



Portchester, Fareham, Hampshire

Preliminary Ecological Appraisal

Report for The Stilwell Partnership

Author	Rosanna Marston BSc MSc GradCIEEM		
Job No	140561		
	Date	Checked by	Approved by
Initial	15/07/2014	Giles Coe	John Newton
Revised	21/10/2014	Rosanna Marston	Giles Coe

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Executive Summary

The Ecology Consultancy was commissioned by The Stilwell Partnership to undertake a Preliminary Ecological Appraisal (PEA) of land at Portchester, Fareham, Hampshire.

The main findings of the PEA are as follows:

- The site is not subject to any statutory or non-statutory nature conservation designations. The nearest statutory designated site is Portsmouth Harbour Special Protection Area (SPA), Ramsar and Site of Special Scientific Interest (SSSI) located 0.02km to the south. The nearest non-statutory designated site is Bedenham Site of Importance for Nature Conservation, located approximately 0.71km south-east.
- A screening opinion may be required to assess if the development could have a Likely Significant Effect on Portsmouth Harbour SPA as per the Habitat Regulations (2010). This is due to the close proximity of the site to the SPA and its known use by dark-bellied brent goose *Branta bernicla bernicla*, the qualifying species for the SPA designation. Within the site boundary lie two areas identified within the Solent Waders and Brent Goose Strategy (2010) as having ‘uncertain’ importance for brent geese and waders. The site also falls within a SSSI Impact Risk Zone.
- The Phase 1 habitat survey identified a range of habitats including an area of neutral semi-improved grassland considered to qualify as a habitat of principal importance ‘lowland meadows’. The County Scarce plant pale flax *Linum bienne* is also present. This area of habitat is also recognised in the Fareham Borough Local Plan Review (2000) as a site of nature conservation value and is considered of district value.
- The on-site broadleaved semi-natural woodland qualifies as a habitat of principal importance ‘lowland mixed deciduous woodland’ and is considered of local value.
- Other habitats present on site, including areas of dense scrub and poor semi-improved grassland, were considered of value within the immediate vicinity of the site only, but may assume higher value where they support protected and/or other notable species.
- The site has potential to support a number of protected species groups including; **high** potential to support breeding and wintering birds, widespread species of reptile, foraging bats and badger, **medium** potential to support hazel dormouse and roosting bats and **negligible** potential to support great crested newt. It was also considered to have **low** potential to support invasive plant species.
- Overall the site was considered likely to be of district importance, but this evaluation is subject to change following the results of the recommended further survey work. This

will be required to determine the potential adverse impacts of the proposed development on designated sites and protected species, details are outlined below:

- A wintering bird survey targeting Brent geese should be carried out between November and March;
 - A breeding bird survey should be carried out over the breeding season between March and June;
 - A reptile survey should be carried out between March and October;
 - Bat surveys including transect surveys, automated surveys, tree inspections and emergence/re-entry surveys as required should be undertaken. Tree inspections can be carried out at any time of year, activity surveys must be undertaken between April and September and emergence/re-entry surveys must be carried out between May and August;
 - A badger survey should be undertaken, ideally during the optimum period of winter when vegetation has died back; and
 - A hazel dormouse survey should be carried out between April and November.
- Mitigation strategies for protected species should be developed after the recommended further survey work, as detailed above, has been carried out. Recommended mitigation measures for important habitats and statutory sites are outlined below:
 - As much of the semi-improved neutral grassland and broad-leaved semi-natural woodland habitats on-site should be retained as possible. Where this is not possible, suitable compensation will be required;
 - Construction works taking place in the vicinity of off-site trees should conform to British Standard 5837:2012 *Trees in Relation to Design, Demolition and Construction*; and
 - Measures should be taken to ensure there are no potential impacts on nearby statutory sites. It is recommended that consultation is sought with Natural England and/or the Local Planning Authority to determine any likely significant impacts.
 - Detailed recommendations for compensation and enhancement of the site should be guided by the results of the further survey work that has been recommended. Those outlined in Section 5 of this report include the use of Sustainable Urban Drainage Systems (SuDS) including green roofs and rain gardens, and wildlife-friendly fencing.

1 Introduction

BACKGROUND

- 1.1 The Ecology Consultancy was commissioned by The Stilwell Partnership to undertake a Preliminary Ecological Appraisal (PEA) of land at Portchester, Fareham, Hampshire.

SCOPE OF THE PRELIMINARY ECOLOGICAL APPRAISAL

- 1.2 This PEA is based on a desk study, and a field survey using standard Phase 1 survey methodology (JNCC, 2010). The Phase 1 survey is designed to identify the broad habitat types present, to assess the potential of habitats to support protected species and to assist in providing an overview of the ecological interest at a site. It is generally the most widely used and professionally recognised method for initial ecological site appraisal.

SITE CONTEXT AND STATUS

- 1.3 The site currently comprises an area of semi-natural habitats including those of grassland, scrub, woodland and allotments, covering 8.37 hectares (ha) in total. The site is situated in the south-west corner of Portchester, adjacent to the coast line with Portsmouth Harbour located directly to the south. An area of woodland, Wicor Copse, adjoins the site in the north-west corner, and residential properties surround the site to the north and east. A boat yard is located on the sites western boundary. In the wider landscape there are large areas of residential housing, some agricultural land and sports fields with relatively few areas of semi-natural habitats. The National Grid Reference for the centre of the site is SU605 048.

DEVELOPMENT POTENTIAL

- 1.4 Initial consideration of the site's development potential is shown in the layout concept produced by Lime Associates (2014). This illustrative layout involves the development of approximately half of the site's area. Currently the developed area is occupied by semi-natural habitats including large areas of grassland and scrub. The development of this area of the site would deliver up to 200 dwellings with associated areas of landscaping, gardens, etc. It is proposed that the retained areas of semi-natural habitats will become public open space.

2 Methodology

DESK TOP STUDY

- 2.1 A biological data search for the site and surrounding land within 2km of its boundary was commissioned from the Hampshire Biodiversity Information Centre (HBIC) in June 2014. HBIC hold copies of datasets belonging to partner organisations including the Botanical Society of the British Isles, Butterfly Conservation, Hampshire Ornithological Society, Hampshire Bat Group, Hampshire Wildlife Trust on behalf of Hampshire Amphibian and Reptile Group and Hampshire Mammal Group and UK Bees, Wasps and Ants Recording Society. Data provided by these groups is reproduced here with permission.
- 2.2 A search was also completed using an on-line mapping service for information on statutory designated sites (MAGIC, 2013).
- 2.3 Information sourced from the desk-top study included:
- statutory sites of nature conservation importance;
 - non-statutory sites designated as Sites of Importance for Nature Conservation (SINCs) at county level, recognised as being of local conservation importance and often recognised in Local Planning Authority (LPA) development plans;
 - protected, rare and/or other noteworthy species; and,
 - Habitats and Species of Principal Importance for the Conservation of Biodiversity in England as listed in Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006¹ which may be relevant to the site (hereby referred to as 'species or habitats of principal importance').

HABITAT SURVEY

- 2.4 The habitat survey following standard Phase 1 survey methodology (JNCC, 2010), was carried out on 11 June 2014 and covered the entire site, including boundary features. Habitats were described and mapped. A habitat map of the site is included in Appendix

¹ Section 41 (S41) of the NERC Act (2006) includes a published list of habitats and species which are of principal importance for the conservation of biodiversity in England. It is used to guide decision-makers such as LPAs in implementing their duty under section 40 of the NERC Act (2006), to have regard to the conservation of biodiversity in England, when carrying out their normal functions Further details of the NERC Act can be found at: www.opsi.gov.uk/acts/acts2006/ukpga_20060016_en_1 (see Chapters 16 and 17).

1 together with photographs in Appendix 2. A list of plant species was compiled (Appendix 3), together with an estimate of abundance made according to the DAFOR² scale.

2.5 Incidental records of birds and other fauna noted during the course of the habitat survey were also compiled. Scientific names are given after the first mention of a species, thereafter, common names only are used. Nomenclature follows Stace (2010) for vascular plant species.

PROTECTED SPECIES ASSESSMENT

2.6 An assessment of the site's potential to support protected species has been carried out, based on the results of the desk-top survey, observations made during the site survey, an assessment of the suitability of on-site and adjoining habitat, and information on the distribution of these species. Those species considered potentially present owing to the presence of suitable habitat within the site were evaluated further, as follows:

- the presence of nesting habitat for breeding birds, such as mature trees, dense scrub, hedgerows, buildings and field margins suitable for ground nesting birds; and evidence of bird nesting including bird song, old nests, faecal marks etc;
- assessment of any on-site water bodies as to their potential to support breeding amphibians, specifically great crested newts *Triturus cristatus*, and suitable terrestrial habitats including rough grassland, scrub, hedgerows, woodland and refuges (logs and rubble piles);
- scrub/grassland mosaic and potential hibernation sites for widespread species of reptile;
- the presence of features in, and on trees, indicating potential for roosting bats *Chiroptera* such as fissures, holes, loose bark and ivy *Hedera helix* and those associated with buildings such as cavities, roof voids, hanging tiles, unenclosed soffits etc. A search for direct evidence, such as the presence of bats, staining, droppings and feeding remains was also carried out;

² The DAFOR scale has been used to try and measure the frequency and cover of the different plant species as follows: Dominant (D) - >75% cover, Abundant (A) – 51-75% cover, Frequent (F) – 26-50% cover, Occasional (O) – 11-25% cover, Rare (R) – 1-10% cover, Locally Frequent (LF) is also used where the frequency and distribution is patchy.

- Cover and topography suitable for badger *Meles meles* sett construction, as well as evidence of badger activity including runs, push-throughs, setts, hair and latrines; and
 - Suitable habitat for hazel dormouse *Muscardinus avellanarius* such as woodland and scrub, particularly when connected to suitable habitats across the wider landscape.
- 2.7 Due to the lack of suitable habitat and/or their known distribution, it is not considered that the site has any significant potential to support any other protected species. Therefore, only those species listed above are included in the protected species risk assessment in Section 3 of this report.
- 2.8 The site was also assessed for its potential to support invasive plant species listed on Schedule 9 of The Wildlife and Countryside Act 1981 (as amended).
- 2.9 The likelihood of occurrence is ranked as follows and relies on the findings of the current survey and an evaluation of existing data.
- **Negligible** – while presence cannot be absolutely discounted, the site includes very limited or poor quality habitat for a particular species or species group. No local records from a data search, surrounding habitat considered unlikely to support wider populations of a species/species group. The site may also be outside or peripheral to known national range for a species.
 - **Low** – on-site habitat of poor to moderate quality for a given species/species group. Few or no records from data search, but presence cannot be discounted on the basis of national distribution, nature of surrounding habitats, habitat fragmentation, recent on-site disturbance etc.
 - **Medium** – on-site habitat of moderate quality, providing all of the known key requirements of given species/species group. Local records from the data search, within national distribution, suitable surrounding habitat. Factors limiting the likelihood of occurrence may include small habitat area, habitat severance, and disturbance.
 - **High** – on-site habitat of high quality for given a species/species group. Local records provided by desk-top study. The site is within/peripheral to a national or regional stronghold. Good quality surrounding habitat and good connectivity.
 - **Present** – presence confirmed from the current survey or by recent, confirmed records.

