

# South Downs National Park Authority Local Plan Habitats Regulations Assessment

Prepared by: Isla Hoffmann Heap  
Ecologist

Checked by: Dr James Riley  
Associate Director

Approved by: Dr James Riley  
Associate Director

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Scott House, Alençon Link, Basingstoke, Hampshire, RG21 7PP, United Kingdom  
Telephone: 01256 310 200 Website: <http://www.aecom.com>

Job No: 47068278

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# 1 Introduction

## 1.1 Background to the project

1.1.1 AECOM has been appointed by South Downs National Park Authority (“the Authority”) to assist in undertaking a Habitats Regulations Assessment (HRA) of the potential effects of the Preferred Options South Downs National Park Local Plan, on the Natura 2000 network and Ramsar sites. This is referred to as the ‘Local Plan’ within this document.

1.1.2 The objective of this assessment is to:

- identify any aspects of the Local Plan that would cause an adverse effect on the integrity of Natura 2000 sites, otherwise known as European sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and, as a matter of Government policy, Ramsar sites<sup>1</sup>), either in isolation or in combination with other plans and projects; and
- to advise on appropriate policy mechanisms for delivering mitigation where such effects are identified.

## 1.2 Joint Core Strategies

1.2.1 The South Downs National Park overlaps with a number of other local authorities. These are listed below. The emerging SDNPA LP will supersede those areas that overlap.

### Overlapping Local Authorities with Joint Core Strategies

- East Hampshire District Council: The East Hampshire District Local Plan: Joint Core Strategy was adopted by the East Hampshire District Council on 8 May 2014 and by the South Downs National Park Authority (SDNPA) on 26 June 2014<sup>2</sup>. The SDNPA covers 57% of the district of East Hampshire. The Local Plan does not outline any strategic housing sites (i.e... specific development sites) with the exception of 2,725 new homes at Whitehill – Bordon (Policy CSWB1) over the Plan period and phased delivery of up to 4,000 new homes. An HRA was undertaken for the Joint Core Strategy and was considered to be robust at Examination in Public. Provided that the SDNP Local Plan does not propose housing levels beyond those identified in the Joint Core Strategy the conclusions of that HRA will therefore still apply to those parts of the SDNP in East Hampshire district.
- Lewes District Council: The Lewes District Local Plan was adopted in March 2003. At present this is under review. A new Core Strategy has been formally submitted for examination<sup>3</sup>. The Lewes District Local Plan identifies new housing within the SDNPA area, as does the SDNPA Local Plan. The housing numbers mentioned in both plans will not be cumulative but are essentially the same provision for housing.
- Wealden District Council: Wealden District Core Strategy (Incorporating Part of the South Downs National Park)<sup>4</sup>. This Strategy did not identify any housing allocations within the National Park. This document was considered for adoption and approved by Wealden District Full Council on 28 November 2012 and the South Downs National Park Authority on 19 February 2013.
- Winchester District Council: Winchester District Local Plan Part 1. This is a Joint Local Plan. Adopted March 2013. This does not outline any strategic housing allocations within the National Park.

<sup>1</sup> Wetlands of International Importance designated under the Ramsar Convention 1979

<sup>2</sup>

[http://www.easthants.gov.uk/ehdc/formsfordownload.nsf/0/68B798F4E62FE61680257D3A004820A1/\\$File/JCS+FINAL+VERSION+TEXT+ONLY+200814.pdf?bcsi\\_scan\\_AB11CAA0E2721250=0&bcsi\\_scan\\_filename=JCS+FINAL+VERSION+TEXT+ONLY+200814.pdf](http://www.easthants.gov.uk/ehdc/formsfordownload.nsf/0/68B798F4E62FE61680257D3A004820A1/$File/JCS+FINAL+VERSION+TEXT+ONLY+200814.pdf?bcsi_scan_AB11CAA0E2721250=0&bcsi_scan_filename=JCS+FINAL+VERSION+TEXT+ONLY+200814.pdf) [accessed 17/04/15]

<sup>3</sup> Lewes District Council. The Lewes District Local Plan <http://www.lewes.gov.uk/corestrategy/> [accessed 17/04/15]

<sup>4</sup> Wealden District Council. Wealden District (Incorporating Part of the South Downs National Park) <http://www.wealden.gov.uk/nmsruntime/saveasdialog.aspx?IID=14756&sID=2829>

### **Overlapping Local Authorities without Joint Core Strategies:**

- Adur District Council: Adur District Local Plan was adopted in 1996. This sets out the spatial strategy for Adur. Adur Local Plan 2014. This is the emerging Local Plan. It had been intended that the Local Plan would be submitted to the Secretary of State in March 2015 with a public examination held in the summer of 2015. However, further work is required to address some issues raised in respect to the strategic allocations<sup>5</sup>.
- Arun District Council: Local Plan Publication Version (September 2014)<sup>6</sup>
- The City of Brighton and Hove: The Brighton and Hove Local Plan was adopted in 2005. A Draft City Plan: Part 1 is currently being developed. This includes for 11,300 new homes to 2030 .Neighbouring Local Authorities
- Chichester District Council: Chichester Local Plan: Key Policies 2014-2029<sup>7</sup>. This is not a joint strategy in that the Chichester Local Plan does not cover those parts of the district which lie within the National Park (e.g. Petworth).
- Eastbourne District Council: Eastbourne Core Strategy Local Plan was adopted in February 2013.
- Horsham District Council: Horsham Local Development Framework Core Strategy (Adopted, 2007) is out of date (although still the adopted local plan). This sets out the spatial strategy for Horsham including housing; relevant in that it provides detail of development plans. Horsham District Planning Framework will replace the above mentioned Horsham LDF CS. It is currently subject to EiP (08/06/15).
- Mid-Sussex Council: Pre-Submission Draft District Plan<sup>8</sup>. This will be subject to public consultation, which will take place in May-June 2015 (dates to be confirmed). The District Plan sets a housing figure of 11,050 homes in the period 2014 – 2031 (650 per annum).
- Worthing Borough Council: Worthing Core Strategy (adopted 2011)<sup>9</sup>.

## **1.3 Current legislation**

- 1.3.1 Within the UK, Protected Areas for nature conservation include, those established under National legislation (e.g. Sites of Special Scientific Interest (SSSI)), areas established under European Union Directives/European initiatives (including the Natura 2000 network of sites), and protected areas established under Global Agreements (e.g. Ramsar sites).
- 1.3.2 With relevance to this report, Special Protection Areas (SPAs) are strictly protected sites classified in accordance with Article 4 of the EC Birds Directive 1979. They are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species. Special Areas of Conservation (SAC) are strictly protected sites designated under Article 3 of the EC Habitats Directive, which requires the establishment of a European network of important high-quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Directive (as amended)<sup>10</sup>. The listed habitat types and species are those considered to be most in need of conservation at a European level (excluding birds). Ramsar sites are wetlands of international importance designated under the Ramsar Convention.

<sup>5</sup> Adur District Council. Proposed Submission Adur Local Plan (2014). <http://www.adur-worthing.gov.uk/adur-ldf/adur-local-plan/>

<sup>6</sup> Arun District Council. Local Plan Publication Version (September 2014) [http://www.arun.gov.uk/download.cfm?doc=docm93jijm4n3812.pdf&ver=3482&bcsi\\_scan\\_E956BCBE8ADBC89F=+60EY+6sYlsCibFSjTq13t8u16O6AAAAPdQdBQ==:1](http://www.arun.gov.uk/download.cfm?doc=docm93jijm4n3812.pdf&ver=3482&bcsi_scan_E956BCBE8ADBC89F=+60EY+6sYlsCibFSjTq13t8u16O6AAAAPdQdBQ==:1) [accessed 01/05/15]

<sup>7</sup> Chichester District Council. Chichester Local Plan: Key Policies Pre-submission 2014-2029 <http://www.chichester.gov.uk/CHttpHandler.ashx?id=23248&p=0>

<sup>8</sup> Mid-Sussex County Council. Pre-Submission Draft District Plan [http://www.midsussex.gov.uk/media/ProSubDP\\_Feb2015.pdf](http://www.midsussex.gov.uk/media/ProSubDP_Feb2015.pdf)

<sup>9</sup> Worthing Borough Council. Worthing Core Strategy. <http://www.adur-worthing.gov.uk/media/media,98859,en.pdf>

<sup>10</sup> <http://jncc.defra.gov.uk/>



- 1.3.3 The Conservation of Habitats and Species Regulations 2010 require that land use plans are subject to Appropriate Assessment (AA) where they are likely to have a significant effect on a Natura 2000 site.
- 1.3.4 The Habitats Directive applies the precautionary principle to protected areas; plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. In the case of the Habitats Directive, potentially damaging plans and projects may still be permitted if there are no alternatives to them and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation will be necessary to ensure the overall integrity of the site network is maintained.

## 1.4 Report structure

- 1.4.1 Section 2 of this report summarises the methodology for the assessment. Section 3 identifies the possible pathways by which adverse effects on European protected sites could arise. Sections 4-9 consider each possible pathway in turn on the European sites that may be vulnerable, and a screening exercise to determine Likely Significant Effects of the Local Plan is performed, based on key environmental conditions required to maintain the integrity of these sites. The screening exercise for each site concludes by either screening out any possible impacts or by determining that mitigation or avoidance measures are required. Where mitigation strategies are deemed necessary, potential approaches are discussed. In combination effects with other plans on each European site are considered within Section 10. The recommendations are summarised in section 11. Background information on all the European sites discussed in this report is presented within Appendix A. Figure 1 of Appendix A presents a map showing all internationally important wildlife sites discussed. The full initial policy screening table and settlement screening table are presented in Appendix B.

## 2 Methodology

### 2.1 Introduction

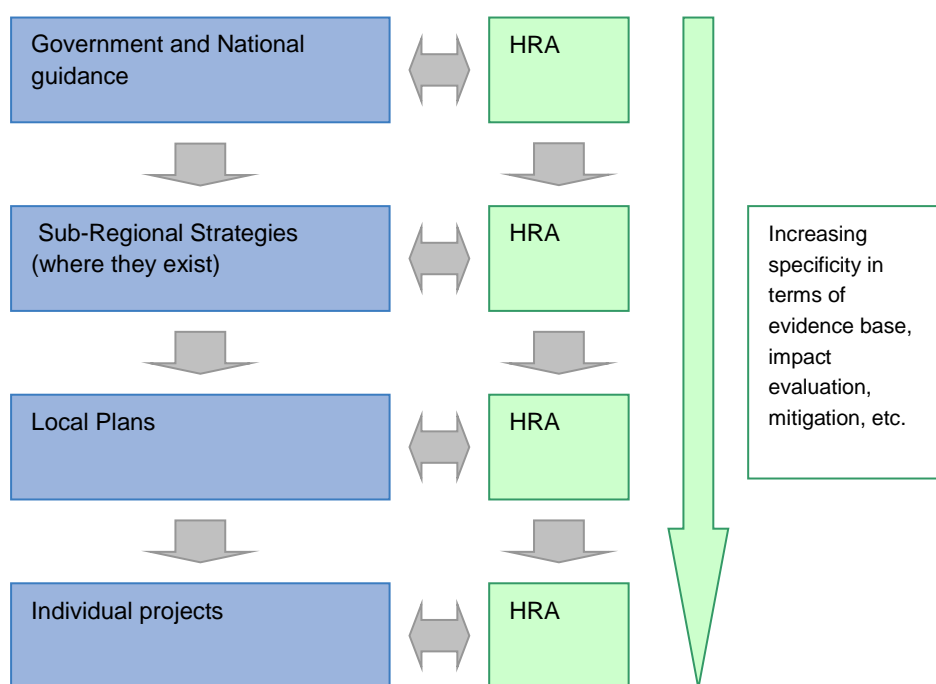
- 2.1.1 This section sets out our approach and methodology for undertaking the HRA. Habitats Regulations Assessment itself operates independently from the Planning Policy system, being a legal requirement of a discrete Statutory Instrument.

