

Preliminary Ecological Appraisal

**Land on Manor Road,
Hayling Island,
Hampshire**

Contents

1.0 INTRODUCTION.....	4
BACKGROUND.....	4
SITE CONTEXT AND STATUS	4
2.0 METHODOLOGY.....	10
DESK TOP STUDY.....	10
PRELIMINARY ECOLOGICAL APPRAISAL.....	10
HEDGEROW ASSESSMENT.....	11
BADGER SURVEY.....	12
TREE ASSESSMENT FOR BATS	13
HABITAT SUITABILITY FOR REPTILES	14
LIMITATIONS.....	15
3.0 RESULTS.....	16
DESKTOP STUDY	16
HABITAT PHASE 1 SURVEY.....	20
TREE ASSESSMENT FOR BATS	22
HABITAT SUITABILITY FOR PROTECTED SPECIES	23
<i>Badgers</i>	23
<i>Dormice</i>	23
<i>Great Crested Newts</i>	23
4.0 DISCUSSION.....	26
WIDER LANDSCAPE	26
HABITAT	29
PROTECTED SPECIES.....	30
<i>Bats</i>	30
<i>Badgers</i>	32
<i>Great Crested Newts</i>	32
<i>Dormice</i>	33
<i>Other species</i>	34
GENERAL SITE ENHANCEMENTS.....	35
5.0 CONCLUSIONS.....	35
6.0 REFERENCES	38
APPENDIX 1. PHASE 1 HABITAT MAP.....	39
APPENDIX 2: PHOTO DOCUMENT	40
APPENDIX 3: BIOLOGICAL RECORDS.....	41

LIABILITIES:

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

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

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

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

1.0 Introduction

Background

- 1.1 The Ecology Partnership was commissioned by Lidl UK to undertake a preliminary ecological appraisal at land on Manor Road, Hayling Island, Hampshire.
- 1.2 This report presents the results of The Ecology Partnership's surveys in and around the site, which aims specifically to assess the sites potential to support protected species and protected habitats that may be affected by the proposed development.
- 1.3 Section 2 of this report sets out the methodologies of the Ecology Partnership's surveys. In section 3 the results of the surveys are presented. Discussions and implications for development are found in section 4, including general site enhancements. Conclusions drawn from the report are presented in section 5.

Site Context and Status

- 1.4 The site is located on Manor Road (A3023) on Hayling Island, Hampshire. The Chichester and Langstone Harbours Ramsar, Special Protection Area and Sites of Special Scientific Interest are located on either side of the site. Additional designated sites are present within a 2km search radius. A small patch of deciduous woodland borders the site to the west and the south.
- 1.5 The approximate red line boundary of the site is shown below in figure 1 overleaf. This was also the approximate survey boundary.



Figure 1: Approximate location of the red line boundary

Description of Proposed Development

- 1.6 The development plans include the construction of a new supermarket store within the redline boundary.

Planning Policies

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

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

- 1.9 National policy guidance is provided by National Planning Policy Framework (NPPF), which sets out the Government's planning policies for England and how they should be applied. Section 11 of the document is entitled 'Conserving and Enhancing the Natural Environment'. The following paragraphs are considered to be relevant.

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

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

- 1.10 The site falls under the jurisdiction of Havant Borough Council. The main policies drawn from the Core Strategy (adopted March 2011) which are relevant to the site, are indicated below:

DM8 Conservation, Protection and Enhancement of Existing Natural Features

Development will only be permitted where it protects and enhances local habitats and landscape distinctiveness and which addresses all of the relevant criteria as set out below:

1. Protects natural features of nature conservation and/or amenity importance on the site, for example trees, woodlands, hedgerows, soils, streams, stream corridors, springs, ditches or ponds from damage, destruction and a deterioration in quality.
2. Sympathetically incorporates existing features into the overall design of the scheme including measures taken to ensure their continued survival.
3. Provides new landscape works that integrate successfully with the local environment and existing natural features, using local materials and plant species and making

provision for future maintenance of new landscape works associated with new developments.

4. Ensures sequences of greenspaces are maintained and protects the attractiveness and visual amenity of all green open spaces that contribute to the identity of the borough.

DM9 Development in the Coastal Zone

Planning Permission will only be granted for development in the coastal zone which addresses all of the relevant criteria as set out below as shown on the Proposals Map:

1. Has no harmful effects on nature conservation within the Chichester and Langstone Harbour SSSIs and SPA, Solent Maritime SAC and Ramsar site, or any SINC and Local Nature Reserves.
2. Maintains and enhances the appearance and distinctiveness of existing settlements and landmarks along the coast.
3. Contributes positively to the landscape and has regard to best practice on the design of new buildings in coastal locations.
4. Upgrades existing footpaths and ensures that public access is retained and provided to connect existing paths along the waterfront where appropriate.
5. Would result in improvements to or redistribution of moorings, marine berths or launch on demand facilities (dry berths) in the harbours.
6. Would not be detrimental to infrastructure for, and quality of, water-based recreation, or be detrimental to the safety of navigation.
7. Provides recreational opportunities that do not adversely affect the character and appearance of the coast.

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

Planning permission will be granted for development that:

1. Ensures the key landscape and built form principles set out in the Havant Borough Townscape, Landscape and Seascape Character Assessment are protected and where possible enhanced by partnership working with developers, groups and the wider community.

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2. Protects and where possible enhances the borough's statutory and non-statutory designated landscape, habitats and features of biological, hydrological or geological interest. Protection and enhancement will be achieved by appropriate adaptation and mitigation measures including wardening, education and information and the creation of new habitats, water bodies/courses planting of new trees and woodland.
 3. Has particular regard to the following hierarchy of nature conservation designations within the borough (as identified on the Proposals Map):
 - (i) Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar [International].
 - (ii) Sites of Special Scientific Interest (SSSI) and National Nature Reserves [National].
 - (iii) Sites of Importance for Nature Conservation (SINC), Local Nature Reserves (LNR), other Ancient Woodland not identified in (ii) above [Local].
 4. Protects and where appropriate enhances the borough's statutory and nonstatutory heritage designations by appropriately managing development in or adjacent to conservation areas, listed buildings, scheduled ancient monuments, historic parks and gardens, archaeological sites, buildings of local historic or architectural interest.
 5. Supports an ongoing programme of survey of habitats and species and designation of Sites of Importance for Nature Conservation.
 6. Incorporates partnership working with conservation organisations to improve public understanding of biodiversity and to manage public access to designated sites, particularly on the coast, to reduce harm to nature conservation interests.
 7. Incorporates partnership working with landowners and developers to ensure land management practices restore, enhance and where appropriate create new valued landscapes, habitats and their soil structure, particularly the ancient woodland remnants of the Forest of Bere and coastal salt marsh.
 8. Protects wildlife habitats and wildlife corridors to prevent the fragmentation of existing habitats and to allow species, for example Brent Geese, to respond to the impacts of climate change by making provision for habitat adaptation e.g. coastal managed realignment and species migration.

9. Maintains undeveloped gaps between the settlements of Emsworth/Havant; Havant/Waterlooville; Havant/Portsmouth; Emsworth/Westbourne and Leigh Park/Rowlands Castle as shown on the Proposals Map.
10. Protects the best and most versatile agricultural land that has the greatest potential for local food security.
11. Responds to the emerging evidence from the Solent Disturbance and Mitigation Project, the published recommendations, and future related research.

Policy CS13 Green Infrastructure

Development will be permitted that:

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

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

Green infrastructure sites will be allocated in the Development Delivery (Allocations) Plan.

Policy DM23 Sites for Brent Geese and Waders

Planning permission will be granted for developments that avoid important sites for Brent Geese and / or waders of the statutory designated areas, identified on the policies maps.

Where this cannot be avoided, development proposals on or adjacent to an important Brent Goose and/or wader site outside the statutory designated areas will need to demonstrate levels of impact, alone and in combination with other proposals subject to the

tests of the Habitats Regulations. Where a negative impact upon a site cannot be avoided or satisfactorily mitigation, and the test of the Habitats Regulations are met as necessary, replacement feeding/roosting habitat, on a no net loss basis, will be sought.

Where a negative impact on an important site cannot be avoided or mitigation and replacement feeding/roosting habitat is not or cannot be provided on a no net loss basis, the proposals will be refused.

Planning permission will be granted for development on or adjacent to uncertain sites for Brent Geese and / or waders outside of the statutory designated areas, where appropriate surveys are undertaken and it is determined that the site has no importance.

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

2.0 Methodology

Desk Top Study

- 2.1 A desk top study search was completed using an internet-based mapping service (www.magic.gov.uk) for statutory designated sites and two internet-based aerial mapping services (maps.google.co.uk) were used to understand the habitats present in and around the survey area and habitat linkages and features (ponds, woodlands etc) within the wider landscape.

Preliminary Ecological Appraisal

- 2.2 An extended preliminary ecological appraisal was undertaken on the 4th October 2016 by Ecologist Emma Bagguley BSc (Hons) MSc. The surveyor identified the habitats present, following the standard 'Phase 1 habitat survey' auditing method developed by the Joint Nature Conservancy Council (JNCC). The site was surveyed on foot and the existing

habitats and land uses were recorded on an appropriately scaled map (JNCC 2010). In addition, the dominant plant species in each habitat were recorded. The potential for the site to support protected species was also assessed.