2.10 The purpose of this assessment is to identify whether more comprehensive Phase 2 surveys for protected species or mitigation should be recommended.

SITE EVALUATION

2.11 The site has also been evaluated by broadly following guidance issued by the Institute of Ecology and Environmental Management (IEEM, 2006)³ which evaluates sites according to a geographic scale (significance at the international level down to the local level) and using a range of criteria for assigning ecological value, as follows:

- Presence of sites or features designated for their nature conservation interest. Examples include internationally or nationally designated sites such as Special Areas of Conservation (SACs) and Sites of Special Scientific Interest (SSSIs), locally designated sites such as Local Nature Reserves (LNRs) and SNCIs;
- Biodiversity value, for example, habitats or species that are rare or uncommon, species-rich assemblages, species that are endemic or on the edge of their range, large populations or concentrations of uncommon or threatened species, and/or plant communities that are typical of valued natural/semi-natural vegetation types;
- Secondary and supporting value, for example, habitats or features that provide a buffer to valued features or that serve to link otherwise isolated features;
- Presence of legally protected sites or species; and
- Species or habitats of principal importance.

LIMITATIONS

2.12 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment.

Data Search

2.13 It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest, the area may simply be under-recorded.

³ now the Chartered Institute of Ecology and Environmental Management (CIEEM)

2.14 Where only four figure grid references are provided for protected species by recorders submitting data, their precise location can be difficult to determine and they could potentially be present anywhere within the given 1km x 1km National grid square.

Habitat Survey

2.15 The Phase 1 habitat survey does not constitute a full botanical survey, or a Phase 2 pre-construction survey that would include accurate GIS mapping for invasive or protected plant species.

2.16 The allotment gardens present in the north-east corner of the site were not accessible during the Phase 1 habitat survey due to impenetrable areas of dense scrub. Although the habitats present were not able to be accurately mapped, this was not thought to impose a major constraint on the overall results of the survey and recommendations for further survey work and/or mitigation.

Protected Species Assessment

2.17 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on the site. This is based on the suitability of the habitat, known distribution of the species in the local area provided in response to our enquiries, and any direct evidence on the site. It should not be taken as providing a full and definitive survey of any protected species group. It is only valid at the time the survey was carried out. Additional surveys may be recommended if, on the basis of the preliminary assessment or during subsequent surveys, it is considered reasonably likely that protected species may be present.

3 Results

DESK TOP STUDY

Designated Nature Conservation Sites

- 3.1 The site itself does not receive any statutory⁴ or non-statutory⁵ nature conservation designations. Within a 2km radius of the site there are three statutory designated sites – one designated as a Ramsar⁶ site, Special Protection Area (SPA⁷) and Site of Special Scientific Interest (SSSI⁸) and two other SSSI's. There are 14 non-statutory sites, all SINC's, two of which are also designated as Road Verges of Ecological Importance (RVEIs). See Table 1 for details.
- 3.2 Due to the site's location within close proximity to Portsmouth Harbour SSSI, it falls within one of Natural England's Impact Risk Zones for SSSI's.

Table 1: Designated Nature Conservation Sites within 2km of the site

Site Name	Habitats/Species of Interest	Location
Statutory Designated Sites		
Portsmouth Harbour SPA, Ramsar and SSSI	Habitats: Mudflats, tidal creeks, brackish lagoons, saltmarsh and shingle. Species: Birds including internationally important populations of wintering dark-bellied brent goose <i>Branta bernicla bernicla</i> and nationally important numbers of grey plover <i>Pluvialis squatarola</i> , dunlin <i>Calidris alpina</i> and black-tailed godwit <i>Limosa limosa</i> . Plants including the nationally scarce golden samphire <i>Inula crithmoides</i> . Protected invertebrates including starlet sea anemone <i>Nematostella vectensis</i> and lagoon sand shrimp <i>Gammarus insensibilis</i> .	0.02km south
Downend Chalk Pit SSSI	This is a geological SSSI of importance for rare fossils of corals and ammonites.	1.42km north-west

⁴ Principally sites receiving protection under the Wildlife and Countryside Act, 1981 (as amended) and including LNRs, SSSIs, SACs and Special Protected Areas (SPAs), amongst others.

⁵ They typically comprise a series of sites designated a county level that are recognised to be of local conservation importance and are often included in LPA development plans. In other areas of the country they are sometimes called SINC's (Sites of Importance for Nature Conservation), CWSs (County Wildlife Sites) or SBIs (Sites of Biological Importance). All are described generally as Local Wildlife Sites by the UK Government.

⁶ Wetland of International importance designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971.

⁷ Site of international importance for rare and migratory birds designated under the The Conservation of Habitats & Species Regulations 2010 (as amended).

⁸ One of the country's very best wildlife and/or geological sites.

Table 1: Designated Nature Conservation Sites within 2km of the site

Site Name	Habitats/Species of Interest	Location
Portsmouth SSSI	Habitats: Chalk escarpment and chalk grassland. Species: Plants including fly orchid <i>Ophrys insectifera</i> and invertebrates including chalk downland butterflies, beetles, bees and bush crickets <i>Conocephalus discolor</i> and <i>Tettigonia viridissima</i> .	1.98km north-east
Non-statutory Designated Sites		
Bedenham SINC	Habitats: Semi-improved grassland with a significant element of unimproved grassland and relic unimproved grassland, coastal habitats and wetlands. Species: Notable mammal water vole <i>Arvicola amphibius</i> , notable bird dark-bellied brent goose and notable plants long-bracted sedge <i>Carex extensa</i> , golden samphire and pale flax <i>Linum bienne</i> .	0.71km south-east
Cams Plantation SINC	Habitats: Woodland including some ancient semi-natural.	1.05km north-west
DM Gosport SINC	Habitats: Woodland including some ancient semi-natural and semi-improved grassland with a significant element of unimproved grassland. Species: Notable amphibian great crested newt and notable plants narrow-leaved bird's-foot trefoil <i>Lotus glaber</i> and <i>Lotus subbiflorus</i> .	1.46km south
Castle Shore Park SINC	Habitats: Relic unimproved grassland and coastal habitats. Species: Notable plants including wild celery <i>Apium graveolens</i> , yarrow plug <i>Eupithecia millefoliata</i> and burnet rose <i>Rosa pimpinellifolia</i> .	1.56km east
Fleetlands SINC	Species: Significant populations of dark-bellied brent goose.	1.56km south-west
Anson Grove SINC	Habitats: Agriculturally unimproved grassland. Species: Notable plants including sainfoin <i>Onobrychis viciifolia</i> , autumn lady's-tresses <i>Spiranthes spiralis</i> and bastard-toadflax <i>Thesium humifusum</i> and notable invertebrate small blue butterfly.	1.62km north-east
Urchins Copse SINC	Habitats: Coastal habitats. Species: Notable plants including golden samphire, fiddle dock <i>Rumex pulcher</i> and <i>Salicornia europaea</i> agg.	1.65km east
Hill Road Paddock SINC	Habitats: Semi-improved grassland with a significant element of unimproved grassland.	1.68km north-east
Skew Road & Nelson Lane Verges SINC/RVEI	Habitats: Agriculturally unimproved grassland. Species: Notable plant basil thyme <i>Clinopodium acinos</i> and notable invertebrate small blue butterfly.	1.68km north-east
Fort Nelson Picnic Site SINC	Habitats: Agriculturally unimproved grassland. Species: Notable invertebrate small blue butterfly <i>Cupido minimus</i> and notable plant pale flax.	1.74km north
Skew Road Meadow SINC	Habitats: Agriculturally unimproved grassland.	1.80km north-east
Down End Road Verge SINC/RVEI	Habitats: Agriculturally unimproved grassland.	1.82km north

Table 1: Designated Nature Conservation Sites within 2km of the site

Site Name	Habitats/Species of Interest	Location
Bathinghouse Grove & Cams Coastline SINC	Habitats: Ancient semi-natural woodland and coastal habitats. Species: Notable plants including English scurvy grass and sea wormwood <i>Seriphidium maritimum</i> .	1.94km west
Fort Nelson SINC	Habitats: Agriculturally unimproved and semi-improved grassland.	1.96km north

Landscape and Habitat Classifications

Biodiversity Opportunity Areas

- 3.3 Biodiversity Opportunity Areas (BOAs) represent a targeted landscape scale approach to conserving biodiversity, identifying opportunities to expand, link and buffer key sites. There are 41 BOAs across Hampshire (Hampshire Biodiversity Partnership, 2014).
- 3.4 The site lies within the Portsmouth Harbour BOA, which is mainly centred on the Portsmouth Harbour SSSI, Ramsar and SPA. Targets and opportunities identified to enhance the BOA are focused on coastal grazing marsh, coastal salt marsh and purple moor grass and rush pastures habitats.

Habitats of principal importance

- 3.5 The on-site woodland and scrub is classified as ‘deciduous woodland’ on Natural England’s Priority Habitat Inventory (Natural England, 2013a). The woodland could therefore qualify as the habitat of principal importance ‘Lowland Mixed Deciduous Woodland’.

Ancient woodland

- 3.6 There is one block of woodland within a 2km radius of the site that appears on the ancient woodland inventory. This is a small unnamed Ancient Semi-Natural Woodland (ASNW) site, located approximately 1.5km south of the site.

Protected, Rare and/or Noteworthy Species

Plants

- 3.7 The data search returned records of 42 species of vascular and lower plants including fungi and mosses, associated with a range of habitats including coastal, arable and grassland. Of these species, 16 are Nationally Scarce⁹, three Nationally Rare¹⁰, 16 County Scarce¹¹, 11 County Rare¹², two County Interest, three South Hampshire Scarce, 11 are on the Hampshire Biodiversity Action Plan (HBAP), six are species of principal importance and one is protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended).
- 3.8 Of these species, those associated with grassland that could potentially occur on site depending on the quality of the grassland include the following:
- basil thyme - a county scarce and species of principal importance recorded in Paulsgrove in 2013;
 - field cow-wheat *Melampyrum arvense* – a nationally rare, county scarce and protected species under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) recorded in Ports Down in 2013; and
 - green-winged orchid *Orchis morio* – a HBAP species recorded in Fleetlands in 2012.