### 2.2 A Proportionate Assessment

- 2.2.1 Project-related HRA often requires bespoke survey work and novel data generation in order to accurately determine the significance of adverse effects. In other words, to look beyond the risk of an effect to a justified prediction of the actual likely effect and to the development of avoidance or mitigation measures.
- 2.2.2 However, the draft CLG guidance<sup>11</sup> makes it clear that when implementing HRA of land-use plans, the AA should be undertaken at a level of detail that is appropriate and proportional to the level of detail provided within the plan itself:
- 2.2.3 *'The comprehensiveness of the [Appropriate] assessment work undertaken should be proportionate to the geographical scope of the option and the nature and extent of any effects identified. An AA need not be done in any more detail, or using more resources, than is useful for its purpose. It would be inappropriate and impracticable to assess the effects [of a strategic land use plan] in the degree of detail that would normally be required for the Environmental Impact Assessment (EIA) of a project.'*
- 2.2.4 In other words, there is a tacit acceptance that appropriate assessment can be tiered and that all impacts are not necessarily appropriate for consideration to the same degree of detail at all tiers (**Figure 1**).
- 2.2.5 For a Local Plan the level of detail concerning the developments that will be delivered is usually insufficient to make a highly detailed assessment of significance of effects. For example, precise and full determination of the impacts and significant effects of a new settlement will require extensive details concerning the design of the town, including layout of greenspace and type of development to be delivered in particular locations, yet these data will not be decided until subsequent stages.
- 2.2.6 The most robust and defensible approach to the absence of fine grain detail at this level is to make use of the precautionary principle. In other words, the plan is never given the benefit of the doubt; it must be assumed that a policy/measure is likely to have an impact leading to a significant adverse effect upon a European site unless it can be clearly established otherwise.

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<sup>11</sup> CLG (2006) Planning for the Protection of European Sites, Consultation Paper

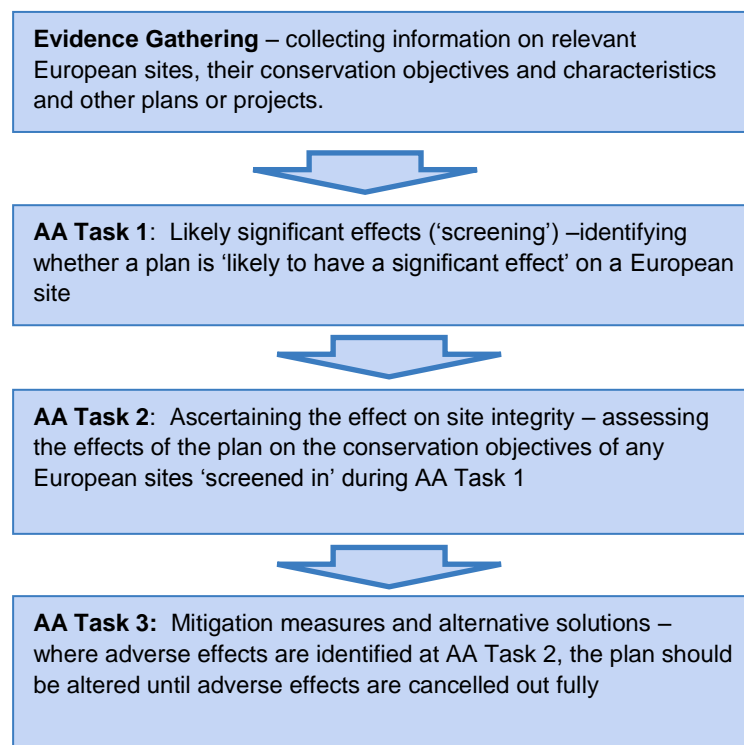


**Figure 1:** Tiering in HRA of Land Use Plans

## 2.3 The Process of HRA

- 2.3.1 The HRA has been carried out in the continuing absence of formal Government guidance. CLG released a consultation paper on AA of Plans in 2006<sup>12</sup>. As yet, no further formal guidance has emerged.
- 2.3.2 **Figure 2** below outlines the stages of HRA according to current draft CLG guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations and any relevant changes to the plan until no significant adverse effects remain.

<sup>12</sup> Ibid



**Figure 2:** Four-Stage Approach to Habitats Regulations Assessment

- 2.3.3 In practice, this broad outline requires some amendment in order to feed into a developing land use plan such as a Local Plan. The following process has been adopted for carrying out the HRA.

## 2.4 Stage One: Likely Significant Effect Test (Screening)

- 2.4.1 The first stage of any Habitats Regulations Assessment is a Likely Significant Effect (LSE) test - essentially a high level risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:
- 2.4.2 *'Is the Plan, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites?'*
- 2.4.3 The objective is to 'screen out' those plans and projects (or site allocations/policies) that can, without any detailed appraisal, be said to be unlikely to result in significant adverse effects upon European sites, usually because there is no mechanism or pathway for an adverse interaction with European sites.
- 2.4.4 Where the screening stage is unable to determine no likely significant effect, it is often possible to suggest amendments to emerging policy that will act as sufficient avoidance or mitigation. The understanding in such cases is that if the Authority is able to incorporate and deliver on such wording, then once the revisions are made, a conclusion of no likely significant effects will be possible.
- 2.4.5 Nonetheless, there remains the possibility that even with policy modification, in some cases there will be an inability to conclude no likely significant effects of an element of the Local Plan on a given European site. This may arise through, for example, a quantum of development at a location where impacts on a European site are unavoidable, through 'in combination' effects not fully within the Authority's power to influence, or simply through a lack of information on which to be able to form a valid conclusion of no likely significant effect. In these cases, there is the possibility of needing to obtain bespoke survey or other relevant information. This report documents the LSE Test.
- 2.4.6 The approach to screening in this HRA report is to first subject each policy or site allocation to an initial high-level screening based upon potential pathways of impact. That is documented in Tables 1 and 2 of Appendix B. The results of that initial screening are then used to inform a more detailed screening exercise set out in Sections 4-9 of the main report text. Therefore, it should be noted that Appendix B does not present a

summary of the whole assessment process. The conclusions of the screening process and its recommendations are summarised in Section 11 of the report.

## 2.5 Physical scope of the HRA

### Technical Scope

- 2.5.1 In evaluating significance, AECOM have relied on professional judgment regarding development impacts on the European sites.
- 2.5.2 Where Local Plans (LP) have already been adopted within Authorities that overlap with the SDNPA LP area, and with Policies that match those within the SDNPA Local Plan, these are not re-assessed having effectively already been assessed as part of the relevant Joint Core Strategy, but will be referred to within this document e.g. where relevant housing allocations within the SDNPA Local Plan.

### Physical Scope

- 2.5.3 The physical scope of the assessment i.e. the range of European sites to be considered will be based upon a combination of tracing impact pathways and using distances derived from various studies.
- 2.5.4 The internationally important wildlife sites (also known as European sites) of relevance to HRA are shown in Table 1: 1. Full details of reasons for designation, conservation objectives and key vulnerabilities are presented in Appendix A. These internationally important wildlife sites are identified in **Appendix A, Figure 1**. These sites lie wholly or partly within the South Downs National Park or within the surrounding sphere of influence:

**Table 1: Physical scope of the HRA**

<b>European sites</b>	
<b>Calcareous grassland sites:</b>	
	• Lewes Downs SAC
	• Castle Hill SAC
	• Butser Hill SAC
<b>Woodland sites:</b>	
	• Duncton to Bignor Escarpment SAC
	• Kingley Vale SAC
	• East Hampshire Hangers SAC
	• Rook Clift SAC
<b>Heathland/bog sites:</b>	
	• Shortheath Common SAC
	• Woolmer Forest SAC
<b>Bat sites:</b>	
	• Singleton & Cocking Tunnels SAC
	• Ebernoe Common SAC <sup>13</sup>
	• The Mens SAC <sup>14</sup>
<b>Heathland bird sites:</b>	
	• Wealden Heaths Phase 2 SPA
<b>Riverine sites:</b>	
	• River Itchen SAC

<sup>13</sup> Also contain beech forests on acid soils as a designated feature

<sup>14</sup> Also contains beech forests on acid soils as a designated feature

<ul style="list-style-type: none"> <li>Arun Valley SAC/SPA/Ramsar site</li> </ul>
<b>Estuarine sites:</b>
<ul style="list-style-type: none"> <li>Chichester &amp; Langstone Harbours Ramsar/ SPA</li> </ul>
<ul style="list-style-type: none"> <li>Solent Maritime SAC</li> </ul>
<b>Wetland sites:</b>
<ul style="list-style-type: none"> <li>Pevensey Levels SAC/ Ramsar site</li> </ul>

- 2.5.5 Emer Bog SAC is located 6.7km from the SDNPA boundary. By nature of the bog habitats present, it is sensitive to changes in hydrology. The River Itchen separates the SDNPA area from the catchment area of Emer Bog SAC. As such, this site is not discussed further.
- 2.5.6 The Solent and Isle of Wight Lagoons SAC is located at its closest 7.8km in a straight line from the SDNPA boundary. Realistically this distance is further. The site is vulnerable to changes in salinity. The SDNPA LP does not contain any impact pathways that could result in changes in salinity to this SAC. As such, this site is not discussed further.

## 2.6 The 'In-combination' Scope - other projects and plans

- 2.6.1 It is a requirement of the Regulations that the impacts and effects of any plan being assessed are not considered in isolation but in combination with other plans and projects that may also be affecting the European site(s) in question.
- 2.6.2 In practice, 'in-combination assessment' is of greatest importance when the Local Plan would otherwise be screened out because the individual contribution is inconsequential. It is neither practical nor necessary to assess the 'in-combination' effects of the Local Plan within the context of all other plans and projects within the region. The principal other plans and projects that have been considered for in-combination effects are:

**Table 2: Other projects and plans**

Other projects and plans	
<u>Plans</u>	
<ul style="list-style-type: none"> <li><b>Lewes*</b> - Joint Core Strategy Proposed Submission Document, 2013 (submitted for public examination January 2015)</li> </ul>	
<ul style="list-style-type: none"> <li><b>Adur</b> District Council, Proposed Submission Adur Local Plan 2014.</li> </ul>	
<ul style="list-style-type: none"> <li><b>Worthing</b> Borough Council, 2011. Core Strategy.</li> </ul>	
<ul style="list-style-type: none"> <li><b>Chichester</b> District Council, Local Plan Key Policies Pre-Submission. 2014-2029 and relevant Neighbourhood Plans (e.g. Selsey Neighbourhood Plan)</li> </ul>	
<ul style="list-style-type: none"> <li><b>East Hampshire*</b>, The East Hampshire District Local Plan: Joint Core Strategy (adopted 2014) and subsequent Housing and Employment Allocations document.</li> </ul>	
<ul style="list-style-type: none"> <li><b>Havant</b> Borough Council, 2011. Local Plan (Core Strategy). Adopted March 2011 and Local Plan (Allocations) adopted 2014</li> </ul>	
<ul style="list-style-type: none"> <li><b>Horsham</b> District Local Development Framework. The Core Strategy (2007) and replacement Horsham District Planning Framework and associated Neighbourhood Plans.</li> </ul>	
<ul style="list-style-type: none"> <li><b>Mid-Sussex</b> District Council, March 2015. Mid-Sussex District Plan – Pre-Submission Draft.</li> </ul>	
<ul style="list-style-type: none"> <li><b>Winchester*</b> City Council, 2013. Local Plan – Joint Core Strategy. (Adopted) and emerging Development Management &amp; Allocations document.</li> </ul>	
<ul style="list-style-type: none"> <li><b>Arun</b> Local Plan 2011-2031 Publication Version September 2014</li> </ul>	
<ul style="list-style-type: none"> <li><b>Brighton and Hove</b> Submission City Plan Part One. February 2013, Further Proposed Modifications (2015) and associated Neighbourhood Plans.</li> </ul>	
<ul style="list-style-type: none"> <li><b>Eastbourne</b> Borough Council, 2013. Core Strategy Local Plan and Employment Land Local Plan (2014).</li> </ul>	

<ul style="list-style-type: none"> <li>• <b>Wealden*</b> District Council (Incorporating Part of the South Downs National Park), 2013. Core Strategy Local Plan.</li> </ul>
<ul style="list-style-type: none"> <li>• West Sussex Transport Plan 3 (2011-2026); East Sussex Local Transport Plan 3 (2011-2026); Hampshire Local Transport Plan (2011-2031); and Surrey Local Transport Plan LTP3 (2011-2026).</li> </ul>
<b><u>Projects</u></b>
<ul style="list-style-type: none"> <li>• <b>A27 Corridor Feasibility Study (report 2015)</b><sup>15</sup></li> </ul>

\*Joint Core Strategies have been devised for the following Council areas:

- Lewes District
- East Hampshire District
- Winchester City
- Wealden District

- 2.6.3 Where the overlapping of National Park boundaries and existing local authority boundaries mean that a joint approach has already been taken, 'in-combination' effects between development within (for example) East Hampshire and that within the National Park will have already been effectively addressed in the existing HRA and the analysis will therefore adopt the conclusions of that analysis and focus on whether the Local Plan would operate in-combination with the joint plan.