Hedgerow Assessment

2.3 The hedgerows on site were assessed under the criteria of the Hedgerow Regulations 1997 (as amended 2002). Under the criteria, to be determined as **'important'**, a hedgerow must be at least 30 years old and meet at least one of the additional criteria as summarised below:

- Marks a pre-1850 parish or township boundary
- Incorporates an archaeological feature
- Is part of, or associated with, an archaeological site
- Marks the boundary of, or is associated with pre-1600 estate or manor
- Forms an integral part of a pre-Parliamentary enclosure field system
- Contains certain categories of species of birds, animals or plants listed in the Wildlife and Countryside Act or Joint Nature Conservation Committee (JNCC) publications

2.4 To be determined as **'species-rich'**, the hedgerow must include:

- a) at least seven woody species, on average, in a 30m length;
- b) at least six woody species, on average, in a 30m length and has at least 3 associated features;
- c) at least six woody species, on average, in a 30m length, including a black poplar tree, or large-leaved lime, or small-leaved lime, or wild service-tree; or
- d) at least five woody species, on average, in a 30m length and has at least 4 associated features.

2.5 The number of woody species is reduced by one in northern counties. The list of 56 woody species comprises mainly shrubs and trees. It generally excludes climbers (such as clematis, honeysuckle and bramble) but includes wild roses.

2.6 The hedgerow may also be considered as **‘important’** if the hedgerow runs alongside a bridleway, footpath, road used as a public path, or a byway open to all traffic and includes at least four woody species, on average, in a 30 metre length and has at least two of the associated features listed at (i) to (vii) below:

- i) a bank or wall supporting the hedgerow;
- ii) less than 10% gaps;
- iii) on average, at least one tree per 50 metres;
- iv) at least 3 species from a list of 57 woodland plants;
- v) a ditch along at least one half of the hedgerow;
- vi) a number of connections with other hedgerows, ponds or woodland; and
- vii) a parallel hedge within 15 metres.

Badger Survey

2.3 A badger survey was undertaken at the site to assess if badgers were using the area and if any setts were located on the site and 30m away from the site that might constrain development. The evaluation of badger activity was based on methodology developed for the National Survey of Badgers (Creswell *et al.*, 1990) and includes searching for badger field signs such as setts, badger pathways, tracks (pawprints), dung piles with latrines, badger hairs and feeding signs such as snuffle holes.

2.4 During the survey, all habitats potentially suitable for badgers were systematically examined for evidence of badger activity including:

- Setts: several sett types may be present within a social group territory, ranging from a single hole to numerous interconnecting tunnels. Setts can be categorised into main, annexe, subsidiary and outlier (Wilson *et al.*, 1997).
- Latrine sites: badgers characteristically deposit dung in pits, which may be located along the boundaries and within the social group territory. These sites serve as means of inter- and intra-group communication.
- Paths and runs: well used routes between setts and/or foraging areas. Often used by generations of badgers.

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

Tree Assessment for Bats

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

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

2.6 The trees on site were assessed for their potential to support roosting bats. The trees were assessed visually for evidence of bats as well as for features that increase the likelihood such as the following:

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

- Dense ivy cover.

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

Table 1. Protocol for visual inspection of trees due to be affected by arboricultural work, to assess the value of the trees to bats. Taken from Table 4.1 within the 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn), 2016'.

Suitability	Description Roosting habitat
Negligible	Negligible habitat features on-site likely to be used by roosting bats.
Low	A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
High	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Habitat Suitability for Reptiles

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

- Scrub and grassland (long sward) mosaic across the site;
- Features that can be potential hibernation sites for common reptiles such as log piles;
- Grass tussocks within the grassland that can act as shelter and burrowing sites;
- Water bodies or damp places on site (grass snakes);

- Compost heaps or decaying vegetation (slow worms);
- Features that can act as refugia on the ground such as disused roofing felt.

Habitat Suitability for Great Crested Newts (GCN)

2.9 Habitat surveys were carried out to assess the potential of the site to hold great crested newts (*Triturus cristatus*). This involved looking at the wider landscape using Google Maps and OS maps to assess types of habitat in the wider landscape. This also involved looking for the presence of factors that would increase the suitability of the site for GCN such as:

- The presence of suitable breeding places (water bodies) on site and within 500m of the site in the wider landscape;
- Habitat connectivity between ponds (if present) in the wider landscape and on site;
- The condition of the ponds and whether there were factors that would render them unsuitable for GCN such as fish;
- Land uses surrounding the site that may affect the potential of the site to hold GCN such as agriculture;
- Type of suitable habitat on site such as scrub/grassland mosaic;
- Patches of woodland in the wider landscape that can provide terrestrial habitat;
- Any barriers between known populations of GCN such as motorways and roads;
- Hibernation features on site for GCN such as log and rubble piles.

Limitations

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

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

3.0 Results

Desktop Study

- 3.1 The proposed development site is situated on Manor Road, A3023, Hayling Island, Hampshire. The site is on the edge of Honeyrings Copse, and has deciduous woodland running along the eastern and southern boundaries. This woodland is not designated as ancient woodland. In the wider landscape are residential housing estates to the south, a caravan park, and agricultural fields. There are no waterbodies on site, and the only water body within 250m is a pond north of the A3023 in the Manor House estate.
- 3.2 There are a number of designated sites within 2km of the site, due to the island's position between the Chichester and Langstone Harbours. These harbours, located 543m east and 882m west respectively, have Ramsar designations and are Sites of Special Scientific Interest (SSSI) and Special Protection Areas (SPA). These sites are protected due to the rare habitat present, and the wildlife species they support. Other designated sites present within 2km are listed below:
- Gunter Point Local Nature Reserve 1.3km northeast
 - Hayling Billy LNR, stretches down the west coast 839m west
 - Sinah Common SSSI 1.7km south
 - Solent Maritime Special Area of Conservation (SAC) 1.96km south

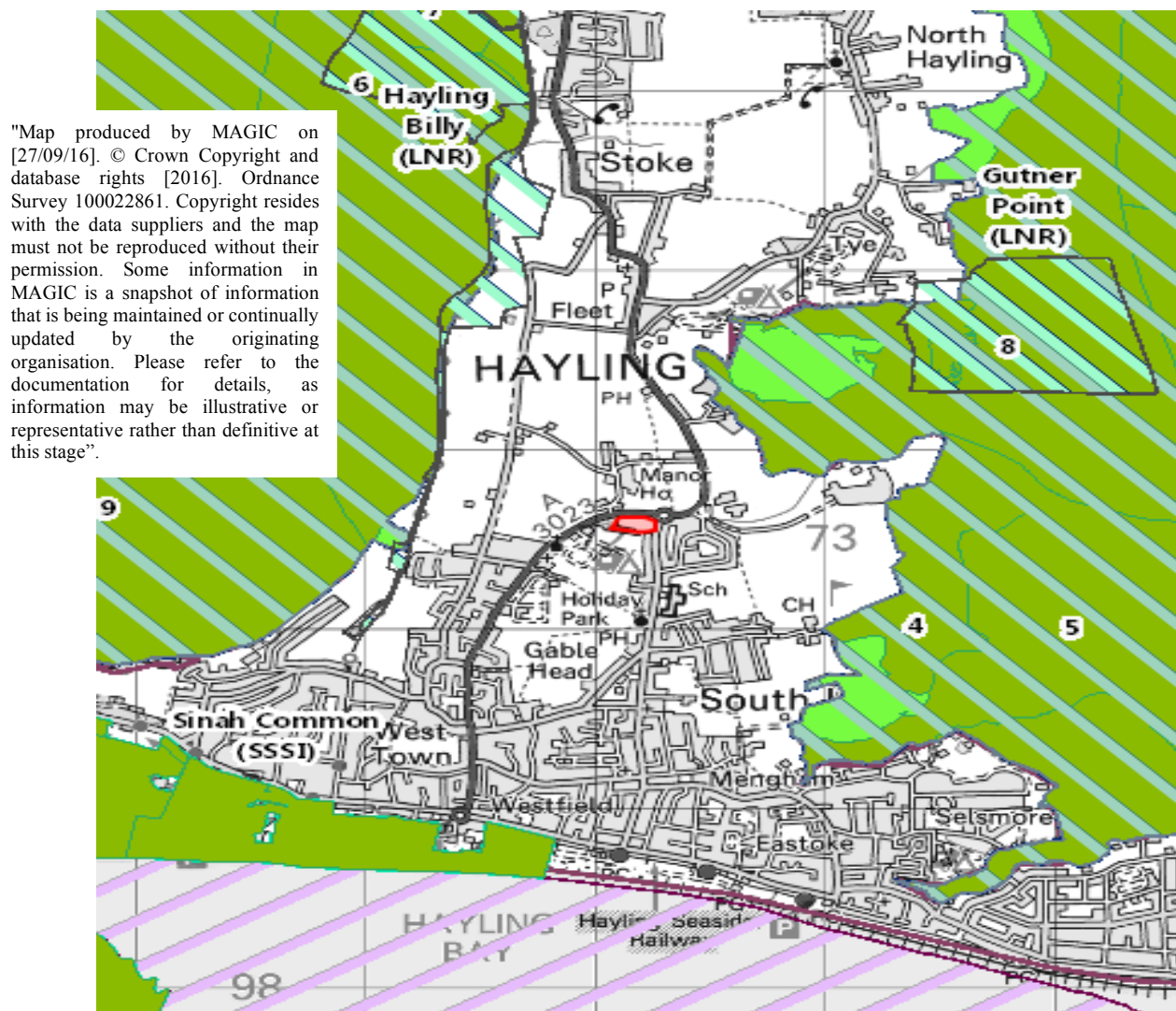


Figure 2: Location of the site in relation to designated sites in the wider landscape. LNR are labelled. The SAC is shown in pink hatching. SSSIs are shown in solid green. The SPA is shown in blue hatching.