Invertebrates

- 3.9 The data search returned records of 208 species of invertebrate, mainly moths and butterflies but also bees, ants, true bugs, flies and beetles. Species associated with grassland and/or woodland that could potentially occur on site include the following:
- stag beetle *Lucanus cervus* – a Nationally Scarce, HBAP and species of principal importance recorded in Fareham in 2009;
 - white admiral butterfly *Limenitis Camilla* – a species of principal importance recorded in Gosport in 2011; and

⁹ Occuring in 16-100 10km grid squares in Great Britain

¹⁰ Occuring in 15 or fewer 10km grid squares in Great Britain

¹¹ Species recorded in 4% or less tetrads in Hampshire

¹² Species recorded in 1% or less tetrads in Hampshire

- cinnabar moth *Tyria jacobaeae* – a species of principal importance recorded in Portsdown in 2011

Amphibians and reptiles

3.10 The data search returned records for two species of reptile, the slow worm *Anguis fragilis* and common lizard *Zootoca vivipara*. These are protected species (see Appendix 4 for the full details of the legislation) and both are species of principal importance. They have been recorded within the vicinity of the site as follows:

- slow worm – three records dated 2002-2010, with the nearest record being a 2010 on-site record for the allotment gardens in the northern extent of the site.
- common lizard – one record dated 2007, located 1.2km south-west.

Birds

3.11 The data search returned records for 97 species of notable bird, including 18 species of principal importance, 28 Birds of Conservation Concern¹³ (BoCC) red-list species, 44 HBAP species, 23 County Rare species, nine County Scarce species and seven County Interest species. In addition 36 of these species receive additional protection under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). These species have mainly been recorded in and around Portsmouth Harbour and are associated with coastal and wetland habitats which are not present on the site.

3.12 Within the site boundary lie two areas (F46A and F46B) identified within the Solent Waders and Brent Goose Strategy (2010). These areas were identified by the Waders and Brent Goose Steering Group as sites known to be used in the past, or were considered potentially suitable for use, by such birds for foraging or roosting. A further 31 strategy sites are present within a 2km radius of the site.

¹³ Birds of Conservation Concern status is prioritised into high concern (Red), medium concern (Amber) and low concern (Green) (Eaton *et al*, 2009). Red list species are those that are globally threatened according to the IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and have not shown a substantial recent recovery. Amber list species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations. Green list species are those that fulfil none of the criteria.

- 3.13 F46A, which comprises all of the land west of the woodland strip through the centre of the site, (see Figure 2 in Appendix 1) had a maximum count of six waders (curlew *Numenius arquata*) and 36 brent geese in the 2010 strategy.
- 3.14 F46B, which comprises all of the land east of the woodland strip though the centre of the site (see Figure 2 in Appendix 1), had zero counts of waders and brent geese in the 2010 strategy.
- 3.15 Both of these sites fell below the minimum confidence threshold, meaning that they needed further survey work to inform their assessment and determine their importance for waders and brent geese. Therefore, they were both classified as having ‘uncertain’ importance.
- 3.16 Other species that have been recorded in the locality and that could utilise the site for breeding and/or foraging include the following:
- nightingale *Luscinia megarhynchos* – a HBAP and county scarce species recorded at Porchester Castle in 2002;
 - spotted flycatcher *Muscicapa striata* – a red-list, HBAP and species of principal importance recorded in Wicor, Portchester in 2000;
 - song thrush *Turdus philomelos* – a red-list, species of principal importance and HBAP species recorded in Gosport in 2011;
 - barn owl *Tyto alba* – a schedule 1 species recorded in Frater Land in 2012;
 - lapwing *Vanellus vanellus* – a red-list, HBAP and species of principal importance recorded in Portsmouth Harbour in 2007;
 - starling *Sturnus vulgaris* – a red-list species recorded in Portchester in 2010; and
 - house sparrow *Passer domesticus* - a red-list and species of principal importance recorded in Portchester in 2011.
- 3.17 Wintering birds that could potentially utilise the site include fieldfare *Turdus pilaris* – a red-list and schedule 1 species recorded in Gosport in 2011.

Bats

- 3.18 The data search returned records for one species of bat, common pipistrelle *Pipistrellus pipistrellus*. There were also a number of records for unknown species of pipistrelle bat, *Pipistrellus* sp. The common pipistrelle is a protected species (see Appendix 4 for the

full details of the legislation) and a HBAP species. The 2011 record for this species is located 1.06km north-east of the site.

Other mammals

3.19 The data search returned records for three other species of mammal, water vole *Arvicola amphibius*, hedgehog *Erinaceus europaeus* and badger. Water vole and badger are both legally protected (see Appendix 4 for the full details of the legislation), water vole is also a HBAP and a species of principal importance, and hedgehog is also a species of principal importance. These have been recorded within the vicinity of the site as follows:

- water vole – one record dated 2007 and located in Bedenham 1.20km south-west;
- hedgehog – one record dated 2009 and located in Portchester 0.92km north; and
- badger – four records dated 2010-2012 with their exact locations not disclosed.

HABITAT SURVEY

Overview

3.20 The site comprised areas of bare ground, poor semi-improved grassland, neutral semi-improved grassland, scattered trees, scattered and dense scrub and broadleaved semi-natural woodland. There was also an area of allotment gardens present in the north-east corner of the site that were not accessible at the time of survey, but based on aerial photography were thought likely to contain areas of horticultural planting, dense scrub and semi-improved grassland.

3.21 A Habitat Map of the site showing locations of Target Notes (TN) is presented in Appendix 1, with photographs in Appendix 2.

Bare Ground

3.22 An enclosed paddock was present in the far north-west corner of the site with two ponies present at the time of survey (see Photograph 1). Due to trampling and over-grazing, the area was mostly reduced to bare earth with a few scattered ruderal plants present showing signs of soil enrichment such as broad-leaved dock *Rumex obtusifolius*. These plants were mainly along the southern boundary of the paddock, under the shade of the off-site trees and surrounding the muck heap (see TN1).

Poor Semi-Improved Grassland

- 3.23 Adjacent to the paddock described above was a large horse-grazed paddock with four more horses present at the time of survey. The north-western extent of this field had also been subjected to rather intense trampling and grazing pressure and as such featured a short sward that overall had a rather low species diversity. It featured many of the grass species present in the adjacent neutral semi-improved grassland (see description below) but with a higher proportion of wildflowers present that were tolerant to grazing and trampling such as creeping buttercup *Trifolium repens*, daisy *Bellis perennis* and yarrow *Achillea millefolium*.
- 3.24 The area of poor semi-improved grassland in the south-east corner of the site had a tall and coarse sward mainly dominated by sea couch *Elytrigia atherica* and red fescue *Festuca rubra*, with grass-leaved orache *Atriplex littoralis* also occasional in the sward (see Photograph 2). This was due to its close proximity to the coastline, with these species becoming less frequent/absent further inland.

Neutral Semi-Improved Grassland

- 3.25 The eastern extent of the horse-grazed paddock described above in Paragraph 3.22 featured a much longer (on average 30cm) and diverse sward where the trampling and grazing pressure was apparently less intense (see Photograph 3). Species that were abundant or locally abundant in the sward included crested dog's-tail *Cynosurus cristatus*, Yorkshire fog *Holcus lanatus*, rough meadow grass *Poa trivialis*, ribwort plantain *Plantago lanceolata*, meadow buttercup *Ranunculus acris*, eyebright *Euphrasia* sp., yellow-rattle *Rhinanthus minor* and bird's-foot trefoil *Lotus corniculatus*.
- 3.26 Some ant hills were present throughout the field described above, which are typically an indicator of good quality habitat or relict unimproved grassland. There were also large mounds of dense scrub and tall ruderal vegetation (see description below) and patches of locally frequent creeping thistle *Cirsium arvense* indicating enrichment from the horse manure.
- 3.27 The area of neutral semi-improved grassland present to the far east of the site formed part of a mosaic of habitats including dense and scattered scrub. The sward here was much coarser and taller in places (over 1m), with robust grass species present such as false oat-grass *Arrhenatherum elatius* and tall fescue *Schedonorus arundinaceus*. Despite this, there was still a reasonable diversity of wildflowers in this area including frequent grass vetchling *Lathyrus nissolia*, common vetch *Vicia sativa* and smooth tare

Vicia tetrasperma. A public footpath ran through this area of grassland as well as a number of other informal paths and walkways.

- 3.28 Other species that were present of interest included common spotted orchid *Dactylorhiza fuchsii* and pale flax, a species that is County Scarce (see TN2 and TN3 below).

Scattered Trees

- 3.29 A limited number of scattered trees were present throughout the areas of dense scrub in the eastern extent of the site. These were mainly young specimens of oak *Quercus robur* and field maple *Acer campestre* along with odd specimens of conifer, crab apple *Malus sylvestris* and cherry *Prunus* sp.

Scattered and Dense Scrub

- 3.30 Present throughout the horse-grazed paddocks in the western extent of the site were large, isolated mounds of dense scrub up to 7m high. These mainly comprised hawthorn *Crataegus monogyna*, bramble *Rubus fruticosus* agg, elder *Sambucus nigra* and dog-rose *Rosa canina* with tall ruderal vegetation extending out from their bases up to 3m wide (see Photograph 4). The tall ruderals included common nettle *Urtica dioica*, prickly sow-thistle *Sonchus asper* and common mallow *Malva sylvestris*.
- 3.31 The scrub in the eastern extent of the site was mainly comprised of the same species, but formed a continuous thicket that was alive with bird song at the time of survey and largely inaccessible.

Broadleaved Semi-Natural Woodland

- 3.32 An area of broadleaved semi-natural woodland was present central to the site dividing the horse-grass paddocks to the west from the mosaic of rough grassland and scrub to the east. An informal footpath ran central through the narrow woodland strip from south to north (see Photograph 5) and adjoined the public footpath present to the north. North of the public footpath, the on-site woodland connected directly to the off-site woodland known as Wicor Copse.
- 3.33 The secondary woodland canopy was mainly comprised of semi-mature specimens of ash *Fraxinus excelsior* and field maple with limited structural diversity. Some of the trees had limited amounts of ivy *Hedera helix* covering them. The understorey was quite open in places due to the apparently frequent use of the footpath by local residents. Further

away from the path the understorey comprised a reasonably diverse mix of species including hazel *Corylus avellana* with evidence of past coppicing, elder and hawthorn. Away from the well-worn paths, the ground layer was mainly smothered by a mat of creeping ivy with woodland species such as wood avens *Geum urbanum* and lords-and-ladies *Arum maculatum* occurring only rarely.

3.34 Mammal runs, likely made by badger and/or red fox *Vulpes vulpes* were evident throughout the woodland.

Target Notes

3.35 The following Target Notes identify specific features of interest. These are described below and shown on the Habitat Map in Appendix 1.

