Local Plan 2036

Havant
BOROUGH COUNCIL

Havant Borough Biodiversity Strategy

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Any queries about the report should be sent to:

Email policy.design@havant.gov.uk

Telephone 023 9244 6539
Address: Havant Borough Council
Public Service Plaza
Civic Centre Way
Havant
PO9 2AX

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1. Introduction

The Strategy's Objectives

1.1 The Havant Borough Biodiversity Strategy (HBBS), hereafter referred to as 'the strategy', will replace the 2011 Havant Borough Biodiversity Action Plan (BAP) and, like its predecessor, provides a vision and a strategy to both conserve and produce a net gain in, biodiversity throughout the Borough. In doing so, the strategy will become part of a range of background evidence documents that have been prepared to support and inform the Havant Borough Local Plan (HBLP) 2036.

1.2 It is important to note, however, that this strategy concentrates on how the biodiversity network of Havant Borough can be conserved and enhanced through the planning system, rather than including the full range of actions that may be undertaken by partner organisations and volunteer groups. The strategy also makes recommendations to secure sustainable development across the Borough which improves the quality of the environment and resident life. The public funding that is now available to undertake projects to boost the natural environment is now very slim. New development offers a potential threat to the natural environment in some cases although it also presents an opportunity to build in mitigation so that there can ultimately be a net gain in biodiversity. This is now required by the 2018 National Planning Policy Framework.

1.3 This strategy draws on a range of data, other evidence-based documents and information sources, both published and unpublished, to evidence HBLP 2036 policies and outline how development can be shaped to secure a net gain in biodiversity through planning decisions in Havant Borough.

1.4 The strategy will enable Havant Borough Council (HBC) to actively fulfil its duty to conserve and enhance biodiversity under the Natural Environment and Rural Communities (NERC) Act 2006 and its statutory obligations under the Conservation of Habitats and Species Regulations 2017, by taking a collective approach to nature conservation.

Biodiversity: What is it and Why is it Important?

1.5 Biological diversity is the variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems; it relates to the diversity and complex interactions within species, between species and the ecosystems in which they live. Biodiversity is life. We are part of it and we depend on it for our food, livelihoods and wellbeing. It includes all species of animals and plants, the places they live (their habitats) and the natural systems that support them.

1.6 It is important to note that biodiversity includes all ecosystems, whether they are managed or unmanaged. It is often presumed that a net gain in biodiversity is only relevant in 'natural' or 'unmanaged' ecosystems (e.g. nature reserves); however, managed ecosystems (e.g. farmland, domestic gardens and urban parks) also have their own biodiversity values.

1.7 It is this variety of systems that enables life on earth to adapt to change and helps to ensure long-term environmental stability. Moreover, biodiversity has an intrinsic value but is also essential for the continuation of life on earth. In recognising this, the biologist E. O. Wilson stated in 1984 that:

"The one process ongoing, that will take millions of years to correct is the loss of genetic and species diversity by the destruction of natural habitats. This is the folly that our descendants are least likely to forgive us for."

1.8 Everyday contact with nature is important for people's wellbeing and quality of life. Research has shown that access to green spaces can have a beneficial effect on both mental and physical health.

1.9 While contact with nature in spectacular wilderness areas undoubtedly has its place, the value of access to the everyday, unspectacular natural environment near to people's homes is increasingly being recognised. People should have to make no special effort to access nature and easy, convenient access to nature enhances their quality of life.

1.10 Local green spaces can serve as a focus for local activity, act as a social facilitator and encourage community cohesion as well as increasing community engagement with the environment and engendering a sense of ownership.

Biodiversity: Issues and Threats

1.11 A UK Biodiversity Action Plan was first published in 1994. It set out actions to aid recovery of the most threatened species and habitats and contribute to the significant reduction of biodiversity called for by the Convention on Biological Diversity[1]. However, by 2008 over 40% of priority habitats and 30% of priority species[2] were still declining.

1.12 In 2011 the Government published its strategy for biodiversity for the period to 2020[3]. Its mission is:

"to halt overall biodiversity loss, support healthy, well-functioning ecosystems and establish coherent ecological networks, with more and better paces for nature for the benefit of wildlife and people".

1.13 It also included a longer-term Vision for England that,

"by 2050 our land and seas will be rich in wildlife, our biodiversity will be valued, conserved, restored, managed sustainably and be more resilient and able to adapt to change, providing essential services and delivering benefits for everyone."

1.14 This followed the publication of a Government White Paper on the natural environment[4] and highlighted the need to take better account of biodiversity in decision making. The White Paper recognises that the benefits of biodiversity are not priced and are therefore ignored in cost benefit analysis and financial decisions. The White Paper also recognised the need for planning to take a strategic approach to planning positively for nature and to retain protection and the importance of the natural environment as core objectives of the planning system. While enabling development, the aim is to move progressively from a position of net biodiversity loss to net gain.

1.15 The concept of natural capital was highlighted in the 2011 Government White Paper – The Natural Choice: securing the value of nature. This paper recommended the establishment of a Natural Capital Committee (NCC) to advise on how to prioritise action to protect and enhance natural capital to improve wellbeing in our society. The NCC has performed that role since it was set up in 2012,

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[1] UK signed up at the Rio de Janeiro Earth Summit in 1992
[2] Priority species and habitats identified as being of principal importance in England in Section 41 of the Natural Environment and Rural Communities Act 2006
[3] Biodiversity 2020: A strategy for England's wildlife and ecosystem services – DEFRA (2011)
[4] The Natural Choice: securing the value of nature – HM Government (June 2011)

providing advice to Government on the sustainable use of natural capital. The second term of the committee from 2016 to 2020 will focus on helping the Government develop its 25 year environment plan. The NCC's publication 'How to do it: a natural capital workbook'[5] has informed this strategy.

1.16 Human wellbeing is intimately connected with our natural environment. Regular opportunities to experience nature have positive impacts on mental and physical health. Nature can benefit us at all stages in our lives. Contact with nature can have positive impacts on young people's education, physical health, emotional well-being, and personal and social skills, and that helps them to become responsible citizens. However, children are becoming disconnected from the natural environment and spending less and less time outdoors[6].

1.17 Natural capital refers to the stock of our physical natural assets that provide people and the economy with essential goods and services. These include fresh water (drinking, bathing and irrigation), forests, soils and biodiversity. Some marketable products, such as timber, have long been recognised for their value to the economy but the value and importance of many natural assets are often overlooked or discounted e.g. the role of bees in pollinating crops, of forests in the regulation of climate change and the mental health benefits of a walk in the park.

1.18 The State of Nature Report 2016 stated that over 70,000 species of plants, animals and fungi can currently be found in the UK. Nevertheless, the report also highlighted the net loss of biodiversity over recent decades in the UK and, as such, how the UK is now amongst the most nature-depleted countries in the world. In the short-term, this loss has not been helped by the economic uncertainty since 2008 which resulted in a 32% decrease in public spending on UK biodiversity initiatives and projects between 2008 and 2015.

1.19 Embedded within the State of Nature Report 2016 is global research on a Biodiversity Intactness Index (BII). The BII estimates, as a percentage, the average abundance of originally-present species across areas of the UK. The research suggests that, where the abundance of original species is below 90%, biodiversity has fallen below a threshold and, as such, ecosystems may no longer reliably meet society's needs.

1.20 The abundance of originally-present species in most of the UK is well below the 90% threshold with the average across the UK at 81%, below the global average of 84.6%. As illustrated below in Figure 1, the South East (including Havant Borough) is below 80-90%; therefore, crossing the threshold stated above. Moreover, the report outlines that the level of species decline in the UK is a matter of concern and that Southern and Central England have the lowest values due to widespread, intensively-managed agricultural land, urban sprawl and high population density.

[5] Available at /www.gov.uk/government/groups/natural-capital-committee#membership
[6] The Natural Choice: securing the value of nature – paragraphs 1.26-1.27

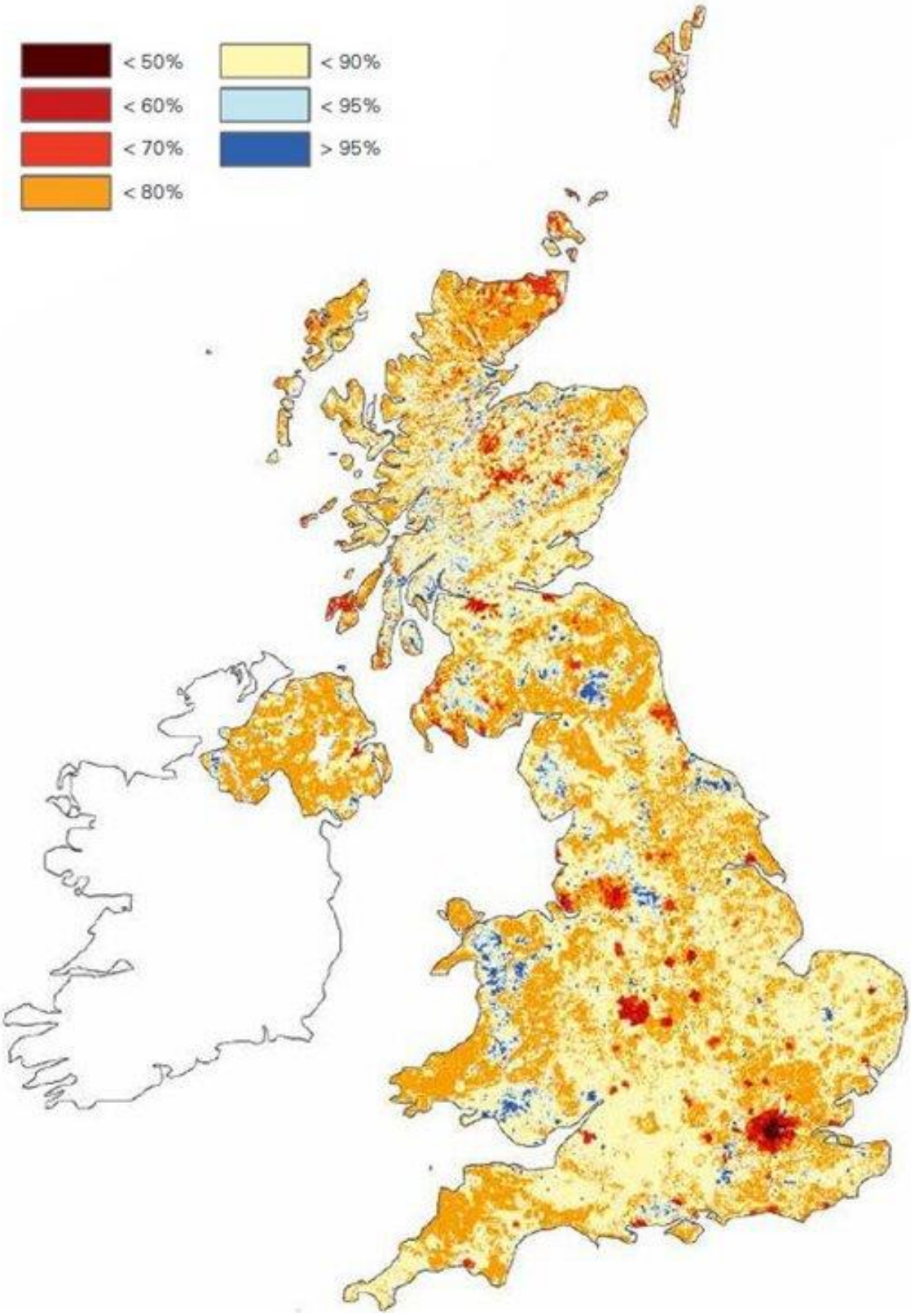

Figure 1 - Map of modelled estimates of 'biodiversity intactness' across the UK

Note: Areas shown in yellow, orange, red or brown have BII values below 90%, which indicates that biodiversity has fallen below a threshold beyond which ecosystems may no longer reliably meet society's needs.

(Source: State of Nature 2016 – RSPB & other UK conservation and research organisations)

1.21 The first Natural Capital UK Committee (2012-2015) recommended that the UK Government develop and implement a 25-year plan to protect and improve natural and capital and the benefits it provides.

1.22 Chapter 1 of the Government's 25 Year Environment Plan[7] embeds an *"environmental net gain"* principle for development, including housing and infrastructure *"to deliver environmental improvements locally and nationally"*.

1.23 Biodiversity 2020 also included the intention to develop and publish a set of indicators to assess progress with delivery of the strategy. Reporting on the indicators (measures which show trends over time) depends on a variety of data provided by the government, research bodies and the voluntary sector.

Biodiversity Net Gain

1.24 At the outset, development should follow the principles of the mitigation hierarchy approach to:

- avoid impacts on irreplaceable biodiversity e.g. habitats such as ancient woodland;
- minimise impacts: and
- only as a last resort - to compensate, within the development footprint if possible, otherwise offset by gains elsewhere.

1.25 Current policy is that the planning system should provide biodiversity net gains where possible therefore net gain should be a common thread running through all development. Put simply, net gain, is when development leaves biodiversity in a better state than before.

1.26 Where impacts on biodiversity are outweighed by a clear need for the development biodiversity offsets, i.e. conservation activities designed to deliver biodiversity benefits in compensation for losses, should be measurable. A 'metric', or scoring system, was devised by DEFRA with Natural England based on habitat distinctiveness (including species richness, diversity, rarity) and taking account of existing condition. However, care is needed to avoid a numbers-based approach where biodiversity net gain is achieved on paper but means little in practice. Therefore, a metric alone should never dictate decision making but must be used in conjunction with ecological information.

1.27 The aim should be to achieve a measurable overall gain for biodiversity by:

- achieving net gain locally to the development while also contributing towards nature conservation priorities at a wider level;
- enhancing existing or creating new habitat;
- compensation that is not just ecologically equivalent in type, amount and condition;
- compensating for losses of one type of biodiversity by providing a different type that delivers greater benefits for nature conservation;
- enhancing ecological connectivity by creating more, bigger, better and joined areas for biodiversity;
- securing net gain in perpetuity – for at least the lifetime of the development[8] with management continuing into the future.

[7] A Green Future: Our 25 Year Plan to Improve the Environment – H M Government (2018)
[8] E.g. 25-30 years

1.28 While recognising that the HBLP 2036 will inevitably mean that areas of biodiversity value will be impacted, there are opportunities to embed biodiversity net gain through the policies and site-specific proposals. Examples may include:

- securing funding for off-site enhancements e.g. woodland/grassland management;
- use of appropriate native plantings in landscape schemes;
- use of bird and bat boxes on new developments;
- creation of freshwater wetland features within new development; and
- opportunities for creating landscape linkages and ensuring that new developments plug into those.

Biodiversity: Context in Planning

Statutory Provisions

1.29 The Natural Environment and Rural Communities Act 2006 contains the duty to conserve biodiversity. In section 40*, "The 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"* it goes on to clarify that, *"Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat."*

1.30 The Conservation of Habitats and Species Regulations 2017, SI 2017/1012 (the "Habitats Regulations 2017") consolidate and update the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations 2010"). The Habitats Regulations 2017 consolidate all the various amendments made to the Habitats Regulations 2010 and also introduce a small number of minor amendments designed to take account of changes to other related legislation, such as amendments to Town and Country Planning legislation, rectify previous omissions, or improve the clarity of drafting.

1.31 The Habitats Regulations 2010 were the principal means by which Council Directive 92/43/EEC on the conservation of natural habitats of wild fauna and flora (the "Habitats Directive") is transposed in England and Wales and the adjacent territorial seas. They also transposed elements of the EU Wild Birds Directive in England and Wales. The objective of the Habitats Directive is to protect biodiversity through the conservation of natural habitats and species of wild fauna and flora. The Directive lays down rules for the protection, management and exploitation of such habitats and species.

1.32 The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites. Regulation 63 of the Habitats Regulations 2017 sets out the requirements for both the local planning authority and persons applying for planning consent to undertake an appropriate assessment of the implications for a site in view of the site's conservation objectives if a plan or project is likely to have a significant effect on a European site (either alone or in combination with other plans and projects).

Biodiversity in the Planning System

1.33 The planning system is an important tool in the protection of biodiversity and priority habitats and species. The planning system also has a legal requirement to consider biodiversity as set out through the European directives and UK law. This is also recognised through national planning policies.

1.34 The National Planning Policy Framework (NPPF) (July 2018) states in paragraph 8, regarding sustainable development:

"c) an environmental objective – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy."

1.35 In taking a proactive approach to mitigating and adapting to climate change, plans should take into account the long-term implications for, among other things, biodiversity. (NPPF paragraph 149).

1.36 In paragraph 170:

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

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) … the wider benefits from natural capital and ecosystem services…

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures."

1.37 Paragraph 171 states:

"Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework53; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries."

1.38 Providing the rationale for the preparation of this Biodiversity Strategy, paragraph 174 states that:

"To protect and enhance biodiversity and geodiversity, plans should:

a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and

b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."

1.39 Paragraph 175 sets out the approach when determining planning applications and the need to refuse planning permission where development cannot be located on a site with less harmful impacts, adequately mitigated or, as a last resort, compensated for.

"opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity."

1.40 Providing a context for the mitigation framework set out in Chapter 3, paragraph 176 states,

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

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

Havant Borough Local Plan 2036

1.41 The Adopted Havant Borough Local Plan comprises the:
Local Plan (Core Strategy) [Adopted March 2011] and;
Local Plan (Allocations Plan) [Adopted July 2014].

1.42 The NPPF expects plans to positively seek opportunities to meet the development needs of their area, be sufficiently flexible to adapt to rapid change and as a minimum provide for objectively assessed needs (OAN) for housing and other uses[9].

1.43 The Partnership for Urban South Hampshire (PUSH) is a voluntary partnership of 11 local authorities across South Hampshire[10]. The PUSH Spatial Position Statement was published in June 2016. Based on this and a judgement that the Adopted Local Plan was out of date, HBC commenced the production of the Havant Borough Local Plan 2036.

1.44 The Ministry of Housing, Communities and Local Government (MHCLG) carried out their Planning for the right homes in the right places consultation in September 2017. This updated Havant Borough's OAN for housing as 463 dwellings per annum.

1.45 The Council went on to prepare and consult[11] on the Draft Havant Borough Local Plan 2036 in January and February 2018. In the Draft HBLP 2036, updated and new policies were proposed regarding ecological conservation and biodiversity. These are summarised in Table 1 below:

Adopted Local Plan		**Draft HBLP 2036** **(nb later versions of the HBLP 2036 could use different Policy references or names)**		
Policy Ref	**Policy Name**	**Status**	**New Policy Ref**	**New Policy Name**
CS13	Green Infrastructure	Updated	E2	Green Infrastructure
DM8	Conservation, Protection and Enhancement of Existing Natural Features	Updated	E2	Green Infrastructure
			E10	Landscape and the Coast
			E15	Ecological Conservation
DM23	Sites for Brent Geese and Waders	Updated	E17	Brent Goose and Wader Feeding and Roosting Sites

[9] Paragraph 11 of the NPPF.
[10] Eastleigh, Fareham, Gosport and Havant Borough Councils, Portsmouth and Southampton City Councils and Hampshire County Council, as well as parts of East Hampshire, New Forest, Test Valley and Winchester districts
[11] Regulation 18 of the Town and Country Planning (Local Planning) (England) Regulations 2012. The consultation began on Monday 8th January 2018 and ended on 16th February 2018.

Adopted Local Plan		Draft HBLP 2036 (nb later versions of the HBLP 2036 could use different Policy references or names)		
Policy Ref	**Policy Name**	**Status**	**New Policy Ref**	**New Policy Name**
DM24	Residential Disturbance to Special Protection Areas (SPAs) from Residential Development	Updated	E16	Solent Special Protection Areas
n/a		New	E18	Protected Species
n/a		New	E19	Agricultural Land Quality

Table 1 – Comparison of Local Plan policies: Adopted Plan v Draft HBLP 2036

1.46 Other policies that include criteria concerning the need to have regard to biodiversity are: E6 High Quality Design (protect and enhance biodiversity) and E23 New and Extended Cemeteries (take opportunity to create, improve and enhance biodiversity).

1.47 This strategy, through the objectives outlined above in paragraphs 1.1 - 1.4, will help inform the updated and new policies in the Draft HBLP 2036 as it progresses to the Pre-Submission stage[12].

The Strategy in Outline

1.48 The key data sources and evidence-base documents which are incorporated in this strategy are shown below in Table 2, along with information about which environmental body they have been prepared by, and within which chapter they are referred to.

Evidence Base	Description	Collected/Prepared by	Chapter in this document
National and International Designations	Analysis of: Ramsar Sites, Special Protection Areas (SPA), Special Areas of Conservation (SAC), Sites of Special Scientific Interest (SSSI), and their related legislation.	Natural England	Chapter 2
Solent Wader and Brent Goose Strategy (2018)	Based on further survey data, a review of the status of sites for Solent Waders and Brent Geese	Solent Wader and Brent Goose Strategy Steering Group[13]	Chapter 3

[12] Regulation 19 of the Town and Country Planning (Local Planning) (England) Regulations 2012.
[13] Natural England, Hampshire and Isle of Wight Wildlife Trust, RSPB, Hampshire Biodiversity Information Centre, Hampshire County Council, Eastern Solent Coastal Partnership.

Evidence Base	Description	Collected/Prepared by	Chapter in this document
Havant Borough Biodiversity Audit	Local Nature Reserves	Hampshire County Council and Hampshire and Isle of Wight Wildlife Trust	Chapter 4
	An updated inventory of Havant Borough's Sites of Importance for Nature Conservation	Hampshire Biodiversity Information Centre	
Local Ecological Network (LEN) Policy Framework and Mapping	Suggested policies for incorporation in local plans and comprehensive mapping of the LEN	Hampshire and Isle of Wight Local Nature Partnership	Chapter 5

Table 2 – Main Data Sources

1.49 In addition, the strategy also recommends how net gains in biodiversity can be achieved at the micro-level. This is discussed further in Chapter 6.

2. National and International Designations, Priority Habitats and Protected Species

Introduction

2.1 In UK and European legislation, habitat and species conservation is primarily achieved through the designation of sites which are considered to merit special consideration or protection. The European designated sites are those categorised as Special Protection Areas (SPAs), Special Areas of Conservation (SACs), and Ramsar sites (areas of international wetland importance)[14]. The Nationally designated sites are the Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs). All have implications for local decision making and special care must be taken to ensure decisions and plans do not impact negatively on these sites or their qualifying species. (Definitions of these designations are provided in the Glossary at the back of this report).

European Legislation

2.2 European legislation includes Directives. These are directed at Member States and set out objectives that each must attain domestically. EU Member States are legally bound to transpose EU Directives into their own national law thus many UK laws flow from these directives, although they have been amended several times since they came into force.

2.3 The two key directives on wildlife and nature conservation are:

- The Directive on the Conservation of Wild Birds – 'the Birds Directive' – adopted in 1979 and amended in 2009.
- The Directive on the Conservation of Natural Habitats and of wild fauna and flora – 'the Habitats Directive' – adopted in 1992.