- 3.3 Biological records were requested from Hampshire Biodiversity Information Centre for protected species and sites within a 2km radius of the site. A total of 31 Sites of Importance for Nature Conservation (SINC) were identified within 2km, many of which were identified as supporting the dark-bellied brent goose (*Branta bernicla bernicla*). The closest SINC is 130m west south of Daw Lane. The maps of these sites have been included in appendix 3.

Table 3: Notable species located within 2km of the site, present within the past 10 years, as provided by the Hampshire Biodiversity Information Centre.

Species ¹	Status	Closest record distance	Most recent record year
Slow Worm <i>Anguis fragilis</i>	NERC Act (2006); Wildlife and Countryside Act (1981 as amended) Schedule 5	Approximately 1km south	2011
Common Lizard <i>Zootoca vivipara</i>	NERC Act (2006); Wildlife and Countryside Act (1981 as amended) Schedule 5	Approximately 2km northeast	2011
Adder <i>Vipera berus</i>	NERC Act (2006); Wildlife and Countryside Act (1981 as amended) Schedule 5	Approximately 1km northwest	2006
Bechstein's bat <i>Myotis bechsteinii</i>	Conservation of Habitats and Species Regulations (2010) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	Within 2km	2009
Serotine bat (<i>Eptesicus serotinus</i>)	See above	Within 2km	2015
Daubenton's bat <i>Myotis daubentonii</i>	See above	Within 2km	2011
Natterer's bat <i>Myotis nattereri</i>	See above	Within 2km	2009
Noctule <i>Nyctalus noctula</i>	See above	Within 2km	2015
Leisler's bat <i>Nyctalus leisleri</i>	See above	Within 2km	2015
Common Pipistrelle <i>Pipistrellus pipistrellus</i>	See above	Within 2km	2015
Soprano Pipistrelle <i>Pipistrellus pygmaeus</i>	See above	Within 2km	2016
Brown Long-eared <i>Plecotus auritus</i>	See above	Within 2km	2015
Skylark <i>Alauda arvensis</i>	NERC Act (2006); Red List	Within 2km	2014
Yellowhammer <i>Emberiza citrinella</i>	NERC Act (2006); Red List	Within 2km	2011
Tree Pipit <i>Anthus trivialis</i>	NERC Act (2006); Red List	Within 2km	2014
Linnet <i>Linaria cannabina</i>	BoCC Red List	Within 2km	2015

Twite <i>Linaria flavirostris</i>	BoCC Red List	Within 2km	2011
Grey Wagtail <i>Motacilla cinerea</i>	BoCC Red List	Within 2km	2014
Yellow Wagtail <i>Motacilla flava</i>	BoCC Red List	Within 2km	2015
Whinchat <i>Saxicola rubetra</i>	BoCC Red List	Within 2km	2015
Woodcock <i>Scolopax rusticola</i>	BoCC Red List	Within 2km	2013
House Sparrow <i>Passer domesticus</i>	NERC Act (2006); Red List	Within 2km	2013
Tree Sparrow <i>Passer montanus</i>	NERC Act (2006); Red List	Within 2km	2014
Serin <i>Serinus serinus</i>	Wildlife and Countryside Act (1981 as amended) Schedule 1	Within 2km	2008
Starling <i>Sturnus vulgaris</i>	BoCC Red List	Within 2km	2015
Dartford Warbler <i>Sylvia undata</i>	Birds Directive Annex 1; Wildlife and Countryside Act (1981 as amended) Schedule 1	Within 2km	2010
Brent goose <i>Branta bernicla</i>	NERC Act (2006); Red List	Within 2km	2012
Marsh Harrier <i>Circus aeruginosus</i>	Birds Directive Annex 1; Wildlife and Countryside Act (1981 as amended) Schedule 1	Within 2km	2015
Hen Harrier <i>Circus cyaneus</i>	Birds Directive Annex 1; Wildlife and Countryside Act (1981 as amended) Schedule 1; NERC Act (2006); Red List	Within 2km	2010
Cuckoo <i>Cuculus canorus</i>	NERC Act (2006); Red List	Within 2km	2015
Brambling <i>Fringilla montifringilla</i>	Wildlife and Countryside Act (1981 as amended) Schedule 1	Within 2km	2015
Common Crossbill <i>Loxia curvirostra</i>	Wildlife and Countryside Act (1981 as amended) Schedule 1	Within 2km	2011
Woodlark <i>Lullula arborea</i>	Birds Directive Annex 1; Wildlife and Countryside Act (1981 as amended) Schedule 1; NERC Act (2006)	Within 2km	2010
Spotted Flycatcher <i>Muscicapa striata</i>	NERC Act (2006); Red List	Within 2km	2012
Honey-buzzard <i>Pernis apivorus</i>	Birds Directive Annex 1; Wildlife and Countryside Act (1981 as amended) Schedule 1	Within 2km	2013

Fieldfare <i>Turdus pilaris</i>	Wildlife and Countryside Act (1981 as amended) Schedule 1; Red List	Within 2km	2015
Redwing <i>Turdus iliacus</i>	Wildlife and Countryside Act (1981 as amended) Schedule 1; Red List	Within 2km	2013
Song Thrush <i>Turdus philomelos</i>	BoCC Red List	Within 2km	2011
Red Kite <i>Milvus milvus</i>	Birds Directive Annex 1; Wildlife and Countryside Act (1981 as amended) Schedule 1	Within 2km	2014
Hobby <i>Falco subbuteo</i>	Wildlife and Countryside Act (1981 as amended) Schedule 1	Within 2km	2012
Peregrine <i>Falco peregrinus</i>	Birds Directive Annex 1; Wildlife and Countryside Act (1981 as amended) Schedule 1	Within 2km	2015
Merlin <i>Falco columbarius</i>	Birds Directive Annex 1; Wildlife and Countryside Act (1981 as amended) Schedule 1; Red List	Within 2km	2015
Lapwing <i>Vanellus vanellus</i>	Birds Directive Annex 2.2; NERC Act 2006	Within 1km	2015
Barn Owl <i>Tyto alba</i>	Bern Convention Appendix 2; Wildlife and Countryside Act (1981 as amended) Schedule 1	Within 2km	2010
Firecrest <i>Regulus ignicapilla</i>	Bern Convention Appendix 2; Wildlife and Countryside Act (1981 as amended) Schedule 1	Within 2km	2015

¹ Additional species are present within the biodiversity records, however have not been included in Table 2 due to unsuitable habitat on site and a high unlikelihood of their presence, this includes a number of wetland birds.

Habitat Phase 1 Survey

- 3.4 The land on Manor Road is dominated by a horse grazed field, with a dense species-rich hedgerow along the roadside, and deciduous woodland on the western and southern boundaries.

Semi-improved grassland

- 3.5 The site is dominated by horse grazed paddocks, separated by electric fencing. The sward height was very low at the time of the survey. Some taller patches were present at the edges of the site, where the fence separated the horses from the woodland edge. The grassland is dominated by cocksfoot (*Dactylis glomerata*), Yorkshire fog (*Holcus lanatus*), white clover (*Trifolium repens*), creeping buttercup (*Ranunculus repens*), perennial ryegrass (*Lolium perenne*) with dandelion (*Taraxacum agg*) and sparsely scattered hawkbit species (*Leontodon sp.*), ribwort plantain (*Plantago lanceolata*), creeping cinquefoil (*Potentilla reptans*) and yarrow (*Achillea millefolium*). Red fescue (*Festuca rubra agg*) is found at the northern edge of the site.
- 3.6 A manure pile is present on the southern edge of the grassland. The well-walked pathway to this pile has worn away the grass and left bare earth.

Ruderal species

- 3.7 Along the grassland-hedgerow boundary are some ruderal species such as broad-leaved dock (*Rumex obtusifolius*), common nettles (*Urtica dioica*), flag iris (*Iris pseudacorus*), hedge bindweed (*Calystegia sepium ssp sepium*), spear thistle (*Cirsium vulgare*), bristley oxtongue (*Helminthotheca echioides*), sedge species (*Carex sp.*) and a member of the carrot family, likely to be cow parsley (*Anthriscus sylvestris*).
- 3.8 At the base of the woodland boundary on the western edge are several wildflowers and ruderal species including ground ivy (*Glechoma hederacea*), butcher's broom (*Ruscus aculeatus*), pignut (*Conopodium majus*), wood avens (*Geum urbanum*), bramble (*Rubus fruticosus*), fern species and ivy (*Hedera helix*).

Hedgerow

- 3.9 The northern boundary of the site runs along Manor Road. There is a dense, species-rich hedgerow running along this edge. Species found include bramble, field maple (*Acer campestre*), blackthorn (*Prunus spinosa*), dogwood (*Cornus sanguinea*), ash (*Fraxinus excelsior*) and elder (*Sambucus nigra*) with beech (*Fagus sylvatica*) and what are considered likely to be goat willow trees (*Salix caprea*), although the species is not confirmed.

