</i>	W	July-September



Hemp agrimony	<i>Eupatorium cannabinum</i>	W	March-May
Marsh marigold	<i>Caltha palustris</i>	W	June-September
Creeping Jenny	<i>Lysimachia nummularium</i>	W	May-August
Fringed water lily	<i>Nymphoides peltata</i>	W	June-September
Water forget-me-not	<i>Myosotis scorpioides</i>	W	June-September

Allow part lawns to grow long in summer and cut in autumn, removing the clippings. Avoid using fertilisers. Compost heaps are food producers of insects too.

(Source: 'Gardening for bats', Bat Conservation Trust)