2.4 Two other directives of relevance are:

- The Water Framework Directive – requires member states to achieve stated targets for the protection and improvement of inland and coastal waters.
- The Marine Strategy Framework Directive – requires member states to achieve stated targets in the marine environment.

[14] Ramsar sites are not, strictly speaking, internally designated nature conservation sites. However the NPPF requires that they are treated as if they were and they often share the same boundary as an SPA.

2.5 The Habitats Directive and the Birds Directives have protected British wildlife through the UK government being required to establish and manage sites for the protection of vulnerable and rare animals, birds, plants, habitats and other species. In the UK, there are 271 Special Protection Areas (SPAs) for birds and 658 Special Areas of Conservation (SACs) for other species and habitats (SACs).

2.6 However, there is some uncertainty over the future of nature conservation law after the UK exits the EU, when these directives will no longer apply to Britain. Although the European Union (Withdrawal) Act 2018 will keep most existing EU law as UK domestic law after Brexit, to ensure the continuity and completeness of the UK's legal system, it will also confer wide powers on the Government to amend that retained EU law and to remedy or mitigate any deficiencies arising from the UK's withdrawal from the EU.

State of the Borough's Designations

2.7 Of the areas of biodiversity importance within the Borough a number are nationally and internationally important. Indeed, Havant can be seen to contain significant areas designated as SAC, SPA and Ramsar sites, covering almost half of the total area of the Borough although a significant proportion is in the sea rather than on the land.

Designation	Name	Area (hectares)
Special Protection Area	Chichester and Langstone Harbours	2,430
Special Area of Conservation	Solent Maritime	2,270
Ramsar	Chichester and Langstone Harbours	2,430
Site of Special Scientific Interest	Chichester Harbour	1,006
Site of Special Scientific Interest	Langstone Harbour	1,424
Site of Special Scientific Interest	Sinah Common	243
Site of Special Scientific Interest	Warblington Meadow	4
Local Nature Reserve	8 sites in total (see Chapter 5)	218
	Total of Statutory Sites Combined	**2,716**

Table 3 – Extent of Statutory Designated Sites in the Borough as at 31 March 2017 (source: HBIC in HBC AMR 2017)

Key action for the Havant Borough Local Plan 2036	
✓	The Local Plan needs to clear set out the different designated sites in the Borough and the hierarchy of the designations.

2.8 There were no changes to the statutory sites in terms of their number or area of coverage between 2011/12 and 2016/17. It should be noted that in the table above the areas total for 'Statutory Sites Combined' does not equal the total for each of the individual statutory site designations because there is considerable overlap between the statutory designations.

2.9 It is important to note that a protected area designation does not mean that a site is safe from pressures or that it is being managed effectively (State of Nature, 2016). The table below indicates that some improvement in the condition of the SSSIs within the Borough has been achieved over the past 5 years.

Condition	2011/12 Area (ha)	2012/13 Area (ha)	2013/14 Area (ha)	2014/15 Area (ha)	2015/16 Area (ha)	2016/17 Area (ha)	2016/17 Area (%)
Favourable	109.98	109.98	109.98	109.98	109.98	110.12	4.1
Unfavourable Recovering	2,557.68	2,557.68	2,567.03	2,567.03	2,566.96	2,566.46	95.9
Unfavourable No Change							
Unfavourable Declining	9.35	9.35					
Part Destroyed							
Destroyed							
Total	**2,677.01**	**2,677.01**	**2,677.01**	**2,677.01**	**2,676.94**	**2,676.58**	**100.0**

Table 4 – Condition of SSSIs

(source: Data provided by Natural England, assigned to districts by HBIC and reported in HBC AMRs 2013 to 2017)

Priority Habitats and Priority Species

Priority Habitats

2.10 Priority habitats cover a wide range of semi-natural habitat types and were those that were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP). The original list of UK BAP Priority habitats was created between 1995 and 1999 however it remains an important reference source and has been used to draw up statutory lists of Priority habitats across the country as required under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

2.11 As can be seen below, the Borough has a wide range of Priority habitats as may be expected in an area that contains inland pasture, woodland and farmland as well as harbours and a considerable stretch of coastline. Although there are some variations in the amount of some habitats between monitoring years this does not mean necessarily that there have been losses of habitat because of development or poor management. For example, due to re-surveying and re-interpretation during 2015/16 some areas of Lowland Mixed Deciduous Woodland and Lowland Meadows have decreased; affected in particular was the grassland at George Staunton Country Park (High Lawn) and Neville's Park. The main losses between 2015/16 and 2016/17 were lowland meadow (some arable had been incorrectly mapped as lowland meadow). The extent of Priority habitat remains the same from 2013/14 to 2014/15 due to lack of resources to make changes to the Habitat dataset during 2014/15.

2.12 Appendix 2 has explanations of the various habitat types. Mapping of the Priority Habitats is subsumed within the Local Ecological Network Mapping project that is detailed in Chapter 5.

Priority Habitat	Comments on Status (as at 31st March 2017)	2011/12 Area (ha)	2012/13 Area (ha)	2013/14 Area (ha)	2014/15 Area (ha)	2015/16 Area (ha)	2016/17 Area (ha)	2017/18 Area (ha)	% of Area	Change in area (ha)
Grasslands										
Lowland Calcareous Grassland	Comprehensive	5	7	7	6	5	5		0.06	0
Lowland Dry Acid Grassland	Comprehensive. Some overlap with Lowland Heath	15	21	21	21	21	21		0.27	0
Lowland Meadows	Comprehensive. Some overlap with Coastal and Floodplain Grazing Marsh and with Wood-Pasture and Parkland.	48	62	65	65	55	32		0.40	-23
Purple Moor Grass and Rush Pastures	Comprehensive. Some overlap with Coastal and Floodplain Grazing Marsh.	5	5	5	5	5	5		0.06	0
Heathlands										
Lowland Heathland	Comprehensive. Some overlap with Lowland Dry Acid Grassland.		1	1	1	1	1		0.01	0
Woodland, wood-pasture and parkland										
Lowland Beech and Yew Woodland	Not comprehensive. On-going work to distinguish from Lowland Mixed Deciduous Woodland in old surveys.									
Lowland Mixed Deciduous Woodland	Ongoing work as all ancient/ non-ancient woodland has been included yet not all has been surveyed for qualifying NVC types.	174	176	184	184	183	181		2.29	-2
Wet Woodland	Fairly comprehensive. Areas will exist in LMDW that are not yet surveyed for qualifying types.	36	38	37	37	37	37		0.47	0

Priority Habitat	Comments on Status (as at 31st March 2017)	2011/12 Area (ha)	2012/13 Area (ha)	2013/14 Area (ha)	2014/15 Area (ha)	2015/16 Area (ha)	2016/17 Area (ha)	2017/18 Area (ha)	% of Area	Change in area (ha)
Wood-Pasture and Parkland	Not comprehensive. Further work needed to classify this habitat within historic parkland.	15	15	15	15	15	15		0.19	0
Arable, orchards and hedgerows										
Arable Field Margins	Incomplete. Figures only show SINCs on arable land designated for rare arable plants.		27	27	27					
Hedgerows	No comprehensive information for Priority hedgerows. All hedgerows mapped as linear features (km).					[200]	[200]		n/a	[0]
Traditional Orchards	Work to be undertaken to incorporate areas recently identified by PTES under contract to NE.									
Open waters										
Eutrophic Standing Waters	No comprehensive information yet available.									
Rivers	Incomplete data. Approx. figures for Chalk Rivers only calculated from EA's River GIS layer (km).									
Wetlands										
Coastal and Floodplain Grazing Marsh	Work on-going to identify all qualifying grazing marsh. Some overlap with Lowland Meadows and with Purple Moor Grass and Rush Pastures.	180	174	179	179	178	162		2.05	-16
Lowland Fens	Comprehensive.									
Reedbeds	Not comprehensive.	1	2	2	2	2	1.8		0.02	0
Coastal										

Priority Habitat	Comments on Status (as at 31st March 2017)	2011/12 Area (ha)	2012/13 Area (ha)	2013/14 Area (ha)	2014/15 Area (ha)	2015/16 Area (ha)	2016/17 Area (ha)	2017/18 Area (ha)	% of Area	Change in area (ha)
Coastal saltmarsh	EA data partly verified.	202	208	209	209	209	209		2.64	0
Coastal Sand Dunes	EA data partly verified.	48	40	40	40	40	39.8		0.50	0
Coastal Vegetated Shingle	Comprehensive.	15	48	47	47	47	47.2		0.60	0
Intertidal mudflats	EA data partly verified.	1,411	1,380	1,380	1,380	1,380	1,380		17.45	0
Maritime Cliff and Slopes	Comprehensive.		1	1	1	1	0.8		0.01	0
Saline lagoons	Comprehensive.		6	6	6	6	5.8		0.07	0
Marine										
Seagrass beds	Not comprehensive. Separate HWT data available.	20	46	46	46	46	45.6		0.58	0
	Total	**2,175**	**2,259**	**2,244**	**2,244**	**2,231**	**2,189**		**27.67**	**-42**

Table 5: Extent of Priority Habitats 2011/12 – 2016/17

Notes: The Borough totals of Priority habitat are the sum of the individual Priority habitat types (excluding Arable Field Margins, Hedgerows and Rivers). This is not the total area of land covered by Priority habitat as some Priority habitat types overlap and hence are double counted (e.g. Coastal and Floodplain Grazing Marsh may overlap Lowland Meadows or Purple Moor Grass and Rush Pastures).

Empty fields mean the habitat has not yet been mapped or not found. Minor changes in area might not always reflect real change but are results of a rounding of figures.

Source: HBIC data extracted from HBC Annual Monitoring Reports.

Ancient Woodland

2.13 Many of the Priority woodland habitats are Ancient Woodlands. They are our richest land-based habitat for wildlife and are home to more threatened species than any other. In England they are woods that are present on maps dating back to 1600AD and may even be remnants of the original wildwood that covered the UK after the last Ice Age 10,000 years ago.

2.14 Having had woodland cover for centuries and being relatively undisturbed by human activity they have evolved into complex communities of trees, plants, fungi, microorganisms and insects. Each ancient wood is unique, having its own local soil, environment, wildlife and cultural history. For this reason, ancient woodland is irreplaceable however ancient woods are in desperate need of protection. Once vast, they now cover just two per cent of the UK. Approximately half of what remains has been felled and replanted with non-native conifers and invasive species such as rhododendron. This can seriously damage their fragile ecosystems and smother the growth of delicate and rare woodland plants.

2.15 Ancient woodland includes ancient semi-natural woodland (ASNW), mainly consisting of trees and shrubs native to the site, usually arising from natural regeneration. Ancient wood-pasture and historic parkland is also included although it does not appear on the Ancient Woodland Inventory because the low tree density meant it didn't register as woodland on historical maps.

2.16 Where ancient woodlands have been felled and replanted with commercial timber such as conifers they are referred to as Plantations on Ancient Woodland Sites (PAWS). As they still harbour important remnant features of the ancient woodland (woodland specialist plants and relatively undisturbed soils) they can be restored through careful management.

2.17 Ancient woodland is afforded protection through the planning system and carries a higher level of protection in comparison with more recently established woodland. In the NPPF, when determining planning applications LPAs should refuse development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) unless there are wholly exceptional reasons and a suitable compensation strategy exists.[15]

2.18 Within the Borough there is ancient woodland in the A3(M) corridor, including land to the north of Scratchface Lane, in Tournerbury Wood on Hayling Island, land east of Hulbert Road and further north at Bell's Copse. The Queen's Inclosure at Waterlooville and Havant Thicket are predominantly PAWS.

2.19 Advice on how to handle planning applications affecting ancient woodlands is set out in Natural England and the Forestry Commission's Standing Advice on Ancient Woodlands and Veteran Trees[16]. The Standing Advice includes distances for 'buffer zones' to avoid root damage and that they should contribute to the wider ecological networks and be part of the green infrastructure of the area. The Standing Advice is a material consideration when dealing with planning applications. There is also an Assessment Guide that can be completed by applicants and local planning officers

[15] NPPF paragraph 175. Exceptions for example, are infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.

[16] Standing Advice on Ancient Woodland and Veteran Trees: protecting them from development was updated in November 2017 and amended on 4 January 2018.

for further support in assessing these applications. The Woodland Trust has also published a Planners' Manual for Ancient Woodland and Veteran Trees[17].

Priority Species

2.20 UK priority species were those that were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP). The original list of UK BAP priority species was created between 1995 and 1999. In 2007, however, a revised list was produced, following a 2-year review of UK BAP processes and priorities, which included a review of the priority species and habitats lists. Following the review, the list of UK BAP priority species increased from less than 600 to 1,150.

2.21 Knowledge of the presence or absence of any species is never complete. Populations are dynamic; they fluctuate across the landscape, from year to year and decade to decade. Consequently, it is impossible to have a 100% accurate picture of the species in an area. The original core output indicator as requested in government guidance on local authority performance was to measure change in status of species resulting from the impact of planning and development. However, this is not an obtainable figure as it is extremely difficult to isolate a single causal factor and most change is due to the ongoing and cumulative impacts of agricultural practice, climate change, urbanisation, and disturbance from recreation.

2.22 The Hampshire Biodiversity Information Centre (HBIC) acts as a repository for species data gathered during its surveys, surveys by the Hampshire and Isle of Wight Wildlife Trust and others, but although decades of wildlife recording by amateur experts, professionals and members of the public have led to a good idea of how Havant's species are distributed a comprehensive list has not been produced since 2010[18]. Available species data was used to identify 'cluster' sites with records for priority species in the Borough as those species are good indicators of the general ecological health of an area. Not surprisingly most of the clusters corresponded closely with the areas of priority habitat described above. While the maps of cluster sites also indicate recorder effort as much as they indicate true species distribution, they are none the less valuable in identifying areas of high biodiversity.

2.23 HBIC holds over 6 million species records for Hampshire, a number that is increasing rapidly, particularly as technology for on-line recording improves. Whilst it can be difficult to detect species trends at the County level, let alone at a district level, a suite of 50 species have been chosen for which there appears to be good data and for which there is wide geographic spread. Of the 50 species, 30 are UK Priority species and are listed on S41 of the NERC Act 2006, the remainder are on the Hampshire Biodiversity Action Plan list. Rarer species were excluded on the basis they have such a restricted distribution that their relevance to the reporting process would be fairly limited. The bias towards vascular plants, birds, and moths and butterflies reflects the large data-sets that already exist for these groups and the ongoing programme of data acquisition. These groups are also sensitive indicators of environmental change and are being used by Government agencies and various Non-Governmental Organisations (NGOs) for their reporting purposes.

2.24 It has been agreed by Hampshire organisations that population trends for the 50 species should only be gathered every 5 years on the basis that it was too difficult to pick out long term trends in population numbers against short term impacts such as an extra cold winter or very wet spring,

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[17] Practical Guidance – Planning for Ancient Woodland – Planners' Manual for Ancient Woodland and Veteran Trees: Woodland Trust (October 2017)

[18] See Appendix 1 of the Havant Biodiversity Action Plan 2011

particularly for some of the more under-recorded species. Plus, many major surveys for particular species are often repeated in a comprehensive manner at 5-year intervals rather than every year.

2.25 The outcome is that some districts have gained or lost 1-2 species, possibly more due to increased or decreased recording effort rather than any change in distribution through changes in land management and/or climatic conditions.

2.26 The Table 6 below indicates the recorded occurrence of those from the list of 50 notable species found within Havant Borough. As a selective snapshot it is an indication but does not present a comprehensive picture of Havant's priority species. In particular, it does not include the Bechstein's bat which is one of the rarest bats in western Europe.

Scientific Name	Common Name	Group	Trend (2007-2017) at Oct '17	Borough Incidence
Triturus cristatus	great crested newt	Amphibians	Decline	
Bombus humilis	brown-band.carder bee	Bees	Stable	✓
Lucanus cervus	stag beetle	Beetles	Stable	✓
Alauda arvensis	skylark	Birds	Decline	✓
Branta bernicla bernicla	dark-bellied Brent goose	Birds	Stable	✓
Caprimulgus europaeus.	nightjar	Birds	Stable	✓
Lullula arborea	woodlark	Birds	Stable	✓
Luscinia megarhynchos	nightingale	Birds	Decline	✓
Emberiza calandra	corn bunting	Birds	Decline	✓
Perdix perdix	grey partridge	Birds	Decline	✓
Pyrrhula pyrrhula	bullfinch	Birds	Stable	✓
Streptopelia turtur	turtle dove	Birds	Decline	✓
Sylvia undata	Dartford warbler	Birds	Increase	✓
Tringa totanus	redshank	Birds	Decline	✓
Vanellus vanellus	lapwing	Birds	Decline	✓
Argynnis paphia	silver-washed fritillary	Butterflies	Increase	✓
Cupido minimus	small blue	Butterflies	Fluctuating	✓
Hamearis lucina	Duke of Burgundy	Butterflies	Decline	
Hesperia comma	silver-spotted skipper	Butterflies	Decline	
Lysandra coridon	chalkhill blue	Butterflies	Fluctuating	✓
Plebejus argus	silver-studded blue	Butterflies	Stable	
Gammarus insensibilis	lagoon sand shrimp	Crustacea	Stable	
Coenagrion mercuriale	southern damselfly	Dragonfly	Decline	
Asilus crabroniformis	hornet robberfly	Flies	Stable	
Carex divisa	divided sedge	Flw Plants	Decline	✓
Chamaemelum nobile	chamomile	Flw Plants	Decline	✓
Epipactis phyllanthes	Green-flowered. helleborine	Flw Plants	Decline	
Gentiana pneumon.	marsh gentian	Flw Plants	Fluctuating	
Juniperus communis	juniper	Flw Plants	Decline	
Lithospermum arvense	field gromwell	Flw Plants	Decline	

Scientific Name	Common Name	Group	Trend (2007-2017) at Oct '17	Borough Incidence
Oenanthe fluviatilis	river water-dropwort	Flw Plants	Decline	
Orchis morio	green-winged orchid	Flw Plants	Decline	✓
Pulicaria vulgaris	small fleabane	Flw Plants	Fluctuating	
Pulmonaria longifolia	narrow leaved lungwort	Flw Plants	Decline	
Thesium humifusum	bastard toadflax	Flw Plants	Decline	✓
Zostera marina/noltii	eelgrass	Flw Plants	Stable	✓
Poronia punctata	nail fungus	Fungi	Decline	
Gomphocerippus rufus	rufous grasshopper	Grasshopper	Stable	
Arvicola terrestris	water vole	Mammals	Stable	✓
Eptesicus serotinus	Serotine bat	Mammals	Decline	✓
Lepus europaeus	brown hare	Mammals	Stable	
Muscardinus avellan.	dormouse	Mammals	Decline	✓
Vertigo moulinsiana	Desmoulin's whorl snail	Molluscs	Stable	
Apoda limacodes	festoon	Moths	Increase	✓
Catocala promissa	light crimson underwing	Moths	Stable	
Hemaris fuciformis	broad-bord. bee hawk	Moths	Fluctuating	
Hypena rostralis	buttoned snout	Moths	Increase	✓
Minoa murinata	drab looper	Moths	Decline	
Shargacucullia lychnitis	striped lychnis	Moths	Stable	✓
Coronella austriaca	smooth snake	Reptiles	Unknown	
			Total	**28**
			Previous total	**27**

Table 6: Distribution of the 50 Hampshire Notable Species from 2007 to 2017

Key

'✓' means the species occurs (possible/confirmed breeding or regular sightings in the area) in the District (2005-2015), from records held by HBIC and those received from the species groups.

Irregular or transient records are discounted where possible or given '✓' where 3 or less records.

'✓' means new record (or returning)

'×' means no longer falls within reporting period.

Source: HBIC Annual Monitoring Report 2016/17

Bechstein's Bat

2.27 The rare Bechstein's bat *Myotis bechsteinii* is endangered in several countries and with populations reported to be in decline. Being most closely associated with mature deciduous woodland for roosting and feeding these bats have recently been found in locations within the Borough. The presence of this species may present a significant constraint to built development or other land-use change. The presence of this species can only be determined using specialist survey techniques. There is therefore a requirement for careful consideration of potential impacts.

Key action for the Havant Borough Local Plan 2036	
✓	A policy is needed to specifically highlight the protected species in the Borough and ensure their continued protection. Whilst there is national guidance and a licensing regime in place, the specific local populations warrant a specific Local Plan policy.

3. Special Protection Areas

Introduction

3.1 The Solent supports internationally-significant numbers of overwintering waders and wildfowl, in particular dark-bellied brent geese. These birds come during the winter (October to March) to feed and roost on the Solent's intertidal and terrestrial habitats before returning to their summer habitats to breed. To safeguard these regularly occurring migratory bird species, which are classified as rare and vulnerable[19], three Special Protection Areas (SPAs) have been designated in the Solent in accordance with Article 4 of the European Commission (EC) Bird Directive[20]. These three SPAs are:

- Solent & Southampton Water;
- Portsmouth Harbour; and
- Chichester & Langstone Harbours.

3.2 The SPA of relevance for Havant Borough is the Chichester & Langstone Harbours SPA.

3.3 Special Areas of Conservation and Ramsar sites are designated for the presence of plant species. Due to the fact that the SPAs are designated for wildfowl and waders, development outside of the physical extent of the designated site has the potential to impact on the SPAs and the species they support. As such, particular consideration must be given to their preservation.

3.4 In particular, recreation caused by increasing population can threaten the ability of SPA species to effectively feed over the winter. This can be caused by a general increase in recreation at the coast from population across the Solent area. However in some specific areas, where SPA species use sites on land at high tide, new development can have a particular impact.

Solent Waders & Brent Geese

3.5 Within the Chichester and Langstone Harbours SPA several species of birds are protected. For the wintering season these are: bar-tailed godwit, common redshank, common shelduck, dark-bellied brent goose, dunlin, Eurasian curlew, Eurasian teal, Eurasian wigeon, grey plover, northern pintail, northern shoveler, red-breasted merganser, ringed plover, ruddy turnstone, sanderling. For the breeding season these are: common tern, little tern, sandwich tern.

3.6 The dark-bellied brent goose (*Branta bernicla bernicla*) is a winter visitor to the Solent from its breeding grounds in Siberia. Virtually the entire world population winters in north western Europe. In nature conservation terms the species is of high international importance and is regarded as vulnerable because of the relatively small size of the world population, which has a highly variable breeding success. At their winter peaks, the population of Brent Geese in Chichester and Langstone Harbours in the five winters up to 2010 represented about 13% of the national population and 6.5% of the international population.

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[19] As listed in Annex I of the Birds Directive.
[20] Directive 2009/147/EC on the Conservation of Wild Birds (the ''Birds Directive'').