Woodland

- 3.10 Along the western and southern boundary of the site is continuous dense deciduous woodland. This habitat is also present in a smaller quantity on the eastern boundary. The woodland as a whole is considered to be off site, but the edge does border the site with several mature trees present. Species found along the woodland edge include ash, oak (*Quercus sp.*), yew (*Taxus baccata*), field maple, hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), elm (*Ulmus agg.*), holly (*Ilex aquifolium*), elder, sycamore (*Acer pseudoplatanus*), with bramble and ivy at the base, as well as dogwood and the previously mentioned ruderal woodland species.
- 3.11 There are brash piles and dead wood within the woodland habitat and along the edges of the site.

Dry ditch

- 3.12 A dry ditch runs along the boundary of the site and woodland on the southern and eastern edges, and possibly along the northern edge hidden beneath the hedgerow. The soil within the ditch was wet suggesting the ditch does sometimes contain water.

Tree Assessment for bats

- 3.13 Within the redline boundary, the only trees present are the small beech and goat willow trees along the roadside on the northern edge. Whilst these trees may provide some limited foraging opportunities for bats, they are unsuitable for roosting bats due to their age and structure.
- 3.14 The majority of the trees on the edges of site within the woodland were large and mature. Several trees were noted as having low bat roosting potential. It is understood that these trees are largely outside the red line boundary. These have been noted (approximately) on the habitat map in appendix 1.

- 3.15 The woodland and the woodland edges provide some, albeit limited, foraging opportunities for bats and provides some green corridors around the site and into the wider landscape.

Habitat Suitability for Protected Species

Badgers

- 3.16 No badger setts were located on-site at the time of the survey. No latrines or snuffle holes or mammal pathways were identified. However, given the habitats present on the edge of the site, it is considered possible that badgers may make use of the site to forage and commute across.

Dormice

- 3.17 The site is dominated by open grazed grassland. Dormice prefer a layered habitat of scrubland with a vast canopy cover for moving through. The woodland off site offers suitable habitat, and the northern hedgerow could offer connectivity opportunities for dormice. The species present within the woodland and hedgerow provide a range of food sources for dormice.

Great Crested Newts

- 3.18 There are no waterbodies directly within the redline boundary. However four are present to the north of the site as shown on the OS map in figure 2. One was considered likely to be a wet ditch only, and two were inaccessible as they were located on private land.
- 3.19 Pond 1 was visible from the roadside, and appeared to be a fishing lake. The pond is 53m north of the site. Manor Road is an A road that creates a barrier to dispersal for amphibians from to the pond. The land within the redline boundary is a horse grazed field which is not considered to be optimal terrestrial habitat for GCN.

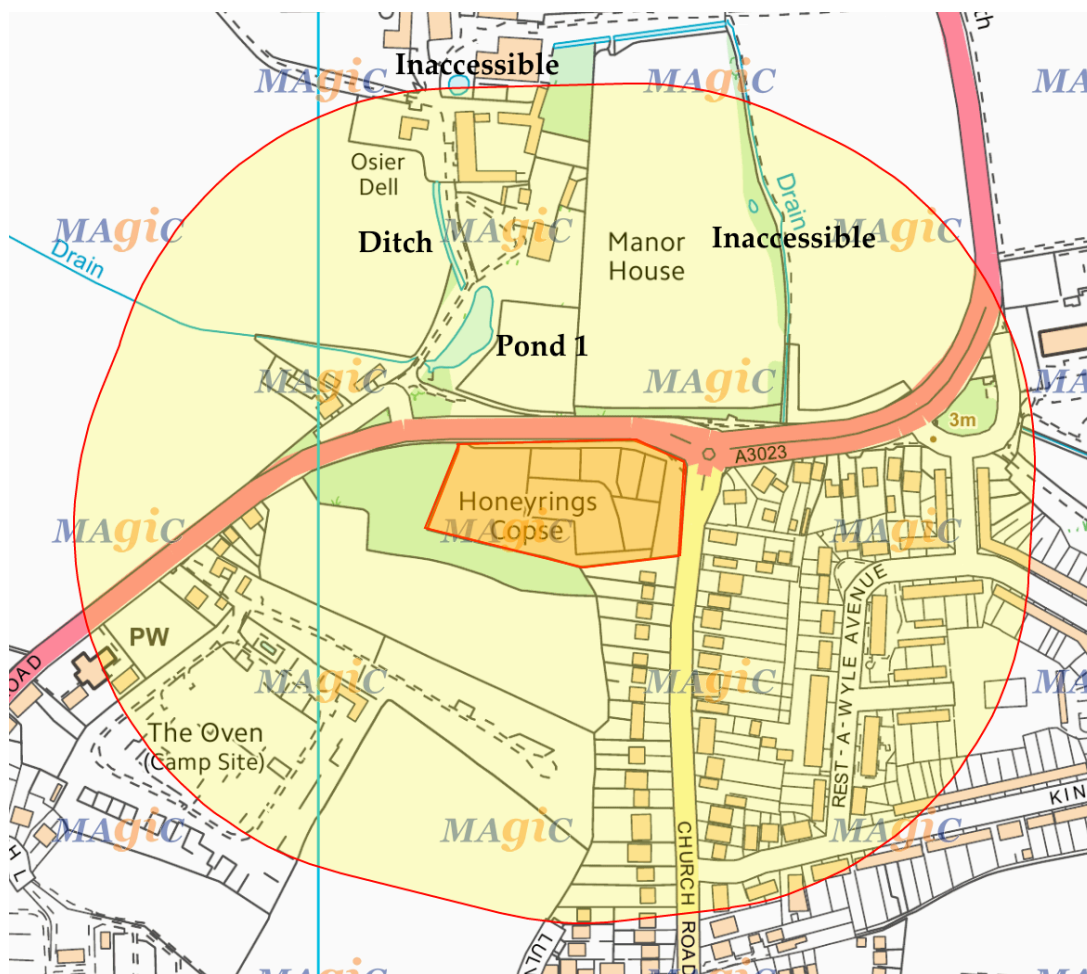


Figure 2: Waterbodies within a 250m radius of the site boundary (shown in red)

- 3.20 The pond was assessed for its potential to support great crested newts using the Habitat Suitability Index criteria. The suitability index is calculated for each of the 10 categories. These are then analysed using the equation below to obtain the geometric mean or HSI score of the ten suitability indices.

$$HSI = (SI_1 \times SI_2 \times SI_3 \times SI_4 \times SI_5 \times SI_6 \times SI_7 \times SI_8 \times SI_9 \times SI_{10})^{1/10}$$

The calculated score should be between 0 and 1 and will fall within one of several bands, which correspond to a given category for the pond.

Table 4: HSI Scores and Pond Suitability

HSI	Pond Suitability
< 0.5	Poor
0.5 - 0.59	Below Average
0.6 – 0.69	Average
0.7 – 0.79	Good
> 0.8	Excellent

Table 5. HSI Scores for Pond 1

Suitability Indices No.	Feature	Pond 1
1.	Location	1
2.	Area	0.92
3.	Permanence	0.9
4.	Water quality	0.67
5.	Shading	1
6.	Presence of waterfowl	0.67
7.	Presence of fish	0.67
8.	Pond density	0.53
9.	Suitable newt habitat within 500m	0.67
10.	Macrophyte content	0.55
10 th root		0.74
Suitability		Good

Reptiles

- 3.21 The site is dominated by semi-improved horse grazed grassland. This habitat is suboptimal for common reptile species. It does not provide the taller and tussocky vegetation that creates opportunities for basking and foraging as well as protection from predators. The very edges of the site have some limited taller grassland and ruderal species between the grazed grass and the hedgerow and woodland edge. There were several brash piles noted at the edges of the site, and the manure pile within the site could provide hibernation habitat. When combined with the connective scrubby hedgerow, these patches of habitat could offer some coverage for reptiles.

Other Species

- 3.22 The site did not contain any habitats suitable for water voles or otters.
- 3.23 The surrounding woodland and northern hedgerow on site have the potential to support breeding birds. Several common species were seen and heard at the time of the survey.
- 3.24 The site is not considered to be suitable for supporting Brent Geese or wader species. The grazed grassland provides very little vegetation for the birds to feed on. The surrounding woodland treeline shelters the site and creates barriers to birds for easy flight paths. The grassland is not considered to be wetland or arable field creating largely unsuitable conditions for the birds.

4.0 Discussion**Wider Landscape**

- 4.1 The proposed development site is situated on Manor Road, Hayling Island, with some residential housing, agricultural fields and woodland patches in the wider landscape. The site is surrounded on three sides by deciduous woodland.
- 4.2 Hayling Island lies between Chichester and Langstone Harbour SPAs, Ramsar and SSSIs. There are also numerous local nature reserves located around Hayling Island. The EU Habitats Directive requires that any project which may have a significant effect (either alone or in combination with other plans or projects) on the integrity of one or more European site(s), and which is not necessary for the management of the site, must be subject to a process of Habitat Regulations Appraisal (HRA).
- 4.3 European Sites, in this context, Special Protection Areas (SPAs) designated under Council Directive (2009/147/EC) on the conservation of wild birds (the 'Birds Directive'). In addition, Ramsar sites (internationally important wetlands designated under the Ramsar Convention 1971) are to be subject to the same process.

4.4 In the UK, the Conservation of Habitats and Species Regulations 2010 (as amended) (the 'Habitats Regulations') transpose the requirements of the EU Habitats Directive into domestic UK law. The Regulations aim to protect sites in the UK that have rare or important habitats and species, such as those found within the harbours, in order to safeguard biodiversity.