<sup>15</sup>Parsons Brinckerhoff (February 2015) A27 Feasibility Study. Report 2 or 3: Option Assessment Report

### 3 Pathways of Impact

- 3.1.1 In carrying out a HRA it is important to determine the various ways in which a Local Plan can impact on internationally designated sites by following the pathways along which policy can be connected with these internationally designated sites, in some cases many kilometres distant. Briefly defined, pathways are routes by which a change in activity associated with a policy can lead to an effect upon an internationally designated site.
- 3.1.2 The following impact pathways have been identified as being relevant to this assessment (i.e. having potential to have a likely significant effect upon an internationally designated site as a result of policies within the Local Plan):
- Recreational pressure;
  - Air quality;
  - Water quantity and changes in hydrological cycles (e.g. maintenance of flow velocity)
  - Water quality (e.g. sedimentation, nutrient enrichment) ;
  - Loss of supporting habitat (e.g. for barbastelle bats, bechstein bats and Bewick's swan);
  - Urbanisation (e.g. fires and invasive species).
- 3.1.3 An initial screening of each settlement due to receiving housing, and each policy in the Local Plan is presented in Appendix B, Tables 1 and 2. Sections 4 to 9 of the main report then scrutinise relevant policies and housing allocations in more detail within the context of each relevant pathway of impact. Section 10 assess the in-combination effects of the South Downs Local Plan upon internationally designated sites



## 4 Recreational Pressure

### 4.1 Introduction

4.1.1 Recreational use of a European site has the potential to:

- Prevent appropriate management or exacerbate existing management difficulties;
- Cause damage through erosion and fragmentation;
- Cause nutrient enrichment as a result of dog fouling;
- Hinder grazing management;
- Cause disturbance to sensitive species, particularly ground-nesting birds and wintering wildfowl; and,
- Increase the risk of colonization by invasive non-native species, for example via seed transfer.

4.1.2 Different types of European sites are subject to different types of recreational pressures and have different vulnerabilities. Studies across a range of species have shown that the effects from recreation can be complex. Generally, policies that lead to increases in housing or tourism have potential to result in increases in recreational pressure upon a site. The SDNPA Local Plan outlines provision for 4,596 net additional dwellings during the lifetime of the plan (2014-2032). Whilst 2,578 of the new proposed housing is allocated to a settlement within in Policy SD23 (Housing), 2,018 of the new houses will be provided at windfall (i.e. unallocated) sites and through unimplemented or part implemented planning permissions.

### 4.2 Likely Significant Effects

4.2.1 The South Downs National Park Authority commissioned a study into the visitor impacts on the Park<sup>16</sup>. The first survey was with land managers, the second survey focused on specific nature conservation or cultural heritage sites that were selected to cover the main landscape character areas with a good geographical spread across the Downs. Both studies were conducted via questionnaires with limited response returns.

4.2.2 One of the resultant documents looked at the environmental effects specifically and found the following:

- 'Walking and wildlife watching and photography were the most popular outdoor activities, with picnicking, cycling and horse riding and other land based activities occurring at more than 20% of sites.
- The impact of these visitor activities usually creates a combination of environmental and social issues.
- Pollution due to litter and dog fouling occurred most frequently.
- Trampling, soil erosion and the loss of wildlife habitats or species were the environmental only impacts'.

4.2.3 The impact of visitor activities was assessed for each of the local habitats: woodland, chalk downland/grassland, other grassland habitats, heathland, arable, wetland and marshland, rivers and streams, coast and sea and formal gardens and parkland (it should be noted this includes large areas that are not internationally designated).

- 'Overall the impact of most visitor activities on local habitats was considered to be neutral. All habitats, except arable and coastal sites, recorded the positive impacts generated by guided walks, wildlife watching and photography.
- In terms of negative impacts, walking and cycling caused the majority of problems, particularly where visitors walked with dogs and cycled off marked tracks.
- Chalk downland was more sensitive to path erosion from walkers and horse riders than woodland. It also experienced more activities such as grass boarding, zorbing, and kite flying that could cause damage to plant life and aerial activities that could disturb wildlife.
- Woodlands were less susceptible than other habitats to path erosion caused by walkers and horse riding but suffered disturbance to wildlife from most activities.
- Heathland was sensitive to erosion and wildlife disturbance from walkers, cyclists and horse riding.
- Disturbance to wildlife was the main problem reported for wetlands.
- Formal gardens experienced path erosion and sheep worrying from walkers with dogs.
- Issues specific to arable land were crop damage and erosion caused by motorised off-road activities.

<sup>16</sup> Acorn Tourism Consulting Limited, 2012. South Downs National Park Visitor Survey 2012: Environment Element.

- There was no negative impact reported on species by three quarters of sites (71%/52 sites), however where there was an impact it was most likely to affect plants (35%/12 sites) through trampling, birds (32%/11 sites) through general habitat disturbance or invertebrates such as butterflies (15%/5 sites). Where they occurred these impacts were spread across the Park and not related to any specific type of habitat. It is also important to note that alongside visitor presence, a range of variables can affect the presence of species including natural population changes, climate change and habitat management regimes'.
- 4.2.4 The consideration of potential recreational pressure effects on each internationally designated site relevant to this assessment is provided below. Background information regarding each internationally designated site is contained within Appendix A. The potential for adverse effects due to recreational pressure is primarily associated with the delivery of new residential development (especially in large quantities) in proximity to sensitive internationally designated sites.
- 4.2.5 Sites that have been identified as being particularly vulnerable to impacts from increases in recreational pressure are as follows:
- Chichester and Langstone Harbours SPA/ Ramsar;
  - Pagham Harbour SPA/Ramsar site;
  - Bat sites: The Mens SAC, Singleton and Cocking Tunnels SAC and Ebernoe Common SAC; and
  - Wealden Heaths Phase II SPA
- 4.2.6 Policies promoting new residential development and tourism could lead to likely significant effects if they were not delivered sensitively.
- 4.2.7 The following policies within the Local Plan have the potential to increase recreational pressure on the European sites. Those settlements omitted from the list do not trigger impact pathways relating to recreational pressure due to their distance from sensitive European sites:
- Policy SD4 (in as much as it sets broad development strategies for the various parts of the National Park, expanded upon on Policy SD23 and specific allocations)
  - Policy SD23: Housing
    - Funtington
    - Hambledon
    - Lavant (including East Lavant and Mid Lavant)
    - West Ashling
    - Compton
    - Singleton
    - Cheriton
    - Stroud
    - Lower and Upper Farringdon
    - Amberley
    - Buriton
    - Bury
    - Cocking
    - East Meon
    - Graffham
    - Kingston near Lewes
    - Lewes
    - Rodmell
    - Selbourne
    - Steep
    - South Harting
    - Washington
    - West Meon

- Binsted
- Coldwaltham
- Fittleworth
- Greatham
- Liss (including Liss Forest and West Liss)
- Lodsworth
- Midhurst
- Milland
- Northchapel
- Petersfield
- Petworth
- Rogate
- Sheet
- Stedham
- Watersfield
- Policy SD20: Sustainable Tourism and the Visitor Economy
- Policy SD21: Recreation
- Policy SD22: Development Strategy
- Policy SD27: Sustaining the Rural Economy
- Policy SD-WW09: Land at Clements Close, Binsted
- Policy SD-WW10: Land at Petersfield Road, Greatham
- Policy SD-SS01: Land south of Loppers Ash, South Harting
- Policy SD-SS03: Land at Old Mallings Farm, Lewes

4.2.8 The following sections discuss how this pathway relates to each internationally designated site, based on current knowledge.

### 4.3 Solent European sites: Chichester and Langstone Harbours SPA/ Ramsar and Pagham Harbour SPA/ Ramsar site

- 4.3.1 The settlements of Lavant, Funtington and West Ashling are all located within 5.6km of this SPA/Ramsar site. In addition, policies that have potential to increase numbers of recreational visitors to this internationally designated site (such as those that encourage residential development and tourism) have the potential to have a likely significant effect upon it. These policies are:
- Policy SD19: Walking, Cycling and Equestrian Routes
  - Policy SD20: Sustainable Tourism and the Visitor Economy
  - Policy SD21: Recreation
  - Policy SD22: Development Strategy
  - Policy SD23: Housing
  - Policy SD27: Sustaining the Rural Economy
- 4.3.2 Features for which the Solent European bird sites (meaning Chichester and Langstone Harbours SPA and Ramsar site and Portsmouth Harbour SPA and Ramsar site and Solent & Southampton Water SPA and Ramsar site) are designated have potential to be affected by increased recreational pressure.
- 4.3.3 Due to proximity, Chichester and Langstone Harbours SPA and Ramsar site and Solent Maritime SAC are the only Solent European sites that have potential for likely significant effects as a result of this Local Plan. As such, these are the only sites discussed further.
- 4.3.4 Chichester & Langstone Harbours have interest features (principally the wintering bird interest) that are likely to be vulnerable to recreational disturbance. Although recreational activity arising from the Local Plan alone

would be unlikely to prove significant, it is likely to be significant when considered 'in combination' with that arising from the rest of the South Hampshire sub-region.

- 4.3.5 The Solent Disturbance & Mitigation Project established that disturbance levels within Chichester & Langstone Harbours SPA are generally high (particularly in Chichester Harbour). Water-based recreation causes disturbance in parts of the Harbour and encourages birds to move to the heads of the channels and smaller creeks where water depths are too shallow to allow boat movement. These are often areas favoured by the birds for other reasons: they are the areas where the intertidal mudflats are exposed for the longest periods, they provide shelter in times of storm, and they provide freshwater areas of importance for the birds. In these areas, disturbance is related more to walkers and their dogs passing along the shoreline. In some places, the footpaths along the channels are on the tops of flood defences, enhancing the potential for disturbance as the walker is silhouetted against the sky; elsewhere, the paths are partially concealed behind tall hedges. This has potential to cause disturbance to bird species for which the site is designated,
- 4.3.6 The Solent Forum project undertook a project to investigate recreational pressure issues and their mitigation<sup>17</sup> as a result of development within all the Solent authorities. Phase 1 of this project:
- Collated existing data on the distribution of housing and human activities around the Solent;
  - Assessed stakeholder opinion of the importance of recreational disturbance on birds through a series of workshops and interviews;
  - Collated data on bird distribution and abundance around the Solent; and
  - Outlined the range of mitigation measures that could potentially minimise the impacts of increased recreational disturbance caused by increased housing in the Solent area.
- 4.3.7 Phase 2 of the project assessed the impact of current visitor numbers and activities on the survival rates of shorebirds throughout the Solent<sup>18</sup>. Visitor surveys were undertaken during 2009/10 at a number of locations around the harbours. In contrast to the previous study<sup>56</sup> most visitors were local in origin, with median distances travelled to points around the harbours ranging from 2.3-9.1km. A core catchment area for the Solent European sites has been identified at 5.6km.
- 4.3.8 At a strategic level it has been agreed that any development within 5.6km of the Solent European sites can address the effects of increased recreational pressure upon the European designated sites via financial contributions per dwelling towards the Solent Disturbance and Mitigation Project and/ or by providing measures associated with development designed to avoid or mitigate any LSE.
- 4.3.9 Medmerry Managed Realignment scheme is located in close proximity to Pagham Harbour SPA/ Ramsar site. Once habitats have become fully established, it is expected that the site will support features for which the site can be designated and incorporated into Pagham Harbour SPA/ Ramsar site. As such, the entire Pagham Harbour site, including the Medmerry extension will be subject to the same strategic level mitigation as afforded to the other Solent European sites. Any residential development within 5.6km of the SPA/ Ramsar site will be required to make financial contributions per dwelling towards the Solent Disturbance and Mitigation Project and/ or by providing measures associated with development designed to avoid or mitigate any LSE.
- 4.3.10 In 2010 work was completed by Arun District Council regarding visitor surveys for Pagham Harbour SPA. In summary, this work has identified that 8.7% of the visitors to the Arun sections of the SPA/Ramsar site come from within 500m, 49.7% come from within 5km, 52.9% come from within 6km and 57.4 % come from within 10km. Beyond 10km the visitors origins are very dispersed. This indicates that the largest single contribution to visits to the SPA comes from the 5-6km zone.
- 4.3.11 Chichester District Council commissioned Footprint Ecology to undertake a similar visitor survey on those parts of the SPA/Ramsar site that fell within The Local Plan area<sup>19</sup>. According to Table 14 on page 26 of that report approximately 53% of winter visitors and 76% of summer visitors to the western (Chichester district) parts of Pagham Harbour come from within the District (Selsey, Chichester City, Sidlesham, Lodsworth, Bosham, Mundham, Hunston, Emsworth/Southbourne and Midhurst). Three settlements (Selsey, Chichester and Sidlesham) make by far the greatest contribution to visitors to Pagham Harbour, contributing 48% of all winter visitors and 66% of all summer visitors. Of these three settlements, Selsey is responsible for the majority. Moreover, approximately 96% of 'visitors with dogs' (who are likely to have the greatest potential disturbance effect on SPA birds) live 'south of Chichester', emphasising the local catchment of the site.