3.7 Brent Geese traditionally winter on coastal mud flats where the availability of food, such as marine grasses and algae, depends on factors including the harshness of the winter and pollution as well as the tidal regime which exposes the mudflats for varying periods. During high tide, and when the availability of natural food sources is low, Brent Geese move inland to feed on farmland (cereals and pasture), and also amenity grasslands and sports pitches. Brent Geese prefer large open sites where they have clear sight-lines and short, lush grass for grazing. They use a great deal of energy travelling between feeding areas, so tend to preferentially select sites adjacent to the coast. The suitability of terrestrial sites for Brent Geese therefore depends on distance from the coast, the size of the grazing area, the type of grassland management, visibility and disturbance. Brent goose populations within the Solent depend upon the presence of intertidal habitats within protected areas and terrestrial habitats outside these protected areas.

3.8 Many species of wading birds migrate thousands of miles to overwinter in the UK, whilst others remain to breed (albeit in small numbers in the Solent). Several waders are passage migrants travelling annually from as far afield as the Arctic and Siberia, refuelling in the UK to carry on further to southern Europe and Africa. The Solent coastline provides an internationally-important wintering area for an average of over 90,000 waders annually[21].

3.9 The Solent's intertidal habitats, its mudflats, shingle and saltmarsh provide vital feeding and roosting grounds. The pattern of movement of wading bird communities is dependent on time of day, tidal water movements and weather conditions. Most species feed at low tide and roost at high tide. Natural roosting sites include saltmarsh areas, shingle banks and coastal grasslands. Waders are also known to roost on man-made structures such as boats, wharfs, jetties and piers. Roosting sites tend to be close the coast, perhaps no more than 100 metres from mean high water. They are usually situated away from sources of disturbance, such as housing and industry, and have good visibility.

Current approach to the protection of Solent Waders & Brent Geese

3.10 Local Authorities in the Solent have worked collaboratively with other organisations to protect the Solent's Special Protection Areas and the terrestrial sites used by SPA species. This started in 2002 with the publication and implementation of the original Solent Brent Goose Strategy. This was updated with the 2010 Solent Waders and Brent Goose Strategy. In 2018, a new strategy[22] has been published which significantly updates the previous strategy in terms of the data used to identify sites and the level of protection given.

3.11 To provide the data necessary to develop the Solent Waders and Brent Goose Strategy, survey work was undertaken with the following aims:

- To document the locations of extant feeding sites for Brent Geese and high-water roost sites for wading birds, especially those outside the intertidal habitats of the Solent coastline.
- To identify the network of currently used sites.
- To characterise the features of highwater roosting sites and feeding sites in order to identify potential areas for creation of alternative roosting and feeding sites.

[21] BTO WeBS Core Counts, 2001- 2006
[22] Available at solentwbgs.wordpress.com.

- To identify sites vulnerable to sea level rise and explore the effects of development pressure and significant changes in coastal management on the current resource.

3.12 The Solent Waders and Brent Goose Strategy 2010 set out a series of recommendations phrased in the form of draft policies for LPAs to consider in developing their Local Plans. Local Plans, including the Havant Borough Local Plan (Allocations) July 2014, took these on board in their development management policies with their locations designated as 'important' or 'uncertain' on the Policies Map[23].

3.13 To continue the evidence base and reduce the level of uncertainty over the importance of some sites as high tide wader and Brent goose foraging and roosting areas, the Borough Council commissioned further surveys from HBIC. These were undertaken during the winters of 2012/13, 2013/14 and 2014/15 and the results were published in the Havant Winter Bird Survey 2012-2015 (HBIC, May 2015). The site by site analysis included a suitability score (from very low to high) with comments on both suitability and recommendation for enhancement potential.

3.14 An update was carried out for the winter of 2015/16, concentrating on a limited number of sites close to proposed development sites so that they could be surveyed more frequently during the season. The results were published in the Havant Wintering Brent Goose and Wildfowl Survey 2015-2016 (Joel Miller, HBIC).

3.15 Following this a critical review of selected sites was undertaken to explore their status based on survey records, to identify sites with potential to be affected by future development and those that could be potential options for mitigation measures. The report, The Status of Solent Waders & Brent Goose Strategy Sites in Havant Borough in 2016 was published by HBC in the summer of 2016 alongside the Draft Local Plan Housing Statement.

3.16 Most sites were selected as they fell within, or were in close proximity to, potential development sites within the Borough. Others were selected due to their potential to shape any future strategic approach to wader and Brent Goose site protection. Of the 100 selected sites, only six were classified as 'important' sites for either Brent Geese or waders. The remaining 94 were either 'no recorded use' or 'uncertain'.

3.17 That classification of sites was found not to be a definitive analysis of their importance for Brent geese and waders. Indeed, many sites supporting very large numbers of birds had been classified as 'no recorded use' or 'uncertain' while other sites had been subject to field surveys over several years which found no or very few positive records of any birds. In the latter case, it is highly likely that they are unsuitable for use being either unsuitable in the first place or having become so due to land-use change.

3.18 Those anomalies in classification were considered to hinder planning decisions both at the strategic (local plan) level and the site (planning application) scale. This situation was found to apply to several large potential development sites in the Borough with implications for which sites could be brought forward for development to address housing need.

3.19 The adopted Local Plan Policy DM23 requires that where a negative impact on an 'important' site cannot be avoided or satisfactorily mitigated, replacement feeding/roosting habitat on a no net loss basis is sought. For development proposals on or adjacent to an 'uncertain' site, up to three years of surveys are required to determine that the site has no importance for Brent Geese or waders.

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[23] Policies DM23 Sites for Brent Geese and Waders & DM24 Recreational Disturbance to SPSs from Residential Development

However, sites with currently-unsuitable land use (e.g. where cropping/grazing patterns are not suitable) cannot be surveyed and in any case, it is considered that resources would be better applied to securing meaningful protection of key sites and identifying the network of sites used by birds.

3.20 The review found that while key important sites are known, the relationships between these sites and most of the uncertain sites are not. Also, there is an absence of data on bird movements, such that information on local bird populations and their favoured sites is unknown, or not available. The report therefore concluded that the existing data is insufficient to be able to confidently identify a coherent network of sites which encompasses key important sites and those which are used as secondary areas. However, suggestions were made for specific sites and locations for reclassification and resurvey to address these inconsistencies.

3.21 On Hayling Island, most wader and Brent Goose sites are under rotational cropping patterns and therefore bird use is highly complex. However, the review considered that a network of sites on Hayling Island must be maintained, with effort made to secure suitable crop management to allow a continuum of available habitat within and between years. A similar network should be sought on the mainland, where available space is a significant constraint, to identify and maintain a coherent network of sites. The review concluded that even for sites not currently in suitable land use, development can provide a mechanism for securing at least some suitable habitat in perpetuity.

Bird Aware Solent

3.22 Local authorities across the Solent, in collaboration with Natural England and other organisations have developed a robust evidence base regarding the collective impact of new development on the Solent's Special Protection Areas. This specifically relates to the increase in recreation that takes place as a result of population rise due to new development.

3.23 Research was commissioned through the Solent Disturbance and Mitigation Project from 2009 to 2013 to study visitor access patterns, how visitors affect the birds and the likely impact of further housebuilding. The research included:

- A desktop research of existing national and local research;
- A survey of visitors at the coast;
- A survey of households across the Solent area about their use of the coast;
- Fieldwork to assess how birds respond to disturbance events; and
- Computer modelling to establish whether, and to what extent, planned housebuilding would lead to increased bird disturbance.

3.24 The research found that the Solent shoreline receives 52 million visits per annum from residents and tourists with over 1.4 million people living within a 10-minute drive. Most visitors travel relatively short distances, around six miles, with dog walking the most frequent activity followed by walking, cycling and jogging. The presence of people can result in disturbance to the birds, albeit often unintentional. These disturbances reduce the birds' opportunities to feed which can mean they have insufficient energy to survive the winter or to complete their migratory journey to their summer-time habitats. As such, the research determined that substantial house-building around the Solent, much of it within a short distance from the coast, would result in an increase in the number of residents visiting the coast for recreation and, therefore, a subsequent increase in bird mortality.

3.25 Natural England advised at the time that this research:

"represents the best available evidence, and therefore avoidance measures are required in order to ensure a significant effect, in combination, arising from new housing development around the Solent, is avoided".

3.26 In recognising the potential human disturbance to SPA bird species from an increasing resident population and the human desire to access the coast for recreation, Havant Borough Council, along with nature bodies and the other Solent LPAs[24], formed the Solent Recreation Mitigation Partnership (SRMP) in early 2014. The aim of the partnership was to implement mitigation measures which would enable housebuilding to proceed without having an impact on the three SPAs.

3.27 The SRMP recognises that public access to the coast supports jobs in recreation-related business and provides widespread benefits to human health, education and general wellbeing. Therefore, the SRMP's aim is to maintain public access but with measures to ensure that conflict between people and nature conservation interests, including SPA bird species, are minimised.

3.28 The SRMP prepared an Interim Solent Recreation Mitigation Strategy - an interim framework to mitigate the impact on the Solent SPAs of increased visitor pressure arising from housebuilding - which was endorsed and published by PUSH in December 2014. This document summarised the background research and set out the interim mitigation measures, explaining how they will be funded and providing the basis for charging developers a contribution towards the measures of £172 per dwelling for new homes within 5.6km of the coast. It also described how implementation of the measures would be monitored.

3.29 This was followed by the Solent Recreation Mitigation Strategy (SRMS) which was endorsed by the PUSH Joint Committee in December 2017 and approved by the Council's Cabinet in February 2018[25]. In line with the other LPA members of the SRMP Havant Borough Council started implementing the strategy from 1st April 2018. This strategy revised the financial contribution required to be paid by developers to an equivalent of £564 per dwelling, charged on a sliding scale calculated from the number of bedrooms. Indexation will be applied on 1 April each year following.

3.30 The money raised is then used to:

- Raise awareness and understanding of the Solent's birds and the threats they face to encourage positive changes in the behaviour of coastal visitors via the Bird Aware Solent[26] Ranger Team through various methods[27];
- Encourage responsible dog walking to avoid bird disturbance via a dedicated member of staff and other communication methods;
- Develop Codes of Conduct in conjunction with user groups and clubs for both water-based and land based recreation activities; and

[24] Chichester District Council, East Hampshire District Council, Eastleigh Borough Council, Fareham Borough Council, Gosport Borough Council, New Forest District Council, New Forest National Park Authority, Portsmouth City Council, Southampton City Council, Test Valley Borough Council and Winchester City Council along with Environment Agency (EA), Hampshire and Isle of Wight Wildlife Trust (HIWWT), Natural England (NE) and the Royal Society for the Protection of Birds (RSPB).
[25] Cabinet on 8 February 2018.
[26] Bird Aware Solent is the public-facing brand of the SRMP. For further information: http://www.birdaware.org/home
[27] E.g. direct engagement, the erection of signs and interpretation panels, website, Facebook, Twitter, educational material for schools, press releases etc.

- Implement site-specific visitor management and bird refuge projects to better manage visitors while providing secure habitats for the birds[28].

3.31 Further detail on the mitigation measures is available in the Solent Recreation Mitigation Strategy.

3.32 Moving forwards, the scaling up and successful rolling out of the mitigation package is key to its success. As such, the Council should make sure that sufficient time and resources are put into the partnership to contribute to its continuing success. Given that Havant is one of the coastal authorities in the partnership, part of his work will be to make sure that there is a set of shovel ready schemes which can benefit from the site specific visitor management measures. This will involve working collaboratively with the Eastern Solent Coastal Partnership in particular. When coastal defences are replaced or maintained, there is an opportunity to cost effectively include measures such as screening to the intertidal, bird refuges and interpretation that can provide efficient mitigation.

Key action for the Havant Borough Local Plan 2036	
✓	The Council should continue to play an active role in the Bird Aware Solent Partnership
✓	A specific policy in the Local Plan will be needed to refer to the Solent Recreation and Mitigation Strategy so that it can effectively inform the development management process.

Solent Local Growth Deal

3.33 Also, part of the package of mitigation measures but funded separately29 from the developer contributions is the provision of new/enhanced strategic greenspaces. Known as Suitable Alternative Natural Greenspaces (SANGs), these are situated in less sensitive areas and will be promoted as alternatives to visiting the coast.

3.34 A number of green spaces have already benefited from this funding stream. This includes the Hayling Island Brent Goose Refuge (see below). This will contribute to the delivery of the refuge in part, although to deliver the project in its entirety will also require funding from other developments.

Key action for the Havant Borough Local Plan 2036	
✓	The Council should continue to investigate opportunities to bid for Solent Local Growth Deal funding for relevant projects

[28] E.g. fencing or planting to discourage visitors from accessing particularly sensitive spots, footpaths to skirt around vulnerable sites.
[29] Current projects are funded through the Solent Local Growth Deal with complementary funding from the local authority which is implementing it but could be provided as part of a large housing scheme and funded by the developer.

Functionally Linked Land

3.35 In the winter period (October to March), especially during high tide periods, Brent Geese and other Solent Waders utilise the arable and grassland outside the boundaries of Chichester & Langstone Harbours SPA and Ramsar site. This non-SPA land is termed 'Functionally Linked Land' (FLL).

3.36 These FLL habitats service a function to the bird species by providing feeding and resting opportunities. The use of inland sites by Brent Geese is a relatively recent phenomenon (late 20th century) and is believed to be the result of population increase and a corresponding depletion of traditional intertidal food sources such as eelgrass (*Zostera* spp.)[30]. It is considered that the nutritional value of agricultural habitats is also advantageous for birds as opposed to intertidal areas. The high protein and carbohydrate intake from agricultural produce is required by the geese in the immediate post-migration period to replenish depleted levels[31]. It is expected that this phenomenon may increase in future years due to a combination of coastal squeeze and Brent Goose population growth.

3.37 Under the Habitats and Birds Directives[32], FLL is viewed as analogous to a designated site (e.g. an SPA) due to the important role it plays in maintaining species' populations at a favourable conservation status. Moreover, advice from Natural England regarding Functional Linkage to a European Site[33], along with Regulation 63 of the Habitats Regulations 2017, confirm that any potential impact upon FLL would require a project-level Habitats Regulations Assessment (HRA).

Conflict

3.38 The use of FLL by SPA bird species can conflict with existing land-uses. As discussed above, agricultural land provides nutritional value for bird species post- and pre-migration; however, species can cause damage to crops through grazing and trampling. It is also important to note that agricultural areas are subject to the economic vagaries of market forces, meaning that there are no guarantees that a field will be in a suitable land-use every winter. For example, Brent Geese favour rape and wheat crops as opposed to soya, peas and linseed.

3.39 Notwithstanding the above, a substantial amount of house-building is planned around the Solent to meet future housing need and to support the sub-regional economy. More specifically, the Partnership of Urban South Hampshire (PUSH) Spatial Position Statement (PUSH, 2016) sets out the need to build around 121,500 new homes across South Hampshire between 2011 and 2036. Left unchecked, the development of land for housing will impact on the FLL used by the SPA bird species. In addition, research has shown that increased recreational activity on the coast, due to population increase associated with new homes, will impact on the SPA bird species.

3.40 The Conservation of Habitats and Species Regulations 2017 (''the Habitats Regulations'') requires that there is no likelihood of a significant effect on a SPA before a development can proceed (either through its allocation in a local plan or the granting of planning permission). An effect is judged to be significant if it impacts the presence, function or distribution of the habitats or species for which the

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[30] Salman and Fox, 1991; Rowcliffe and Mitchell, 1996
[31] McKay *et al*., 1994
[32] Article 4(4) of the Birds Directive states ''outside these protection areas, Member States shall also strive to avoid pollution or deterioration of habitats''. This means that that Articles 6(3) and 6(4) of the Habitats Regulations apply to supporting habitat and must be considered within a Habitats Regulation Assessment (HRA).
[33] Functional linkage: How areas that are functionally linked to European sites have been considered when they may be affected by plans and projects – a review of authoritative decisions (NECR207), Natural England, 29 February 2016

site has been designated. If it cannot be shown that no harm would occur to a SPA from any plan, policy or project, either on its own or in combination with other plans, policies or projects, then it would be unlawful for a local planning authority (LPA) to grant planning permission for new housing or allocate sites in a local plan.

3.41 Avoidance and mitigation measures can be used to remove the likelihood of any significant effect that might have otherwise taken place. Where there is potential for impacts to a European designated site, development plans and policies, as well as individual development proposals, must be subject to a Habitats Regulations Assessment (HRA) to ensure that the potential impacts are understood. Where impacts are anticipated, the plan, policy or proposal should be amended to avoid the impacts and screen them out. Where impacts cannot be reasonably avoided, mitigating or compensatory measures will be required. A recent judgement by the Court of Justice of the European Union[34] means that mitigating measures cannot be taken into account during the initial screening stage of HRA and therefore, unless there will be no impact, the HRA must conclude that impacts are likely and include detailed mitigating measures.

3.42 This chapter highlights the bird species associated with the Chichester & Langstone Harbours SPA European designation, along with the conflicts that emerge between the protected birds and human activity. More specifically, these conflicts are:

- Conflict between SPA birds and human recreation;
- Conflict between SPA birds and land for housing; and
- Conflict between SPA birds and farmers.

3.43 In recognising the above, the chapter outlines the strategies currently in place to overcome these conflicts in the decision-making process and how these should be incorporated into the emerging HBLP 2036. The findings of these strategies, along with academic research, are then used to justify the establishment of permanent Solent Wader and Brent Goose (SWBG) Refuges as part of the emerging HBLP 2036. The combination of such strategies and refuges will mean that development can take place to meet Havant Borough's housing and employment needs, while ensuring no likelihood of a significant impact on the SPA bird species and the potential for net biodiversity gain.

3.44 The Solent Wader and Brent Goose Strategy (2018) has been produced by the SWBGS steering group[35], which includes representatives from wildlife and conservation organisations, with funding from local planning authorities and other organisations. It aims to protect the network of non-designated terrestrial sites that support the SPA/Ramsar wetlands of the Solent coast and their wading birds and Brent Goose populations from land take and recreational pressure associated with new development.

3.45 The purpose of the SWBG strategy is to raise awareness of the use of non-SPA land (i.e. Functionally-linked Land or supporting habitat) by SPA bird species and ensure that this land is taken account of within land-use planning. The preferred approach is for development to be located outside the network of sites. However, in recognising the balance between the economic, social and environmental objectives of sustainable development, it is acknowledged that development on some SWBG sites may be necessary. Should sites come forward for development, to ensure that the SWBG network is protected and, where possible enhanced to achieve net biodiversity gain, the

[34] People Over Wind and Sweetman v Coillte Teoranta (C-323/17) (12 April 2018)
[35] Including Hampshire and Isle of Wight Wildlife Trust (HIWWT), Natural England (NE), Royal Society for the Protection of Birds (RSPB), Hampshire County Council (HCC) and the Eastern Solent Coastal Partnership (ESCP).

SWBG strategy sets out the mitigation and off-setting requirements needed to inform assessments of plans and projects made under the Habitats Regulations.

3.46 The first strategy was published in 2002 and focused on Brent Geese in the eastern harbours of the Solent while the 2010 update covered Brent Geese, along with other wading bird populations, over the entire Solent. The SWBG Strategy has undergone a refresh in the period 2016-2018, with a shift in emphasis from simply identifying the sites used by birds to the understanding of how these sites are used and how well they are linked. This has helped to identify the network of sites around the Solent and determine which sites are most valuable and why. In essence, the level of mitigation and off-setting required is dependent on the importance of the site within the ecological network and how these non-designated sites support the wider designated Solent SPA network.

3.47 A new system of classifying SWBG sites has been developed as well as a framework for mitigating measures. These site classifications are shown in Figure 2 below and are as follows:

- Core Areas
- Primary Support Areas
- Secondary Support Areas
- Low Use Sites
- Candidate Sites

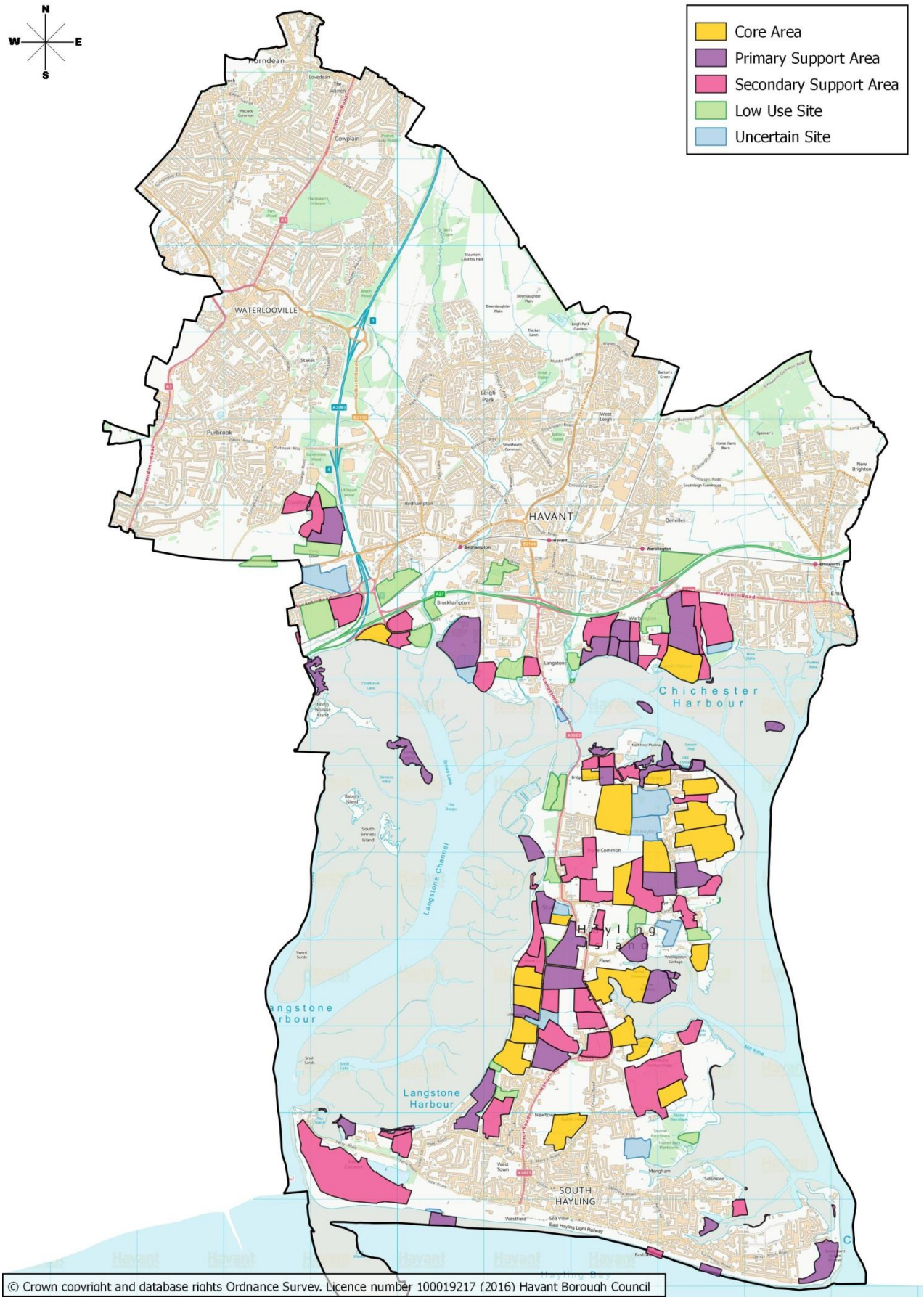

Figure 2 - Brent Goose and wader feeding and roosting sites in Havant borough

3.48 A breakdown of the SWBG Strategy (2018) site classifications is provided below:

Core Areas

3.49 Core Areas are considered essential to the continued function of the Solent waders and Brent Goose (SWBG) ecological network. This is because they have the strongest functional-linkage to the designated Solent SPAs in terms of their frequency and continued use by SWBG. Therefore, the unmitigated loss of a Core Area must be resisted due to the negative impacts this would have on the integrity of the SPAs.