4.5 Natural England define 'significant effect';

'Likely significant effect is, in this context, any effect that may reasonably be predicted as a consequence of a plan or project that may affect the conservation objectives of the features for which the site was designated, but excluding de minimis or inconsequential effects'

4.6 It is considered that the proposed development does not have any direct impacts on the integrity of the Natura 2000 sites or Ramsar sites in the wider landscape, with no land loss, land take, isolation, fragmentation or squeeze on any of the designated areas.

4.7 Indirect impacts, such as pollution, dust and noise as a result of construction are not considered to be significant due to the distances involved and the lack of any pollution pathways, with no direct linkages to off site habitats. Furthermore, best practice guidance will be followed ensuring that noise, dust and particulate levels are maintained at low levels during construction.

4.8 Other indirect impacts must be considered on an operational basis. Here, it is considered that noise and lighting are not considered to be significant due to the distance of the development site from the protected sites and the limited nature of the proposed development. Furthermore, water abstraction and foul water and on site drainage are not considered to be significant as these will be dealt with on site and following best practice methods.

4.9 The most significant indirect impacts resulting from development are those associated with an increase of recreational pressure resulting from an increase in housing levels and the local population. Considering the proposals for the site are for a supermarket, concerns with regards to recreational impacts are not considered to be relevant.

- 4.10 As such it is considered that no impacts, direct or otherwise, would result from the proposed development which would be considered to be significant. Indeed the development would be considered to be 'de minimis' in terms of potential impacts. As such an appropriate assessment is not considered to be necessary.
- 4.11 In terms of local policy DM8 makes reference to nature features of nature conservation including trees, woodland and hedgerows. It is considered that the proposed development will occur on semi improved neutral grassland and as such this habitat is not considered to be of significant value. However, as the site is surrounded by woodland, trees and hedgerows, these should be considered within the scheme in terms of root protection features of trees which maybe far reaching.
- 4.12 Furthermore, it must be noted that off site habitat, lowland deciduous woodland, is a habitat of principle importance under the NERC act. As such, whilst it is off site and therefore no loss of habitat is to occur, the design should consider a sensitive approach to the woodland and create an adequate buffer to ensure an ecotone between the woodland and development occurs.
- 4.13 With regards to BM9 it is considered that the site will not impact upon the nature conservation value of the SPA or Ramsar sites, or indeed other designated sites, within the local landscape.
- 4.14 Finally with regards to policy CS13, the concept of green infrastructure must be considered in terms of proposed development. In this instance it is considered that all trees and woodlands are largely located off site, no impacts upon these and therefore considered green links across the site, would be impacted by the proposals. However, it is always recommended that conservation for off site habitats which are considered to be of local importance are considered as part of any scheme.
- 4.15 The construction of a new commercial property within the redline boundary should not adversely fragment the wider landscape. The mature trees and woodland edge should be retained and enhanced to provide and maintain wildlife linkages around the site.

Habitat

- 4.16 The habitats present on-site are largely common and widespread and of site value only. The semi-improved grassland that dominates the site is considered to be of limited ecological value.
- 4.17 The boundary features, including the treelines and ruderal habitat, should be maintained to ensure connectivity and linkages to off site habitats. The mature trees on site hold intrinsic value and should be retained where possible. These trees provide nesting and foraging habitat for birds and bats.
- 4.18 The proposals see the retention of the woodland edge around the site and additional tree planting between the woodland edge and development. The northern boundary hedgerow will be maintained. However, the existing access to the site is in the north west corner, and the proposed new access will have to be moved further eastwards.
- 4.19 The northern hedgerow contains seven woody species. This classifies the hedgerow and species rich and therefore 'important'. The access will require removal of a portion of this hedgerow along the northern boundary. Whilst this section will be lost, compensation through planting on the southern aspect of the site will maintain continual opportunities for wildlife within the boundary of the site and maintain habitat connectivity.
- 4.20 The presence of flag iris and sedge species suggests some wetter patches of land within the site.
- 4.21 The retained grassland habitat around the edges of the site is species poor grassland and can be enhanced. It is recommended that this area is enhanced for wildlife by seeding with wildflowers.

Protected Species*Bats*

- 4.22 Some of the trees on the edge of the site have been identified as having low potential for supporting roosting bats. These trees are to be retained within the development plans. If any of the trees identified are to be lost because of health and safety purposes then further survey work will be required. This may include endoscope surveys of the roosting features, or activity surveys.
- 4.23 Lighting schemes should reflect potential for roosting bats in adjacent woodland habitats and not shine directly onto any of the identified trees as detailed below. Dark corridors should be maintained around the sides and rear of the proposed new build to maintain suitable commuting and foraging features.
- 4.24 The Bat Conservation Trusts document: Bat Surveys Good Practice Guidelines 3rd Edition, states that in Table 4.1 '*Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement*'. It is important that proportionality is employed when recommending further survey work for bat species on a proposed development site. As stated within section 8.2.7 of Bat Surveys Good Practice Guidelines 3rd Edition, the following points need to be taken into account with regard to planning activity surveys:
- Likelihood of bats being present;
 - Likely species concerned;
 - Number of individuals;
 - Type of habitat affected;
 - Predicted impacts of the proposed development on bats;
 - Type and scale of proposed development.
- 4.25 Current proposals will involve the development on the semi improved grassland habitats whilst retaining the and providing new tree planting along the southern edge of the site. It is these edge habitats which are the most significant for bats on site providing foraging and commuting habitat as well as potential roosting space within mature trees, with

development occurring within the managed grassland areas which have negligible potential for roosting bats and limited importance for foraging bats.

- 4.26 It is considered unlikely that large numbers of bats are using the site, with suitable habitat for bats largely consigned to the site margins. It is therefore considered with the scale and type of development on site that an appropriate mitigation is put in place using a sensitive lighting scheme for the development and the use of dark corridors along boundary features such as hedgerows, tree lines and woodland, that further surveys would not be necessary. It is considered that with a mitigation measures such as these in place the favourable conservation status of bat species within the local area will be maintained post development. Certainly development which considers bats within the master planning, and as such retain important landscape features, would reduce impacts to bat species to a level which would not be considered significant.
- 4.27 Any proposed lighting scheme as part of the development will have to take into account bats in the surrounding area as well as site. All bat species are nocturnal, resting in dark conditions in the day and emerging at night to feed. Bats are known to be affected by light levels, which can affect both their roosting behaviour as well as their foraging behaviour. This needs to be taken into account, with a sympathetic lighting scheme for the development. Recommendations include:
- Lighting should only be installed if there is a significant need;
 - Light levels should be kept low, the use of low pressure sodium lamps or high pressure sodium instead of mercury or metal halide lamps where glass glazing is preferred due to its UV filtration characteristics;
 - Baffled lights should be used, where light is directed towards the ground;
 - Lighting should be avoided near treelines or hedgerows, with light angled away from these areas, bats use linear features such as treelines to commute across the landscape to forage; and
 - Lights should have focussed luminance on their target area, preventing light spill and pollution into other areas of the site and local area.

-
- 4.28 The southern and eastern boundary of the site will be enhanced with new tree planting, providing a robust wooded edge. A lighting plan can be conditioned as part of the permission. Bat boxes can be established on some of the mature trees within the red line boundary to provide local level enhancements.

Badgers

- 4.29 No evidence of badger use was identified at the time of the survey. No badger setts were identified on-site. As such it is considered that the development is not constrained by the presence of badgers and no further surveys work is recommended.

Great Crested Newts

- 4.30 There are no waterbodies on site or connected to the site to the south. The waterbodies present within 250m of the site are to the north, on the northern side of Manor Road. The pond 53m to the north has a 'good' suitability to support GCN. However the A road creates a significant barrier to dispersal for a range of wildlife including amphibians.
- 4.31 Where present, great crested newts tend to remain in close proximity to their breeding pond and whilst a maximum routine migratory range has been estimated as approximately 250m from a breeding pond (Franklin, 1993; Oldham and Nicholson, 1986; Jehle, 2000), one study by Robert Jehle, (2000) demonstrated a 'terrestrial zone' of 63m, within which 95% of summer refuges were located. A further study (Jehle, R & Arntzen, JW. 2000) showed that after the breeding season 64% of newts were recorded within 20m of the pond edge.
- 4.32 In addition to this, English Nature (now Natural England) published findings of a research report into the efficiency of capture techniques and the value of different habitats for great crested newts, which stated that *'The most comprehensive mitigation, in relation to avoiding disturbance, killing or injury is appropriate within 50m of a breeding pond. It will also almost always be necessary to actively capture newts 50-100m away. However, at distances greater than 100m, there should be careful consideration as to whether attempts to capture newts are necessary or the most effective option to avoid incidental mortality. At distances greater than 200-250m, capture operations will hardly ever be appropriate.'* This report also identified clear correlations

between the number of newts captured and certain habitats where four habitats (woodland, arable land, post-industrial habitats and hedgerows) were found regularly to predict the number of newts captured. It can therefore be surmised that greater densities of great crested newts will be found within or in close proximity to areas of favourable terrestrial habitat such as woodland and boundary features.

- 4.33 Due to the lack of biological records for GCN in the local area, retention of any suitable terrestrial habitat on site, and the barriers present, and consideration that sufficient suitable terrestrial habitat is located around the pond to the north of the site, it is considered that GCN are unlikely to be impacted upon by the proposed development, and no further surveys are recommended.