<sup>17</sup> Stillman, R. A., Cox, J., Liley, D., Ravenscroft, N., Sharp, J. & Wells, M. (2009) Solent disturbance and mitigation project: Phase I report. Report to the Solent Forum

<sup>18</sup> Fearnley, H., Clarke, R. T. & Liley, D. (2010). The Solent Disturbance & Mitigation Project. Phase II - On-site visitor survey results from the Solent region. ©Solent Forum /Footprint Ecology.

<sup>19</sup> Cruickshanks, K. & Liley, D. (2012). Pagham Harbour Visitor Surveys. Unpublished report by Footprint Ecology. Commissioned by Chichester District Council.

- 4.3.12 Table 14 of Cruickshanks & Lily (2012) lists three settlements that are identified to support new housing within the SDNPA area and from which people visit Pagham Harbour. These were Lewes, Lodsworth and Midhurst. Lewes has been identified to provide 835 new houses within the SDNPA Local Plan. Cruickshanks & Lily (2012) identifies that 1% of summer visitors to Pagham Harbour SPA/Ramsar site came from each of Lewes and Lodsworth and that 3% of winter visitors came from Midhurst. However, Lewes is located more than 50km from the SPA/ Ramsar site while Lodsworth and Midhurst are both located over 20km distant. The Footprint Ecology report identified that the main catchment to the designated site was up to 6km from the site. At its closest, Pagham Harbour SPA/ Ramsar site is located more than 8km from the SDNPA area, and more than that to the nearest settlement and the Arun Core Strategy HRA indicates that housing at this distance would not need to mitigate for any recreational pressure effects on Pagham Harbour. As such, due to the distances involved, recreational pressure resulting from the Local Plan can be screened out.
- 4.3.13 The Local Plan includes Policy SD13: International Sites. Point 4 of this policy includes the text '*Development Proposals resulting in a net increase in residential units, within the Solent Coast Special Protection Areas (SPA) (Chichester & Langstone Harbours SPA, Portsmouth Harbour SPA and Solent & Southampton Water SPA) zone of influence shown on the Policies Map, that accord with other relevant policies may be permitted where 'in combination' effects of recreation on the Solent Coastal SPAs are satisfactorily mitigated through the provision of an appropriate financial contribution to the delivery of strategic mitigation. In the absence of a financial contribution toward mitigation, an Appropriate Assessment may be required to demonstrate that any 'in combination' negative effects can be avoided or can be satisfactorily mitigated through a developer provided package of measures.*'
- 4.3.14 Whilst this is a 'hook' policy to ensure protection of specific internationally designated sites and their features, and includes pre-defined avoidance measures for those listed specifically, those policies mentioned above (Policy SD20: Sustainable Tourism and the Visitor Economy, Policy SD21: Recreation, Policy SD22: Development Strategy, Policy SD23: Housing, and Policy SD27: Sustaining the Rural Economy) should directly refer to Policy SD13. **In addition, the agreed sphere of influence from the Solent European sites is 5.6km which is not stated within this policy. This should be included for clarity. If these changes are included within the policy text, this impact pathway upon Solent European sites can be screened out.**

#### 4.4 Bat sites: The Mens SAC, Singleton and Cocking Tunnels SAC, and Ebernoe Common SAC

- 4.4.1 The majority of those visitors to the South Downs National Park who visit Ebernoe Common and The Mens do so during daylight hours. Therefore there is limited potential for conflicts between Park users and bats, although increased levels of off-road cyclists using high-powered headlamps at night to cycle in the National Park have been noted. Given the relatively low recreational use of the National Park at times when bats will be foraging, it is possible to conclude that the Local Plan is unlikely to lead to significant adverse effects on the bat interest of Ebernoe Common SAC or The Mens SAC through direct disturbance. Any individual proposals that are at risk of causing disturbance would be captured by the HRA requirement of Policy SD12.
- 4.4.2 Both SACs are also designated for their woodland. An increase in recreational pressure as a result of those Local Plan policies that encourage tourism or facilitate increased residential development could contribute to the degradation of sensitive woodland through trampling and nutrient enrichment and in extreme cases also result in disturbance of bat populations. However, in the Natural England Site Improvement Plans<sup>20</sup> for The Mens SAC and Ebernoe Common SAC, recreational pressure is not noted as a particular concern. Lighting from human sources is identified as a potential issue that at least requires further investigation and a study is being undertaken during 2015-16 to clarify existing light levels and whether these are likely to be affecting the bat populations. There are no specific proposals in the Local Plan that would result in increased lighting of these sites and any proposals that did come forward would be captured by the HRA requirement of Policy SD12. As such, this impact pathway upon The Mens SAC and Ebernoe Common SAC can be screened out.
- 4.4.3 Policy SD19: Walking, Cycling and Equestrian Routes includes the development of the Chichester –Midhurst disused railway line as a proposal. As identified during the HRA of the National Park Management Plan this proposal has potential to impact adversely upon the barbastelle and Bechstein bat features of Singleton & Cocking Tunnels SAC. The inclusion of the tunnels in the route could affect its use by the bats that hibernate there and therefore could lead to an adverse effect. At present Singleton and Cocking Tunnels SAC are gridded to control human access. Provided those remain in place, ensuring no public access to the tunnels, it is possible to conclude that the Local Plan is unlikely to lead to significant adverse effects on Singleton and Cocking Tunnels SAC. The constraint imposed by the SAC will have to be a major factor in any feasibility study. If a proposal is developed that does affect these tunnels it will be captured by the project-level HRA

<sup>20</sup> Site Improvement Plans for the South East are available at the following link:  
<http://publications.naturalengland.org.uk/category/6149691318206464> (accessed 23/06/15)

requirement of Policy SD12 (Biodiversity and Geodiversity). It is therefore possible to conclude that the Local Plan itself will not result in an adverse effect on this SAC.

## 4.5 Heathland bird sites: Wealden Heaths Phase II SPA and Woolmer Forest SAC

- 4.5.1 There is a known potential for likely significant effects of housing development in particular on these sites, depending on the scale of development proposed. There has been multiple years of visitor survey to inform the Whitehill-Bordon project in East Hampshire district and these have identified that the SAC/SPA has a 'core catchment' of 5km (in that this is the zone within which the majority of visitors, particularly dog-walkers, to the SPA derive<sup>21</sup>).
- 4.5.2 The adverse effects of recreational pressure on the Wealden Heaths Phase 2 SPA were investigated and discussed in detail at the time the East Hampshire/South Downs National Park Local Plan Joint Core Strategy was prepared and is documented in its various iterations of HRA, with which Natural England concurred. It is therefore not repeated in this document. The Joint Core Strategy HRA concluded that, based on the levels of development expected within 5km of the SPA over the Strategy period (including that expected within Waverley district), no strategic mitigation solution was required provided that Whitehill-Bordon (responsible for the vast majority of new development within the 5km zone) mitigated for its own impacts at the project level. Joint Core Strategy policy (developed in agreement with Natural England and considered sound by the planning inspector at Examination) treats other new housing developments within 5km on a case-by-case basis in determining whether mitigation is required, with the decision as to the need for mitigation being based upon consideration of the scale of development and its proximity to the SPA.
- 4.5.3 Since the issue was already analysed and discussed in detail as part of the Joint Local Plan Examination, the same conclusions can apply to the National Park Local Plan provided the housing identified in the Local Plan falls within the quanta on which the Joint Core Strategy HRA is based.
- 4.5.4 The following South Downs National Park Local Plan policies all have potential to increase recreational pressure upon the SPA via an increase in residential development within 5km of the SPA and a general increase in tourism:
- Policy SD-WW09: Land at Clements Close, Binsted
  - Policy SD-WW10: Land at Petersfield Road, Greatham
  - Policy SD20: Sustainable Tourism and the Visitor Economy
  - Policy SD21: Recreation
  - Policy SD22: Development Strategy
  - Policy SD23: Housing
  - Policy SD27: Sustaining the Rural Economy
- 4.5.5 Policies SD23 (Housing), SD22 (Development Strategy), Policy SD-WW10: Land at Petersfield Road, Greatham, and SD-WW09 (Land at Clements Close, Binsted) all define the approximate location of new housing within 5km of the SPA. Policy SD-WW09 (Land at Clements Close, Binsted), is a strategic housing allocation. The following table summarises those settlements that are located within 5km of the Wealden Heaths Phase II SPA and which have been identified to provide new housing in the Local Plan.

**Table 3:** Settlements located within 5km of the Wealden Heaths Phase II SPA.

Settlement	Distance from SPA	Number of new dwellings outlined
Liss and Liss Forest	Adjacent at its closest, 2.6km at its most distant	150
Greatham	Adjacent at its closest, 800m at its most distant	30
Binsted	3km	12
Milland	3.7km	Undefined
Selborne	4km	6

<sup>21</sup> For no part of the SPA do more than 30% of surveyed dog walkers live more than 5km away, and for some parts of the SPA such as Broxhead Common, over 90% of dog walkers lived within 4km. Non-dog walkers come from a more widespread area but the majority of visitors still live within 5km of the SPA.

Settlement	Distance from SPA	Number of new dwellings outlined
Sheet	4.7km	20

- 4.5.6 This is a total of at least 218 dwellings expected over the Local Plan period within that part of the 5km zone which falls within the South Downs National Park. The presence of the 150 uncommitted dwellings in Liss was known and specifically identified and discussed at the time the East Hampshire District Local Plan: Joint Core Strategy HRA was undertaken and its impacts taken fully into account in forming the conclusions of that HRA. As such the delivery of the houses at Liss can be screened out on the basis that the National Park Local Plan is not making a new allocation but reflecting what has already been confirmed in the Joint Local Plan.
- 4.5.7 The East Hampshire Joint Core Strategy HRA also allowed for approximately 88 windfall dwellings at Liss. The calculations within the Joint Core Strategy were therefore based on a total of approximately 238 new dwellings in total (including windfalls) being delivered in the SDNPA part of the 5km zone around the Wealden Heaths Phase II SPA. The scale of housing set out in the South Downs National Park Local Plan falls within that allowance and the conclusions of the Joint Core Strategy HRA still stand. The distribution is slightly different from that assumed in the Joint Core Strategy HRA, with a greater proportion of dwellings being located further from the SPA than was assumed at that time (at Binsted, Selbourne and Sheet) rather than all at Liss. However, this is generally positive since it locates housing further away from the SPA.
- 4.5.8 Policy SD13: (International Sites) of the SDNPA Local Plan Point 3 states that '*Proposals resulting a net increase in residential units within 5km of the boundary of the Wealden Heaths Phase II SPA will be required to submit a screening opinion to the SDNPA for a project-specific Habitat Regulations Assessment (HRA) which, in consultation with Natural England, will determine whether a likely significant effect on the integrity of the site will result. Likely significant effects will be assessed through the HRA and any requirement for mitigation identified.*' This will ensure that no adverse effect on the SPA will arise.