Target Note 1

3.36 A muck heap providing potential reptile sheltering and breeding habitat.

Target Note 2

3.37 A few spikes of common spotted orchid.

Target Note 3

3.38 A localised patch of pale flax (see Photograph 6).

Target Note 4

3.39 An area dominated by coastal plants including sea couch and grass-leaved orache.

Fauna

3.40 Whilst undertaking the Phase 1 habitat survey a number of incidental fauna records were made. These are listed below, along with an indication showing which are noteworthy records:

- magpie *Pica pica*;
- blackbird *Turdus merula*;
- whitethroat *Sylvia communis* (BoCC amber-list);
- collared dove *Streptopelia decaocto*;
- song thrush (BoCC red-list, species of principal importance and HBAP);
- great tit *Parus major*;

- carrion crow *Corvus corone*;
- chiffchaff *Phylloscopus collybita*;
- goldfinch *Carduelis carduelis*;
- black-headed gull *Chroicocephalus ridibundus* (BoCC amber-list);
- house sparrow (BoCC red-list and species of principal importance);
- robin *Erithacus rubecula*;
- wood pigeon *Columba palumbus*;
- red-tailed bumblebee *Bombus lapidarius*;
- brimstone butterfly *Gonepteryx rhamni*;
- speckled wood butterfly *Pararge aegeria*; and
- painted lady butterfly *Vanessa cardui*.

PROTECTED AND INVASIVE SPECIES ASSESSMENT

3.41 Where the habitats within the site were suitable to support protected species, they were evaluated as to their likelihood to provide sheltering, roosting, nesting and foraging habitat for those species. Those species considered potentially present, and their further evaluations, are:

- breeding birds;
- great crested newt;
- widespread species of reptile;
- bats;
- badger; and
- hazel dormouse.

3.42 The site was also assessed for its potential to support invasive plant species including those listed in Section 14 and Part 2 of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

3.43 The likelihood of these species being present is evaluated in Table 2 below. The relevant legislation and policies relating to protected species and invasive plant species are set out in Appendix 4.

Table 2: Assessment of potential presence of protected species and invasive plant species

Species	Main legislation and policy (see Appendix 4)	Reason for consideration	Likelihood of occurrence
Breeding birds	Wildlife and Countryside Act 1981 (as amended) - Schedules 1 to 8.	Suitable habitat for a range of breeding birds was present on site. Various widespread bird species were recorded during the Phase 1 survey. Records for 97 species of notable bird were returned from the data search.	HIGH – Although no direct evidence of breeding birds was noted during the Phase 1 habitat survey, a large area of suitable habitat was present on site including woodland, dense scrub and trees. Notable species recorded during the Phase 1 survey or from the data search that could potentially breed on site include song thrush, whitethroat and nightingale. The thicket of dense scrub was alive with bird song during the Phase 1 survey.
Wintering birds	EC Birds Directive; The Conservation of Habitats and Species Regulations 2010 (as amended)	Suitable habitat for wintering birds was present on site. The Solent Waders and Brent Goose Strategy (2010) has recorded waders and brent geese using the site.	HIGH – The site provides suitable foraging and sheltering habitat for some species of wintering bird such as curlew and brent goose. Factors that could reduce the likelihood of wintering birds being present include disturbance from local residents and dog walkers.
Great crested newt	Wildlife and Countryside Act 1981 (as amended) – Schedule 5. The Conservation of Habitats and Species Regulations 2010 (as amended) – Schedule 2.	Suitable habitat was present on site for newts in their terrestrial phase.	NEGLECTIBLE – There was no suitable on-site breeding habitats, no ponds identified within 500m of the site and no records returned from the data search. On-site habitats suitable for newts in their terrestrial phase included rough grassland, dense scrub and woodland.
Widespread reptiles	Wildlife and Countryside Act 1981 (as amended) - Schedule 5.	Suitable habitat for reptiles was present on site. The data search returned records for common lizard and slow worm, the latter having been recorded on the site itself. Anecdotal evidence was also provided to suggest adder <i>Vipera berus</i> is also present on the site (M Allman 2014, pers. comm., 30 June.)	HIGH – The site provided a large area of suitable breeding, sheltering and foraging habitat for widespread species of reptile including common lizard, slow worm and possibly adder. This included the mosaic of rough grassland, dense and scattered scrub and allotment gardens in the eastern extent of the site. The woodland edge, muck heap and field and scrub margins in the western extent of the site were also suitable. Connectivity to suitable off-site habitats was mainly limited to residential gardens.

Table 2: Assessment of potential presence of protected species and invasive plant species

Species	Main legislation and policy (see Appendix 4)	Reason for consideration	Likelihood of occurrence
Bats	Wildlife and Countryside Act 1981 (as amended) - Schedule 5. The Conservation of Habitats and Species Regulations 2010 (as amended) - Schedule 2.	Potentially suitable roosting and foraging habitat was present on site.	HIGH (foraging) MEDIUM (roosting) – Some of the trees present within the on-site woodland were noted to have features potentially suitable for roosting bats such as ivy-covering. The mosaic of habitats present including grassland, dense scrub and woodland provided highly suitable foraging habitat, however these habitats could be exposed to extremes of wind, cold and rain given the sites location near the coast. Other areas of suitable habitat within the immediate vicinity of the site are limited.
Badger	Protection of Badgers Act 1992.	The site provides suitable foraging and sett building habitat. The data search provided recent records for badger but their locations were not disclosed. Anecdotal evidence was also provided to suggest badger is also present on the site (M Allman 2014, pers. comm., 30 June.)	HIGH – Whilst no direct evidence of badger was seen during the Phase 1 survey, there was highly suitable habitat available for sett construction and foraging. This included the woodland strip, areas of dense scrub and rough grassland. Mammal paths through the woodland could potentially be attributed to badger activity. There is limited connectivity to suitable off-site habitat including playing fields and arable fields present to the north-west.
Hazel dormouse	Wildlife and Countryside Act 1981 (as amended) - Schedule 5. The Conservation of Habitats and Species Regulations 2010 (as amended) - Schedule 2.	Suitable habitat was present on site. The site is situated within a county that is one of the national stronghold for this species in the UK.	MEDIUM – The areas of on-site woodland and dense scrub provided highly suitable breeding, foraging and sheltering habitat for this species. Factors that could reduce the likelihood of this species being present include disturbance from local residents, predation from cats and the isolation of the site from suitable off-site habitat. Connectivity to suitable off-site habitat was mainly limited to the adjacent Wicor Copse to the north and some woody habitat around the southern site margins.
Invasive plant species	Section 14 and Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)	Invasive species are widespread in many habitats and commonly found in gardens. A number of commonly planted ornamental species are on the Schedule 9 list.	LOW – No invasive plant species listed on Schedule 9 were recorded during the Phase 1 survey. However, the site was adjacent to a number of gardens which could contain invasive species planted as ornamentals, slightly increasing the likelihood of them being found on the site.

4 Evaluation

SITE EVALUATION

- 4.1 Habitats and species on the site were evaluated following standard guidance on ecological impact assessment published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2006) using the recommended geographic frame of reference – see Table 3. Key aspects of legislation regarding nature conservation are provided in Appendix 4.

Table 3: CIEEM Evaluation

Criteria	Remarks
Features of International Importance	The site is not subject to any international statutory nature conservation designations. The closest site of international importance is Portsmouth Harbour SPA and Ramsar located 0.02km south of the site. The populations of dark-bellied brent goose and other waders for which this site receives designation have been recorded on site and are likely to use the areas of grassland for foraging.
Features of National Importance	The site is not subject to any national statutory nature conservation designations and it is not considered that any habitats or populations or assemblages of species within the site would meet the criteria for the designation of SSSIs at an appropriate geographic level ¹⁴ . The closest site of national importance is Portsmouth Harbour SSSI, located 0.02km to the south of the site. The populations of brent geese and other waders for which this site receives designation have been recorded on site and are likely to use the areas of grassland for foraging.
Features of County (Hampshire) Importance	The site is not subject to any non-statutory nature conservation designations such as SINCs. The site does however meet the criteria for selecting SINCs in Hampshire (Hampshire County Council, 1996) based on the presence of semi-improved grassland which has an element of unimproved grassland and notable species such as pale flax.
Features of District (Fareham) Importance	The site is known to support or has the potential to support the following protected and/or notable species: <ul style="list-style-type: none"> o breeding and wintering birds; o reptiles; and o mammals including bats and hazel dormouse. Populations of these species (if present) could be of importance up to a district level. The semi-improved neutral grassland in the western extent of the site is thought to qualify as the habitat of principal importance lowland meadows. This area is also recognised in the Fareham Borough Local Plan Review (2000) as 'Wicor Path B' – a site of nature conservation value for its semi-improved grassland.

¹⁴ JNCC Guidelines for selection of biological SSSIs (see <http://jncc.defra.gov.uk/page-2303#download>).

Table 3: CIEEM Evaluation

Criteria	Remarks
Features of Local (Portchester) Importance	The on-site woodland qualifies as the habitat of principal importance lowland mixed deciduous woodland. However, the habitat was not considered a particularly good example of its type due to a lack of species diversity and mature tree specimens, and is of limited value due to its small extent and isolation from other similar habitat types.
Features of importance within the immediate vicinity of the site	The other habitats present on site including areas of dense scrub and poor semi-improved grassland are common and widespread habitats of low conservation value but may assume higher importance where they support protected and/or species of principal importance. These habitats are also likely to provide suitable habitat for a range of generalist species and therefore are of value in maintaining the ecological balance of the area. Notable species which could be present include hedgehog, badger, stag beetle and cinnabar moth.
Social Importance	The site is regularly used by local residents and dog walkers, who not only use the public footpath but also other informal paths across the site. The site is overlooked by a number of properties with residents who are likely to value the open views and natural feel of the site. It is also used to provide grazing for horses likely kept as pets.
Economic Importance	The natural habitats on the site have the potential to provide indirect economic value through providing ecosystem services such as nutrient and water re-cycling.

4.2 On this basis it is considered that overall the site is likely to be of district importance, but may assume higher value where it supports protected and/or other notable species. The sites supporting role in the wider ecological network of sites has also yet to be determined. Therefore, this evaluation is subject to change following the results of the recommended further survey work.

PLANNING POLICY

4.3 On the basis of the survey it is considered that the Fareham Borough Local Plan Review (2000) and the Fareham Borough Core Strategy (2011) contain a number of nature conservation policies relevant to the site. A summary of these policies is detailed in Table 4. The full text of the relevant policies is contained in Appendix 4.