Dormice

- 4.34 The woodland and hedgerow species present at the edge of the site are optimal for dormice. However, the woodland habitat is relatively small, and isolated from other suitable habitats. There are no biological records for dormice within 2km of the site. The habitats within the redline boundary are dominated by grazed grassland, which is unsuitable for dormice. The woodland present is considered to be outside the redline boundary and will remain unaffected by the development. The hedgerow along the northern edge is the only habitat present inside the boundary suitable for dormice. The isolation of the woodland and this hedgerow and the lack of biological records indicate it is highly unlikely that dormice are present. No further surveys are recommended.

Reptiles

- 4.35 The grazed grassland on site is considered to be unsuitable for common reptiles, as it does not provide the necessary varied vegetation structure and shelter required. The edges and brash piles and manure heap may provide some limited shelter for reptiles, and there are biological records present within 2km. Surrounding field and woodland habitats provide connective links to the site. The edges of the site are the only areas considered suitable for reptiles. These areas can be managed to exclude reptiles from the development without causing harm.

-
- 4.36 The brash piles and manure pile are recommended to be dismantled in a sensitive manner, allowing for any species present to be able to disperse off site. The areas of tall grassland and ruderal mosaic should be mown down to 15cm in height, again to allow for dispersal of any wildlife within these small areas, and then mown down to ground level, to discourage anything from moving into the development area.
- 4.37 Log and brash piles are recommended to be incorporated into the edges of the design to create hibernacula post development.

Other species

- 4.38 The UK breeding season for most bird species takes place between March and September, as such it is recommended that any works affecting trees or hedgerow be completed outside of this period. Should this not be possible, it is further recommended that all vegetation suitable for breeding birds be checked for active nests no more than 48 hours prior to vegetation clearance or the commencement of site works. If active nests are identified, works in the vicinity of the nest must cease until the birds have fledged the nest.
- 4.39 The site has been designated as having 'uncertain' suitability for Brent geese and waders in 2010, however updated surveys and reports released in March 2017, have not identified this land as being of any potential to support such species. In line with Policy DM23 a review of whether the site has potential to support Brent Geese or waders must be considered and this has been conducted in a separate document. In relation to the site, it is not considered likely that these species would utilise the habitats present within the redline boundary. Three sides of the site are surrounded by woodland, and the open access to the site is from the roadside with high disturbance levels. These birds are unlikely to land onto the site from the roadside. The grazed grassland on site is disturbed frequently by horse and human activity creating unsettled conditions for feeding geese and wader birds. The vegetation is also considered to be limited as a food source available to these species. The habitat is not a wetland and does not provide the shelter required by wader species. No geese or waders were present at the time of the survey and no evidence of use of the site by these species was identified, and it is highly likely that further visits to the site will result in similar findings.

General Site Enhancements

- 4.40 While the site is currently considered to be of low ecological value in its current state, it still has the potential to provide foraging habitat for a number of protected species. The mature trees and wooded edges of the site are being retained with some soft landscaping proposed.
- 4.41 New trees are to be planted within the site. Suitable native species of value to wildlife include hazel (*Corylus avellana*), beech (*Fagus sylvatica*), elder (*Sambucus nigra*), hawthorn (*Crataegus monogyna*), wild cherry (*Prunus avium*), apple (*Malus sp.*), yew (*Taxus baccata*), spindle (*Eunomyas europaea*), and holly (*Ilex aquifolium*). Shrubs along the landscape frontage can include native species such as dogwood (*Cornus sanguinea*), guelder rose (*Viburnum opulus*), wild privet (*Ligustrum vulgare*) and box (*Buxus sempervirens*).
- 4.42 It is recommended that bat and bird boxes are established within the mature trees around the edges of the site.
- 4.43 A detailed ecological enhancement plan should be conditioned as part of the planning permission but should include aspects such as new planting, bat and bird box locations and the creation of a more diverse grassland habitat on site.

5.0 Conclusions

- 5.1 The proposed development site is situated on the edge of a residential area, in the centre of Hayling Island. The site is positioned between two Special Protection Areas and Ramsar sites and several other designated sites. The distances of these areas to the site's location are considered to be significant enough not to impact upon them.
- 5.2 The habitats on site consist largely of semi-improved grazed grassland of low ecological value. The boundaries are created by deciduous woodland including a number of mature trees. The northern hedgerow along Manor Road is considered to be species-rich and important, therefore its retention is highly recommended.

-
- 5.3 Several of the mature trees on the boundary of the site were identified as having low bat roosting potential. The current proposals indicate these trees will be retained. If these trees are to be lost due to health and safety reason, further surveys will be required.
- 5.4 The boundary features of the site provide linear features for foraging bats are recommended to be retained and enhanced with additional planting schemes of native species along the southern and eastern aspect. Provided these areas of the site are retained along with a suitable lighting scheme, it is considered that no further surveys are required on site.
- 5.5 The majority of the site is considered to be suboptimal for common reptile species. The isolated patches of ruderal species and brash piles are recommended to be sensitively removed in stages to allow for dispersal of any species to off-site habitats. No further surveys are considered to be necessary.
- 5.6 The pond 53m north of the site is considered to have 'good' suitability for GCN. However, the presence of GCN on site is considered to be low due to the isolation of the waterbody, the barrier to dispersal from the pond to the site, and lack of biological records for GCN within 2km. No further surveys are recommended.
- 5.7 No field evidence of badgers was found on site. Setts may be present off site with badgers foraging within the redline boundary.
- 5.8 The site is not considered to be suitable for supporting dormice due to the dominance of grazed grassland on site. The boundary hedgerow and woodland could provide potential habitat and are to be retained within the development plans. The isolation of the woodland from further suitable habitats and lack of biological records within 2km suggest dormice are unlikely to be present on site. No further surveys are recommended, however the woodland edge and hedgerow are recommended to be retained.

- 5.9 The site is not considered to be suitable for Brent Geese and /or waders. The site is well grazed and disturbed as such it is considered that the site is not constrained by the presence of these species.

6.0 References

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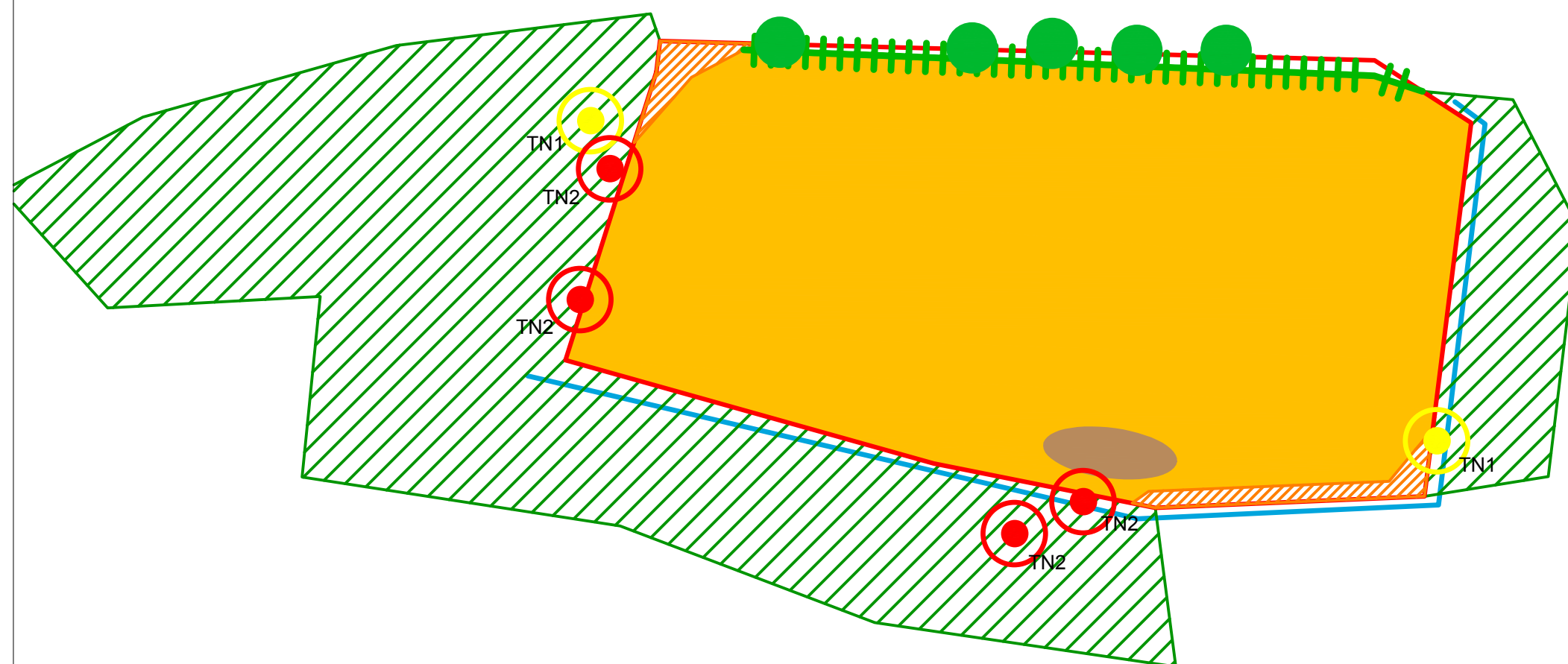
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Magic Interactive Map: www.magic.gov.uk

Appendix 1. Phase 1 Habitat Map



Key

 Semi-improved grazed grassland

 Deciduous woodland

 Ruderal species

 Hedgerow

 Scattered trees

 Manure pile

 Dry ditch

 TN1
Brush pile

 TN2
Low potential bat tree

 Site Boundary

Site: Land on Manor Road, Hayling Island

Client: Lidl

Surveyor: E.Bagguley

Survey Date: 4th October 2016

Drawing Title: Habitat Map

the
ecology
partnership

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Appendix 2: Photo Document

Photograph 1:
Overview of the horse
grazed paddocks



Photograph 2:
Western woodland
boundary of the site



Photograph 3:
Manure pile on site
may create habitat for
some species



Photograph 4:
Mature dead ivy
covered tree on the
southern edge of the
site. Low bat potential.