## 4.6 Calcareous grassland sites: Lewes Downs SAC, Castle Hill SAC and Butser Hill SAC

- 4.6.1 There is theoretical potential for likely significant effects on these sites by trampling, which in turn causes soil compaction and erosion. Walkers with dogs contribute to pressure on sites through nutrient enrichment via dog fouling and also have potential to cause greater disturbance to fauna as dogs are less likely to keep to marked footpaths and move more erratically. Cycling, motorcycle scrambling and off-road vehicle use can cause serious erosion, as well as disturbance to sensitive species. Whether these issues are matters of concern for species European sites depends on the circumstances on that site, including existing pressure, presence of antisocial behaviour, existing site management and factors such as topography and suitability of footpaths.
- 4.6.2 There have been several papers published that empirically demonstrate that damage to vegetation in a range of habitats can be caused by vehicles, walkers, horses and cyclists:
- Wilson & Seney (1994)<sup>22</sup> examined the degree of track erosion caused by hikers, motorcycles, horses and cyclists from 108 plots along tracks in the Gallatin National Forest, Montana. Although the results proved difficult to interpret, it was concluded that horses and hikers disturbed more sediment on wet tracks, and therefore caused more erosion, than motorcycles and bicycles.
  - Cole et al (1995a, b)<sup>23</sup> conducted experimental off-track trampling in 18 closed forest, dwarf scrub and meadow & grassland communities (each tramped between 0 – 500 times) over five mountain regions in the US. Vegetation cover was assessed two weeks and one year after trampling, and an inverse relationship with trampling intensity was discovered, although this relationship was weaker after one year than two weeks indicating some recovery of the vegetation. Differences in plant morphological characteristics were found to explain more variation in response between different vegetation types than soil and topographic factors. Low-growing, mat-forming grasses regained their cover best after two weeks and were considered most resistant to trampling, while tall forbs (non-woody vascular plants other than grasses, sedges, rushes and ferns) were considered least resistant. Cover of hemicryptophytes and geophytes (plants with buds below the soil surface) was heavily reduced after two weeks, but had recovered well after one year and as such these were considered most resilient to trampling. Chamaephytes (plants with buds above the soil surface) were least

<sup>22</sup> Wilson, J.P. & J.P. Seney. 1994. Erosional impact of hikers, horses, motorcycles and off road bicycles on mountain trails in Montana. Mountain Research and Development 14:77-88

<sup>23</sup> Cole, D.N. 1995a. Experimental trampling of vegetation. I. Relationship between trampling intensity and vegetation response. Journal of Applied Ecology 32: 203-214

Cole, D.N. 1995b. Experimental trampling of vegetation. II. Predictors of resistance and resilience. Journal of Applied Ecology 32: 215-224

resilient to trampling. It was concluded that these would be the least tolerant of a regular cycle of disturbance.

- Cole (1995c)<sup>24</sup> conducted a follow-up study (in 4 vegetation types) in which shoe type (trainers or walking boots) and trample weight were varied. Although immediate damage was greater with walking boots, there was no significant difference after one year. Heavier tramples caused a greater reduction in vegetation height than lighter tramples, but there was no difference in effect on cover.
- Cole & Spildie (1998)<sup>25</sup> experimentally compared the effects of off-track trampling by hiker and horse (at two intensities – 25 and 150 passes) in two woodland vegetation types (one with an erect forb<sup>26</sup> understorey and one with a low shrub understorey). Horse traffic was found to cause the largest reduction in vegetation cover. The forb-dominated vegetation suffered greatest disturbance, but recovered rapidly. Higher trampling intensities caused more disturbance.

- 4.6.3 Recreational pressure could contribute to degradation of sensitive grassland habitats within the SACs, by fragmentation, trampling, or through nutrient enrichment. Dogs, rather than people, tend to be the cause of many management difficulties, notably by worrying grazing animals, and can cause eutrophication near paths. Nutrient-poor habitats such as heathland are particularly sensitive to the fertilising effect of inputs of phosphates, nitrogen and potassium from dog faeces<sup>27</sup>.
- 4.6.4 Part of Butser Hill SAC lies within the Queen Elizabeth Country Park, run by Hampshire County Council and the Hampshire Wildlife Trust. Butser Hill does have footpaths and public rights of way crossing it and has been subject to organised recreational events numerous times in the past (such as 'Butserfest' and various country fairs). This implies that while calcareous grassland can be damaged by repeated excessive recreational trampling over long periods of time, the grasslands of Butser Hill SAC are not considered to be particularly vulnerable to well-managed recreational pressure and activity, even when relatively large events are held. This was the conclusion of the HRA of the East Hampshire Local Plan; Joint Core Strategy HRA, with which Natural England concurred.
- 4.6.5 Castle Hill SAC is not noted to be vulnerable to increase in recreational pressure. The Brighton & Hove City Plan HRA confirmed that recreational pressure on this site was not a particular concern and that '*Castle Hill is managed as a National Nature Reserve and therefore increased recreation, if it did become an issue, could be managed accordingly*'<sup>28</sup>. This is reflected in the Natural England Site Improvement Plan which does not identify recreational pressure as being a concern or an issue targeted for further action. The main concerns noted on this site are not development related but are management issues: under-grazing and use of fertilisers.
- 4.6.6 As with Castle Hill SAC, the Lewes District Core Strategy HRA report<sup>29</sup> concluded that impacts upon Lewes Downs SAC as a result of increased recreational pressure resulting from new residential development could be screened out as the SAC is not currently vulnerable to recreational pressures. This issue was not queried at Examination. As such, this impact pathway can be screened out. The Site Improvement Plan for the SAC does not identify development-related increases in general recreational activity as a concern, but rather targets some instances of antisocial behaviour and identifies a commitment to '*Introduce measures to discourage public gatherings on sensitive grassland areas*'. The steep topography of much of the SAC is likely to naturally limit the scale and extent of recreational activity over much of the site.
- 4.6.7 It can be concluded that no likely significant effects will result upon the calcareous grassland European sites as a result of increased recreational pressure resulting from the SDNPA Local Plan.

## 4.7 Woodland sites: Duncton to Bignor Escarpment SAC, Kingley Vale SAC, East Hampshire Hangers SAC and Rook Cliff SAC

- 4.7.1 There is potential for likely significant effects on these sites. Escarpment woodlands are generally much less vulnerable to recreational activity (on foot or bicycle) than some other habitats such as heathland or chalk grassland since the physical topography generally minimizes the risk of 'off track' recreation as well as inherently limiting the number of people who use the site. There is some risk posed by nutrient enrichment

<sup>24</sup> Cole, D.N. 1995c. Recreational trampling experiments: effects of trampler weight and shoe type. Research Note INT-RN-425. U.S. Forest Service, Intermountain Research Station, Utah.

<sup>25</sup> Cole, D.N., Spildie, D.R. 1998. Hiker, horse and llama trampling effects on native vegetation in Montana, USA. *Journal of Environmental Management* 53: 61-71

<sup>26</sup> A herbaceous flowering plant

<sup>27</sup> Shaw, P.J.A., K. Lankey and S.A. Hollingham (1995) – Impacts of trampling and dog fouling on vegetation and soil conditions on Headley Heath. *The London Naturalist*, 74, 77-82.

<sup>28</sup> HRA of the Proposed Modifications to the Brighton & Hove City Plan Part One (July 2014)

<sup>29</sup>

[http://www.lewes.gov.uk/Files/plan\\_2013\\_HRA.pdf?bcsi\\_scan\\_E956BCBE8ADBC89F=0&bcsi\\_scan\\_filename=plan\\_2013\\_HRA.pdf](http://www.lewes.gov.uk/Files/plan_2013_HRA.pdf?bcsi_scan_E956BCBE8ADBC89F=0&bcsi_scan_filename=plan_2013_HRA.pdf)



through dog excrement if not collected. The total volume of dog faeces deposited on sites can be surprisingly large. For example, at Burnham Beeches National Nature Reserve over one year, Barnard<sup>30</sup> estimated the total amounts of urine and faeces from dogs as 30,000 litres and 60 tonnes respectively. Nutrient-poor habitats such as heathland are particularly sensitive to the fertilising effect of inputs of phosphates, nitrogen and potassium from dog faeces<sup>31</sup>.

- 4.7.2 Visitor surveys undertaken by UE Associates for the East Hampshire Hangers SAC to support the Whitehill-Bordon development in East Hampshire indicated that it the access points surveyed for East Hampshire Hangers SAC were among the least frequented by visitors (compared to the other European sites surveyed such as Wealden Heaths SPA). Only 3% of the people included in the Whitehill & Bordon visitor survey visited East Hampshire Hangers SAC over the survey period. While parts of the Hangers are used by visitors, the steepness of the scarps provides an inherent limit on human activity while the absence of car parks limits the number of people (except from the immediate local area) present at any time. Sunken lanes also physically limit the extent of off-track activity. Levels of recreational use are relatively low on that SAC, such that there remains a '*sense of tranquillity, remoteness and space that results from the overall low incidence of human activity and absence of development*'<sup>32</sup>.
- 4.7.3 Gradual track erosion is a potential issue within portions of these SACs. In East Hampshire Hangers, where erosion has been greatest on the track and lane sides the chalk and greensand is exposed in places with overhanging tree roots. This erosion appears to stem from a combination of vehicles, surface water and people. However, it is localised and gradual and there is no indication that it is leading to or likely to lead to an adverse effect on the integrity of the SAC within the foreseeable future. As such, this impact pathway is screened out upon these SACs. This is in line with the conclusion of the East Hampshire Local Plan Joint Core Strategy HRA which considered housing at Liss, Alton, Petersfield and other settlements within the catchment of the East Hampshire Hangers SAC but identified that due to a combination of low visitor numbers and the inherent nature of the SAC an adverse effect would not arise. Since the housing numbers proposed in the National Park Local Plan are in line with those considered in the Joint Core Strategy HRA this conclusion still stands.
- 4.7.4 Whist the Views About Management<sup>33</sup> document for Duncton to Bignor Escarpment SSSI identifies that '*Access to this site, and any recreational activities within, may also need to be managed.*' the Site Improvement Plan for Duncton to Bignor Escarpment SAC<sup>34</sup> does not identify any specific current requirement for access management improvements. The SAC is located in a rural area in isolation from any large settlement. 20 new houses have been proposed at Coldwaltham located 3.8km from the SAC. The next largest settlement within the SDNP is at Petworth, but this is 5km from the site. Moreover, Petworth is located in an area with many other alternative naturalistic areas that can be used for recreation, thus drawing people away from the SAC. Given the low population density around the SAC and the large amount of alternative locations available for recreational activity, it can be considered that the new housing identified within the SDNPA Local Plan will not result in likely significant effects upon the SAC.
- 4.7.5 Rook Clift SAC is also located in isolation from any large settlements. Three settlements within 5km of the SAC have been identified to provide housing (South Harting, Rogate and Compton), but this only amounts to a total of 25 new houses, 17 of which are located 5km from the site. Such a small number of dwellings will not result in a material change in recreational activity at the site. The Site Natural England Improvement Plan for Rook Clift SAC does not identify recreational pressure as a site vulnerability. No likely significant effects would result from increased recreational pressure as a result of the SDNPA Local Plan.
- 4.7.6 The HRA for the Chichester Local Plan: Key Policies Submission 2014-2029 screened out the presence of any impact pathways between the proposed 7,388 new dwellings identified within the Chichester Local Plan and Kingley Vale SAC, with the agreement of Natural England. The SDNPA Local Plan proposes approximately 20 new houses (Lavant) within 5km of Kingley Vale SAC; the closest is 2.8km from the site at Lavant (including Mid and East Lavant). The Site Natural England Improvement Plan for Kingley Vale does not identify recreational pressure as a site vulnerability. In addition the site is located in relative isolation from surrounding settlements. In addition, 20 new houses within 5km is considered to be a small number of

30 Barnard, A. (2003) Getting the Facts - Dog Walking and Visitor Number Surveys at Burnham Beeches and their Implications for the Management Process. Countryside Recreation, 11, 16 - 19

31 Shaw, P.J.A., K. Lankey and S.A. Hollingham (1995) – Impacts of trampling and dog fouling on vegetation and soil conditions on Headley Heath. The London Naturalist, 74, 77-82.

32 East Hampshire District Council Landscape Character Assessment

33 Natural England (2005) <http://www.sssi.naturalengland.org.uk/Special/sssi/vam/VAM%201004050.pdf>

34 Natural England. (2014) Site Improvement Plan Duncton to Bignor Escarpment SAC

<http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=2&cad=rja&uact=8&ved=0CCoQFjAB&url=http%3A%2F%2Fpublications.naturalengland.org.uk%2Ffile%2F5912499729727488&ei=FBmMVYDtlc6N7AaLkZ2QCg&usg=AFQjCNEvg0fDhprTI95gH7Ofi8gAAIDsdA&bvm=bv.96782255,d.ZGU>

dwellingings that will not result in a material change in recreational activity at the site. As such, recreational pressure as an impact pathway to this site resulting from the SDNPA Local Plan can be screened out.