Table 4: Local planning policies relevant to the site

Policy	Relevance to the site
<p>Policy CS14: Development Outside Settlements</p> <p><i>Built development on land outside the defined settlements will be strictly controlled to protect the countryside and coastline from development which would adversely affect its landscape character, appearance and function. Acceptable forms of development will include that essential for agriculture, forestry, horticulture and required</i></p>	<p>The proposed development has potential to adversely affect the nature conservation interests of the countryside and coastline. This includes the loss of grassland of value to foraging coastal birds such as dark-bellied Brent goose.</p>

Table 4: Local planning policies relevant to the site

Policy	Relevance to the site
<p><i>infrastructure. The conversion of existing buildings will be favoured. Replacement buildings must reduce the impact of development and be grouped with other existing buildings, where possible. In coastal locations, development should not have an adverse impact on the special character of the coast when viewed from the land or water.</i></p>	<p>The proposed development also has potential to adversely affect the amenity of users of the existing public right of way as additional housing and gardens will be located along Wicor Path.</p>
<p>Policy CS4: Green Infrastructure, Biodiversity and Geological Conservation</p> <p><i>Habitats important to the biodiversity of the Borough, including Sites of Special Scientific Interest, Sites of Importance for Nature Conservation, areas of woodland, the coast and trees will be protected in accordance with the following hierarchy of nature conservation designations:</i></p> <p><i>(i) International - Special Protection Areas (SPA), Special Areas of Conservation (SAC) and RAMSAR;</i></p> <p><i>(ii) National - Sites of Special Scientific Interest (SSSI) and National Nature Reserves;</i></p> <p><i>(iii) Local - Sites of Importance for Nature Conservation (SINC), Local Nature Reserves (LNR), other Ancient Woodland not identified in (ii) above;</i></p> <p><i>(iv) Sites of Nature Conservation Value.</i></p> <p><i>Where possible, particularly within the identified Biodiversity Opportunity Areas, sites will be enhanced to contribute to the objectives and targets set out in UK, Regional, County and Local Biodiversity Action Plans. Green Infrastructure networks, which buffer and link established sites, whilst also enabling species to disperse and adapt to climate change will be maintained and enhanced.</i></p> <p><i>Development Proposals will be permitted where Green Infrastructure provision in accordance with the Green Infrastructure Strategy has been integrated within the development where this is appropriate. Development proposals will provide for appropriate access to greenspace for informal recreation to avoid adverse impacts from recreation and other impacts on European and Ramsar sites and on nationally and locally important sites.</i></p>	<p>The proposed development could potentially have an adverse effect on the nearby Portsmouth Harbour SPA, Ramsar and SSSI. Impacts include the loss of foraging habitat suitable for brent goose and other waders and disturbance to these species for which the site receives designation.</p> <p>The site lies within the Portsmouth Harbour Biodiversity Opportunity Area (BOA). There will be opportunities to enhance the site in line with the targets and objectives of the BOA and local Biodiversity Actions Plans.</p> <p>The development proposals will need to provide for appropriate access to greenspace for informal recreation. This is to avoid adverse impacts on the adjacent Portsmouth Harbour SPA, Ramsar and SSSI.</p>
<p>Policy C17: Sites of Nature Conservation Value</p> <p><i>Development which would adversely affect non-designated sites or features of nature conservation value will be not permitted unless, where possible, provision is made to offset the adverse impact.</i></p> <p><i>Where appropriate, a legal agreement will be sought to secure the replacement of habitats or features lost to development.</i></p>	<p>The western part of the site is listed in Appendix 3 of the Fareham Local Plan Review as the site of nature conservation value 'Wicor Path B' and is subject to Policy C17. The proposed development would adversely impact this site as a large proportion of it would be lost to residential housing.</p>

Table 4: Local planning policies relevant to the site

Policy	Relevance to the site
<p>Policy C18: Protected Species</p> <p><i>Development which would adversely affect species, or their habitats, protected by the Habitats Regulations 1994, the Wildlife and Countryside Act 1981 or other legislation will not be permitted unless measures can be undertaken which prevent harm to the species or damage to the habitats.</i></p> <p><i>Where appropriate, a permission will be conditioned or a legal agreement sought to secure the protection of the species or their habitats.</i></p>	<p>Without appropriate mitigation the proposed development has potential to adversely impact protected species such as breeding birds, reptiles, bats, badger and hazel dormouse (if present).</p>

5 Conclusions and Recommendations

CONCLUSIONS

- 5.1 The proposed development site contains a reasonable diversity of habitats that have remained largely unmanaged and and/or undisturbed for many years. This has resulted in many areas of the site being inaccessible, thus reducing pressure from recreation and disturbance and consequently allowing wildlife to flourish.
- 5.2 The site is not subject to any statutory or non-statutory nature conservation designations. The nearest statutory designated site is Portsmouth Harbour SPA, Ramsar and SSSI located 0.02km south. The nearest non-statutory designated site is Bedenham SINC, located approximately 0.71km south-east.
- 5.3 A screening opinion may be required to assess if the development could have a Likely Significant Effect on Portsmouth Harbour SPA as per the Habitat Regulations (2010). This is due to its close proximity and the known use of the site by dark-bellied brent goose, a qualifying species for the SPA designation. Within the site boundary lie two sites identified within the Solent Waders and Brent Goose Strategy (2010) as having 'uncertain' importance for brent geese and waders.
- 5.4 The site also falls within one of Natural England's Impact Risk Zones for SSSI's, and it is recommended that consultation with Natural England is sought.
- 5.5 Habitats identified within the Phase 1 habitat survey included an area of neutral semi-improved grassland considered to qualify as the habitat of principal important lowland meadows and supporting the County Scarce plant pale flax. This area of habitat is also recognised in the Fareham Borough Local Plan Review (2000) as a site of nature conservation value and is considered of district value. The on-site broadleaved semi-natural woodland qualifies as the habitat of principal importance lowland mixed deciduous woodland and is considered of local value.
- 5.6 Other habitats present on site including areas of dense scrub and poor semi-improved grassland were considered of value within the immediate vicinity of the site only but may assume higher value where they support protected and/or other notable species.
- 5.7 The site has potential to support a number of protected species groups including; high potential to support breeding and wintering birds, widespread species of reptile, foraging bats and badger, medium potential to support hazel dormouse and roosting bats and negligible potential to support great crested newt. It was also considered to have low potential to support invasive plant species.

- 5.8 Overall the site was considered likely to be of district importance, but this evaluation is subject to change following the results of the recommended further survey work. This will be required to determine the potential adverse impacts of the proposed development on designated sites and protected species, details are outlined below.

RECOMMENDATIONS

Further Surveys

Wintering birds

- 5.9 As identified in the Solent Waders and Brent Goose Strategy (2010) the site requires further survey work to determine its importance for waders and dark-bellied brent goose. This is also necessary to determine if the proposed development could have a significant adverse impact on Portsmouth Harbour SPA.
- 5.10 Therefore, it is recommended that wintering bird surveys are undertaken between November and March following a protocol based on the current British Trust for Ornithology (BTO) Wetland Bird Survey (WeBS) Core Count methodology (Gilbert et al. 2002). All bird locations (apart from corvids, woodpigeons and pheasants) will be plotted on 1:2500 maps using BTO species codes to an accuracy of $\pm 25\text{m}$. A different set of field maps will be used for each survey.

Breeding birds

- 5.11 It is recommended that a breeding bird survey is carried out to confirm the presence/likely absence of notable breeding bird species (including those listed under Schedule 1 of the Wildlife and Countryside Act 1981, as amended) and their distribution on site. Five (daytime) breeding bird surveys are to be carried out over the breeding season between March and June (inclusive). The survey methodology will broadly follow standard Common Bird Census (CBC) methodology (Gilbert et al) recording all species observed within the survey area, their locations and any breeding behaviour (singing/food carrying etc.) on large scale maps using standard British Trust for Ornithology (BTO) species codes and behaviour codes.

Reptiles

- 5.12 It is recommended that a reptile survey is carried out to confirm the presence/likely absence of these species and their distribution on site. A minimum of seven visits should be undertaken between March and October, following current guidelines (Froglife, 1999) and using a number of artificial refugia made from roofing felt.

Bats

- 5.13 It is recommended that bat surveys are undertaken to confirm the presence/likely absence of these species and their distribution on site. This should include transect

surveys and/or automated surveys to determine the overall level of bat activity of the site and its value as a foraging resource and/or commuting corridor. Tree inspections and emergence/re-entry surveys may also be required to identify potential roosting sites if trees of roosting potential are to be removed.

- 5.14 For medium sized-sized sites (1-15ha) with medium habitat quality it is recommended that one site visit is carried out per transect each month during April to September. For automated surveys, it is recommended that one location is used per transect and data collected on three consecutive nights each month from April to September (Hundt, 2012). Tree inspections can be carried out at any time of year and emergence/re-entry surveys must be carried out between May and August and spread evenly across this period in line with best practice methodologies (Hundt, 2012).

Badger

- 5.15 It is recommended that a badger survey is undertaken to confirm the presence/likely absence of this species and its distribution on site. At least one survey visit should be undertaken during the optimum period of spring or early autumn/winter (Natural England, 2014).
- 5.16 Due to the inaccessibility of large areas of the site it is recommended that the survey is carried out during winter when the vegetation has died back. It may also be necessary to undertake the work in conjunction with a machine operative who can cut paths into the dense scrub using a strimmer or hedge cutter.

Hazel dormouse

- 5.17 It is recommended that a dormouse survey is undertaken to confirm the presence/likely absence of this species and its distribution on site. Survey methodology should follow the guidelines set out in the *Dormouse Conservation Handbook* (Bright et al, 2006) whereby a points system based on survey effort and time of year is used to rate the effectiveness of the survey with a score of 20 indicating an adequate survey.
- 5.18 Survey visits should be undertaken between April and November, ideally spread out over the whole survey season. Although a score of 20 may be achieved by for example, using at least 100 dormouse tubes between June and September.

Mitigation

Protected species

- 5.19 A site wide dedicated mitigation strategy for habitats and protected species should be developed after the recommended further survey work has been carried out and devised in consultation with the client and their contractors. This strategy should be

detailed in an Ecological Mitigation Plan suitable to be used to guide works. It is likely that an important element of this work will be the retention, protection and suitable future management of key habitats/areas.

- 5.20 No other protected species were considered likely to occur on site. However, should the presence of a protected species be confirmed or suspected during works, these must cease immediately and the advice of a suitably qualified and experienced ecologist must be sought.

Habitats

- 5.21 It is recommended that as much of the semi-improved neutral grassland and broadleaved semi-natural woodland qualifying as habitats of principal importance is retained as possible. Where this is not possible, suitable compensatory planting or recreation of habitat at roof level may be necessary (see green roofs below).

- 5.22 All construction works taking place in the vicinity of scattered trees should conform to British Standard 5837:2012 *Trees in Relation to Design, Demolition and Construction* to maintain the integrity of these habitats.

Statutory sites

- 5.23 A screening opinion may be necessary to assess if the development could have a Likely Significant Effect on the SPA as per the Habitat Regulations (2010). As such, it is recommended that Natural England and the Local Planning Authority (LPA) are consulted. Consultation with Natural England is also recommended for all planning applications with a new/increased footprint outside existing urban areas, and for any residential developments with a total net gain in residential units (Magic, 2014) that fall within a SSSI Impact Risk Zone.