3.50 It is considered difficult to replace Core Areas as there are limited opportunities available for alternative sites in close proximity to the SPA. However, the SWBG Strategy (2018) states that where sufficient suitable and appropriately located land is available the provision of a suitable alternative site(s) may be possible.

3.51 To establish whether a replacement habitat is, indeed, suitable, an assessment of replicability must to be undertaken. The assessment will need to examine site classification criteria[36] to determine the Core Area's ecological function and, from this, ensure that the replacement habitat can replicate this function. The criteria for replacement of Primary Support Areas must be met along with the need for replacement habitat to be of equal, or greater, size and quality. Also, the freehold or leasehold of the replacement site must be passed to an appropriate conservation body, or the LPA, in a suitable condition and managed in perpetuity[37] as a nature reserve for waders and/or Brent geese.

3.52 Where sites support a collection of species, it will also need to be shown that the ecological functions of each species can be replicated on the replacement habitat. As such, development proposals on Core Areas must only be considered through a local plan and applicants will need to engage with Natural England and the Council's Ecologist at the earliest opportunity.

Primary Support Areas

3.53 Primary Support Areas are land parcels that, when in suitable management, make an important contribution to the function of the Solent wader and Brent Goose (SWBG) ecological network. These areas can, on occasion and when in suitable management, pass the threshold for classification as a Core Area. Therefore, like Core Areas, the unmitigated loss of a Primary Support Area must be resisted due to the negative impact this would have on the SWBG ecological network and, thus, the integrity of the Chichester & Langstone Harbours SPA.

3.54 The SWBG Strategy (2018) considers that the loss or damage to a Primary Support Area from development may only be acceptable where such loss or damage is off-set. The options for off-setting impacts on a Primary Support Area must be considered on a case-by-case basis and will be subject to ensuring the continued ecological function of, and significant net benefits to, the SWBG network. This should be achieved through the creation and on-going management of a suitable replacement habitat which can fulfil the same contribution and ecological function, for the same species of bird(s), to that of the area being lost or damaged. Providing the above is secured, a replacement habitat may be either:

[36] For example, whether the Core Sites is classified as a network hub (with connections to lots of other sites) or a bottleneck (linking two areas of the network together), and/or has a max count of bird use of 1000 or more. For more details, please see the Solent Waders and Brent Goose Strategy (SWBGS).
[37] Minimum of 80 years.

- A site(s) identified within the SWBG Strategy; or
- A site(s), that if brought into appropriate condition, has the potential for future use.

3.55 An early assessment of viable offsetting replacement habitats, along with consideration of how the necessary management can be secured and delivered upfront, will need to be undertaken to ascertain the most suitable replacement habitat. As part of this, the assessment will need to outline how the proposed replacement habitat will meet the criteria (ranked in order of importance) set out in the SWBG Strategy (2018). As such, development proposals on Primary Support Areas must only be considered through a local plan and applicants will need to engage with Natural England and the Council's Ecologist at the earliest opportunity.

Secondary Support Areas

3.56 Secondary Support Areas are essential to secure a long-term, permanent solent wader and Brent Goose (SWBG) ecological network as they ensure a geographical spread of sites available to SWBG. As part of this, Secondary Support Areas offer a supporting function to the Core and Primary Support Areas. Although these sites are generally used less frequently by significant numbers of SWBG, they become important when the habitat is suitably managed and when the SWBG populations are higher due to larger numbers of juvenile birds.

3.57 The loss of, or damage to, a Secondary Support Area must be discouraged by the Council unless appropriate mitigation measures are secured. In this instance, the preferred approach is to offset the loss of a Secondary Support Area through the provision of a suitable replacement habitat on-site on a ''like for like'' basis and be within the locality to that being lost. However, as Secondary Support Areas are generally utilised less frequently than Core and Primary Support Areas (due to less optimal management, crop rotation patterns and/or disturbance), it may be acceptable in some cases for the replacement habitat to be located at a greater distance from the site. Advice on the latter would need to be sought from Natural England.

3.58 It is expected that in most cases the loss, or partial loss, of Secondary Support Areas will be off-set by the provision of suitable replacement habitats which are supported by an agreed costed habitat management plan and funding secured in perpetuity. Management may be delivered by a third party (e.g. HIWWT, RSPB, HCC or Local Planning Authority) or by a management company. Management agreements, management plans and financial arrangements will need to be put in place.

3.59 However, if replacement habitat is to be provided on a non-like for like basis (for example, smaller site/functional area to that being lost), then the applicant will also need to provide a financial contribution consistent with the terms set out in the SWBG Strategy (2018). The financial contribution will then be used by the Council for the management and enhancement of the wider SWBG ecological network.

Low Use Sites

3.60 Low Use Sites have the potential to be used by, and support the, Solent waders and Brent Geese (SWBG) ecological network. A such, the in-combination loss of these sites would impact on the continued ecological function of the network.

3.61 In all cases for development proposals, proportionate mitigation, off-setting and/or enhancement requirements will be needed. The preferred approach is to avoid and/or adequately mitigate the impact of development onsite. However, where this cannot be achieved, the applicant will need to provide a financial contribution consistent with the SWBG Strategy (2018). The financial contribution will then be used by the Council for the management and enhancement of the wider SWBG ecological network.

Candidate Sites

3.62 Candidate Sites have records of large numbers of Solent waders and/or Brent Geese (SWBG). However, these numbers have only been recorded on less than three occasions from 2006/07 to 2017/18. It is likely that these sites could be classified as Core, Primary Support or Secondary Support Areas; therefore, further surveys are necessary to determine the classifications of these sites.

3.63 The SWBG Strategy (2018) identifies Candidate Core, Candidate Primary Support and Candidate Secondary Support Areas. Developers of proposals which are likely to affect these sites will need to undertake survey work, in accordance with agreed survey methodology, to confirm the classification of a Candidate Site prior to assessing off-setting and mitigation requirements. The following amount of survey data, with the site in appropriate management conditions, will be required:

- A minimum of one-year survey; and
- Two-consecutive years survey where there has only been one survey to date.

3.64 The level of survey information will depend on the amount of existing survey data available. However, it is expected that applicants consult with Natural England and the Council's Ecologist at the earliest opportunity and follow the appropriate survey methodology set out in the SWBG Strategy (2018). Once the classification of a Candidate Site has been confirmed, the requirements for development on Core, Primary Support or a Secondary Support Areas (above) will need to be adhered to.

Indirect Effects

3.65 There is the potential for new development, adjacent to SWBG sites, to result in indirect effects on the ecological network. Indirect effects can reduce the use of adjacent SWBG sites and, therefore, reduce the feeding resource available. These effects can be the result of disturbance from recreational pressures, overshadowing and lighting from buildings, noise and visual disturbance from construction work. Therefore, in addition to the SRMS financial contribution outlined above, appropriate avoidance and mitigation measures will be required where new development, or changes to access and management, has the potential to adversely impact on the function of an adjacent SWBG site and, in doing so, the ecological network.

3.66 Appropriate mitigation will be required where new development or changes to access and management has the potential to adversely impact the function of the ecological network. Detailed consideration will need to be given to the design and layout of new development adjacent to sites used by SPA birds to ensure there is no disturbance. The level of mitigation necessary must be determined on a case-by-case basis to be discussed and agreed with Natural England and the Council's Ecologist. As part of this, consideration will be given to the classification, and how potential indirect effects could impact on the function, of the adjacent SWBG site.

3.67 Mitigation could include a range of access management measures such as, fencing, signage, interpretation and timings of works / construction /operation outside the core winter period (October to March inclusive). Consideration could also be given to improving the management of the site or, if this is not possible, improved management of an alternative site within the network. The provision of funding for wider management of the sites within the network is also an option for consideration.

3.68 In the instance where the indirect effects cannot be mitigated by access management measures and the potential for an adverse effect on the integrity of the adjacent SWBG site remains, the loss of the adjacent SWBG site's function would need to be off-set by a suitable replacement site.

Suitable Replacement Habitat

3.69 As set out by the SWBG Strategy (2018), land provided for replacement habitat will need to be made into a suitable condition, provided upfront[38] and managed specifically for SPA bird species. The strategy highlights that such replacement habitat should ideally be managed as a nature reserve owned or leased by a Non-Governmental Organisation (NGO) partner in perpetuity[39]. As part of this, the management of the land should be set out in an agreed costed Habitat Management and Monitoring Plan with sufficient funds provided to the agreed manager of the site to cover the costs. The preferred approach to secure long-term funding in perpetuity for all replacement habitat, as set out in the strategy, is to provide an endowment whereby interest is used for ongoing maintenance.

3.70 In securing the above, the SWBG Strategy (2018) sets out that the preferred approach is for acceptable schemes affecting Core Sites and Primary Support Areas to come forward through the local plan process rather than through speculative planning applications. This can ensure an early assessment of viable options, and subsequent allocation, of suitable replacement habitats. As part of this, the strategy suggests that LPAs could adopt a habitat banking approach to provide suitable replacement habitat to release SWBG sites for development. It is considered that a habitat banking approach could be utilised in Havant Borough through the establishment of permanent refuges for overwintering SPA bird species.

Key action for the Havant Borough Local Plan 2036	
✓	Include a specific policy to reflect the new Solent Waders and Brent Goose Strategy so that development management decisions can reflect the proposals in the strategy.
✓	The Local Plan should be clear that development that would affect a site identified in the strategy will need a bespoke, project level Habitats Regulations Assessment.

Previous Land Used for Overwintering SPA Bird Species Mitigation

3.71 Previous planning applications have been permitted where habitat enhancement and/or suitable replacement habitat has been secured though a S106 legal agreement. These enhancements/replacement habitats for Solent waders and Brent Geese (SWBG) were required to make development proposals acceptable in planning terms and ensure that there was no likelihood of a significant impact on the Chichester & Langstone Harbours SPA. As the provision of these mitigation sites was fundamental in making those specific developments acceptable in planning terms, their subsequent use for further development or mitigation would not be acceptable, as this would constitute 'double counting'. The development of such land would therefore contravene the Habitats Regulations.

3.72 These sites are set out in Table 7 below.

[38] This means making the land available prior to the loss or damage the SWBG area being proposed for development.
[39] The Solent Wader and Brent Goose Strategy (SWBGS) defines ''in perpetuity'' as a minimum of 80 years

Site Ref	Site Name and Location	Application Ref and development type	SWBGS Site(s) to be protected	SWBGS Classification (at present)
UE5	"One Eight Zero" Land at Portsdown Hill, west of Glebe Park Avenue	APP/14/00232 (46 dwellings)	H03	Candidate
UE21	"The Oysters" Land north of Station Road, Hayling Island	APP/15/00919 (76 dwellings and 1,000sqm of Land Use Class B1)	H34D H34E	Low Use Secondary Support Area

Table 7 – Existing Mitigation Land from Previous Planning Permissions

3.73 "The Oysters" development is an interesting example and therefore worth exploring in more detail as a case study and because there is a consequence for nearby land. The development is sited on the southern part of the former 'uncertain' SWBG Strategy site H34E. Mitigation was therefore required by policy DM23 to compensate for the loss of 2.5ha to development. The remaining 7.2ha of H34E was found to be used by Brent geese albeit not every winter but when the crop rotation provided young cereals or rape (not stubble or legumes) as these are of value to foraging geese. Site H34D of 1.5ha to the north was considered suitable for reversion to arable to compensate in part for the loss of H34E. Additional compensatory measures were required and therefore SWBG Strategy site H34C, lying to the west across the Hayling Billy Trail, was considered.

3.74 Winter surveys found evidence of the field being regularly used by dog walkers and other walkers as a short cut from the Hayling Billy Trail to the coast path, with holes having been created in the fence to access these desire lines. Surveys of H34C recorded target birds at the north end of the field and it was reported that:

"During surveys birds were seen to be flushed from the field on to the adjacent harbour by dog walkers. The southern part of the field was not found to support Brent Geese or waders on any of the survey visits".

And,

"It is possible that the southern and central part of the field is too enclosed with insufficiently long sight lines to be suitable for Brent Geese".40

3.75 In the light of these findings, the fact that the total area of H34C covers 11.8 ha, and the field is in the same cropping rotation as H34E, the mitigation measures proposed works to reduce disturbance (at least 5.8 ha in the northern part of H34C) and make it more attractive to foraging birds.

"when considered together, it is concluded that the enhancement of 1.5ha of H34D together with access management in H34C to make at least 5.8ha of the field more attractive to Brent geese is likely to compensate for losses of 2.5ha of H34E. Natural England and Hampshire County Council's ecologist agreed with this conclusion."41

[40] Land off Station Road, Hayling Island, Brent Goose Mitigation Strategy – Tyler Grange (11 September 2013), paragraphs 2.30 and 2.31

[41] Land off Station Road, Hayling Island, Brent Goose Mitigation Strategy – Addendum – Tyler Grange (17 October 2013), paragraphs 1.9

3.76 Requirements were therefore set out in an approved Brent Goose Mitigation Strategy for management and enhancement measures in compensation. These were:

- ensuring no access into the remainder of H34E from the new development;
- ensuring H34D is farmed in such a way (as H34E and H34C) that it supports suitable habitat for foraging geese and waders;
- maintaining clear, open sight lines between H34D and H34E; and
- controlling access from the Hayling Billy Trail onto H34C, with fencing to prevent residents and their dogs gaining access and recreating informal paths within the field.

3.77 As part of the ongoing Winter Bird Survey programme undertaken for the Council by HBIC, site H34C was surveyed from mid-November 2017 to February 2018. The HBIC results report (unpublished) stated that the suitability of H34C for SWBG is high as it is directly adjacent to the coast, however, it also concluded that:

"H34C is a large field which could legitimately be considered as two separate sites. There is a bottleneck near the centre of the site created by a wood, which potentially forms a visibility barrier for the target birds. In this survey, the location of the birds within the field was recorded and there was only 1 positive sighting (of 1 oystercatcher) within the southern part. This southern part does appear to be less used by target birds".

3.78 During the winter 2017/18 SWBG were recorded on the northern parcel of H34C despite the use of a bird scarer by the farmer following '*considerable'* damage to the winter wheat in this area from foraging Brent Geese. Although it is considered that the lower level of Brent Goose sightings in the northern parcel compared to previous years was due to the bird scarer, the survey still demonstrated that the majority of SPA bird use on H34C is in the northern parcel. This aligns with the findings of the agreed mitigation strategy for the development of The Oysters.

3.79 The HBIC Winter Bird Survey 2017/18 report (unpublished) also concluded that:

"Development of the southern area could lead to increased public access and disturbance problems. The northern part of the site already receives a fairly high level of public access (especially for private land) as there are paths running up two sides of the field. An unofficial path is also used across the northern edge to link the two footpaths. Dogs off lead were noted running across the northern part of the site. If the southern part was developed for housing then this public use would most likely increase. This would affect the use of the northern area by the target birds as well as have an impact on other nearby habitats, such as the two small stands of woodland (valuable habitat in such a coastal setting). Mitigation work should look to enhance nearby Solent Strategy sites to offset the potential loss of wildlife value of H34C as well as steps taken to minimise public access".

3.80 It may be concluded therefore that based on observations and various surveys which show that the clear majority of SPA bird use is in the northern parcel of H34C only, any future safeguarding of H34C as part of mitigation measures for further development should be limited to the northern part of the field. The northern parcel of H34C is further considered below as a potential Overwintering SPAS Bird Refuge (see Site 5).

Key action for the Havant Borough Local Plan 2036	
✓	The Council should continue to monitor mitigation schemes for the Solent SPAs coming through planning permissions to avoid any double counting.

Refuges for Overwintering SPA Bird Species

3.81 To address and overcome the conflict between SPA bird species, farmers and land for housing, research into goose foraging habitats, along with the identification of land for potential refuges, has been undertaken. It is considered that the provision of permanent refuges for SPA bird species, especially Brent geese, is an achievable measure which could provide net biodiversity gains to the Chichester & Langstone SPA. Permanent refuges could be used as a means of mitigating the impacts of planned development and securing, permanently, high-quality terrestrial habitat for SPA birds.

Requirements for Overwintering SPA Bird Refuges

3.82 There is little academic research regarding the use of goose refuges in the UK and minimal scientific research into these issues within the Solent area. However, there have been studies[42] which have focused on the nutritional characteristics of goose foraging habitats to understand which factors determine habitat choice. The studies found that the main determining factors in goose feeding habitat choice are nitrogen content (a proxy for food quality) and sward height.

Nitrogen Content

3.83 It was found that improved (fertilised) plots of grassland can double or triple nitrogen content and that these fertilised plots support higher densities of geese[43]. It is considered that fertilised swards are less fibrous and, therefore, easier to digest than unfertilised ones, making it easier for birds to gain the nutrition they require[44]. The geese which exploited these fertilised plots, in the above studies, exhibited higher food intake rates and were more likely to exhibit defensive behaviour to protect feeding patches.[45]

3.84 It has been suggested that, in the absence of disturbance, the use of improved (fertilised) grassland by Brent Geese can facilitate the replenishment of young, nutritionally-rich grass shoots and therefore extend their use of this habitat type[46]. Freedom from disturbance, via fencing, allows greater exploitation of grasslands which, in turn, maintains swards of the highest-quality and length. Therefore, producing a self-regulating grazing system.

Sward Height

3.85 In the absence of fertilisation, geese preferentially graze on shorter swards as these contain younger, more tender plants with higher nitrogen content compared to taller, more mature unimproved swards which are more fibrous and less palatable[47]. This effect is eliminated with the input of fertiliser, as swards became longer and have elevated nitrogen levels[48].

3.86 Studies have found that swards of 5-7cm in height are preferred over longer swards (>10cm)[49]. It was also concluded that swards of 4cm height and lower are not profitable due to the peck rate required to gain sufficient food intake[50]. However, it was observed that on fertilised grasslands,

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[42] McKay *et al*., 1994; Vickery *et al*., 1994; Riddington *et al*., 1997; Bos, 2002
[43] Riddington *et al*., 1997; Bos, 2002
[44] Ibid
[45] Ibid
[46] Spaans and Postma, 2001; Bos and Stahl, 2003
[47] Vickery et al., 1994; Riddington et al., 1997
[48] Ibid
[49] Vickery et al., 1994; Riddington et al., 1997
[50] Ibid

geese still graze on comparably shorter swards[51]. This suggests that geese are prepared to persist with shorter swards (higher peck rate) when food quality (nitrogen content) is greater.

3.87 It was also found that shorter swards were also favoured by most wader species, especially grassland waders such as Curlew, Oystercatcher, Lapwing, Golden Plover and Black-tailed Godwit[52]. These species feed on invertebrate prey within the soils or the grass itself; as such shorter swards make feeding easier.

3.88 From the above, undisturbed improved (fertilised) grassland of 5-7cm height is the most productive terrestrial forage habitat for most of SPA bird species.

Site Characteristics

3.89 The purpose of a refuge(s) is to provide a permanent source of suitable habitat which is free from disturbance. It is anticipated that even the most important goose sites could be improved by securing them as permanent refuges, eliminating the current uncertainties related to crop type and human disturbance.

3.90 The provision of a network of permanent refuges for SPA bird species will not on its own prevent the use of other agricultural land by these species and, therefore, conflict with farmers. As such, the efficacy of the refuges will inevitably be a result of a combination of:

- Habitat Management (ensuring high-quality nutrition in the right season);
- Protection (using fencing); and
- Decoys (within refuges to attract geese in the first instance).

3.91 With some exceptions, the most suitable sites for supporting SPA bird species are those which:

- Are large;
- Are close to coastal habitat;
- Contain improved (fertilised) grassland; and
- Are free from significant disturbance.

3.92 In acknowledging the above, to establish a refuge, a combination of the following will be required and must be made available between October and March:

- **Permanent improved grassland** – The sward height must be cut short (c. 5-7cm height) which can be managed through cutting, livestock or the birds' own grazing.
- **Autumn-sown cereals** – This should act as a sacrificial crop to alleviate the impacts to surrounding farmland; this would require more active management than grassland.
- **Secure perimeter fencing** – This is to prevent both human and dog disturbance.
- **Provision of freshwater scrapes/pools** – It is hoped that the inclusion of shallow freshwater pools within refuges will be highly attractive to SPA bird species and increase the likelihood of their use.
- **Decoys –** These can be used within refuges to attract the bird species' alternatively deterrence measures in adjacent fields used for farming should be considered.

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[51] Ibid
[52] Milson et al., 1998

3.93 A refuge network would, if successful, provide a relatively straightforward and cost-effective mitigation strategy for addressing the conflict over Functionally Linked Land (FLL). The most obvious sites within Havant Borough which could accommodate the above characteristics for goose foraging habitats are those on, and immediately close to, Hayling Island. The bird data available in the SWBG Strategy (2018) (supplemented by data in reports commissioned by HBC from HBIC), field size, proximity to the coast and geographical location have all been used to provisionally identify potential refuge sites for consideration. Regarding the SWBG Strategy (2018) more specifically, sites categorised in the emerging strategy as Core Areas and Primary Support Areas have been considered as these sites support the largest SPA bird population numbers (e.g. more than 1,000 birds). These sites are almost always situated within farmland (improved grassland or arable).

Identification of potential Overwintering SPA Bird Refuges

3.94 The locations of these potential refuge sites are shown below in Figure 4. Further details of these sites can be found in Appendix 1. In conjunction with the above, these potential refuge locations have been identified due to their extensive size, proximity to coastal habitats and their current recorded use by substantial numbers of SPA bird species.

3.95 Improved permanent grassland has low ecological value. Therefore, the biodiversity value outside the wintering bird season is likely to be limited which means establishment as SPA bird refuges should not currently cause harm to other species. With this, although further investigation is required, such areas could serve as accessible green infrastructure outside the winter period and provide additional wildlife benefits (e.g. sowing of more diverse wildflower swards). On Hayling Island, the presence of permanent grasslands adjacent to the coast may also provide a buffer habitat to ameliorate the predicted impacts of sea-level rise and coast squeeze.