- 4.7.7 None of the Natural England Site Improvement Plans for these four SACs identify recreational pressure as a concern.

## 4.8 Heathland/ bog sites: Woolmer Forest SAC and Shortheath Common SAC

- 4.8.1 Woolmer Forest is discussed above in the Heathland Bird Sites section (4.5) and does not need further discussion. There is potential for a likely significant effect on Shortheath Common SAC. The latest condition assessment of the site clearly indicates that recreation can and does have an effect on the habitats present and this is reflected in the Natural England Site Improvement Plan for the SAC. Off-road vehicle use of the Common already causes problems for the conservation of this SAC. Visitor surveys of Shortheath Common SAC undertaken by UE Associates for the Whitehill-Bordon development in East Hampshire (the largest nearby settlement) indicated that the recreational catchment for the Common is relatively restricted, with the median travel distance being less than 5km. The visitor survey data indicated that the majority of visitors to the European sites covered by the survey were dog walkers (58%), most of whom (68.8%) travelled by car and generally travelled less than 5km to reach the sites (67.8% of car users travelled less than 5km). Most of the remaining dog walkers travelled on foot and generally travelled less than 3km (87.9% of dog walkers travelling by foot travelled less than 3km).
- 4.8.2 Other than Whitehill & Bordon (identified with in the East Hampshire Joint Core Strategy), there are no settlements identified to provide significant new residential development within 5km of the SAC. The following settlements are identified to provide small amounts of new housing within the SDNPA Local Plan in, Policy SD23: Housing, Policy SD-WW10: Land at Petersfield Road, Greatham, Policy SD-WW09: Land at Clements Close, Binsted and Strategic Policy SD22: Development Strategy. .
- Greatham (30 new dwellingings), located 1.4km from the SAC
  - Selbourne (6 new dwellingings), located 3.6km from the SAC
  - Binsted (12 new dwellingings), located 3.7km from the SAC
- 4.8.3 This equates to a total of only 48 new dwellingings within 5km of Shortheath Common SAC, none of which will be located closer than 3.5km. This scale of development was taken into consideration in the East Hampshire Local Plan Joint Core Strategy HRA and was a basis for its conclusion of no likely significant effect provided Whitehill Bordon addressed any potential impacts arising from that development. Since the quantum of housing proposed within the relevant parts of the South Downs National Park has not changed, this conclusion stands. As such, this impact pathway can be screened out.

## 4.9 River Itchen SAC

- 4.9.1 Recreational pressure is not considered a pathway of particular concern for the River Itchen SAC. This is confirmed by the HRAs for Local Plans surrounding the SAC which focus on water quality and in-river noise/vibration. It does not therefore require further discussion in this chapter.

## 4.10 Arun Valley SAC/SPA/Ramsar site

- 4.10.1 There is the potential for a likely significant effect on this SPA/Ramsar site via disturbance of wintering waterfowl. The potential for disturbance may be less in winter than in summer, in that there are often a smaller number of recreational users, whereas the winter is the peak period for wildfowl use of the site. In addition, the consequences of disturbance at a population level may be reduced because birds are not breeding. However, winter activity can still cause important disturbance, especially as birds are particularly vulnerable at this time of year due to food shortages, such that disturbance which results in abandonment of suitable feeding areas can have severe consequences. Several empirical studies have, through correlative analysis, demonstrated that out-of-season (October-March) recreational activity can result in quantifiable disturbance:
- Tuite et al<sup>35</sup> found that during periods of high recreational activity, bird numbers at Llangorse Lake decreased by 30% over a time period correlating with an increase in recreational activity. During periods of low recreational activity, however, no such correlation was observed. In addition, all species were found to spend less time in their 'preferred zones' (the areas of the lake used most in the absence of recreational activity) as recreational intensity increased.

<sup>35</sup> Tuite, C. H., Owen, M. & Paynter, D. 1983. Interaction between wildfowl and recreation at Llangorse Lake and Talybont Reservoir, South Wales. *Wildfowl* 34: 48-63

- Underhill et al<sup>36</sup> counted waterfowl and all disturbance events on 54 water bodies within the South West London Water bodies SPA and clearly correlated disturbance with a decrease in bird numbers at weekends in smaller sites and with the movement of birds within larger sites from disturbed to less disturbed areas.
- Evans & Warrington<sup>37</sup> found that on Sunday's total water bird numbers (including shoveler *Anas clypeata* and gadwall *Anas strepera*) were 19% higher on Stocker's Lake LNR in Hertfordshire, and attributed this to displacement of birds resulting from greater recreational activity on surrounding water bodies at weekends relative to week days. However, recreational activity was not quantified in detail, nor were individual recreational activities evaluated separately.
- Tuite et al<sup>38</sup> used a large (379 site), long-term (10-year) dataset (September – March species counts) to correlate seasonal changes in wildfowl abundance with the presence of various recreational activities. They found that shoveler was one of the most sensitive species to disturbance. The greatest impact on winter wildfowl numbers was associated with sailing/windsurfing and rowing.
- Pease et al<sup>39</sup> investigated the responses of seven species of dabbling ducks to a range of potential causes of disturbance, ranging from pedestrians to vehicle movements. They determined that walking and biking created greater disturbance than vehicles and that gadwall were among the most sensitive of the species studied.
- In a three-year study of wetland birds at the Stour and Orwell SPA, Ravenscroft<sup>40</sup> found that walkers, boats and dogs were the most regular source of disturbance. Despite this, the greatest responses came from relatively infrequent events, such as gunshots and aircraft noise. Birds seemed to habituate to frequent 'benign' events such as vehicles, sailing and horses, but there was evidence that apparent habituation to more disruptive events related to reduced bird numbers – i.e. birds were avoiding the most frequently disturbed areas. Disturbance was greatest at high tide and on the Orwell, but birds on the Stour showed greatest sensitivity.

4.10.2 However the outcomes of many of these studies need to be treated with care. For instance, the effect of disturbance is not necessarily correlated with the impact of disturbance, i.e. the most easily disturbed species are not necessarily those that will suffer the greatest impacts. It has been shown that, in some cases, the most easily disturbed birds simply move to other feeding sites, whilst others may remain (possibly due to an absence of alternative sites) and thus suffer greater impacts on their population<sup>41</sup>. A literature review undertaken for the RSPB<sup>42</sup> also urges caution when extrapolating the results of one disturbance study because responses differ between species and the response of one species may differ according to local environmental conditions. These facts have to be taken into account when attempting to predict the impacts of future recreational pressure on European sites.

4.10.3 Disturbing activities are on a continuum. The most disturbing activities are likely to be those that involve irregular, infrequent, unpredictable loud noise events, movement or vibration of long duration. Birds are least likely to be disturbed by activities that involve regular, frequent, predictable, quiet patterns of sound or movement or minimal vibration. The further any activity is from the birds, the less likely it is to result in disturbance.

4.10.4 The factors that influence a species response to a disturbance are numerous, but the three key factors are species sensitivity, proximity of disturbance sources and timing/duration of the potentially disturbing activity.

4.10.5 Although disturbance is therefore a theoretical potential pathway for this SPA/Ramsar site, it is not noted as a concern or priority for action in Natural England's Site Improvement Plan. This is partly because one of the most potentially sensitive parts of the SPA (Amberley Wild Brooks SSSI) is managed by the RSPB but unlike many other RSPB reserves, recreational visitors are not encouraged because of the sensitivity of the site, and the site is not designed or promoted to attract visitors. Access within the site is severely restricted

<sup>36</sup> Underhill, M.C. et al. 1993. *Use of Waterbodies in South West London by Waterfowl. An Investigation of the Factors Affecting Distribution, Abundance and Community Structure*. Report to Thames Water Utilities Ltd. and English Nature. Wetlands Advisory Service, Slimbridge

<sup>37</sup> Evans, D.M. & Warrington, S. 1997. The effects of recreational disturbance on wintering waterbirds on a mature gravel pitlake near London. *International Journal of Environmental Studies* 53: 167-182

<sup>38</sup> Tuite, C.H., Hanson, P.R. & Owen, M. 1984. Some ecological factors affecting winter wildfowl distribution on inland waters in England and Wales and the influence of water-based recreation. *Journal of Applied Ecology* 21: 41-62

<sup>39</sup> Pease, M.L., Rose, R.K. & Butler, M.J. 2005. Effects of human disturbances on the behaviour of wintering ducks. *Wildlife Society Bulletin* 33 (1): 103-112.

<sup>40</sup> Ravenscroft, N. (2005) Pilot study into disturbance of waders and wildfowl on the Stour-Orwell SPA: analysis of 2004/05 data. Era report 44, Report to Suffolk Coast & Heaths Unit.

<sup>41</sup> Gill et al. (2001) - Why behavioural responses may not reflect the population consequences of human disturbance. *Biological Conservation*, **97**, 265-268

<sup>42</sup> Woodfield & Langston (2004) - Literature review on the impact on bird population of disturbance due to human access on foot. *RSPB research report* No. 9.

specifically in order to ensure that disturbance is not possible. Access is therefore restricted to the Wey South Path.

4.10.6 The following settlements that have been identified to provide new residential development within the SDNPA Local Plan within close proximity (5km) to the Arun Valley site are as follows:

- Amberley (6 new dwellings proposed), located adjacent to the site
- Coldwaltham (20 new dwellings proposed), located adjacent to the site
- Watersfield (no specific number of dwellings mentioned but it is reasonable to assume single figures), located 480m from the site
- Bury (6 new dwellings proposed), located 1km from the site
- Fittleworth (6 new dwellings proposed), located 4km from the site
- Washington (6 new dwellings proposed), located 7km from the site

4.10.7 This equates to a total of c. 45-50 new dwellings proposed within the Local Plan. Given that recreational pressure is not identified as a specific issue in the Site Improvement Plan such a small number of dwellings will not result in a material change in recreational activity at the site. The Local Plan for Arun (a district located within 1.5km of the SPA) does not identify any new housing within 5km of Arun Valley SAC, SPA and Ramsar site; the emerging Horsham District Planning Framework (the SPA being situated in Horsham district) does not identify any specific locations for housing within 5km of the designated site. As such, this impact pathway upon this site can be screened out, both alone and in combination.

## 4.11 Discussion

4.11.1 In addition to the points already discussed, the SDNP Partnership Management Plan (PMP) contains policies that provide for the protection of internationally designated sites. These policies indicate the importance of recreational impacts and their management in the future direction of the Park. The HRA of the PMP identified that future monitoring and collaboration with local authorities will ensure that effects of the PMP will be regulated in the future. The policies that could potentially result in an effect are balanced by both an emphasis on appropriate and sustainable tourism and an overall commitment throughout the PMP to conserve and enhance habitats. There are also a series of policies within the PMP that would serve to ensure that such access and tourism opportunities would be delivered in such a way that no likely significant effects will arise as a result of these broad aspirations. For example:

- Policy 4 seeks to create more, bigger, better-managed and connected areas of habitat in and around the National Park, which deliver multiple benefits for people and wildlife.
- Policy 5 aims to conserve and enhance populations of priority species in and around the National Park, delivering targeted action where required.
- Policy 16 promotes engagement with dog walkers to encourage responsible behaviour, especially around livestock and ground nesting birds.
- Policy 41 sets out a commitment to influence visitor behaviour in order to reduce impacts on the special qualities in and around the National Park.
- Policy 44 sets out a commitment to support tourism providers in developing sustainable business practices.

4.11.2 Moreover, the background wording in the PMP indicates that protection and enhancement of the semi-natural habitats of the South Downs will be undertaken via close working relationships with surrounding authorities: *'It is clear that in order to create more resilient ecosystems, habitats will need to be better managed, increased in size and joined up'*. Joined up thinking is taking place through a number of partnership initiatives for example:

4.11.3 *'South Downs Forestry and Woodland Partnership:*

*The South Downs Forestry and Woodland Partnership project aims to bring more woodland into active management, improving its' biodiversity and ensuring its' future contribution to the National Park's landscapes. The project will give particular emphasis to the sustainable management of ancient woodland and restoring the ecological value of Planted Ancient Woodland (PAWS).*

*This partnership brings together landowners, land managers and contractors to develop and respond to markets and business opportunities from wood- fuel to sustainable construction. It pools the collective effort of the key partners; the Forestry Commission, Woodland Trust, Local Authorities, Wildlife Trusts and the South Downs National Park Authority'.*

4.11.4 Following screening, the following recommendations remain to ensure no likely significant effects up on internationally designated sites as a result of increases in recreational pressure resulting from the SDNPA Local Plan:

- The agreed sphere of influence from the Solent European sites is 5.6km which is not stated within Policy SD13. This should be included for clarity. If these changes are included within the policy text, this impact pathway upon Solent European sites can be screened out.