Compensation/Enhancement

- 5.24 There may be opportunities to compensate for habitat loss and enhance the biodiversity value of the site; however, these opportunities should be guided by the results of the further survey work that has been recommended above. Those opportunities listed below are fairly generic, but would help implement national, regional and local planning policies such as those listed in the NERC Act 2006 and the NPPF.
- 5.25 Opportunities include the use of:
- Sustainable Urban Drainage Systems (SuDS)
 - Green roofs
 - Rain gardens
 - Wildlife-friendly fencing

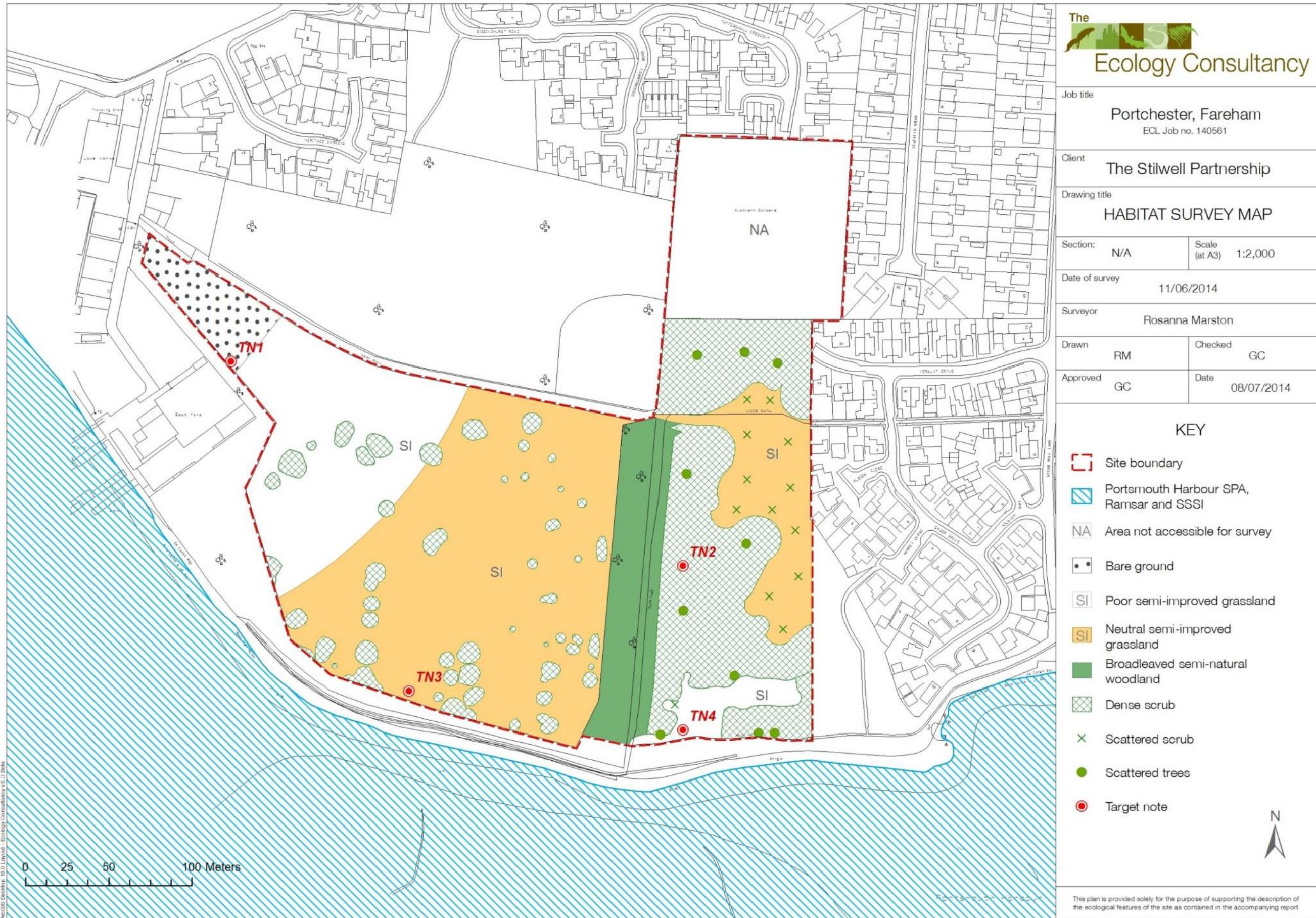
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Appendix 1: Figures

Figure 1 : Habitat Survey Map



The Ecology Consultancy

Job title
Portchester, Fareham
ECL Job no. 140561

Client
The Stilwell Partnership

Drawing title
HABITAT SURVEY MAP

Section: N/A Scale (at A3) 1:2,000

Date of survey
11/06/2014

Surveyor
Rosanna Marston

Drawn RM Checked GC

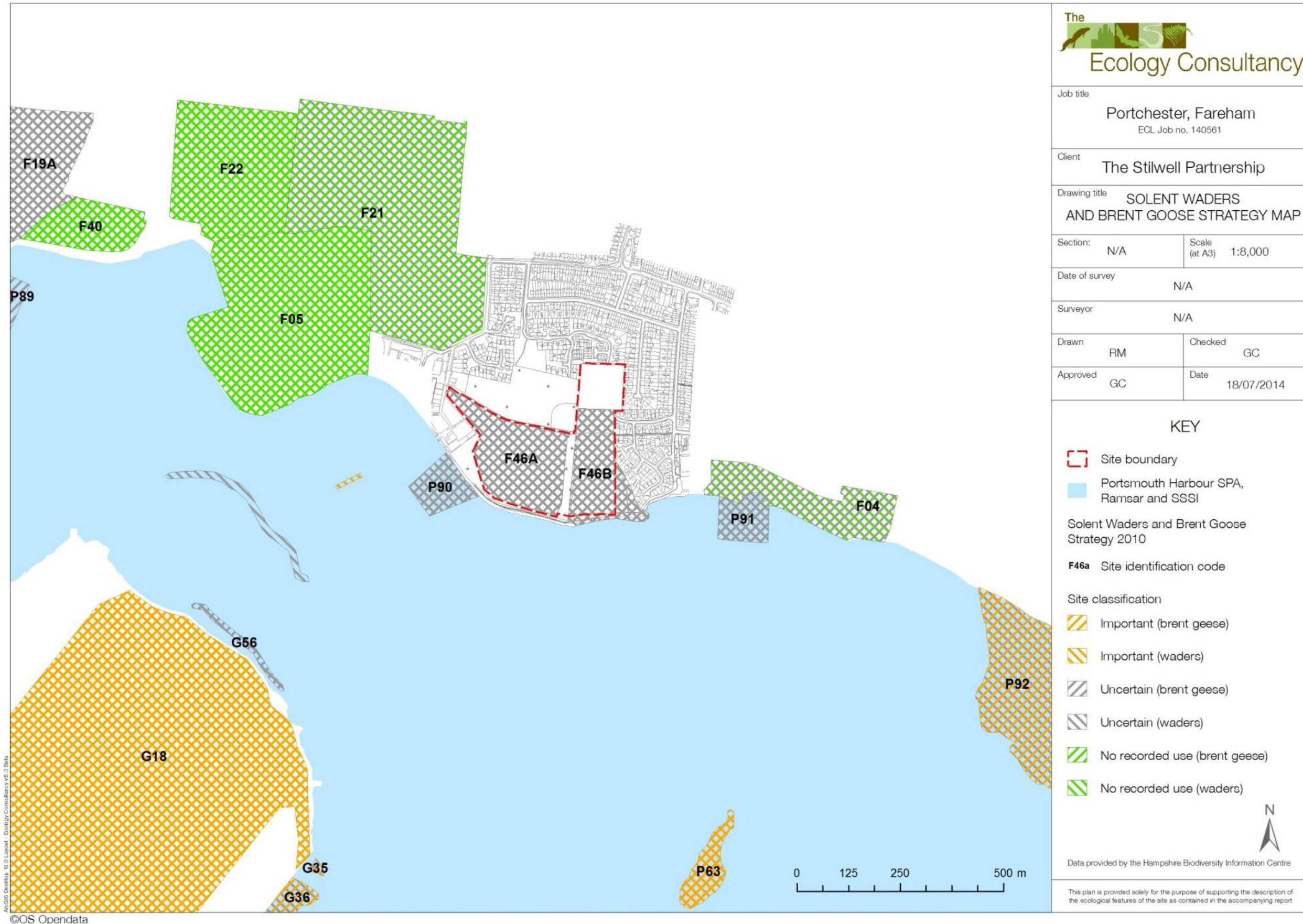
Approved GC Date 08/07/2014

KEY

- Site boundary
- Portsmouth Harbour SPA, Ramsar and SSSI
- Area not accessible for survey
- Bare ground
- Poor semi-improved grassland
- Neutral semi-improved grassland
- Broadleaved semi-natural woodland
- Dense scrub
- Scattered scrub
- Scattered trees
- Target note

This plan is provided solely for the purpose of supporting the description of the ecological features of the site as contained in the accompanying report

Figure 2 : Solent Waders and Brent Goose Strategy Map



Appendix 2: Photographs

Photograph 1

The horse-grazed paddock in the far north-west corner of the site reduced to an area of bare ground.



Photograph 2

The poor semi-improved grassland in the south-east corner of the site near the coast with abundant sea couch and red fescue.



Photograph 3

The horse-grazed field of neutral semi-improved grassland with scrub mounds visible in the background.



Photograph 4

A tall scrub mound comprised of hawthorn and elder with surrounding tall ruderal vegetation mainly comprising common nettle.



Photograph 5

The informal footpath leading through the woodland strip with the ground flora mainly comprised of ivy and coppiced hazel stools also visible.



Photograph 6

The localised patch of pale flax, a County Scarce plant present in the grassland at TN3.



Appendix 3: Plant Species List

Plant Species List Portchester, Fareham compiled from the Phase 1 habitat survey carried out on 11th June 2014.

Scientific nomenclature follows Stace (2010) for vascular plant species and Blockeel & Long (1998) for bryophyte species. Vascular plant common names follow the Botanical Society of the British Isles 2003 list, published on its web site, www.bsbi.org.uk. Please note that this plant species list was generated as part of a Phase 1 Habitat survey, does not constitute a full botanical survey and should be read in conjunction with the associated Phase 1 Report.