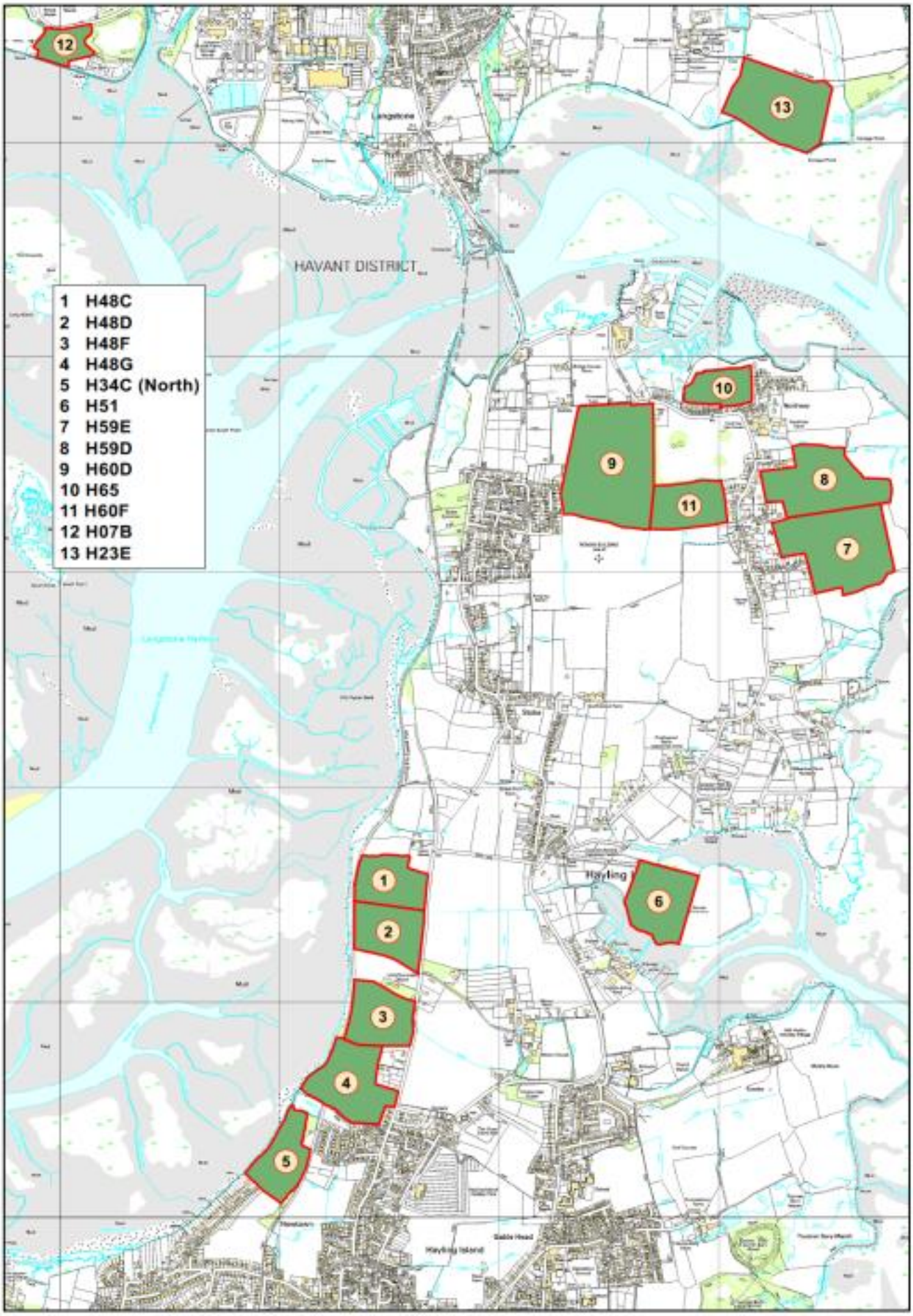

Figure 4 – The locations of potential Overwintering SPA Bird Refuge sites within Havant Borough

Refuge 1: Hayling Island

3.96 Refuge 1 comprises sites 1 to 5 as shown in Figure 4 above. As noted in Appendix 1, these five large arable fields along West Lane routinely support large numbers of SPA bird species and, due to their adjacent coastal location, are ideally suited to become permanent refuges.

3.97 Nonetheless, the allocation of these five sites as a SPA bird refuge may also provide additional benefits for Hayling Island. The Hayling Billy Trail runs along the eastern boundary of Site 5 (SWBG Strategy site H34E) and between the coast and the western boundaries of Sites 1 to 4. Because of sea-level rise and coastal erosion, sections of the trail in this area are at risk of subsiding into Langstone Harbour. The funding and development of a refuge in this location, therefore, provides an opportunity to improve the surfacing and relocate the Hayling Billy Trail inland. Not only would this provide an enhanced transport route for pedestrians and cyclists, as well as providing informal recreational opportunities, it would also (with appropriate fencing) prevent recreational disturbance to the SPA bird species.

3.98 The Council has already submitted a bid to the Solent LEP to raise funds for land purchase. However, and in addition to this, further land acquisition and initial start-up management measures will be required. These could be funded/provided through the development of SWBG sites on Hayling Island.

Refuge 2: Broadmarsh

3.99 Refuge 2 comprises Site 12 as shown in Figure 4 above. As noted in Appendix 1, this site is the only potential refuge site owned by Havant Borough Council. As there is little academic research regarding the use of SPA bird refuges in the UK (please see above), it would be practical to use the Council's own site as an "experimental" site to test out this new refuge approach. In the longer-term, the site could be taken forward as an attractive Local Nature Reserve (LNR).

3.100 At present the 3.6ha site contains improved grassland and is used by pedestrians, cyclists and dog walkers. It therefore serves as publicly-accessible greenspace as part of South Moor and Broadmarsh Coastal Park. However, there is the possibility to fence a core area of 1.3 hectares for the SPA bird species whilst maintaining sufficient space to enable visitors to walk along the existing footpath network. The grassland within the site was used by SPA bird species in the past and is immediately adjacent to intertidal habitats used by large numbers of SWBG. It is therefore sufficiently placed to act as a refuge.

3.101 Another justification for selection is that, if successful, there is the opportunity to further expand the refuge into adjacent sites[53] which are also under HBC ownership. The management of the initial 1.3ha area, and then expansion into surrounding sites, could be funded, as set out in the SWBG Strategy (2018), through the development of SWBG sites nearby in Havant & Bedhampton and Purbrook.

Issues and Next Steps

3.102 Most of the potential refuge sites identified (Figure 4) are in private ownership, except for Site 12 (Proposed Refuge 2). The use of any of these sites as refuges would be entirely dependent on

[53] SWBGS sites H07A and H08.

acquiring land (either through direct purchase or long-term lease), or the use of government land management payments.

3.103 To ensure that the refuge system is effective, as well as to identify any required improvements to help enhance them further, monitoring must be undertaken. This monitoring will add to the ongoing management costs of the refuges. As such, refuges should, ideally, be permanently secured and managed by public-sector bodies or NGOs (e.g. local planning authority, RSPB and/or HIWWT).

3.104 Two Primary Support Areas have been allocated for residential development. In accordance with the avoidance, mitigation and enhancement guidance set out in the SWBGS (2018), there is the potential for a further two SPA bird refuges. These should include:

- Refuge 3 – H34C North,
- Refuge 4 – Campdown.

Key action for the Havant Borough Local Plan 2036	
✓	The two identified refuges will need to be allocated as refuges in the Local Plan

Conclusions & Recommendations

3.105 The precise effect that any depletion of the ecological network will have on the populations of Solent waders and Brent geese is not clear. Patterns of breeding success in northern Russia will play a very important part in their population levels in Hampshire. However, a reduction in potential suitable foraging/roosting area is highly likely to have a deleterious effect on population levels. Wintering birds need to balance foraging effort to
energy intake and an increasingly scattered and isolated foraging network will reduce their chances of survival. Even without the pressures from development foraging and roosting sites are already vulnerable to changes in agricultural management therefore a network of potential foraging/roosting sites needs to be preserved, in order to buffer against such changes. Furthermore, any significant loss of the network should be mitigated with the creation and enhancement of other sites.

3.106 The Solent Recreation Mitigation Strategy (SRMS) aims to overcome human recreational disturbance to bird species within the SPA through the identification and funding of new/enhanced greenspaces in less sensitive areas away from the coast, along with improved access management areas (AMAs) and visitor behavioural changes via the Bird Aware Solent Ranger Team. As such, the strategy addresses the conflict between SPA bird species and human recreational disturbance.

3.107 The SWBG Strategy (2018) addresses the potential impacts to FLL used by SPA bird species. In doing so, the strategy acts as a tool in the decision-making process as to which sites within Havant Borough may be appropriate to allocate for development to meet housing and employment needs. As part of this, the strategy sets out what suitable avoidance and mitigation measures would be appropriate depending on the classification (i.e. level of use) of the FLL

3.108 The establishment of permanent SWBG refuges would take on the recommendation in the strategy for the Council, as a LPA, to adopt a habitat land banking approach. In doing so, suitable replacement habitat could be secured to mitigate any loss (partial or whole) of any Core Sites and Primary Support Areas through the HBLP 2036.

3.109 Those sites which have already been secured as replacement habitat/enhancements to the SWBG network, from previous planning permissions (to make residential development on sites UE5 and

UE21 acceptable in planning terms) must be protected from future development and not built upon. Otherwise, development would contravene the Habitats Regulations.

3.110 There is a need to establish SPA bird refuges within Havant Borough so there is no likelihood of significant impact to the SPA and its supporting species. Refuges can provide a relatively straightforward and cost-effective mitigation strategy for addressing the conflict over Functionally Linked Land. The first two SPA bird refuges should include:

- Refuge 1 – Hayling West,
- Refuge 2 – Broadmarsh.

4. Local Biodiversity Audit

Designation	Number in Borough	Area in Borough (hectares)
Local Nature Reserves	8	218
Sites of Importance for Nature Conservation	110	549

Table 8 – Extent of Locally Designated Sites in Borough (as at 31/03/17)

Local Nature Reserves

4.1 Local Nature Reserves (LNRs) are for people and wildlife. They are places with wildlife or geological features that are of special interest locally. They offer people opportunities to study or learn about nature or simply to enjoy it. They range from windswept coastal headlands, ancient woodlands and flower-rich meadows to former railways, long-abandoned landfill sites and industrial areas now re-colonised by wildlife. They are an impressive natural resource which makes an important contribution to England's biodiversity.

4.2 LNRs are a statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949, as amended by Schedule 11 of the Natural Environment and Rural Communities Act 2006, by principal local authorities. All district and county councils have powers to acquire, declare and manage LNRs.

4.3 LNRs are generally of local rather than national importance although they may have other designations; e.g. they can also be an SSSI. LNRs must be controlled by the local authority through ownership, lease or agreement with the owner. There is no legal requirement to manage an LNR to any set standard, but management agreements often exist. Local authorities often pass the management of the LNR onto the County Wildlife Trust or a local community 'friends of' group. The main aim must be to care for the natural features which make the site special. LNRs also often have good public access, for enjoyment without disturbing the wildlife and for environmental education.

4.4 Natural England recommend that LNRs should be:

- normally greater than 2ha (4.9 acres) in size;
- capable of being managed with the conservation of nature and/or the maintenance of special opportunities for study, research or enjoyment of nature as the priority concern
- of high natural interest in the local context;
- of some reasonable natural interest and of high value in the local context for formal education or research;
- of some reasonable natural interest and of high value in the local context for the informal enjoyment of nature by the public.

4.5 Hampshire County Council (HCC), which as a principle Local Authority is able to declare LNRs, imposes some additional criteria. These include that the site would normally be designated as of Site of Importance for Nature Conservation (SINC) level or greater, and that the site has present or potential ready access, both within the site and the wider Rights of Way network.

4.6 The creation of an LNR should increase community engagement with the environment and a sense of ownership and assist in building relationships between the local community and the managing authority.

4.7 An LNR can be given protection against damaging operations. It also has protection against damaging development on and around it. This protection is usually given via the Local Plan and may be supplemented by local by-laws. Unlike national designations, the level and type of protection afforded an LNR is decided locally and varies from site to site.

Site Name	Area (ha)
Brook Meadow	3.35
Farlington Marshes (area within the Borough)	1.26
Gutner Point	68.99
Hayling Billy	42.02
Hazleton Common (area within the Borough)	1.39
Sandy Point	18.32
The Kench, Hayling Island	6.04
West Hayling	76.23
Total	**217.6**

Table 9: Local Nature Reserves in Havant Borough

(Source: HBIC Monitoring Data from HBC Annual Monitoring Reports)4

4.8 The table above lists the LNRs designated in the Borough and a brief description of them is given below:

Brook Meadow, Emsworth

4.9 Brook Meadow LNR was designated in 2007. It is an area of open pasture and meadow alongside the River Ems at Emsworth and is an important site for Water Vole. The site is owned by the Council but is maintained by a 'friends' group, the Brook Meadow Conservation Group.

Farlington Marshes

4.10 Managed by the Hampshire and Isle of Wight Wildlife Trust the LNR covers a total area of 123 hectares, lying mainly within Portsmouth city. It is a wetland habitat which is particularly important for vast number and species of both summer and winter migratory birds which can be viewed from the 4 km perimeter walking trail.

Gutner Point, Hayling Island

4.11 Gutner Point LNR comprises grassland, saltmarsh and mudflats which extend into Chichester harbour. It is located on the eastern shore of Hayling Island and covers an area of 68.87 Ha. It is one of the key wader roosts in the harbour and contains a range of interesting intertidal species such as Sea Lavender, Glasswort and Sea Heath, and habitats including Seagrass beds.

Hayling Billy, Hayling Island

4.12 The Hayling Billy former railway line lies along the west side of Haying Island and the line itself is well used by locals as an informal access route[54]. The site is owned by Hampshire County Council, apart from the southern 200m which is owned by Havant Borough Council. The LNR, which was declared by HCC in November 2010, includes areas adjacent to the former rail line and areas of SSSI and SINC. The fields at the southern end of the line are managed by HCC Estates Practice.

Hazleton Common

4.13 The total area of Hazleton Common extends to around 16 hectares of lowland heathland and copses, also ponds and wetland. Most of the LNR lies across the Borough boundary with East Hampshire District and it has been managed by Horndean Parish Council since its acquisition in 1996. It is home to hundreds of species including common lizards, adders, grass snakes and slow worms.

Sandy Point, Hayling Island

4.14 Sandy Point LNR comprises coastal dunes, sandy heathland and grassland. It is located on the south-east tip of Hayling Island and covers an area of 18.41 Ha. It was designated in 1994. Many rare plants and insects can be found on the site including Yellow Horned Poppy and Sea Holly.

The Kench, Hayling Island

4.15 The Kench LNR comprises saltmarsh and mudflats. It is a small, naturally protected tidal inlet close to the entrance of Langstone Harbour at the south west corner of Hayling Island. It is of special importance as a sheltered feeding spot for birds. The Kench is 6.02 Ha and was designated in 1994.

West Hayling

4.16 West Hayling LNR comprises the historic Oysterbeds found on the north-west shore of Hayling Island, close to the Hayling Billy Trail. It was designated in the summer of 2000, covers an area of 76.05 ha and is recognised for its importance for the many rare nesting seabirds that can be found there at certain times of year.

Potential for new Local Nature Reserves

4.17 The Council will be setting up at least two Brent Goose and Wader refuges. The Hayling Island refuge is agricultural in nature. However the Broadmarsh refuge will utilise the Broadmarsh Coastal Park. This area includes the Solent Way, which is a formal right of way, National Cycle Route 22 and informal footpaths. As such, it offers an opportunity to provide the refuge for the key SPA species. However it is also ideally placed to provide interpretation regarding the SPA species and why they are important, raising education levels and interest in the area's biodiversity. It also presents opportunities to improve health and wellbeing by improving the (formal and informal) access routes in the area. Enhancing Broadmarsh Coastal Park for wildlife and people through a Local Nature Reserve designation would help to boost the status of the site and its potential value.

4.18 The Local Plan is also proposing leisure development at West Beach on Hayling Island. The potential development site includes and is bounded on all sides by the Sinah Common SSSI and is also a priority habitat for reptiles and nesting birds. The surrounding area has a great deal of ecological value, as well as heritage value with a number of listed structures and scheduled monuments. Although there are a large amount of informal recreational routes, there are no formal rights of way, although the Shiprights Way runs directly along Ferry Road to the north of the site.

[54] The Hayling Billy Trail is not a formal right of way (such as a footpath or a bridleway) but is a permissive route.

The more natural character to the area is considered part of the island's attraction to visitors, setting it apart from other nearby destinations. However, left unchecked, the unmanaged nature of the site could present threats to the site through increased disturbance in particular.

4.19 Moving forward, in order to successfully accommodate new development whilst protecting the area's ecology, an increased level of management will be needed. This could potentially include wardens and other active management measures to enhance the area's ecological value and improve it as an educational resource, helping visitors to appreciate the natural environment of the island and becoming a fully integrated element of the island's visitor offer.

4.20 As is the case with Broadmarsh Coastal Park, designating the area as a Local Nature Reserve would give it status and focus. The aim of the LNR would be to enhance the area's ecology, improve its educational value and manage the area to better accommodate visitors.

Key action for the Havant Borough Local Plan 2036	
✓	Continue to work with Natural England to develop an effective management package for the West Beach area to be implemented with new development.

Sites of Importance for Nature Conservation

Purpose and Identification

4.21 In addition to the nationally and internationally designated sites and the local sites referred to above sites there are many other important wildlife sites which also contribute to the ecological network of the Borough, and indeed the county. To safeguard these sites, they are designated as Sites of Importance for Nature Conservation (SINCs). SINCs are also known nationally as Local Wildlife Sites.

4.22 SINCs form part of a wider national network of locally valued wildlife sites. They are generally administered by local authorities in partnership with conservation organisations. The Hampshire Biodiversity Information Centre (HBIC) manages the Hampshire SINC system on behalf of the local planning authorities and follows national guidance on identification, selection and management of local sites.

4.23 Designating a SINC raises awareness of its importance for wildlife particularly regarding planning and land management decision making: SINCs are a material consideration within the planning system. They rely upon continued stewardship and appropriate management by landowners but may also enable access to countryside stewardship grants and other sources of funding towards their management.

4.24 Like LNRs, SINCs may also have local community groups that help to look after them. An example of this is Hollybank Woods, which are part of the larger area of the Southleigh Forest (designated as Ancient Woodland to the north of Emsworth Common Road). The Friends of Hollybank Woods organise monthly working parties which anyone can join.

4.25 The State of Nature report gives credit in a section entitled Citizen Science[55] to the fact that,

[55] Citizen Science is broadly defined as the involvement of volunteers in projects that contribute to our scientific understanding. Getting involved can also be both rewarding and educational for adults and children alike.

"Much of our current understanding of the UK's wildlife derives from the phenomenal efforts and expertise of the UK's volunteer naturalists and the wider contributions of citizen scientists of all ages and from all walks of life."

4.26 HBIC selects potential SINCs using data gathered from its survey programme and from the species groups. Sites are assessed against detailed criteria – see Appendix 3.

4.27 A site may qualify as a SINC due to the presence of an important habitat or a notable species, many of which are Priority Habitats and Species under the Natural Environment and Rural Communities Act 2006. A site may also qualify if it supports a rich assemblage of species.

4.28 Potential SINCs are assessed by a SINCs Advisory Panel comprising Hampshire County Council, Natural England and the Hampshire & Isle of Wight Wildlife Trust. Existing SINCs are also re-surveyed and re-assessed, however resources dictate that those which are closer to locations of development pressure are likely to be re-examined on a more regular basis.

4.29 Local Authorities hold information on SINCs within their area – see Table X below for a summary of the sites within Havant Borough. It should be noted that the list does not include sites where the criteria for their designation is recorded as only 6B, with the 'notable species' being the Brent Goose. This is to avoid double counting as those sites have already been included within the SWBGS as detailed in Chapter 3[56]. The maps showing the location of the sites listed in Table X can be found at Appendix Y.

4.30 Local Planning Authorities can include policies in their Local Plans to safeguard these sites from inappropriate development. In general, developments resulting in impacts to SINCs will be refused unless it can be determined that development can lead to ecological net gain.

4.31 Detailed data on the wildlife interest of each SINC is maintained by HBIC and can be requested using the Biodiversity Information Request Form.

[56] A number of sites which supported large numbers of Brent Geese in the late 1990s were designated locally as SINCs. While SINCs do provide an added layer of protection in planning (adopted Policy CS11 of the HBC Core Strategy requires SINCs to be protected and a coherent network of sites for Brent Geese to be identified and maintained) a SINC designation does not offer the level of protection afforded by designation as a SPA or Ramsar site or the legal protection given by the Habitats Regulations.