## 5 Air Quality

### 5.1 Introduction

5.1.1 Increases in atmospheric pollution on a European site have the potential to lead to:

- Acid deposition;
- Eutrophication;
- Increases in nitrogen deposition; and
- Toxicity effects from ozone concentrations.

5.1.2 Different types of European sites are subject to different types of atmospheric pollution and have different vulnerabilities.

### 5.2 Potential for air quality effects on European sites

5.2.1 The habitats in the South Downs are vulnerable to nutrient enrichment from atmospheric pollution, especially from vehicular emissions.

**Table 4:** Main sources and effects of air pollutants on habitats and species

Pollutant	Source	Effects on habitats and species
Acid deposition	SO <sub>2</sub> , NO <sub>x</sub> and ammonia all contribute to acid deposition. Although future trends in S emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, it is likely that increased N emissions may cancel out any gains produced by reduced S levels.	Can affect habitats and species through both wet (acid rain) and dry deposition. Some sites will be more at risk than others depending on soil type, bedrock geology, weathering rate and buffering capacity.
Ammonia (NH <sub>3</sub> )	Ammonia is released following decomposition and volatilisation of animal wastes. It is a naturally occurring trace gas, but levels have increased considerably with expansion in numbers of agricultural livestock. Ammonia reacts with acid pollutants such as the products of SO <sub>2</sub> and NO <sub>x</sub> emissions to produce fine ammonium (NH <sub>4</sub> <sup>+</sup> )-containing aerosol that may be transferred much longer distances (can therefore be a significant trans-boundary issue.)	Adverse effects are as a result of nitrogen deposition leading to eutrophication. As emissions mostly occur at ground level in the rural environment and NH <sub>3</sub> is rapidly deposited, some of the most acute problems of NH <sub>3</sub> deposition are for small relict nature reserves located in intensive agricultural landscapes.
Nitrogen oxides NO <sub>x</sub>	Nitrogen oxides are mostly produced in combustion processes. About one quarter of the UK's emissions are from power stations, one-half from motor vehicles, and the rest from other industrial and domestic combustion processes.	Deposition of nitrogen compounds (nitrates (NO <sub>3</sub> ), nitrogen dioxide (NO <sub>2</sub> ) and nitric acid (HNO <sub>3</sub> )) can lead to both soil and freshwater acidification. In addition, NO <sub>x</sub> can cause eutrophication of soils and water. This alters the species composition of plant communities and can eliminate sensitive species.
Nitrogen (N) deposition	The pollutants that contribute to nitrogen deposition derive mainly from NO <sub>x</sub> and NH <sub>3</sub> emissions. These pollutants cause acidification (see also acid deposition) as well as eutrophication.	Species-rich plant communities with relatively high proportions of slow-growing perennial species and bryophytes <sup>43</sup> are most at risk from N eutrophication, due to its promotion of competitive and invasive species which can respond readily to elevated levels of N. N deposition can also increase the risk of damage from abiotic factors, e.g. drought and frost.
Ozone (O <sub>3</sub> )	A secondary pollutant generated by photochemical reactions from NO <sub>x</sub> and volatile organic compounds (VOCs). These	Concentrations of O <sub>3</sub> above 40 ppb can be toxic to humans and wildlife, and can affect buildings. Increased ozone

<sup>43</sup> Mosses and liverworts

Pollutant	Source	Effects on habitats and species
	are mainly released by the combustion of fossil fuels. The increase in combustion of fossil fuels in the UK has led to a large increase in background ozone concentration, leading to an increased number of days when levels across the region are above 40ppb. Reducing ozone pollution is believed to require action at international level to reduce levels of the precursors that form ozone.	concentrations may lead to a reduction in growth of agricultural crops, decreased forest production and altered species composition in semi-natural plant communities.
Sulphur Dioxide SO <sub>2</sub>	Main sources of SO <sub>2</sub> emissions are electricity generation, industry and domestic fuel combustion. May also arise from shipping and increased atmospheric concentrations in busy ports. Total SO <sub>2</sub> emissions have decreased substantially in the UK since the 1980s.	Wet and dry deposition of SO <sub>2</sub> acidifies soils and freshwater, and alters the species composition of plant and associated animal communities. The significance of impacts depends on levels of deposition and the buffering capacity of soils.

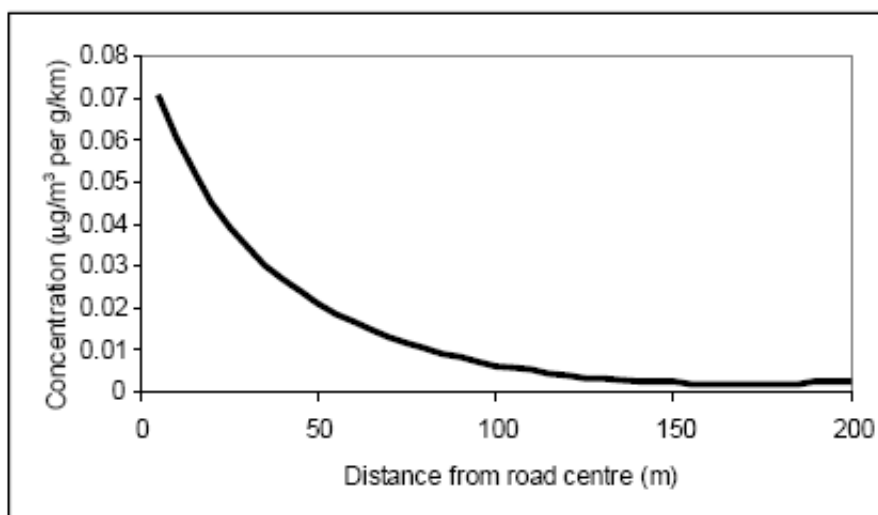
- 5.2.2 The main pollutants of concern for European sites are oxides of nitrogen (NO<sub>x</sub>), ammonia (NH<sub>3</sub>) and sulphur dioxide (SO<sub>2</sub>). NO<sub>x</sub> can have a directly toxic effect upon vegetation. In addition, greater NO<sub>x</sub> or ammonia concentrations within the atmosphere will lead to greater rates of nitrogen deposition to soils. An increase in the deposition of nitrogen from the atmosphere to soils is generally regarded to lead to an increase in soil fertility, which can have a serious deleterious effect on the quality of semi-natural, nitrogen-limited terrestrial habitats.
- 5.2.3 Sulphur dioxide emissions are overwhelmingly influenced by the output of power stations and industrial processes that require the combustion of coal and oil. Ammonia emissions are dominated by agriculture, with some chemical processes also making notable contributions. As such, it is unlikely that material increases in SO<sub>2</sub> or NH<sub>3</sub> emissions will be associated with the Local Plan. NO<sub>x</sub> emissions, however, are dominated by the output of vehicle exhausts (more than half of all emissions). Emissions of NO<sub>x</sub> could therefore be reasonably expected to increase as a result of greater vehicle use as an indirect effect of the Local Plan.
- 5.2.4 According to the World Health Organisation, the critical NO<sub>x</sub> concentration (critical threshold) for the protection of vegetation is 30 µgm<sup>-3</sup>; the threshold for sulphur dioxide is 20 µgm<sup>-3</sup>. In addition, ecological studies have determined 'critical loads'<sup>44</sup> of atmospheric nitrogen deposition (that is, NO<sub>x</sub> combined with ammonia NH<sub>3</sub>) for key habitats within European sites.

### 5.3 Local Air Pollution

- 5.3.1 According to the Department of Transport's Transport Analysis Guidance, "*Beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is not significant*"<sup>45</sup>. This is shown in Figure 3 below. This is therefore the distance that has been used throughout this HRA in order to determine whether European sites are likely to be significantly affected Local Plan policies. European sites not discussed in the following section do not lie within 200m of any significant roads or (in the case of Singleton and Cocking Tunnels SAC) are not vulnerable to air quality/atmospheric nitrogen deposition.

<sup>44</sup> The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur

<sup>45</sup> [www.webtag.org.uk/archive/feb04/pdf/feb04-333.pdf](http://www.webtag.org.uk/archive/feb04/pdf/feb04-333.pdf)

**Figure 3** Traffic contribution to concentrations of pollutants at different distances from a road (Source: DfT)

- 5.3.2 The consideration of potential adverse effects on each European site from degradation in air quality relevant to this assessment is provided below. Background information regarding each European site is contained within **Appendix A**.

## 5.4 Lewes Downs SAC

- 5.4.1 At its closest (for a short 30m stretch) Lewes Down is located approximately 10m from the A26. For a stretch the B2192 also lies within 200m of the SAC. Approximately 6ha (approximately 5% of the total area of the SAC) of the SAC lies within 200m of the A26 and B2192 is therefore potentially exposed to local deposition of atmospheric nitrogen from traffic using the road.

## 5.5 Butser Hill SAC

- 5.5.1 Butser Hill SAC lies adjacent to the A3 on its eastern border. By car, access to the site is via minor roads from the A3. There is a car park on the reserve near Butser Hill and others in the Queen Elizabeth Country Park. Approximately 20.8ha of the SAC (8.7% of the total area of the SAC<sup>46</sup>) lies within 200m of the centre-line of the A3 and is therefore exposed to local deposition of atmospheric nitrogen from traffic using the road.

## 5.6 Duncton to Bignor Escarpment SAC

- 5.6.1 Duncton to Bignor Escarpment SAC lies within 200m of the A285 for a short distance. Increased visitor numbers to the area will likely encourage travel by car to the South Downs National Park, which has the potential to lead to adverse air quality within 200m of roads. The site deposition rate is 27.86 kgN/ha/yr for SU957161 which is above the upper critical load of 20 kgN/ha/yr and well above the lower critical load of 10 kgN/ha/yr for woodland which is the interest feature for which the site has been designated.

## 5.7 Kingley Vale SAC

- 5.7.1 Kingley Vale SAC lies within 200m of the B2141 on its eastern border. By car, access to the site is via minor roads. Increased visitor numbers to the area will likely encourage travel by car to the South Downs National Park, which has the potential to lead to adverse air quality within 200m of roads.

## 5.8 Woolmer Forest SAC

- 5.8.1 Woolmer Forest SAC is located within 200m of the A325. Habitat within this zone comprises heathland, which is vulnerable to changes in air quality. Increased populations/visitors to the area have the potential to result

<sup>46</sup> According to the JNCC citation, the total area of the SAC is 238.71ha



in increased car usage and therefore adversely affect air quality which in turn can have a detrimental effect for habitats.

## 5.9 Ebernoe Common SAC

- 5.9.1 The SAC lies within 200m of the A283 for a short distance. The site deposition rate is 27.44 kgN/ha/yr for SU965259 which is above the upper critical load of 20 kgN/ha/yr and well above the lower critical load of 10 kgN/ha/yr for woodland which is one of the interest features for which the site has been designated.

## 5.10 The Mens SAC

- 5.10.1 The SAC lies within 200m of the A272 for a short distance. The deposition rate is 30.1kgN/ha/yr for TQ022237 which is above the upper critical load of 20 kgN/ha/yr and well above the lower critical load of 10 kgN/ha/yr for woodland which is one of the interest features for which the site has been designated.

## 5.11 Wealden Heaths Phase 2 SPA

- 5.11.1 The Wealden Heaths Phase 2 SPA lies within 200m of substantial stretches of the A3 and A325 trunk roads. Increased populations/visitors to the area have the potential to result in increased car usage and therefore adversely affect air quality which in turn can have a detrimental effect for habitats.

## 5.12 Discussion

- 5.12.1 Policies that would be connected with increases in traffic have potential to lead to air quality impact pathways. These in general relate to those policies that provide for increases in housing, industry and tourism. Policies assessed further are as follows:
- Policy SD4 (in as much as it sets broad development strategies for the various parts of the National Park, expanded upon on Policy SD23, SD28 and specific allocations)
  - SD20 (Sustainable Tourism and the Visitor Economy)
  - SD21 (Recreation)
  - SD22 (Development Strategy)
  - SD23 (Housing)
  - SD27 (Sustaining the Rural Economy)
  - SD28 (Employment Land)
  - SD34 (North Street Quarter and adjacent Eastgate area, Lewes) – general housing development is covered by the inclusion of Policy SD23 but these two strategic allocations are sufficiently close to Lewes Downs SAC that this policy is included with specific reference to that site.