Photograph 5:
Brash pile in the
southeast corner of the
site



Photograph 6:
Overview of the
northern hedgerow



Photograph 7:
Recently flailed
northern hedgerow



Photograph 8:
Off-site woodland



Photograph 9:
The pond to the north
of the site.



Photograph 10:
Manor Road – dispersal
barrier to amphibians
between the pond and
the site



Appendix 3: Biological Records



Hampshire Biodiversity
Information Centre

HBIC Ref: 6479

Statutory designated
sites within 2km of
SU72160 00593
(Hayling Island)
Map 2 of 2:

Legend

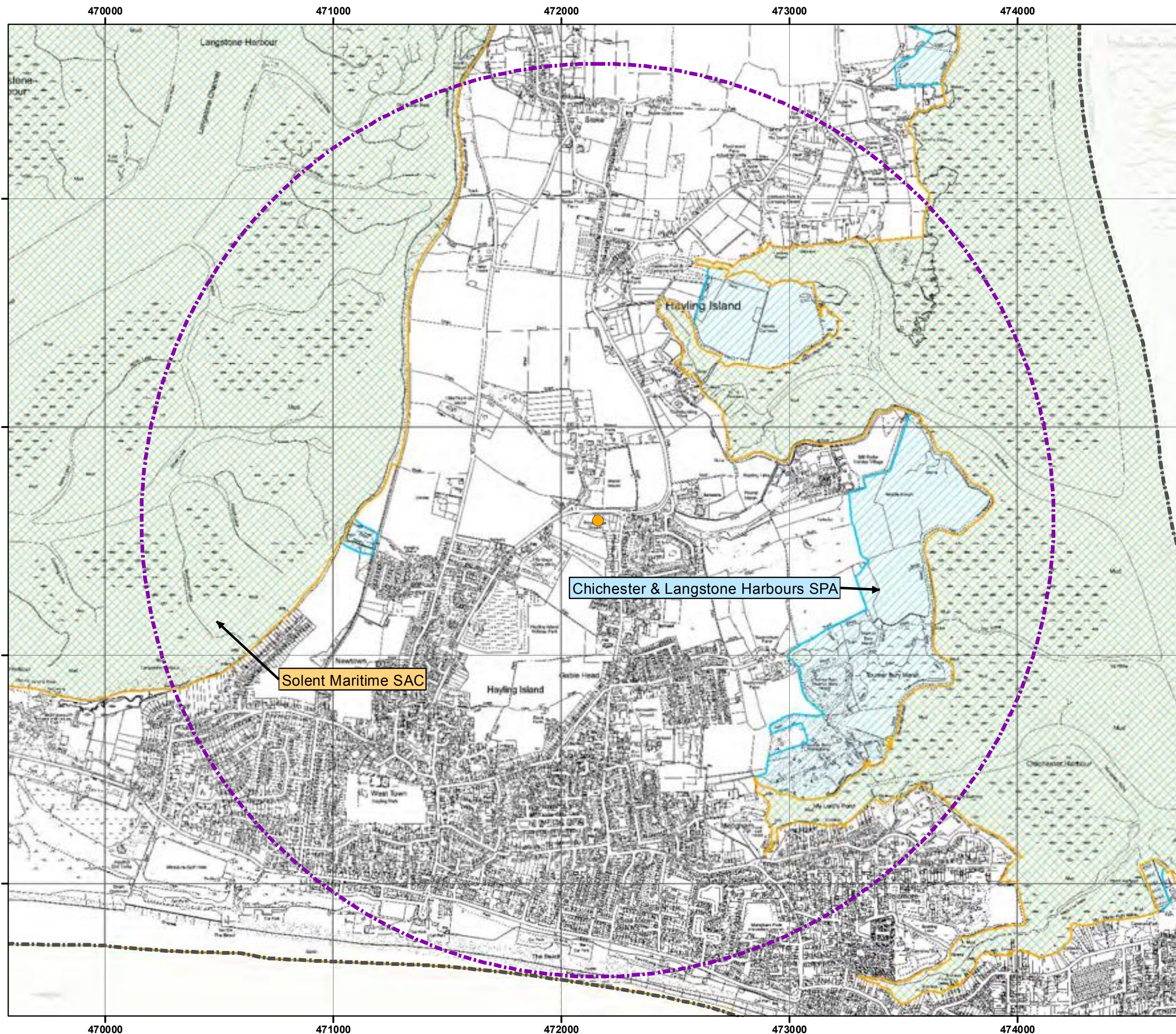
- Centre Search Point
- 2km Search Area
- Hampshire County Boundary
- SAC
- SPA

Created: 28/ 09/ 2016
Scale at A3: 1:16,000



0 125 250 500 750 1,000 Meters

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Please note: The boundaries for statutory sites have been provided as digital data from Natural England (NE); this digital data is indicative not definitive. Paper maps produced by NE at the time the sites were designated show the official site boundaries.



Hampshire Biodiversity
Information Centre

HBIC Ref: 6479

Statutory designated
sites within 2km of
SU72160 00593
(Hayling Island)

Map 1 of 2:

Legend

- Centre Search Point
- 2km Search Area
- Hampshire County Boundary
- SSSI
- LNR
- RAMSAR

Created: 28/ 09/ 2016
Scale at A3: 1:16,000

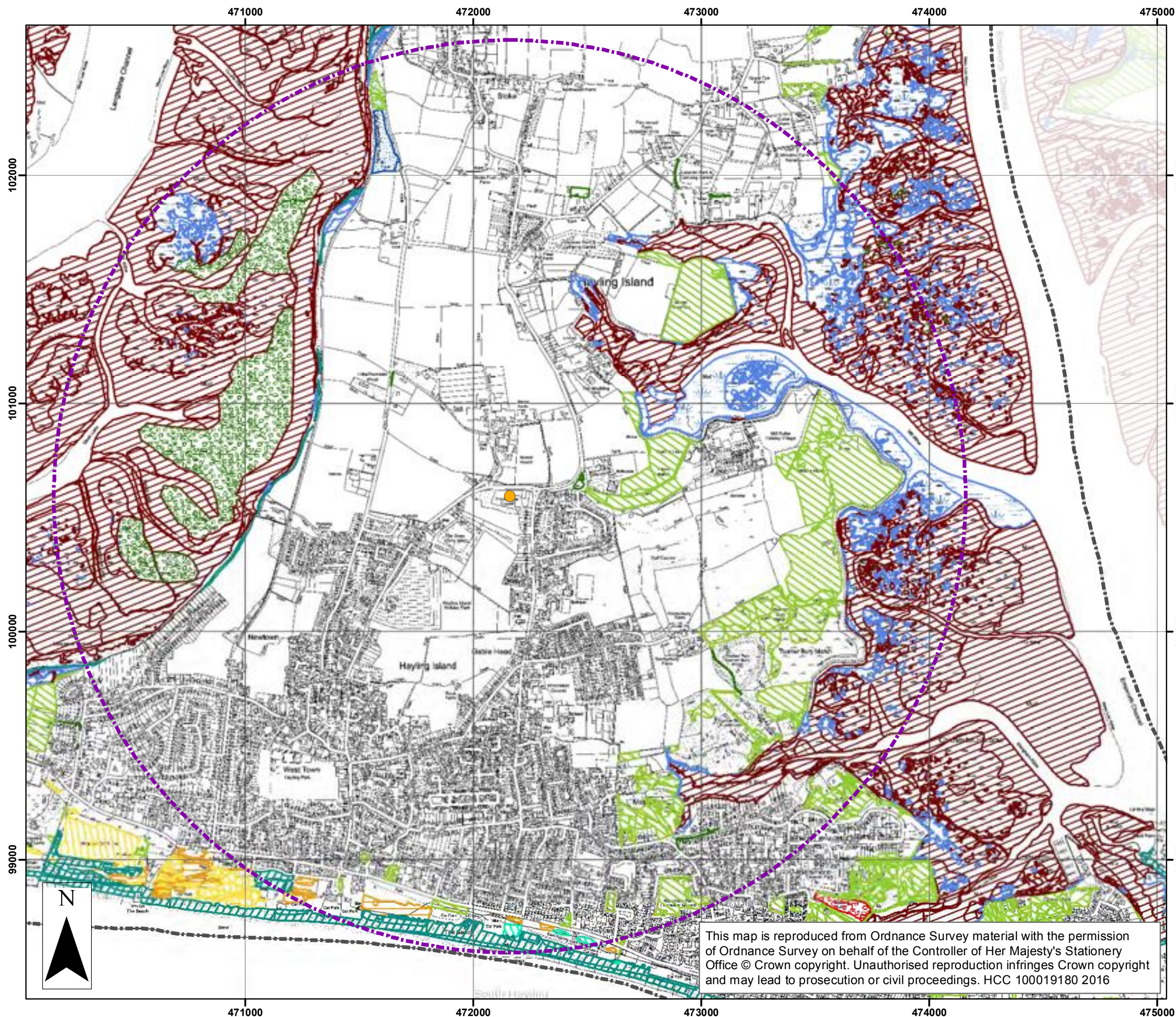


0 125 250 500 750 1,000 Meters

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Please note: The boundaries for statutory sites have been provided as digital data from Natural England (NE); this digital data is indicative not definitive. Paper maps produced by NE at the time the sites were designated show the official site boundaries.