Sites of Importance for Nature Conservation within Havant Borough

Map Label	SINC Ref	SINC Name	Central Grid Ref.	SINC Criteria	Species supported that meet Section 6 of SINC Selection Criteria	Date of last Survey	Area (ha)
1	HV0001	London Road Fen	SU67070763	1Cii/5B		2000	1.91
2	HV0002	Portsmouth Golf Course West	SU67700665	2B/2D		2012	2.02
3	HV0003	Fort Purbrook	SU67800650	2A/6A	Onobrychis viciifolia (Sainfoin) [RDB] Spiranthes spiralis (Autumn Lady's-Tresses) [RDB]	2000	5.53
4	HV0004	Purbrook Park Wood	SU67800680	1A		2012	1.51
5	HV0005	Sandy Dell	SU67900740	1A		2010	1.29
6	HV0006	Fort Purbrook Paddock 1 (Havant)	SU68050645	2B/6A	Cupido minimus (Small Blue) [CS] Spiranthes spiralis (Autumn Lady's-Tresses) [NI]	2010	2.77
7	HV0007	Fort Purbrook Paddock 2 (Havant)	SU68200640	2B/6A	Plantago media (Hoary Plantain) [RDB] Spiranthes spiralis (Autumn Lady's-Tresses) [RDB]	2010	0.87
8	HV0008	Wecock Common	SU68201140	1D		2015	5.54
9	HV0009	Stakes Coppice Remnant 1	SU68270868	1B/7A		2005	0.47
10	HV0143	Fort Purbrook Paddock 3 (Havant)	SU68400640	2B		2010	0.62
11	HV0010	Newlease Copse, Havant	SU68400830	1A		2010	1.74
12	HV0142	Fort Purbrook Paddock 4 (Havant)	SU68500640	2B		2010	0.50
13	HV0011	Portsmouth Golf Course East	SU68500662	2B/2D		2012	1.91
14	HV0012	Park Wood, Havant	SU68501040	1A		2002	2.60
15	HV0013	Frank's Coppice	SU68760890	1B		2005	1.78
16	HV0014	Field East of Farlington Redoubt (North)	SU68790639	2D		2010	0.79
17	HV0015	Stakes Coppice Remnant 2	SU68810852	1B		2005	0.67
18	HV0016	Gundymoor Wood (West)	SU68850760	1A		2006	1.17

Map Label	SINC Ref	SINC Name	Central Grid Ref.	SINC Criteria	Species supported that meet Section 6 of SINC Selection Criteria	Date of last Survey	Area (ha)
19	HV0017	Portsmouth City Golf Course Copse	SU68900660	1B/6A	Ophrys insectifera (Fly Orchid) [s41] Sorbus rupicola (Rock Whitebeam) [NS] Thesium humifusum (Bastard-Toadflax) [CS]	2001	1.99
20	HV0018	Longwood (Idlewood)	SU68951160	1A		2005	1.15
21	HV0019	Camp Down Grassland Remnants	SU69000651	2D		2017	0.66
22	HV0020	Gundymoor Wood (Main)	SU69000750	1A		2017	3.24
23	HV0021	Stakes Coppice Remnant 4	SU69000882	1B		2005	0.63
24	HV0022	Wecock Wood	SU69001190	1A		2010	1.69
25	HV0023	Stakes Coppice Remnant 5	SU69070864	1A/1B		2005	0.53
26	HV0025	Johnston's Coppice	SU69100790	1A/6A	Muscardinus avellanarius (Dormouse) [Ann4]	2017	8.07
27	HV0026	Stakes Coppice Remnant 6	SU69100852	1A		2005	0.28
28	HV0027	Fields off Havant Road	SU69180613	6A	Euphorbia exigua (Dwarf Spurge) [RDB]	2008	8.11
29	HV0028	Farlington Marshes Grassland (North-East)	SU69200550	2A/4A		1994	2.90
30	HV0029	Littlepark Wood (West)	SU69200750	1A/1Cii/6A	Muscardinus avellanarius (Dormouse) [Ann4]	2008	4.11
31	HV0030	Meadow Adjacent to Johnston's Copse	SU69200780	1A/2B/5B/6A	Muscardinus avellanarius (Dormouse) [Ann4]	1992	9.09
32	HV0031	Stakes Coppice Remnant 7	SU69300882	1A/7A		2005	0.63
33	HV0032	The Queen's Inclosure	SU69301050	1A		2001	40.27
34	HV0139	Hurst Wood, Havant	SU69350958	1A		2010	2.03
35	HV0033	Neville's Park West Wood	SU69480843	1B		2013	4.51
36	HV0034	Littlepark Wood (East)	SU69500710	1A/1Cii		2008	5.87
37	HV0035	Hulbert Road Meadow	SU69500800	2D/5B		2001	2.83
38	HV0036	Outhurst/Inhurst/Beech Woods	SU69500940	1A		2012	10.75
39	HV0037	Neville's Park East Wood	SU69600850	1A		2006	8.87
40	HV0038	Neville's Park Areas 4-10	SU69800810	1B/1Cii/2A/2D	Bromus commutatus (Meadow Brome) [CS]	2006	13.35
41	HV0039	Neville's Park Areas 2 & 3	SU69800860	2A		2002	14.16
42	HV0040	Cherry Tree Row	SU69800890	1A		2002	1.93
43	HV0041	Beech Wood East	SU69800940	1A/1B		2002	2.85
44	HV0042	Bushy Lease	SU69900840	1A		2006	6.40

Map Label	SINC Ref	SINC Name	Central Grid Ref.	SINC Criteria	Species supported that meet Section 6 of SINC Selection Criteria	Date of last Survey	Area (ha)
45	HV0135	Hazleton Wood	SU70171149	3A		2007	2.66
46	HV0045	Dunsbury Hill - Areas 5 & 6	SU70201000	2A		2002	2.10
47	HV0046	Dunsbury Hill - Area 1	SU70211018	2A		2002	1.69
48	HV0047	Waterlooville Golf Course	SU70301100	1A/2B/3A		1996	29.96
49	HV0048	Meadow by Bells Copse	SU70400990	2A/2D		1998	4.87
50	HV0049	The Warren, Havant	SU70500930	1B/1Cii		2010	5.04
51	HV0050	Dunsbury Hill Wood	SU70500960	1Cii		1996	6.77
52	HV0051	Bell's Copse	SU70501010	1A/1B		2000	32.10
53	HV0136	Dunsbury Hill Grassland 2	SU70620969	2B		2008	3.52
54	HV0052	Cabbagefield Row	SU70700950	1A		2000	1.72
55	HV0053	Blendworth Common (South)	SU70701070	2A		1996	19.15
56	HV0054	Southmoor - Big Field (south edge)	SU70980487	4A		2010	0.49
57	HV0056	Havant Thicket (South-West Corner)	SU71001050	1B/3Bi		2008	8.52
58	HV0058	Southmoor Reserve	SU71200520	2A/4A/5B/6A	Carex divisa (Divided Sedge) [s41]	2010	2.19
59	HV0059	Middle Clearing	SU71250960	1A		2000	2.18
60	HV0066	Long Marsh	SU71500180	4A/6A	Carex divisa (Divided Sedge) [s41] Salicornia europaea (Common Glasswort) [CS] Seriphidium maritimum (Sea Wormwood) [CS]	2001	0.86
61	HV0067	Pill Box Field	SU71600190	2D/6A	Carex divisa (Divided Sedge) [s41]	2014	2.59
62	HV0068	Plot 6114 South of Knott's Marsh	SU71600220	2A		2012	2.39
63	HV0069	Plot 5835 South of Knott's Marsh	SU71600240	2A/4A/6A	Carex divisa (Divided Sedge) [s41]	2012	1.25
64	HV0070	Thicket Lawn	SU71600900	2A/6A	Bromus racemosus (Smooth Brome) [CS]	2017	10.56
65	HV0071	Knott's Marsh Scrub	SU71660260	4A/6A	Carex divisa (Divided Sedge) [s41] Cochlearia anglica (English Scurvygrass) [CS] Salicornia europaea (Common Glasswort) [CS] Seriphidium maritimum (Sea Wormwood) [CS]	2001	0.54
66	HV0072	Hayling Billy Line	SU71690325	6A	Carex divisa (Divided Sedge) [s41]	2001	2.37

Map Label	SINC Ref	SINC Name	Central Grid Ref.	SINC Criteria	Species supported that meet Section 6 of SINC Selection Criteria	Date of last Survey	Area (ha)
67	HV0146	West Lane Field A	SU71700230	2B		2014	2.33
68	HV0150	St Faith's Churchyard	SU71760623	2B/7A		2016	0.22
69	HV0074	Pound Croft Field Drains	SU71800280	4A/6A	Carex divisa (Divided Sedge) [s41] Seriphidium maritimum (Sea Wormwood) [CS]	2014	0.33
70	HV0075	Stoke Common	SU71800320	4A/6A	Carex divisa (Divided Sedge) [s41]	2012	4.21
71	HV0076	Pyecroft's Meadow	SU71800370	2B/4A/6A	Carex divisa (Divided Sedge) [s41] Oenanthe lachenalii (Parsley Water-Dropwort) [CS] Ononis spinosa (Spiny Restharrow) [CS]	2001	4.78
72	HV0077	Great Copse, Havant	SU71800840	1A		2000	5.71
73	HV0134	Battins Copse	SU71850780	1A		2006	2.73
74	HV0081	High Lawn	SU71900890	2B		2017	11.74
75	HV0082	Thicket Bottom Woods & Lake	SU71900930	1A		2016	16.10
76	HV0083	Wade Court Park	SU71980531	6B/6C	Egretta garzetta (Little Egret) [CR] - Colony	2001	1.12
77	HV0084	Langstone Mill Pond	SU72050500	4A/5B/6A	Spartina maritima x alterniflora = S. x townsendii (Townsend's Cord-grass) [CS] Tilia platyphyllos (Large-Leaved Lime) [CR]	2007	0.98
78	HV0086	Lower Beacon Field	SU72110919	2A		2017	3.65
79	HV0089	Wakefords Copse, Havant	SU72400890	1A		2000	2.53
80	HV0095	Mill Rythe Lane Saltmarsh	SU72700100	4A		1988	0.76
81	HV0096	Fields & Saltmarsh South of Copse Lane	SU72730188	4A		2002	7.19
82	HV0097	North Common & Saltmarsh	SU72800390	2B/4A/6A	Carex divisa (Divided Sedge) [s41] Inula crithmoides (Golden-Samphire) [CS] Ononis spinosa (Spiny Restharrow) [CS] Seriphidium maritimum (Sea Wormwood) [CS]	2011	13.84
83	HV0098	North Copse, Havant	SU72840213	1A		2001	0.70
84	HV0145	North Common East	SU73170397	4A/6A	Carex divisa (Divided Sedge) [s41] Galium parisiense (Wall Bedstraw) [RDB]	2012	5.15
85	HV0107	Mill Rythe Holiday Village	SU73400090	4A/6A	Ononis spinosa (Spiny Restharrow) [CS]	1997	5.06

Map Label	SINC Ref	SINC Name	Central Grid Ref.	SINC Criteria	Species supported that meet Section 6 of SINC Selection Criteria	Date of last Survey	Area (ha)
86	HV0111	Chichester Road Meadow	SU73500270	2A/4A/6A	Carex divisa (Divided Sedge) [s41] Samolus valerandi (Brookweed) [CS]	2012	1.64
87	HV0112	Conigar Point Meadows	SU73500530	2B/4A/6A	Apium graveolens [CS] Bromus arvensis [CI] Bupleurum tenuissimum [s41] Carex divisa [s41] Carex extensa [CS] Inula crithmoides [NS] Limonium humile [NS] Salicornia europaea [CS]	2011	6.12
88	HV0113	Gutner Lane Meadow	SU73600200	4A/6A	Bupleurum tenuissimum [s41] Carex divisa [s41] Inula crithmoides [NS] Oenanthe lachenalii [CS] Seriphidium maritimum [CS]	2003	2.32
89	HV0114	Brook Farm B	SU73700560	6A	Misopates orontium (Weasel's Snout) [RDB] Spergula arvensis (Corn Spurrey) [RDB]	2007	14.41
90	HV0115	Nore Grassland & Saltmarsh	SU73870531	4A/6A	Bupleurum tenuissimum (Slender Hair's Ear) [NR] Seriphidium maritimum (Sea Wormwood) [CS]	2011	0.61
91	HV0116	Southleigh Forest (South)	SU74400830	1D		1997	47.71
92	HV0117	Land West of Emsworth Recreation Ground	SU74450668	2B		2011	3.15
93	HV0118	Southleigh Forest (North of Emsworth Common Road)	SU74550866	1D		1990	3.79
94	HV0140	Stream West of Emsworth Recreation Ground	SU74580656	6A	Alisma lanceolatum (Narrow-Leaved Water-Plantain) [CR]	2011	0.07
95	HV0137	Westbrook Stream, Bridge Road	SU74730600	6A	Alisma lanceolatum (Narrow-Leaved Water-Plantain) [CR]	2009	0.07
96	HV0119	Emsworth Millpond	SU74800548	4A		2011	3.59
97	HV0120	Lumley Meadow	SU75100610	2A/6A	Carex divisa (Divided Sedge) [s41] Eleocharis uniglumis (Slender Spike-Rush) [CS] Rorippa amphibia (Greater Yellow-Cress) [CS] Sanguisorba officinalis (Great Burnet) [CS]	2006	2.76
98	HV0141	Land East of 54 Long Copse Lane	SU75180785	2B		2011	0.44

Map Label	SINC Ref	SINC Name	Central Grid Ref.	SINC Criteria	Species supported that meet Section 6 of SINC Selection Criteria	Date of last Survey	Area (ha)
99	HV0144	The Kench Beach (East)	SZ69299967	4A/6A	Ammophila arenaria (Marram) [CS] Inula crithmoides (Golden-Samphire) [NS] Raphanus raphanistrum maritimus (Sea Radish) [CS]	2012	0.30
100	HV0121	The Kench Scrubs	SZ69409990	4A/6A	Cercyon depressus [NN, NS] Cochlearia anglica (English Scurvygrass) [CS] Cyclodinus salinus [NR, NS] Inula crithmoides (Golden-Samphire) [CS] Raphanus raphanistrum subsp. Maritimus (Sea Radish) [CS] Salicornia ramosissima (Purple Glasswort) [CS]	2010	1.26
101	HV0122	Gun Site Car Park & Open Space	SZ70009940	6A	Geranium purpureum forsteri (Geranium purpureum forsteri) [NS]	1997	0.10
102	HV0123	Sinah Warren Village Marsh	SZ70009980	4A/6A	Inula crithmoides (Golden-Samphire) [NS] Seriphidium maritimum (Sea Wormwood) [CS]	2014	3.99
103	HV0125	Beachlands East	SZ72009870	4A/6A	Anthriscus caucalis (Bur Parsley) [CS] Elytrigia juncea (Sand Couch) [CS] Medicago polymorpha (Toothed Medick) [CS] Poa bulbosa (Bulbous Meadow-Grass) [CS] Trifolium suffocatum (Suffocated Clover) [CS]	2009	11.88
104	HV0127	Selsmore Boating Lake	SZ73709880	4A		2014	1.28
105	HV0128	Mengham Salterns	SZ73709920	4A/6A	Ononis spinosa (Spiny Restharrow) [CS] Potamogeton pectinatus (Fennel Pondweed) [CS]	1998	4.97
106	HV0138	Hayling Island Beach	SZ74609800	4A/6A	Crassula tillaea[NS] Cynoglossum officinale[RDB] Euphorbia paralias[CS] Hypochaeris glabra[RDB] Phleum arenarium[CR] Polygonum maritimum[s8] Puccinellia rupestris[NS] Trifolium suffocatum[NS] Vulpia fasciculata[NS] and others.	2009	13.70
107	HV0129	Boatyard Patch	SZ74659884	6A	Bupleurum tenuissimum (Slender Hair's Ear) [s41] Puccinellia rupestris (Stiff Saltmarsh-Grass) [CS]	2002	0.53
108	HV0130	Lifeboat Station Heath	SZ75009830	3A		1998	0.33

Map Label	SINC Ref	SINC Name	Central Grid Ref.	SINC Criteria	Species supported that meet Section 6 of SINC Selection Criteria	Date of last Survey	Area (ha)
109	HV0131	Lifeboat Station Saltmarsh	SZ75009860	4A/6A	Ammophila arenaria (Marram) [CS] Salicornia europaea (Common Glasswort) [CS]	1998	0.26
110	HV0132	Land east of Sandy Point	SZ75059841	4A/6A	Calystegia soldanella (Sea Bindweed) [sHS] Phleum arenarium (Sand Cat's-Tail) [sHR] Trifolium suffocatum (Suffocated Clover) [CS] Vulpia fasciculata (Dune Fescue) [CR];	2003	0.84
						Total Area	**549.36**

Table 10: List of SINCs within Havant Borough as supplied by HBIC (August 2018)

Key action for the Havant Borough Local Plan 2036	
✓	Policy protection will specifically be needed for locally designated nature conservation sites as they are not subject to any legal protection.

5. Local Ecological Network

Ecological Networks – Background

5.1 When launching the report 'Making Space for Nature: a review of England's Wildlife Sites and Ecological Network'[57] Professor Sir John Lawton said,

"There is compelling evidence that England's collection of wildlife sites are generally too small and too isolated, leading to declines in many of England's characteristic species. With climate change, the situation is likely to get worse. This is bad news for wildlife but also bad news for us, because the damage to nature also means our natural environment is less able to provide the many services upon which we depend. We need more space for nature."

5.2 That report identified several issues, the most prominent being the fragmentation of sites for wildlife:

"many of the natural connections in our countryside have been degraded or lost, leading to isolation of sites …. Many species are now largely restricted to wildlife sites simply because they have mostly been lost from everywhere else. We need to take steps to rebuild nature".

5.3 The report identified a Priority Action to:

"Establish a more coherent and resilient ecological network on land that safeguards ecosystem services for the benefit of wildlife and people."

5.4 This was summarised in four words:

- *Better* – improving the quality of the existing ecological resource of priority habitats (inside and outside protected sites);
- *Bigger* – increase the size of remaining areas of priority habitat where appropriate;
- *More* – create new areas of priority habitat where appropriate; and
- *Joined* – enhance ecological connections between, or join up, existing areas of priority habitat, increasing opportunity for wildlife to move around the landscape by making use of 'stepping stones', 'corridors' and other features.

5.5 This has been embraced by the Government and taken forward in the NPPF which recognises the importance of, and need to reconnect and establish, ecological networks, as outlined in paragraph 170 which states:

"Planning policies and decisions should contribute to and enhance the natural and local environment by … (d) minimising impacts on and providing net gains for biodiversity, including ***by establishing coherent ecological networks that are more resilient*** *to current and future pressures;"*

5.6 And in paragraph 171:

"Plans should … take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure …"

[57] Report submitted to Secretary of State for DEFRA, September 2010

5.7 Specifically, in paragraph 174 of the NPPF;

"To protect and enhance biodiversity and geodiversity, plans should:
(a) ***Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks****, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*
(b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species…"

5.8 In establishing and enhancing an ecological network, opportunities for securing measurable net gains for biodiversity can be identified and pursued through development proposals. The emerging HBLP 2036 will need to ensure that ecological connectivity is a key consideration in achieving sustainable development.

Local Nature Partnership

5.9 Paragraph 25 of the NPPF states that:

''Strategic policy-making authorities should collaborate to identify the relevant strategic matters which they need to address in their plans. They should also engage with their local communities and relevant bodies including…Local Nature Partnerships".

5.10 The Hampshire and Isle of Wight Local Nature Partnership (LNP) was formed in 2012[58]. Its purpose is to protect and improve the natural environment on land and at sea, creating bigger and better more joined up places for nature.

5.11 The LNP promotes the concept of a Local Ecological Network (LEN) and suggests it should be embedded in the planning policy framework and the decision making process. By improving the habitats and the links between them the species will follow. The LNP commissioned the Hampshire Biodiversity Information Centre (HBIC) to develop a LEN map of Hampshire[59].

[58] The Hampshire and Isle of Wight LNP is currently led by a steering group comprising Hampshire & Isle of Wight Wildlife Trust, Hampshire County Council, Natural England, Environment Agency, Forestry Commission, New Forest National Park, South Downs National Park, Isle of Wight AONB. The full partnership includes all the Hampshire local authorities.
[59] The Isle of Wight Council has prepared its own LEN map for the Island.

The Local Ecological Network Map

The Local Ecological Network Map - Overview

5.12 The LEN map brings together in one location all the areas of habitat (statutory and non-statutory, designated sites and priority habitats) to identify opportunities to enhance, through habitat recreation and restoration. Establishing the Local Ecological Network (LEN) of Hampshire will also make it easier to assess the impact of development on the natural environment.

5.13 To promote net gain in biodiversity, the Hampshire LEN Map also identifies areas where there is the greatest potential to enhance the network – these are referred to as the Network Opportunities layer. The identification of these opportunity layers provides a robust starting point for securing positive benefits for biodiversity by making it easier to consider potential solutions for mitigation measures where they are required.

5.14 The LEN Map has been created to help inform and shape development proposals so that they take account of on-site and surrounding ecology and make ways to enhance biodiversity (ie achieve a net gain) as part of the wider planning objective of achieving sustainable development.

5.15 The network highlights the significance of sites in respect of their locations and contribution to the wider network. In doing this, development proposals will no longer be seen in isolation. This should reduce network fragmentation and improve connectivity. In some instances, this could refer to sites with no biodiversity designation but which are located within a potential wildlife corridor.

5.16 The aim should be 'avoidance of harm' (can the development go elsewhere?). However it is acknowledged that for areas such as Havant Borough which are small, constrained and already built up[60], this is not a practical solution. It is not the intention for the LEN Map to be viewed as an absolute constraint to development. On the contrary, the LEN can be used to inform the very early stages of a development proposal highlighting the significance of onsite and surrounding biodiversity. It can highlight issues in respect to both on-site and off-site impacts and the potential for enhancement. In doing so, the LEN can be used to inform the master planning and design of schemes, the scope for mitigation both on- and off-site, along with (as a last resort) offsetting, compensation measures. This will ultimately make sure that, even in built up and constrained areas such as Havant Borough, net biodiversity gain can still be achieved.

LEN components and map layers

5.17 The LEN Map consists of several layers of mapped data. Where layers overlap it is the highest designation that takes precedence. The web-based map is interactive in that the polygons carry information about aspects of the map that can be viewed by clicking / hovering over them. This states what criteria a site meets and explains why it's included in the LEN.

5.18 Biodiversity Opportunity Areas (BOAs) represent a targeted landscape-scale approach to conserving biodiversity in Hampshire. They are areas which have been identified as providing the greatest opportunities for habitat creation and restoration and where resources can be focused to have the greatest positive impact for wildlife. The BOAs are primarily based on soil types but the methodology for identifying them included a review of existing data such as biodiversity habitat data. Originally mapped in 2009, they have been updated in 2018. In the Borough, BOAs include

[60] For more information regarding this, please refer to the Housing Constraints and Supply Analysis.

Portsdown Hill (part of the South Hampshire Downs Theme Area) and Chichester/Langstone Harbours and areas of Hayling Island (part of the Hampshire Coast and Harbours Theme Area).

5.19 The Core Statutory layer comprises the existing SACs, SPAs, Ramsar sites, SSSIs, NNRs and LNRs.

5.20 The Core Non-Statutory layer includes SINCs, Ancient Woodlands, all Priority Habitats (except floodplain and grazing marsh), inland water (rivers and ponds where not already priority habitat or designated areas) and 'important' (as previously recorded) SWBGS sites.

5.21 The Network Opportunities layer includes the sites / areas that have potential to re-create or restore habitats. To identify these areas a scoring system was used to consider the suitability of land to be restored back to BAP habitat. Each 50m x 50m square was scored from 1 (low) to 9 (high) based on factors including its geology, soil, topography, current land use and presence of indicator species. Every square scoring 5 or more was mapped as 'potential'. Polygons were then drawn of areas consisting of groups of squares with 'potential' where they covered at least 80% of the polygon. Information on the interactive map for these polygons gives options for what habitat can be recreated or restored according to the soil type etc. Rather than being a constraint, the Network Opportunities give a good indication for planning officers and developers to see where some restoration could provide biodiversity gain.

5.22 Other optional layers include hedgerow mapping can be overlain to illustrate where network connections within the landscape exist. Although the data is based on aerial photography from 1996 it is being updated with other information sources that are being translated to indicate condition.

5.23 A further optional layer is the 'urban' green grid. Although this information is available from other sources there is clearly an overlap with the successful function of Green Infrastructure (GI) as a network of interconnected green spaces running through already developed areas and being incorporated in master planning of new larger scale development sites. While the distinction between the two is that the focus of the LEN is biodiversity and GI is primarily for people, one of the stated outcomes of well-planned, multifunctional GI is to improve habitat connectivity for biodiversity.