Abundance was estimated using the DAFOR scale as follows:

D = dominant, A = abundant, F = frequent, O = occasional, R = rare, L = locally
 c=clumped, e=edge only, g=garden origin, p=planted, y = young, s=seedling or sucker,
 t=tree, h=hedge, w=water

SCIENTIFIC NAME	COMMON NAME	ABUNDANCE	QUALIFIER
<i>Acer campestre</i>	Field maple	LF	t, y
<i>Acer pseudoplatanus</i>	Sycamore	R	t, y
<i>Achillea millefolium</i>	Yarrow	F	
<i>Agrimonia eupatoria</i>	Agrimony	R	
<i>Anthoxanthum odoratum</i>	Sweet vernal-grass	R	
<i>Anthriscus sylvestris</i>	Cow parsley	R	e
<i>Arrhenatherum elatius</i>	False oat-grass	LF	
<i>Arum maculatum</i>	Lords-and-Ladies	R	
<i>Atriplex littoralis</i>	Grass-leaved orache	R	
<i>Atriplex</i> sp.	Orache	LF	c
<i>Bellis perennis</i>	Daisy	LF	
<i>Bromus hordeaceus</i>	Soft-brome	R	
<i>Centaurea nigra</i>	Common knapweed	O	
<i>Centaureum erythraea</i>	Common centauray	O	
<i>Cerastium fontanum</i>	Common mouse-ear	O	
<i>Cirsium arvense</i>	Creeping thistle	O/LF	
<i>Convolvulus arvensis</i>	Field bindweed	R	
<i>Corylus avellana</i>	Hazel	LF	t, y
<i>Crataegus monogyna</i>	Hawthorn	LA	
<i>Cynosurus cristatus</i>	Crested dog's-tail	LA	
<i>Dactylis glomerata</i>	Cock's-foot	LF	
<i>Dactylorhiza fuchsii</i>	Common spotted-orchid	R	c
<i>Daucus carota</i>	Wild carrot	R	
<i>Elytrigia atherica</i>	Sea couch	LA	c
<i>Epilobium montanum</i>	Broad-leaved willowherb	R	
<i>Equisetum</i> sp.	Horsetail	R	
<i>Euphrasia</i> sp.	Eyebright	LA	
<i>Festuca rubra</i>	Red fescue	LF	
<i>Fraxinus excelsior</i>	Ash	LF	t

<i>Galium aparine</i>	Cleavers	O	
<i>Geranium dissectum</i>	Cut-leaved crane's-bill	R	e
<i>Geranium robertianum</i>	Herb-Robert	R	
<i>Geum urbanum</i>	Wood avens	R	
<i>Hedera helix</i>	Ivy	LA	
<i>Heracleum sphondylium</i>	Hogweed	O	
<i>Holcus lanatus</i>	Yorkshire-fog	F/LA	
<i>Hordeum secalinum</i>	Meadow barley	R	
<i>Hypericum perforatum</i>	Perforate St John's-wort	R	
<i>Hypochaeris radicata</i>	Cat's-ear	O	
<i>Ilex aquifolium</i>	Holly	R	
<i>Lathyrus nissolia</i>	Grass vetchling	LF	
<i>Laurus nobilis</i>	Bay	R	
<i>Leucanthemum vulgare</i>	Oxeye daisy	O	
<i>Ligustrum vulgare</i>	Wild privet	R	
<i>Linum bienne</i>	Pale flax	R	
<i>Lolium perenne</i>	Perennial rye-grass	O	
<i>Lotus corniculatus</i>	Common bird's-foot-trefoil	LA	
<i>Malus sylvestris</i>	Crab apple	R	t, y
<i>Malva sylvestris</i>	Common mallow	R	
<i>Medicago lupulina</i>	Black medick	O	
<i>Myosotis arvensis</i>	Field forget-me-not	R	
<i>Odontites vernus</i>	Red bartsia	LF	
<i>Phleum pratense</i>	Timothy	R	
<i>Plantago lanceolata</i>	Ribwort plantain	F	
<i>Plantago major</i>	Greater plantain	LF	
<i>Poa pratensis</i>	Smooth meadow-grass	R	
<i>Poa trivialis</i>	Rough meadow-grass	O/LA	
<i>Potentilla reptans</i>	Creeping cinquefoil	R	c
<i>Prunus sp.</i>	Cherry	R	t
<i>Prunus spinosa</i>	Blackthorn	R	
<i>Pulicaria dysenterica</i>	Common fleabane	O	
<i>Quercus cerris</i>	Turkey oak	R	t
<i>Quercus robur</i>	Pedunculate oak	O	t
<i>Ranunculus acris</i>	Meadow buttercup	LA	
<i>Ranunculus repens</i>	Creeping buttercup	O	
<i>Rhinanthus minor</i>	Yellow-rattle	LA	
<i>Ribes sp.</i>	Currant	R	
<i>Rosa canina</i>	Dog-rose	O	
<i>Rubus fruticosus</i> agg.	Bramble	LA	
<i>Rumex acetosa</i>	Common sorrel	R	
<i>Rumex crispus</i>	Curled dock	R	
<i>Rumex obtusifolius</i>	Broad-leaved dock	O	
<i>Sambucus nigra</i>	Elder	LF	
<i>Schedonorus arundinaceus</i>	Tall fescue	LF	
<i>Senecio jacobaea</i>	Common ragwort	O	

<i>Sonchus asper</i>	Prickly sow-thistle	O	
<i>Stellaria graminea</i>	Lesser stitchwort	O	
<i>Taraxacum</i> sp.	Dandelion	O	
<i>Tragopogon pratensis</i>	Goat's-beard	R	
<i>Trifolium dubium</i>	Lesser trefoil	O	
<i>Trifolium micranthum</i>	Slender trefoil	O	
<i>Trifolium pratense</i>	Red clover	LF	
<i>Trifolium repens</i>	White clover	LF	
<i>Ulex europaeus</i>	Gorse	R	
<i>Urtica dioica</i>	Common nettle	O	e
<i>Vicia sativa</i>	Common vetch	LF	
<i>Vicia tetrasperma</i>	Smooth tare	LF	

Appendix 4: Legislation and Policy

Important Notice: This section contains details of legislation and planning policy applicable in Britain only (i.e. not including the Isle of Man, Northern Ireland, the Republic of Ireland or the Channel Islands) and is provided for general guidance only. While every effort has been made to ensure accuracy, this section should not be relied upon as a definitive statement of the law.

A NATIONAL LEGISLATION AFFORDED TO SPECIES

The objective of the EC Habitats Directive¹⁵ is to conserve the various species of plant and animal which are considered rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) is a key piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Since the passing of the Wildlife & Countryside Act 1981, various amendments have been made, details of which can be found on www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CROW) Act (2000) and Nature Conservation (Scotland) Act 2004.

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Countryside and Rights of Way (CROW) Act 2000
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

Species and species groups that are protected or otherwise regulated under the aforementioned domestic and European legislation, and that are most likely to be affected by development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds, dormouse, invasive plant species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations 2010 (as amended) (which includes smooth snake, sand lizard, great crested newt and natterjack toad), all bat species, otter, dormouse and some plant species) are given below. **These should be read in conjunction with the relevant species sections that follow.**

¹⁵ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora

- In the Directive, the term ‘deliberate’ is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.
- The Conservation of Habitats and Species Regulations 2010 (as amended) does not define the act of ‘migration’ and therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.
- In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three ‘tests’: i) the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment; ii) that there is no satisfactory alternative and iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

Herpetofauna (Amphibians and Reptiles)

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita* and great crested newt *Triturus cristatus* receive full protection under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2. The pool frog *Pelophylax lessonae* is also afforded full protection under the same legislation. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of species listed on Schedule 2
- Deliberate disturbance of any Schedule 2 species as:
 - a) to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young;
 - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate
 - b) to affect significantly the local distribution or abundance of the species
- Deliberate taking or destroying of the eggs of a Schedule 2 species
- Damage or destruction of a breeding site or resting place
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

With the exception of the pool frog, these species are also currently listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). Species such as the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis* are listed in respect to Section 9(1) & (5). For these species, it is prohibited to:

- Intentionally (or recklessly in Scotland) kill or injure these species
- Sell, offer or expose for sale, possess or transport for purpose of sale these species, or any part thereof.

Common frog *Rana temporaria*, common toad *Bufo bufo*, smooth newt *Lissotriton vulgaris* and palmate newt *L. helveticus* are listed in respect to Section 9(5) only which affords them protection against sale, offering or exposing for sale, possession or transport for the purpose of sale.

How is the legislation pertaining to herpetofauna liable to affect development works?

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect the breeding sites or resting places of those amphibian and reptile species protected under The Conservation Habitats and Species Regulations 2010 (as amended). A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the Wildlife and Countryside Act 1981 (as amended).

Badger

Badgers *Meles meles* receive protection under The Protection of Badgers Act 1992 which consolidates the previous Badger Acts of 1973 and 1991. The Act makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger
- Cruelly ill-treat a badger, including use of tongs and digging
- Possess or control a dead badger or any part thereof
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett¹⁶ or any part thereof
- Intentionally or recklessly disturb¹⁷ a badger when it is occupying a badger sett
- Intentionally or recklessly cause a dog to enter a badger sett
- Sell or offers for sale, possesses or has under his control, a live badger

How is the legislation pertaining to badgers liable to affect development works?

A Development Licence¹⁸ will be required from the relevant countryside agency (e.g. Natural England) for any development works liable to affect an active badger sett, or to disturb

¹⁶ A badger sett is defined in the legislation as "any structure or place which displays signs indicating current use by a badger". This includes seasonally used setts. Natural England (2009) have issued guidance on what is likely to constitute current use of a badger sett: www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

¹⁷ For guidance on what constitutes disturbance and other licensing queries, see Natural England (2007) Badgers & Development: A Guide to Best Practice and Licensing. www.naturalengland.org.uk/Images/badgers-dev-guidance_tcm6-4057.pdf, Natural England (2009) Interpretation of 'Disturbance' in relation to badgers occupying a sett www.naturalengland.org.uk/Images/WMLG16_tcm6-11814.pdf, Scottish Natural Heritage (2002) Badgers & Development. www.snh.org.uk/publications/online/wildlife/badgersanddevelopment/default.asp and Countryside Council for Wales (undated) Badgers: A Guide for Developers. www.ccw.gov.uk.

¹⁸ Natural England will only consider issuing a licence where detailed planning permission (if applicable to operation) has already been granted.

badgers whilst in the sett. Depending on the nature of the works and the specifics of the sett and its environs, badgers could be disturbed by work near the sett even if there is no direct interference or damage to the sett itself. The countryside agencies have issued guidelines on what constitutes a licensable activity. N.B. there is no provision in law for the capture of badgers for development purposes and therefore it is not possible to obtain a licence to translocate badgers from one area to another.

Bats

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:
 - a) to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young;
 - (ii) to hibernate or migrate³
 - b) to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Bats are also currently protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

How is the legislation pertaining to bats liable to affect development works?

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Though there is no case law to date, the legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost¹⁹.

¹⁹ Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected? Mammal News, No. 150. The Mammal Society, Southampton.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). Among other things, this makes it an offence to:

- Intentionally (or recklessly in Scotland) kill, injure or take any wild bird
- Intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built
- Intentionally take or destroy an egg of any wild bird
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.
- In Scotland only, intentionally or recklessly obstruct or prevent any wild bird from using its nest

Certain species of bird, for example the barn owl, black redstart, hobby, bittern and kingfisher receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional or reckless disturbance of dependent young of such a bird
- In Scotland only, intentional or reckless disturbance whilst lekking
- In Scotland only, intentional or reckless harassment

How is the legislation pertaining to birds liable to affect development works?

To avoid contravention of the Wildlife and Countryside Act 1981 (as amended), works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August²⁰. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Those species of bird listed on Schedule 1 are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Wild Mammals (Protection) Act 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to:

²⁰ It should be noted that this is the main breeding period. Breeding activity may occur outside this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

- Mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Plants

With certain exceptions, all wild plants are protected under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits *any* person:

- Intentionally (or recklessly in Scotland) picking, uprooting or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only)
- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof

In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010 (as amended). These are species of European importance. Regulation 45 makes it an offence to:

- Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species
- Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

How is the legislation pertaining to protected plants liable to affect development works?