Hampshire Biodiversity
Information Centre

HBIC Ref: 6479

Priority Habitat Information
within 2 km of
SU 72160 00593
(Hayling Island)

(see explanatory note for
details of the origin and
accuracy of this data)

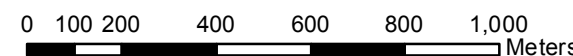
Legend

- Centre Search Point
- 2km Search Area
- Hampshire County Boundary
- Chalk Rivers

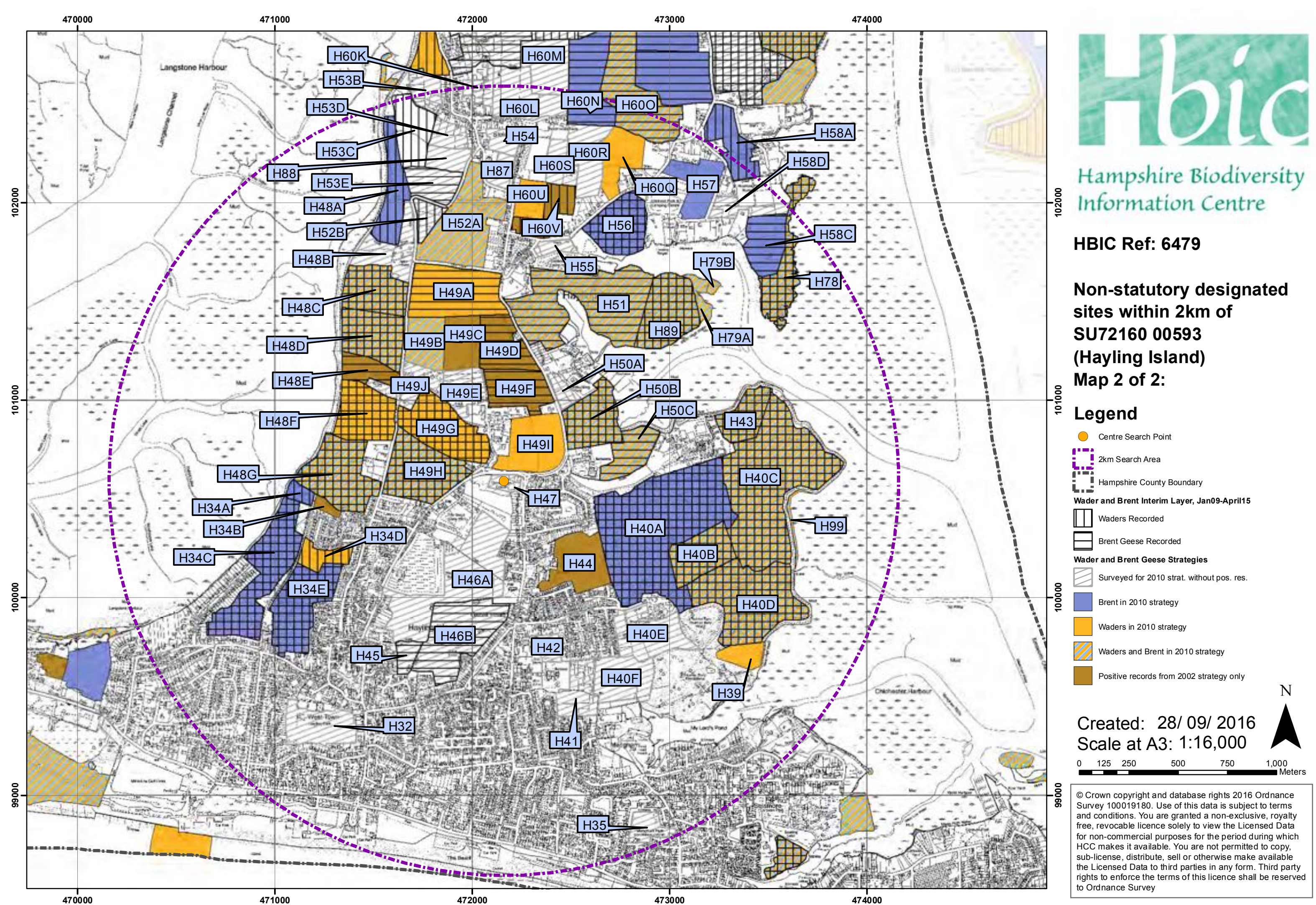
Some Habitats may overlap.
Please see 'UK Habitats
Legend' for full Legend, there
is a link to this in your covering
letter.

Date created: 28/09/2016

Scale at A3: 1:16,000



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Hampshire Biodiversity
Information Centre

HBIC Ref: 6479

Non-statutory designated
sites within 2km of
SU72160 00593
(Hayling Island)

Map 1 of 2:

Legend

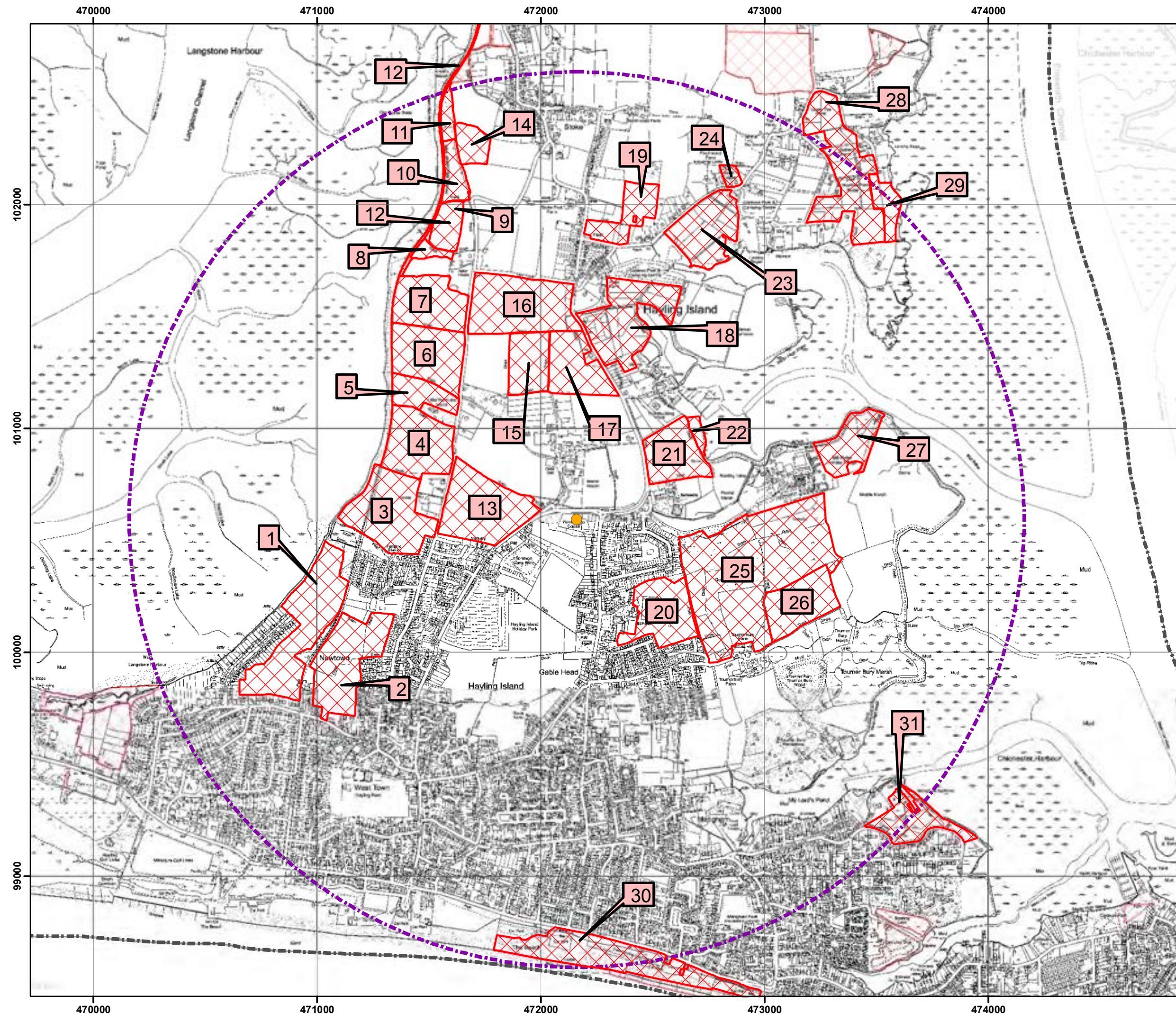
- Centre Search Point
- 2km Search Area
- Hampshire County Boundary
- ▨ SINC
- ▨ Surrounding SINC

Created: 28/ 09/ 2016
Scale at A3: 1:16,000



0 125 250 500 750 1,000 Meters

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