The LEN Map – Where to find it

5.24 Due to the level of detail involved with the data layers it is impractical to include the LEN Map as part of the HBLP 2036 Policies Map. As well as the scale and nature of its components the map and associated information will change at least annually as ongoing survey work will regularly provide more up to date information.

5.25 The LEN Map (see Appendix 4) can be found on HBIC's website where it can be examined at a larger scale, along with a Guidance Note. It will be updated by HBIC accordingly.

Ecological Networks – Recommendations for Local Plan Policy

5.26 Alongside the mapping the LNP also commissioned work to develop a planning policy framework for consideration and incorporation into local planning authorities' (LPAs) emerging local plans. The Local Ecological Network Policy Framework[61] suite of policies aims to support the development of a

[61] Local Ecological Network Policy Framework: Hampshire and Isle of Wight Local Nature Partnership (October 2018)

comprehensive approach which enhances and, therefore, produces a net gain in biodiversity across Hampshire and the Isle of Wight.

5.27 Fundamental to this is the significance of the natural environment when considering whether development proposals constitute 'sustainable development'. Development that is not making a positive contribution to the existing natural environment is at best neutral and in not addressing the continuing decline of biodiversity is, in effect, contributing to it. Such development would not, therefore, be sustainable development[62].

5.28 To establish a link between sustainable development and the LEN, the LEN Policy Framework therefore recommends the following for inclusion in the Local Plan:

"Sustainable development is considered to be that which delivers positive improvements in the quality of the built, natural and historic environment and the quality of people's lives. Proposals which are consistent with the policies of the plan and which deliver positive improvements will be permitted."

5.29 Given that the LEN includes statutory designations, non-statutory sites and sites used by Solent Waders and Brent Geese (see Chapter 3) the Draft HBLP 2036 already includes strong protective policies for features that form part of the LEN. Although these policies, for development management purposes, also include trees, hedgerows, water bodies and landscape, all of which support biodiversity, the focus has been on the protection of designated sites and protected species as required by legislation. It is important that protective policies, especially those which support, retain and enhance the biodiversity of an area, are retained in the HBLP 2036. However, it will be vital to expand these further to establish the LEN and promote net biodiversity gain.

5.30 The key issues to be addressed in the emerging HBLP 2036 are:

- The fragmentation of the Borough's ecological network;
- The retention and enhancement of the Borough's biodiversity; and
- The need to improve connectivity.

5.31 The LEN Policy Framework seeks to ensure that in considering proposals, the impact not just on specific sites and species but on the wider ecological network are considered. The following policy is suggested:

"Development which results in harm to the local ecological network of Havant Borough will not be permitted unless the need for and benefits of the development outweighs the harm; if harm cannot be avoided measures which mitigate or compensate that harm will be required.

Applications for development should include adequate and proportionate information to enable a proper assessment of the implications for the local Ecological Network. They should also be supported by mitigation plans and or compensation plans informed by the assessment of harm which would deliver a net gain for biodiversity and which set out the long-term management of any measures."

5.32 In addition to some of the foregoing explanatory justification and detail, the supporting text to the policy could include the following:

[62] NPPF paragraphs 10 & 11

- The assessment of the impact of development will need to take account of the relationship of the proposed development to components of the LEN in terms of its proximity, the proposed end use and the impact of that use on the LEN. The impact of any construction activity would also need to be considered.
- Applicants are encouraged to engage with the local planning authority at an early stage in the process to ensure that the potential implications for the LEN are taken into account in the preparation of proposals.
- Some features will not be shown on the LEN Map due to scale (e.g. veteran trees and notable species locations). Therefore, in preparing proposals for development, local records should be referred to and site-specific surveys and assessments carried out to inform a planning application. Ecological assessments should also be informed by a data search by the Hampshire Biodiversity Information Centre and not simply rely on online resources.

Key action for the Havant Borough Local Plan 2036	
✓	A specific policy is needed to embed the Local Ecological Network project into the Local Plan and reflect the principles of the project in development management decisions.

The Local Ecological Network and Green Infrastructure

5.33 There is a close relationship between ecological networks and the network of open and natural spaces which form the Borough's green infrastructure network. In essence, the focus of the LEN is to enhance biodiversity whilst green infrastructure needs to also provide for the needs of people. It is perfectly possible that land and its management sits comfortably within both definitions and this is the preferred approach.

5.34 This means that green and open spaces should be designed so that they can also perform a role as a wildlife corridor. This also offers the opportunity to provide interpretation and education so that people can learn more and appreciate the natural world they are part of.

5.35 Given Havant Borough's built up nature, it is rarely possible to have spaces solely for wildlife or solely for people. Every opportunity should be taken so that the two can co-exist successfully. This extends to initiatives such as refuges for overwintering SPA bird species where it is expected that these will coexist next to well-used recreational routes. Neighbourhood Plans

5.36 The LEN Policy Framework suggests that in setting out policies which would shape and direct development within their area, Neighbourhood Plans could also incorporate the LEN approach. At the scale neighbourhood plans are prepared, there may also scope to identify the local network on the policies map.

Ecological Networks – Recommendations for Potential Housing Allocations

5.37 Harm to the LEN from development can occur where:

- The quality of the existing ecological interest of an area is diminished;
- The extent of an existing nature conservation site, wildlife corridor or stepping stone is reduced;
- Land which forms part of the LEN is severed; and
- The proposed layout of a development restricts the potential movement of wildlife within or through the network.

5.38 There are numerous ways in which the impact of development can be mitigated and, where possible, improvements made to the LEN to achieve a net gain in biodiversity. This can be accomplished through:

- The careful design and layout of development to facilitate the movement of wildlife;
- The improvement in quality of existing features such as boundary hedgerows;
- The use of new landscape planting informed by priorities for notable and priority species; and
- The inclusion of specific measures such as bat boxes, swift bricks/boxes and sparrow terraces. (NB These are considered in more detail in Chapter 6.)

5.39 Green spaces provided through development should always be multifunctional in nature, providing for the needs of wildlife and people. Nonetheless it is important that in designing spaces for recreation and/or play purposes, features are not put in place which would compromise the ability of those spaces as links in the LEN. Therefore, appropriate access and management plans may need to be provided alongside any planning application.

5.40 In summary, it is important that the design and layout of built development takes account of the known local ecological network and ensures that, from the earliest design stages, consideration is given the protecting and enhancing the LEN.

Key action for the Havant Borough Local Plan 2036	
✓	Sites that intersect the LEN corridors should specifically reference this and the need to address the potential fragmentation in the network through the development.

6. Biodiversity Net Gain

Biodiversity Net Gain at the Micro-Level

6.1 While habitat creation either on site or off site to mitigate, for that lost to development will still be appropriate, there are other actions that can be taken by developers which are small in scale but can be very important in achieving a net gain in biodiversity. As described in the introductory chapter, an aim of net gain is for it to be achieved locally to the development with a preference for on-site provision where possible. Indeed, wildlife can exist alongside people and doesn't need to be displaced by new housing: some species are dependent upon the built environment

6.2 More detail on undertaking surveys for wildlife and their habitat prior to submitting planning applications and development, and the provisions that should be made, is available from various sources including Natural England and DEFRA. In particular, applicants should refer to standing advice provided by Natural England. Bats

6.3 All bat species and their roosts are protected by law[63] which dictates that any structures or places which bats use for shelter or protection are protected from damage or disturbance whether occupied or not. Many species are also listed as priority species.

6.4 The overarching aim of ecological survey and assessment work used to inform planning proposals is to assess impacts, to provide recommendations for mitigation (in accordance with the mitigation hierarchy), and to maximise benefits for biodiversity. Avoidance of any impacts should be the first consideration, the next step is then mitigation of any impacts that cannot be avoided, and lastly compensation should be used to off-set unavoidable remaining impacts. The hierarchy is illustrated in the figure below.

6.5 In terms of scoping the type and level of survey required, early engagement through pre-application discussions with the Council's ecologist is essential.

[63] Wildlife and Countryside Act 1981 (as amended) and Conservation of Habitats and Species Regulations 2017 (as amended)

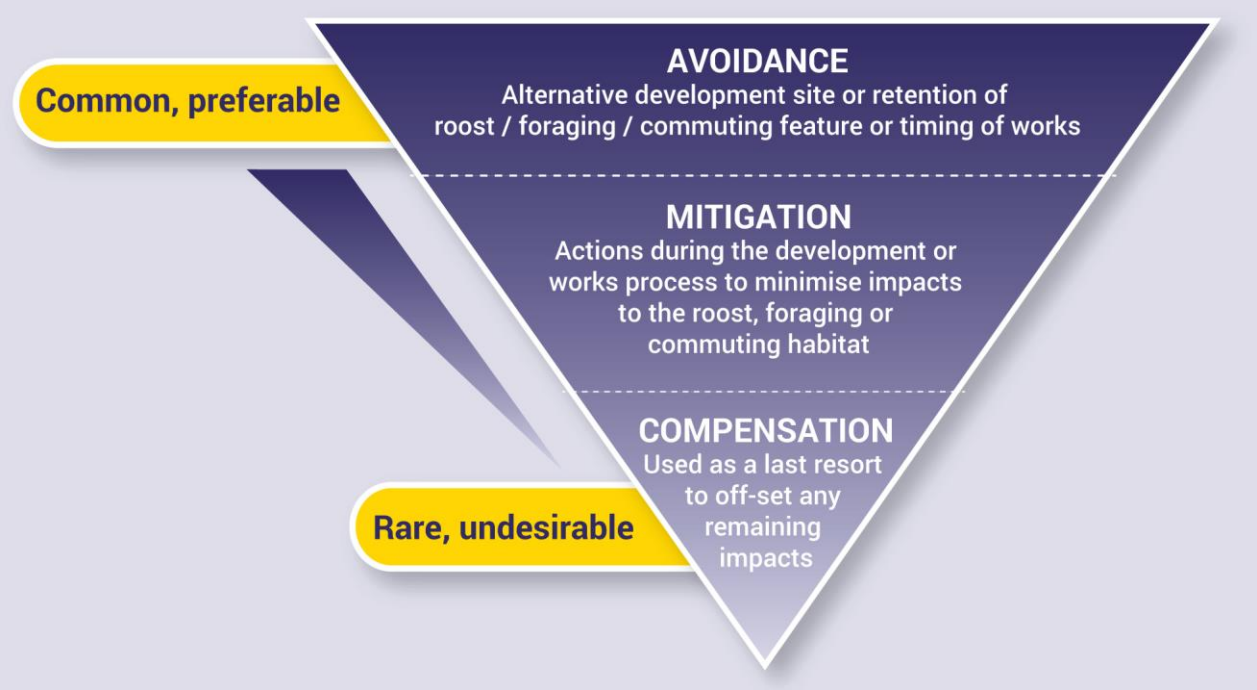

Figure 5: Mitigation Hierarchy when bats are affected by development proposals
Source: https://www.bats.org.uk/our-work/buildings-planning-and-development/avoidance-mitigation-compensation

6.6 If a bat survey demonstrates that bats and/or a known roost are likely to be affected by the proposed development and planning permission is to be granted, an informative should be placed on the decision notice requiring the developer to apply for and obtain a European Protected Species Licence before work commences.

6.7 If a bat roost cannot be retained in situ or will be modified by the development, then works must ensure that equivalent compensatory roosting habitat is available. This could entail providing bat access features on a new building or constructing a bespoke roosting structure such as a 'bat house'. The type of compensatory habitat required must be determined by detailed survey work and should take account of the specific needs of the species present and the type of roost (e.g. breeding roost, hibernation roost).

6.8 There are several examples of Bat houses designed and built for housing and other developments.

Photo 1: Purpose built bat house designed by EAD Ecology for Cavanna Homes development at Torbay includes features suitable for rare horseshoe bats and was completed in spring 2013

Source: http://www.eadecology.co.uk/new-homes-for-bats/

Photo 2: The construction of a purpose-built mitigation bat house in Chorley, required to mitigate for the loss of buildings associated with the decommissioning of a former Royal Ordnance Factory site. The scheme has proved to be highly successful and was occupied by bats within just five months of construction.

Source: http://www.bowlandecology.co.uk/projects/

6.9 Bat boxes can be installed on suitable trees or on/within the walls of new properties. Generally they need to be sited at least 3 metres above the ground and away from artificial light sources. Bat boxes and roosting units are inexpensive and a considerable range exists depending on the intended purpose (summer roost, winter hibernation roost or maternity roost), the species of bat to be accommodated and the intended location. Designs and materials vary (e.g. wood, woodcrete, woodstone), as they can be fixed externally or designed to be integrated into the brickwork of a building to produce a more discrete but attractive habitat for bats, as illustrated below.

Photo 3: Greenwood's Ecohabitats ecostyrocrete bat box

Source: www.bats.org.uk

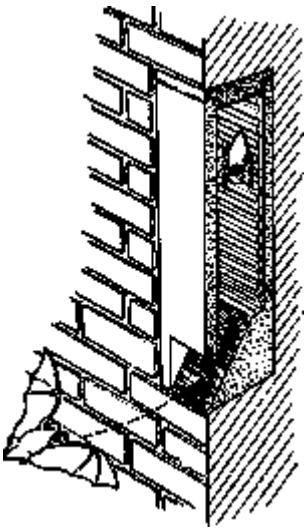

Figure 6 – Section through wall showing integrated bat box

Birds

6.10 All wild bird species, their eggs and nests are protected by law. Various activities can harm wild birds, including:

- trimming or cutting trees, bushes, hedges and rough vegetation;
- renovating, converting or demolishing a building; and
- creating disturbance, e.g. noise, lighting and vibration.

6.11 Some bird species are dependent on buildings for nest sites, such as house sparrows, starlings, house martins and swifts. While such species may appear to prefer older properties, having established locations to which they return the following breeding season, opportunities should not be missed to create new nest sites in or on new buildings and all these species will readily use nesting features on new buildings. For example, in new builds or extensions a pre-fabricated swift brick can be fitted into the fabric of the wall during construction or internal nest boxes can be put behind the facias and soffits. An example of such a product is shown below.

Photo 4: Internal nest boxes – courtesy Lindsay Jerome.

6.12 Otherwise externally fitted nest boxes can be used, as illustrated below.

Photo 5: Eaves nest box.

Source: RSPB

6.13 Choosing the type and size of nest box and its location will depend on the species of bird to be attracted. Boxes for tits, sparrows or starlings should be fixed at two to four metres height on a tree or wall. Open-fronted boxes for robins and wrens need to be low down, below 2 metres and well hidden in vegetation. Swift nesting boxes or swift bricks are best sited as high as possible (minimum

4m), Boxes should generally face away from direct sunlight and the wettest winds, with a clear flight path to the nest.

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Photo 6: Nest boxes can be fixed to the outside wall of a house. For birds that nest in loose colonies e.g. house sparrows, two or three boxes can be spaced out on the same side of a house.

Source: RSPB

Hedgehogs

6.14 The hedgehog is a Priority Species and Britain's only spiny mammal. They are nocturnal so should only be active at night. During the day, and during winter hibernation, hedgehogs will sleep in a specially built nest in thick undergrowth, under a shed, in piles of leaves or unlit bonfires.

6.15 Despite their popularity, hedgehog numbers have been falling in the UK. It is estimated that 30% of the British hedgehog population has been lost between 2002 and 2013. The removal of hedgerows on farmland and increasing development results in the destruction and fragmentation of suitable habitats meaning that hedgehogs may now struggle to find food and suitable nest sites needed for hibernation. The building of new roads and the increasing traffic means that road casualties are now the most common cause of hedgehog deaths. Pesticides have been connected with the hedgehog's decline as they kill their food source and may even poison the hedgehogs directly. Slug pellets will poison hedgehogs as will eating the poisoned slugs. Garden hazards such as netting and ponds cause further casualties as hedgehogs can easily become trapped in them and starve, dehydrate or drown.

6.16 Hedgehogs travel on average 1.6km a day and may be impeded by walls and fences. To help hedgehogs in new developments a couple of bricks should be left out of a garden wall, and a hole cut in a close boarded fence, or a tunnel made underneath to maintain hedgehog highways. This will allow hedgehogs to move from plot to plot and help link different habitats together.

Photo 7: Retrospective hedgehog hole drilled in a garden wall
Source: https://www.atlasobscura.com/articles/london-hedgehog-urban-animals

Photo 8: Hedgehog friendly fence gravel board
Source: https://www.jacksons-fencing.co.uk/hedgehog-fencing

Invertebrates

6.17 *"If we and the rest of the back-boned animals were to disappear overnight, the rest of the world would get on pretty well. But if the invertebrates were to disappear, the world's ecosystems would collapse."* Sir David Attenborough.

6.18 Invertebrates live on land (terrestrial), in the sea (marine) and in water bodies such as lakes and rivers (freshwater). Some species - such as dragonflies - live both on land and in the water, depending on their life stage. Of the terrestrial invertebrates there is a long list if insects on the list of protected species, including butterflies, moths, beetles, bees and even some species of ants and wasps. Also, several species of spiders, snails and millipedes.

6.19 A bug house hotel or conservation shed can be planned to create a habitat for a variety of creatures. These can be DIY projects on a small scale at home or in the garden, or on a larger scale by a school or community conservation group on land dedicated by the developer.

Photo 9: Small insect hotel

Source: https://blogs.paris.fr/casepasseaujardin/2013/03/05/hotels-et-nichoirs-a-insectes/

Photo 10: This conservation shed includes habitat for bees, lacewings and newts; there's even a bat box in the roof. Tools for conservation work can be stored in the rear

Source: Joel Bird, The Shed Builder www.theshedbuilder.co.uk

Key action for the Havant Borough Local Plan 2036	
✓	The Local Plan, as part of achieving net biodiversity gain, should specifically require small scale ecological mitigation. This can effectively be put in place on any site, particularly those that are of a small scale and on their own would be unlikely to lead to an ecological impact or need an ecological assessment.

7. Conclusions

Summary and Recommendations

7.1 Monitoring has found there has been no loss of land from internationally and designated sites within the Borough as a result of development over the past seven years and there has even been some improvement in the condition of the SSSIs within the Borough over the past 5 years. However, there is both recreational pressure from residents and visitors along with development pressure as the need for more housing continues.

7.2 It is essential therefore that the HBLP 2036 finds an appropriate balance in allocating sites for development between the requirement to meet the need for development while protecting and enhancing the biodiversity of the Borough. Indeed, the challenging goal is to achieve net gain in biodiversity in line with Government policy through development.

7.3 By collectively reviewing and overlaying the various evidence base documents and sources with micro-level initiatives, this Biodiversity Strategy identifies:

- The location and site-specific requirements for Brent Goose Refuges;
- The design and layout requirements for proposed housing and employment allocations to help achieve biodiversity gain through development, and
- The presence of established biodiversity corridors in Havant Borough and opportunities through recreation, restoration and new provision to improve the movement of species within the Borough and between it and the surrounding landscape.

7.4 In taking forward this strategy, policies in the Havant Borough Local Plan 2036 should:

- Expect site searches and detailed site layout proposals to be guided by ecological network mapping and to follow the impact hierarchy in order to avoid impact or damage, mitigate against impact or damage and, as a last resort, to compensate for loss or damage to biodiversity;
- Require every development to secure net gains for biodiversity, especially to incorporate and enhance biodiversity in and around the scheme (on and within buildings as well as between gardens and through open spaces);
- Ensure development avoids fragmentation of the ecological network and makes opportunities to connect to and improve the wider ecological network, including linking ‘stepping stones’.
- Safeguard the European and internationally designated wildlife sites from development that would harm them.
- Only permit development having an adverse effect on nationally designated wildlife sites where need for and benefits of the development outweigh the impact.
- Only permit development resulting in the loss or deterioration of irreplaceable habitats, ancient woodland and veteran trees for wholly exceptional reasons, where public benefits outweigh the loss and a suitable mitigation strategy exists.
- Only permit development having an adverse effect on European protected and Priority species unless overriding public interest and suitable provision is made for the retention of the species or their safe relocation.
- Set requirements for Appropriate Assessment and biodiversity/ecological assessment within the planning application process.

Key action for the Havant Borough Local Plan 2036	
✓	The Local Plan needs to clear set out the different designated sites in the Borough and the hierarchy of the designations.
✓	A policy is needed to specifically highlight the protected species in the Borough and ensure their continued protection. Whilst there is national guidance and a licensing regime in place, the specific local populations warrant a specific Local Plan policy.
✓	The Council should continue to play an active role in the Bird Aware Solent Partnership
✓	A specific policy in the Local Plan will be needed to refer to the Solent Recreation and Mitigation Strategy so that it can effectively inform the development management process.
✓	The Council should continue to investigate opportunities to bid for Solent Local Growth Deal funding for relevant projects
✓	Include a specific policy to reflect the new Solent Waders and Brent Goose Strategy so that development management decisions can reflect the proposals in the strategy.
✓	The Local Plan should be clear that development that would affect a site identified in the strategy will need a bespoke, project level Habitats Regulations Assessment.
✓	The Council should continue to monitor mitigation schemes for the Solent SPAs coming through planning permissions to avoid any double counting.
✓	The two identified refuges will need to be allocated as refuges in the Local Plan
✓	Policy protection will specifically be needed for locally designated nature conservation sites as they are not subject to any legal protection.
✓	Continue to work with Natural England to develop an effective management package for the West Beach area to be implemented with new development.
✓	A specific policy is needed to embed the Local Ecological Network project into the Local Plan and reflect the principles of the project in development management decisions.
✓	Sites that intersect the LEN corridors should specifically reference this and the need to address the potential fragmentation in the network through the development.
✓	The Local Plan, as part of achieving net biodiversity gain, should specifically require small scale ecological mitigation. This can effectively be put in place on any site, particularly those that are of a small scale and on their own would be unlikely to lead to an ecological impact or need an ecological assessment.

Appendix 1 - Potential SPA Bird Refuge Sites

Hayling Island

Potential Refuge Site	SWBGS Site	Size (ha)	Existing Land Use	Details
1	H48C	6.8	Arable/Improved Grass	This series of large arable fields along West Lane support large numbers of birds and are ideally suited to become permanent refuges. The sites are disturbed both during farming operations and by recreational visitors along the Hayling Billy Trail along their western boundary.
2	H48D	7.6	Arable/Improved Grass	
3	H48F	7.6	Arable/Improved Grass	
4	H48G	10.3	Arable/Improved Grass	
5	H34C (North)	6.8	Arable/Improved Grass	The northern part of H34C only has consistently supported large number of Brent Geese (>800). The site is ideally placed for birds moving between coastal and inland habitats but has been subject to pedestrian disturbance due to permeable boundaries. Although this has since been addressed by a developer, no data on efficiency is yet available.
6	H51	9	Improved Grass	Large grassland site at Verner Common.
7	H59E	16	Arable/Improved Grass	No additional notes.
8	H59D	12.7	Arable/Improved Grass	No additional notes.
9	H60D	21.3	Arable/Improved Grass	No additional notes.
10	H65	4.6	Arable/Improved Grass	No additional notes.
11	H60F	7	Arable/Improved Grass	No additional notes.