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect species of plant listed under The Conservation of Habitat and Species Regulations 2010 (as amended). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Invasive Plant Species

Certain species of plant, including Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera* are listed on Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Such species are generally non-natives whose establishment or spread in the wild may be detrimental to native wildlife. Inclusion on Part II of Schedule 9 therefore makes it an offence to plant or otherwise cause these species to grow in the wild.

How is the legislation pertaining to invasive plants liable to affect development works?

Although it is not an offence to have these plants on your land *per se*, it is an offence to *cause* these species to grow in the wild. Therefore, if they are present on site and development activities (for example movement of spoil, disposal of cut waste or vehicular movements) have the potential to cause the further spread of these species to new areas, it will be necessary

to ensure appropriate measures are in place to prevent this happening prior to the commencement of works.

Plants: Injurious Weeds

Under the Weeds Act 1959 any land owner or occupier may be required prevent the spread of certain 'injurious weeds' such as spear thistle *Cirsium vulgare*, creeping thistle *Cirsium arvense*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, and common ragwort *Senecio jacobaea*. It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines and is not legally binding.

B NATIONAL AND EUROPEAN LEGISLATION AFFORDED TO HABITATS

Statutory Designations: National

Nationally important areas of special scientific interest, by reason of their flora, fauna, or geological or physiographical features, are notified by the countryside agencies as statutory **Sites of Special Scientific Interest** (SSSIs) under the National Parks and Access to the Countryside Act 1949 and latterly the Wildlife & Countryside Act 1981 (as amended). As well as underpinning other national designations (such as **National Nature Reserves** which are declared by the countryside agencies under the same legislation), the system also provides statutory protection for terrestrial and coastal sites which are important within a European context (Natura 2000 network) and globally (such as Wetlands of International Importance). See subsequent sections for details of these designations. Improved provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and the Nature Conservation (Scotland) Act 2004.

The Wildlife & Countryside Act 1981 (as amended) also provides for the making of **Limestone Pavement Orders**, which prohibit the disturbance and removal of limestone from such designated areas, and the designation of **Marine Nature Reserves**, for which byelaws must be made to protect them.

Statutory Designations: International

Special Protection Areas (SPAs), together with **Special Areas of Conservation** (SACs) form the **Natura 2000** network. The Government is obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds). SPAs are areas of the most important habitat for rare (listed on Annex I of the Directive) and migratory birds within the European Union. Protection afforded SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles (nm) is given by The Conservation of Habitats & Species Regulations 2010 (as amended). The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SPAs in UK offshore waters (from 12-200 nm).

The Government is obliged to identify and designate SACs under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora). These are areas which have been identified as best representing the range and variety of habitats and (non-bird) species listed on Annexes I and II to the Directive within the European Union. SACs in terrestrial areas and territorial marine waters out to 12 nautical miles are protected under The Conservation of Habitats & Species Regulations 2010 (as amended). The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SACs in UK offshore waters (from 12-200 nm).

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and wise use, in particular recognizing wetlands as ecosystems that are globally important for biodiversity conservation. Wetlands can include areas of marsh, fen, peatland or water and may be natural or artificial, permanent or temporary. Wetlands may also incorporate riparian and coastal zones adjacent to the wetlands. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites which have been designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs).

Statutory Designations: Local

Under the National Parks and Access to the Countryside Act 1949 **Local Nature Reserves** (LNRs) may be declared by local authorities after consultation with the relevant countryside agency. LNRs are declared for sites holding special wildlife or geological interest at a local level and are managed for nature conservation, and provide opportunities for research and education and enjoyment of nature.

Non-Statutory Designations

Areas considered to be of local conservation interest may be designated by local authorities as a **Wildlife Site**, under a variety of names such as **County Wildlife Sites** (CWS), **Listed Wildlife Sites** (LWS), **Local Nature Conservation Sites** (LNCS), **Sites of Biological Importance** (SBIs), **Sites of Importance for Nature Conservation** (SINCs), or **Sites of Nature Conservation Importance** (SNCIs). The criteria for designation may vary between counties.

Together with the statutory designations, these are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning applications are being determined. The level of protection afforded to these sites through local planning policies and development frameworks may vary between counties.

Regionally Important Geological and Geomorphological Sites (RIGS) are the most important places for geology and geomorphology outside land holding statutory designations such as SSSIs. Locally-developed criteria are used to select these sites, according to their value for education, scientific study, historical significance or aesthetic qualities. As with local Wildlife Sites, RIGS are a material consideration when planning applications are being determined.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 are intended to protect 'important' countryside hedgerows from destruction or damage. A hedgerow is considered important if (a) has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy certain hedgerows without permission from the local planning authority. Hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys

are covered by these regulations. Hedgerows 'within or marking the boundary of the curtilage of a dwelling-house' are not.

C NATIONAL PLANNING POLICY

National Planning Policy Framework

The National Planning Policy Framework replaced PPS9 and emphasises the need for sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species. An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species – presumably those listed as UK Biodiversity Action Plan priority species – is also listed as a requirement of planning policy. In determining planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and The Biodiversity Duty

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 40 of the Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

D REGIONAL AND LOCAL PLANNING POLICY

Fareham Borough Local Plan Review (2000)

Fareham Borough Core Strategy (2011)

Fareham Borough Council has a statutory duty under the Natural Environment and Rural Communities Act 2006 to have regard, so far as is consistent with the proper exercise of its functions, to the purpose of conserving biodiversity. Nature conservation is regarded as a key test of sustainable development. The local planning process addresses this duty by the inclusion of a number of nature conservation policies in local planning documents.

Policy CS4: Green Infrastructure, Biodiversity and Geological Conservation

Habitats important to the biodiversity of the Borough, including Sites of Special Scientific Interest, Sites of Importance for Nature Conservation, areas of woodland, the coast and trees will be protected in accordance with the following hierarchy of nature conservation designations:

- (i) International - Special Protection Areas (SPA), Special Areas of Conservation (SAC) and RAMSAR;*
- (ii) National - Sites of Special Scientific Interest (SSSI) and National Nature Reserves;*
- (iii) Local - Sites of Importance for Nature Conservation (SINC), Local Nature Reserves (LNR), other Ancient Woodland not identified in (ii) above;*
- (iv) Sites of Nature Conservation Value.*

Where possible, particularly within the identified Biodiversity Opportunity Areas, sites will be enhanced to contribute to the objectives and targets set out in UK, Regional, County and Local Biodiversity Action Plans. Green Infrastructure networks, which buffer and link established sites, whilst also enabling species to disperse and adapt to climate change will be maintained and enhanced.

Networks of accessible multi-functional Green Infrastructure will be planned around existing green spaces in urban, urban fringe and rural areas and will be appropriate to the extent and distribution of the existing and proposed population.

Development Proposals will be permitted where Green Infrastructure provision in accordance with the Green Infrastructure Strategy has been integrated within the development where this is appropriate. Development proposals will provide for appropriate access to greenspace for informal recreation to avoid adverse impacts from recreation and other impacts on European and Ramsar sites and on nationally and locally important sites.

Green Infrastructure will be created and safeguarded through:

- Investing in appropriate management, enhancement and restoration, and the creation of new resources including parks, woodland and trees, and wildlife habitats;*
- Not permitting development that compromises its integrity and therefore that of the overall green infrastructure framework*

In order to prevent adverse effects upon sensitive European sites in and around the Borough, the Council will work with other local authorities (including the Partnership for Urban South Hampshire) to develop and implement a strategic approach to protecting European sites from recreational pressure and development. This will include a suite of mitigation measures, with adequate provision of alternative recreational space for access management measures within and around the European sites and mitigation for impacts on air quality due to road traffic, supported by developer contributions where appropriate. Development likely to have an individual or cumulative adverse impact will not be permitted unless the necessary mitigation measures have been secured.

The Council will, through its Annual Monitoring Report, Local Air Quality Management and ongoing visitor surveys and related activities, scrutinise the effectiveness of the joint strategic approach to avoidance and mitigation of effects on European sites. It will adjust the rate, scale and/or distribution of housing or employment development across the Borough to respond to the findings of new evidence where appropriate, including the Solent Disturbance and Mitigation Project in order to preserve the integrity of European sites.

Sites of geological importance will be protected and enhanced.

E BIODIVERSITY ACTION PLANS (BAPs)

The UK BAP was published in 1994 to comply with obligations under the Convention on Biological Diversity (The Biodiversity Treaty, 1992). It described the UK's biological resources and committed to developing detailed plans to conserve these resources i.e. Habitat Action Plans and Species Action Plans. The most up to date targets and actions, including latest

progress reports, for UK HAPs and SAPs can be viewed on the DEFRA website^[1]. Running parallel to this, Local Planning Authorities (LPAs) promoted habitat and species conservation at a county and district/borough level through their development of Local BAPs (LBAPs).

Since the publication of these BAPs, new strategies and frameworks have resulted in the devolvement of biodiversity issues and changes in the terminology used to describe these habitats and species in England. This has been brought about through the replacement of the previous England Biodiversity Strategy with *Biodiversity 2020: A Strategy For England's Wildlife and Ecosystem Services* (2011) and the replacement of the UK BAP itself with the *UK Post-2010 Biodiversity Framework* (2012).

All previous UK BAP species and habitats are still of material consideration in the planning process but are now referred to as Habitats and Species of Principal Importance for the Conservation of Biodiversity in England as listed in Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. The promotion of priority habitats and species in LBAPs are also of material consideration in the planning process.

In addition to the now redundant national BAP, BAPs were also produced at the county level. **The Hampshire BAP** is managed by the Hampshire Biodiversity Partnership. The aims and objectives of the Hampshire BAP are to reflect national targets for habitats and species of principal importance, translate them at a local level and to integrate the needs of species and habitats within landscape-scale delivery.

The distribution of BAP habitats present across the South-East has been used to identify **Biodiversity Opportunity Areas** (The South East Biodiversity Forum, 2009). BOAs represent a targeted landscape-scale approach to biodiversity conservation in the county and form the basis for an ecological network and opportunity for restoration and creation of BAP habitats. Where possible, BAP targets should be linked to BOAs, increasing effectiveness of work and making reporting easier. The site forms part of the Portsmouth Harbour BOA.

[1] DEFRA website

<http://ukbars.defra.gov.uk/plans/national.asp?S=&L=1&O=&SAP=&HAP=&submitted=1&flipLang=&txtLogo>
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London - Beckett House, 72 Borough High Street, London SE1 1XF T. 020 7378 1914 W. www.ecologyconsultancy.co.uk

■ **Sussex** - The Old Dairy, Barcombe Mills Road, Lewes, East Sussex BN8 5FF T. 01273 471369

■ **Norfolk** - Thorpe House, 79 Thorpe Road, Norwich, NR1 1UA T. 01603 628408

■ **Scotland** - Suite 10, 3 Coates Place, Edinburgh EH3 7AA T. 0131 225 8610

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