Mainland

Potential Refuge Site	SWBGS Site	Size (ha)	Existing Land Use	Details
12	H07B	3.6	Arable/Improved Grass	The site is HBC-owned and comprises improved grassland immediately adjacent to intertidal habitat at Broadmarsh Coastal Park which is used by large numbers of SPA bird species. It is currently only used by pedestrians, cyclists and dog walkers as publicly-accessible greenspace forming part of South Moor and Broadmarsh Coastal Park. There is obvious potential for the installation of robust fencing and appropriate management as an ''experimental'' site to test the refuge approach and, in the longer-term, as an attractive local nature reserve. It would be possible to fence a core area of 1.3 hectares and maintain sufficient space to enable visitors to walk along the existing footpath network. There is also the potential use for adjacent sites H07A and H08. As this site is already in local authority control, it is an ideal site.
13	H23E	13.8	Arable/Improved Grass	A series of three large permanent pastures situated at Conigar Point, Warblington. These fields are enclosed by typical field boundary hedgerows and, to the south, by tall tamarisk scrub. The two southernmost fields regularly support large numbers of Brent Geese. Disturbance is a potential issue at and around high tide where a popular informal path becomes submerged forcing people to push through the hedgerows and into these fields.

Appendix 2 – Priority Habitats

Grasslands

Lowland Calcareous Grassland

Lowland calcareous grasslands are developed on shallow lime-rich soils generally overlying limestone rocks, including chalk. Calcareous grasslands cover a range of plant communities in which lime-loving plants are characteristic. Lowland calcareous grasslands support a very rich flora including many nationally rare and scarce species, and a diverse range of invertebrates including scarce species. There is only one small area of grassland in the borough on Portsdown Hill, but it forms part of a larger habitat that extends into Portsmouth.

Lowland Dry Acid Grassland

Lowland acid grassland typically occurs on nutrient-poor, generally free-draining soils with a pH ranging from 4 to 5.5 overlying acid rocks or superficial deposits such as sands and gravels. Acid grassland is characterised by a range of plant species and can include dwarf shrub species at low abundance. Lowland acid grassland often forms a mosaic with dwarf shrub heath. Acid grasslands can have a high cover of bryophytes and parched acid grassland can be rich in lichens. Acid grassland is very variable in terms of species richness and stands can range from relatively species poor (less than 5 species per $4m^2$) to species-rich (in excess of 25 species per $4m^2$). Areas of dry acid grassland can be found at the south of Hayling Island and on the mainland at Southleigh Park and Havant Thicket.

Lowland Meadows

Lowland meadows include most forms of unimproved neutral grassland across the enclosed lowland landscapes of the UK. They have a specialist group of scarce and declining plant species. These grasslands may be cut for hay or used for livestock grazing. In non-agricultural settings, such grasslands are less frequent but additional examples may be found in recreational sites, churchyards, roadside verges and a variety of other localities. There are examples of this habitat type scattered across the borough; areas include Waterlooville Golf Course, Dunsbury Farm, Neville's Park, Conigar Point Meadow, Brook Meadow and Chichester Road Meadow.

Purple Moor Grass and Rush Pastures

Purple moor grass and rush pastures occur on poorly drained, usually acidic soils in lowland areas of high rainfall. Their vegetation, which has a distinct character, consists of various species-rich types of fen meadow and rush pasture. Purple moor grass (Molinia caerulea), and rushes, especially sharp-flowered rush (Juncus acutiflorus), are usually abundant. The characteristic plant communities often occur in a mosaic with one another, together with patches of wet heath, dry grassland, swamp and scrub. One area of purple moor grass and rush pasture can be found to the east of Leigh water in Staunton Country Park.

Heathlands

Lowland Heathland

Lowland heathland is a broadly open landscape on impoverished, acidic mineral and shallow peat soil, which is characterised by the presence of plants such as heathers and dwarf gorses and is generally found below 300 metres. Areas of heathland in good condition should consist of an

ericaceous layer of varying heights and structures, plus some or all of the following additional features, depending on environmental and/or management conditions; scattered and clumped trees and scrub; bracken; areas of bare ground; areas of acid grassland; lichens; gorse; wet heaths, bogs and open waters. Lowland heathland is a dynamic habitat which undergoes significant changes in different successional stages, from bare ground (e.g. after burning or tree clearing) and grassy stages, to mature, dense heath.

These different stages often co-occur on a site. There is only one very small area of heath on the seafront of Hayling Island.

Woodland, wood-pasture and parkland

Lowland Mixed Deciduous Woodland

Lowland mixed deciduous woodland includes woodland growing on the full range of soil conditions and occurs largely within enclosed landscapes, usually on sites with well-defined boundaries and tend to be small, less than 20 ha. There is great variety in the species composition of the canopy layer and the ground flora. Areas of woodland are located on both the mainland and Hayling Island, for example at Queens's Inclosure, Southleigh Park and Tournerbury.

Wet Woodland

Wet woodland occurs on poorly drained or seasonally wet soils, usually with alder, birch and willows as the predominant tree species, but sometimes including ash, oak, pine and beech on the drier riparian areas. It is found on floodplains, as successional habitat on fens, mires and bogs, along streams and hill-side flushes, and in peaty hollows. These woodlands occur on a range of soil types including nutrient-rich mineral soils and acid, nutrient-poor organic ones. The boundaries with dryland woodland may be sharp or gradual and may change with time through succession; therefore, wet woods frequently occur in mosaic with other woodland key habitat types and with open key habitats such as fens. There is one large area of wet woodland at Southleigh Park and some small patches either side of the A3 (M), Bells Copse and Nore Barn Woods.

Wood Pasture and Parkland

Wood-pastures are areas that have been managed by a long-established tradition of grazing allowing, where the site is in good condition, the survival of multiple generations of trees, characteristically with at least some veteran trees or shrubs. The tree and shrub component may have been exploited in the past and can occur as scattered individuals, small groups, or as more or less complete canopy cover. Depending on the degree of canopy cover, other semi-natural habitats including grassland, heath, scrub etc, may occur in mosaic with woodland communities. While oak, beech, alder, birch, ash, hawthorn, hazel or pine are often dominant, a wide range of other tree and shrub species may occur as part of wood-pasture systems. Wood-pastures and parkland are the products of historic land management systems, and represent a vegetation structure rather than being a particular plant community.
Typically this structure consists of large, open-grown or high forest trees (often pollards) at various densities, in a matrix of grazed grassland, heathland and/or woodland floras. There is only one example of this habitat type in the borough in the area around Thicket Lawn.

Wetlands

Coastal and Floodplain Grazing Marsh

Grazing marsh is periodically inundated pasture, or meadow with ditches which maintain the water level, containing standing brackish or fresh water. The ditches are especially rich in plants and

invertebrates. Almost all areas are grazed, and some are cut for hay or silage. Sites may contain seasonal water-filled hollows and permanent ponds with emergent swamp communities, but not extensive areas of tall fen species like reeds; although they may abut with fen and reed swamp communities. The most extensive areas of grazing marsh are found on the east coast of Hayling Island, however there are some small areas on the coast of the
mainland such as at Conigar Point.

Reedbeds

Reedbeds are wetlands dominated by stands of common reed (Phragmites australis), wherein the water table is at or above ground level for most of the year. They tend to incorporate areas of open water and ditches, and small areas of wet grassland and carr woodland may be associated with them. There are areas of reedbed found at Langstone Mill Pond and the shoreline of Nore Barn Woods.

Coastal

Coastal Saltmarsh

Coastal saltmarshes comprise the upper, vegetated portions of intertidal mudflats, lying approximately between mean high water neap tides and mean high water spring tides. Saltmarshes are usually restricted to comparatively sheltered locations such as in estuaries, saline lagoons, behind barrier islands and on beach plains. The development of saltmarsh vegetation is dependent on the presence of intertidal mudflats. Saltmarsh vegetation consists of a limited number of salt-tolerant species adapted to regular immersion by the tides and a natural saltmarsh system shows a clear zonation according to the frequency of inundation. Examples of coastal saltmarsh can be found in both Langstone harbour, to the east of Farlington marshes and Chichester harbour, to the south of Emsworth, and along the east coast of Hayling Island.

Coastal Sand Dunes

Sand dune vegetation forms a number of zones, which are related to the time elapsed since the sand was deposited, the degree of stability which it has attained and the local hydrological conditions. Embryonic and mobile dunes occur mainly on the seaward side of a dune system and support very few plant species. Semi-fixed dunes occur where the rate of sand accretion has slowed but the surface is still predominantly bare sand; there is also an increasing number of species found. Fixed dune grassland forms largely closed swards where accretion is no longer significant, the surface is stabilised and some soil development has taken place. On dunes which have become acidified by leaching, acid dune grassland develops and if these areas are heavily grazed by rabbits they may support lichen communities. Dunes can be found on Hayling Island at Sinah Common and Sandy Point.

Coastal Vegetated Shingle

Shingle is sediment with particle sizes in the range of 2-200 mm. Shingle beaches are widely distributed around the coast of the UK, where they develop in high energy environments. The vegetation communities of shingle depend on the amount of finer materials mixed in with the shingle and on the hydrological regime. This habitat type is found in a number of locations in the borough including Sinah Common, Sandy Point and the islands in Langstone Harbour.

Intertidal Mudflats

Mudflats are sedimentary intertidal habitats created by deposition in low energy coastal environments, particularly estuaries and other sheltered areas. Their sediment consists mostly of silts and clays with a high organic content. Mudflats are intimately linked by physical processes to other coastal habitats such as saltmarshes. They commonly appear in the natural sequence of habitats between subtidal channels and vegetated saltmarshes. Mudflats are characterised by high biological

productivity and abundance of organisms, but low diversity with few rare species. Intertidal mudflats can be found in both Langstone and Chichester harbours.

Saline Lagoons

Lagoons are essentially bodies, natural or artificial, of saline water partially separated from the adjacent sea. They retain a proportion of their seawater at low tide and may develop as brackish, full saline or hyper-saline water bodies. Lagoons can contain a variety of substrata, often soft sediments which in turn may support tasselweeds and stoneworts as well as filamentous green and brown algae. In addition, lagoons contain invertebrates rarely found elsewhere. There are several small areas of saline lagoon around the coast of the borough, with two larger areas found at Emsworth Millpond and the Oysterbeds on Hayling Island.

Marine

Seagrass Beds

Seagrass beds develop in intertidal and shallow subtidal areas on sands and muds. They may be found in marine inlets and bays but also in other areas, such as lagoons and channels, which are sheltered from significant wave action. Seagrass species are divided into tassleweeds (Ruppia) and eelgrass (Zostera). Three species of Zostera occur in the UK, and all are considered to be scarce. Dwarf eelgrass (Zostera noltii) is found highest on the shore, often adjacent to lower saltmarsh communities, narrow-leaved eelgrass (intertidal variant of Zostera marina) on the mid to lower shore and eelgrass (Zostera marina) predominantly in the sublittoral. Two areas of seagrass bed are present off Hayling Island, one in Langstone Harbour and the other in Chichester Harbour.

Sheltered Muddy Gravels

Sheltered muddy gravels occur principally in estuaries, rias and areas protected from wave action and strong tidal streams. In fully marine conditions on the lower shore this habitat can be very species-rich because the complex nature of the substratum supports a high diversity of both infauna and epifauna. Polychaetes and bivalve molluscs are normally dominant and the most varied, but representatives of most marine phyla can be present. Fauna is often characterised by a large range in body size. Species richness reduces with a move into an estuary. Areas of sheltered muddy gravels can be found on the west and southern shores of Hayling Island.

Source: Havant Biodiversity Action Plan 2011

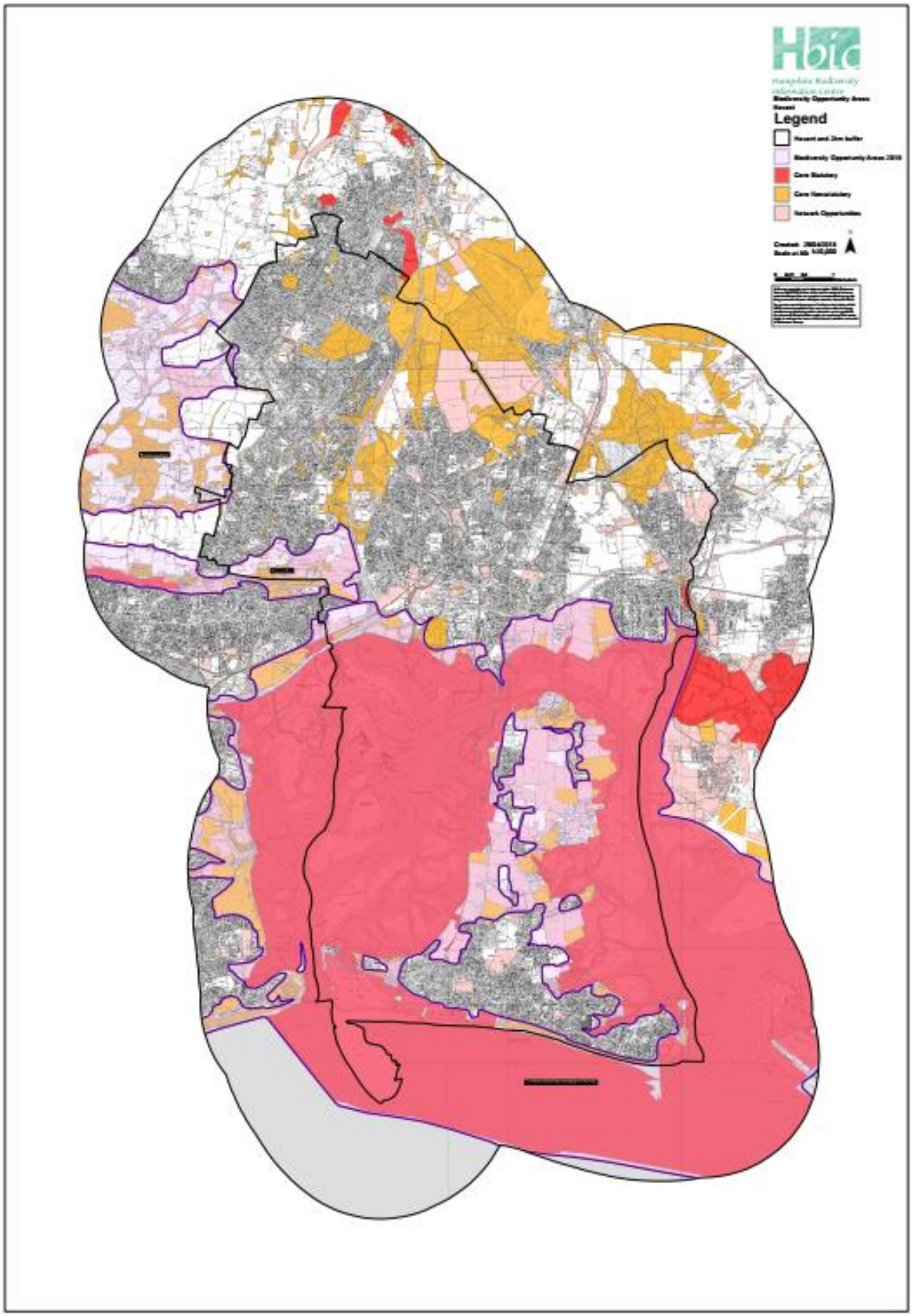
Appendix 3 – SINC Criteria

The criteria below define those sites which are considered to be of particular importance for nature conservation within Hampshire.

Woodland	
1A	Ancient[1] semi-natural[2] woodlands.
1B	Other woodland where there is a significant element of ancient semi-natural woodland surviving.
1C	Other semi-natural woodland if; (ii) they comprise important community types of restricted distribution in the County, such as yew woods and alder swamp woods.
1D	Pasture woodland and wooded commons, not included in any of the above, which are of considerable biological and historical interest.
1	*Ancient – refers to woodlands which have developed particular ecological characteristics as a result of their long continuity. Those identified to date which are over 2ha are included on the Hampshire Inventory of Ancient Woodlands (Provisional).*
2	*Semi-natural – modified types of vegetation in which the dominant and constant species are accepted natives to Britain and that locality, and the structure of the community conforms to the range of natural vegetation types.*
Neutral/acid/calcareous grassland	
2A	Agriculturally unimproved grasslands[3]
2B	Semi-improved grasslands which retain a significant element of unimproved grassland.
2D	Grasslands which have become impoverished through inappropriate management but which retain sufficient elements of relic unimproved grassland to enable recovery.
3	*Agriculturally unimproved grassland – grassland that is composed of a mixed assemblage of indigenous species in essentially semi-natural communities which has been allowed to develop without the major use of herbicides or inorganic fertilisers.*
Heathland	
3A	Areas of heathland vegetation; including matrices of dwarf shrub, acid grassland, valley mires and scrub.
3B	Areas of heathland which are afforested or have succeeded to woodland if; (i) they retain significant remnants of heathland vegetation which would enable their recovery, or (ii) (ii) they are contiguous with, or form an integral part of an open area of heathland.
Coastal habitats	
4A	Semi-natural coastal and estuarine habitats, including saltmarsh, intertidal mudflats, sand dunes, shingle, brackish ponds, grazing marsh and maritime grasslands.
Wetlands	
5A	Areas of open freshwater (e.g. Lakes, ponds, canals, rivers, streams and ditches) which support outstanding assemblages of floating/submerged/ emergent plant species, invertebrates, birds or amphibians.
5B	Fens, flushes, seepages, springs, inundation grasslands etc. that support a flora and fauna characteristic of unimproved and waterlogged (seasonal or permanent) conditions.
Species	
6A	Sites which support one or more notable species[4].

6B	Sites which regularly support a significant population of a species which has a restricted distribution or has substantially declined in population or range. Such sites may be used seasonally or for only one part of a species life-cycle.
6C	Sites which support an outstanding assemblage of species.
[4]	*Notable species include Red Data Book species, Nationally Scarce species, species covered under Schedules 1,5 and 8 of the Wildlife & Countryside Act 1981, Annex 1 of the EC Bird Directive 79/409 and Annex II & IV of te EC Directive 92/43/EEC 'The Habitats Directive', and those covered by the Bern, Bonn and Ramsar Conventions. Notable species will also include species which are considered 'County Rare' or 'County Scarce'. County Rare = those species recorded in 1% or less tetrads in Hampshire or either of the two vice-counties (11 & 12) separately. County Scarce = 4% or less tetrads.*
Social value	
7A	Sites of nature conservation interest which occur in areas otherwise deficient in such interest, and/or are known to be of particularly high value to local communities e.g. community wildlife sites.
	Sites selected under this criterion will be rigorously confined to those which, if lost, would result in a considerable and demonstrable loss to the local community which would be very difficult/impossible to replace. Because of the widespread distribution of sites of nature conservation interest in Hampshire, and the high threshold used to define critical importance, only a limited number of sites are likely to meet this criterion.
Geology and geomorphology	
8A	Sites which have been designated as Regionally Important Geological/Geomorphological Sites (RIGS).
	Regionally Important Geological/Geomorphological Sites are sites of regional importance excluding SSSIs. RIGS are analogous to biological non-statutory sites.

Appendix 4 – Biodiversity Opportunity Areas



Appendix 5 – Glossary

Term	Definition
Ancient Woodland	An area that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland and plantations on ancient woodland sites (PAWS).
Buffer Zones	Transitional areas adjoining habitats whose use and management is intended to reduce the impact of development.
Functionally Linked Land (FLL)	Land which supports the function of an ecologically important site (e.g. SPAs).
Functional Network	A functional network should be resilient and meet the dispersal needs of the features in question. Some species require unbroken corridors of habitat for dispersal; others require minimum spacing between patches of habitat (stepping stones).
Important Hedgerows	A hedgerow is important (and is protected) if it's at least 30 years old and meets at least one of eight criteria identified by the Hedgerow Regulations.
Local Nature Reserve (LNR)	Sites designated under Section 21 of the National Parks and Access to the Countryside Act 1949, and amended by Schedule 11 of the Natural Environment and Rural Communities Act 2006, by principal local authorities.
Local Green Space (designated)	Sites designated in local and neighbourhood plans which are importance to local communities.
Local Wildlife Site	See SINC below.
National Nature Reserve (NNR)	Sites designated under the National Parks and Access to the Countryside Act 1949 and the provisions of the Wildlife and Countryside Acct 1981.
Natura 2000	EU directives protect animal and plant species and the habitats which support them, through the establishment of Natura 2000 sites. Natura 2000 is the largest network of protected areas in the world. It aims to ensure the long-term survival of Europe's most threatened species and habitats across Europe, both on land and at sea.
Net Gain	Where all residual losses to biodiversity are accounted for and addressed to provide biodiversity gain over and above the residual loss.
Notable Species	Include species protected under European legislation and the Wildlife & Countryside Act 1981 (as amended) and species listed in the Natural Environment & Rural Communities Act 2006, IUCN List of Threatened Species, the Birds of Conservation Concern Red List and species listed as being nationally, county rare or scarce.

Term	Definition
Priority Habitats	Listed as required under section 41 of the NERC Act 2006
Ramsar	A Ramsar Site is a wetland site designated to be of international importance under the Ramsar Convention. The Convention on Wetlands, known as the Ramsar Convention, is an intergovernmental environmental treaty for the conservation and sustainable use of wetlands. It is named after the city of Ramsar in Iran where the Convention was established and treaty signed in 1971, and came into force in 1975.
Special Areas of Conservation (SAC)	Sites designated under the European Union's Habitats Directive.
Suitable Alternative Natural Greenspace (SANG)	Designated space used as mitigation or avoidance to reduce the recreational use of a Special Protection Area (SPAs).
Site of Special Scientific Interest (SSSI)	A site designated by Natural England under the Wildlife and Countryside Act 1981 as an area of special interest because of any of its flora, fauna, geological or physiographical features.
Site of Importance for Nature Conservation (SINC)	Sites identified as being of local importance and approved by a panel comprising Hampshire County Council, Natural England and the Hampshire and Isle of Wight Wildlife Trust (HIWWT).
Special Protection Area (SPA)	Sites classified in accordance with Article 4 of the EC Birds Directive which came into force in April 1979.
Stepping Stones	Smaller areas of quality habitat that are intended to aid movement of species by serving as islands of favourable habitat in between larger core nature areas.
Veteran Trees	A tree may be regarded as a veteran due to great age; great age relative to others of the same species, existing in an ancient stage of life or due to its biological, aesthetic or cultural interest.
Water Courses	Comprising the water body and the land adjacent to it.
Wildlife Corridor	An area of habitat that is longer than it is wide connecting two or more habitat patches that would otherwise be isolated within a non-habitat matrix.

Appendix 6 - References

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