### Housing/ Employment

- 5.12.2 There is a standard protocol for assessing the impacts of road traffic on European sites that is used by Highways England (formerly the Highways Agency) on their schemes and which Natural England and the Environment Agency also support. This is a two-part process which involves:
- considering the likely change in vehicle flows on any roads due to the plan within 200m of the European site; and
  - If the change in flows is likely to exceed a certain threshold, undertaking air quality calculations to determine if the change in NOx concentration or nitrogen deposition rate will exceed certain thresholds.
- 5.12.3 If the change in vehicle flows due to the plan or project under consideration is unlikely to exceed 1,000 Annual Average Daily Traffic (AADT) or 200 Heavy Duty Vehicles per day then the effects of that plan (and its contribution to any in combination effect) can be considered essentially neutral and no further investigation is required.
- 5.12.4 Policy SD28 (Employment Land) provides for 2-3ha of office (B1a/b) and 5ha of industrial (B1c/B2) and small scale warehousing (B8). No locations for employment development are identified within the Local Plan as these are being met through extant planning permissions and allocations in NDPs.
- 5.12.5 The SDNPA Local Plan outlines provision for 4,596 net additional dwellings during the lifetime of the plan (2014-2032). Whilst 2,578 of the new proposed housing is allocated to a settlement within in Policy SD23 –

Housing, 2,018 of the new houses will be provided at windfall (i.e. unallocated) sites and through unimplemented or part implemented planning permissions.

- 5.12.6 For the most part the housing provision in the National Park will consist of small quantities of dwellings dispersed over many rural locations and a geographically very large area. Many settlements are expected to accommodate between 6 and 30 net new dwellings between 2014 - 2032. This generally dispersed approach to housing throughout the National Park renders it unlikely that an increase in Annual Average Daily Traffic (AADT) of 1000 or more will arise, because the more dispersed the housing distribution the less likely it is that concentrations of vehicles on any given road are likely to exceed the trigger thresholds of over 500 extra vehicle movements each way per day. It is only where housing is concentrated in fairly large numbers in relatively close proximity to a road that flows past a European site that the change in flows is likely to be significant. In accordance with Policy SD23 (Housing), there are five concentrations of future housing within the National Park. These are all settlements that are expected to provide over 100 new dwellings over the Local Plan period. These are:

- Midhurst (150 net new dwellings);
- Lewes (835 net new dwellings).
- Petworth (150 net new dwellings);
- Fernhurst (211 net new dwellings);
- Liss (150 net new dwellings); and
- Petersfield (700 net new dwellings).

#### Midhurst

- 5.12.7 Midhurst is located on the A286 which does not run within 200m of any international designated site. This road does lead to the A287 and the A3, both of which do pass within 200m of the Wealden Heaths Phase II SPA. However, there is a distance of over 20km by road from Midhurst before a road that runs within 200m of the SPA is encountered. Midhurst is 16-20km by road from any European site. Given the distances involved, the small amount of housing in question and the number of alternative route options available to residents it is unlikely that this settlement will result in a substantial increase in vehicle movements on any road past a European site.

#### Lewes

- 5.12.8 Lewes is located in close proximity to Lewes Downs SAC, and as such, the 835 net new dwellings identified within Lewes have potential to lead to a likely significant effect upon the SAC as a result of air quality impacts. This level of housing within Lewes is also identified within the Lewes Core Strategy (not yet adopted – June 2015). In June 2015 Lewes District Council commissioned an analysis of transport-related air quality impacts on Lewes Downs SAC from development proposed in the Lewes Core Strategy. The analysis concluded that despite the large number of dwellings proposed for Lewes (which would lead to a change in flows of over 1,000 AADT on the A26) the increase in NO<sub>x</sub> concentrations and nitrogen deposition rates within the SAC would fall below the '1% of the critical level/load' threshold used as an initial screening tool by the Environment Agency and Natural England, due in part to the steep topography of the SAC (which is on a much higher level than the road), the intervening belt of trees and the depth of built development separating much of the road from the SAC. Based on this analysis, it was concluded that the contribution of Lewes Local Plan traffic to changes in NO<sub>x</sub> concentration and nitrogen deposition rate within 200m of the Lewes Downs SAC would be sufficiently small that a conclusion of no likely significant effect on the SAC alone or in combination was drawn. As such, this impact pathway upon the SAC can be screened out.

#### Petworth

- 5.12.9 Petworth is located on the A272 and A285. Ebernoe Common SAC is located 3km from Petworth along the A285. Duncton to Bignor Escarpment SAC is located 5.5km from Petworth on the A285, and The Mens SAC is located 4.6km from Petworth along the A272. All three SAC are already above their critical load for nitrogen deposition. It is noted that for all three designated sites, nitrogen deposition from livestock production is greater than that from road transport.
- 5.12.10 Petworth has been identified as providing 150 new dwellings over the Local Plan period. As such, it is highly unlikely that these additional 150 new dwellings could result in an increase of over 1,000 AADT at any of these European sites (even allowing for multiple car ownerships).
- 5.12.11 It is therefore considered that for most air quality-sensitive European sites in the National Park (with the exception of Wealden Heaths Phase 2 SPA and Butser Hill SAC, see below) there would not be a likely significant effect due to Local Plan related air quality since the scale and dispersed distribution of housing will

avoid large changes in vehicle flows and where such changes are likely (i.e. Lewes) it has been established that the screening thresholds will not be exceeded.

- 5.12.12 **Nonetheless, as a precaution, it is recommended that as part of the transport assessment required for large developments within Policy SD18: (Transport and Accessibility) an analysis is made of the likely change in AADT flows on the nearest European site and where significant numbers of new vehicles are expected to travel on roads within 200m of an internationally designated site that is sensitive to changes in air quality as a result of the development, vehicular modelling and an air quality assessment should be undertaken as required. This could be factored into the project-level HRA required by Policy SD12.**

*Fernhurst, Petersfield and Liss*

- 5.12.13 Fernhurst is situated on the A286 approximately 6km south of the Wealden Heaths Phase 2 SPA in Haslemere, while Petersfield is located approximately 6km south of the SPA and within 2km of Butser Hill SAC and Liss is situated adjacent to the SPA. Air quality effects upon the Wealden Heaths Phase 2 SPA and Butser Hill SAC have been discussed within the East Hampshire Joint Core Strategy HRA which considered all the housing planned for East Hampshire (including that within the National Park) in combination with the housing proposed for surrounding districts around the SPA.
- 5.12.14 In that assessment, it was considered reasonable to conclude that development that could lead to an increase in traffic flows along these corridors will contribute cumulatively to an 'in combination' effect when considered alongside the housing to be delivered throughout this corridor in other districts. Nonetheless, it must be acknowledged that road transport is likely to remain a relatively minor contributor to nitrogen deposition on the site as a whole.
- 5.12.15 There are four broad types of mitigation measure available to manage emissions from road transport:
- Behavioural measures and modal shift - reducing the amount of traffic overall;
  - Traffic management - modifying traffic behaviour to control where emissions are generated;
  - Emissions reduction at source - reducing the emissions level per vehicle; and
  - Roadside barriers - reducing the impact on the public of emissions.
- 5.12.16 The measures outlined within the SDNPA Local Plan, Policy SD18 (Transport and Accessibility) and Policy SD19 (Walking, Cycling and Equestrian routes) cover all of these categories, except for the fourth (roadside barriers) which is not within the remit of local planning policy. The Local Plan does contain positive measures that should aim to mitigate or avoid the likelihood of significant adverse effects from reduced air quality on the SPA:
- Any new development should be designed to reduce the need to travel
  - Conserve the convenience and safety of rural roads
  - Public transport improvements including improving accessibility throughout the National Park
  - Improvements to train services (including freight)
  - Promote integrated transport and connectivity of public transport
  - Encourage and prioritise movement by pedestrians, cyclists and horse riders in town and village centres
  - Improve pedestrian, cyclist and road safety;
  - Restoration of the former Lewes to Petersfield railway line
- 5.12.17 For those sustainable transport measures which are available at the strategic planning level, it is not possible to predict in advance the precise quantum of improvement that can be delivered by a given mitigation measure due to both the novel nature of the mitigation tools available and the limitations of the science. Vegetative changes that theory identifies as being likely to result from changes (either negative or positive) in atmospheric nitrogen deposition can fail to appear in practice since they are relatively subtle and can be dwarfed by changes in management regime. Moreover, it is rarely possible to separate the effects of atmospheric nitrogen deposition and other causes and the effects of atmospheric nitrogen deposition arising from vehicle exhausts from those arising from other sources (e.g. agriculture). For example, a policy to 'require developers to produce travel plans indicating that they have maximised opportunities for sustainable transport' may prove effective in practice, but cannot be predictively linked to a specific scale of improvement of air quality.
- 5.12.18 Where air quality problems are identified there is also a need for a mechanism to monitor the effectiveness of the measures adopted (using the critical load/level as a monitoring target against which the success or failure of mitigation measures can be evaluated) and amend them as required.

- 5.12.19 This is in line with the precautionary principle as set out in EC Guidance<sup>47</sup> on its use and also with the adopted East Hampshire Local Plan: Joint Core Strategy:
- 5.12.20 *'If a preliminary scientific evaluation shows that there are reasonable grounds for concern that a particular activity might lead to damaging effects on the environment, or on human, animal or plant health, which would be inconsistent with the protection normally afforded to these within the European Community, the Precautionary Principle is triggered.*
- 5.12.21 *Decision-makers then have to determine what action to take. They should take account of the potential consequences of taking no action, the uncertainties inherent in the scientific evaluation, and they should consult interested parties on the possible ways of managing the risk. Measures should be proportionate to the level of risk, and to the desired level of protection. They should be provisional in nature pending the availability of more reliable scientific data.*
- 5.12.22 *Action is then undertaken to obtain further information enabling a more objective assessment of the risk. The measures taken to manage the risk should be maintained so long as the scientific information remains inconclusive and the risk unacceptable'.*
- 5.12.23 Policy SD58 (Air Quality) states *'The Authority, working with local authority partners and other relevant agencies will seek to improve air quality throughout the National Park'.* As part of this, it is recommended that the National Park Authority explore with other local authorities (e.g. Waverley Borough Council) a framework for undertaking air quality monitoring along the main roads that traverse the Wealden Heaths<sup>48</sup>. The monitoring is required before and for a number of years after the introduction of sustainable transport measures, such that further measures can be devised if air quality does not improve. The monitoring also forms part of the avoidance/mitigation package set out for the development at Whitehill & Bordon.
- 5.12.24 While not mitigation in itself, monitoring is an essential factor when dealing with an issue such as air quality which has a high degree of uncertainty, since it will enable the effectiveness of air quality improvement measures to be evaluated against requirements of the Wealden Heaths Phase 2 SPA and amended over the Local Plan period. If existing measures do not mitigate air quality issues upon this site, then additional modifications can be made to a Plan to account for these. **It is recommended that the Authority makes a commitment to air quality monitoring at internationally designated sensitive sites and to partnership working with East Hampshire Council to take this forward along with a collaborative strategy with East Hampshire Council and the relevant highways authority to seek improvements in local air quality.** Provided this is included, it can be concluded that an adequate policy framework is in place to ensure that there will be no likely significant effects on the Wealden Heaths Phase II SPA from the SDNPA Local Plan through the pathway of atmospheric pollution either alone or in combination with other plans and projects.

### **Tourism**

- 5.12.25 Policies within the SDNPA Local Plan encourage tourism within the National Park, which has potential to result in increases in traffic movements and increases in nitrogen deposition and NO<sub>x</sub> levels within internationally designated sites. The following policies have potential for likely significant effects:
- SD20 (Sustainable Tourism and the Visitor Economy);
  - SD21 (Recreation); and
  - SD27 (Sustaining the Rural Economy).
- 5.12.26 None of these policies outline any specific location or quantity of increases in tourism activities. As such their impact cannot be quantified; in the sense that they have no spatial dimension or scale they cannot be considered to result in likely significant effects on any European sites. However, it should be noted that the Wealden Heaths Phase II SPA and Lewes Downs SAC are already in exceedance of their critical nitrogen deposition levels and NO<sub>x</sub> loads. **It is recommended that the SDNPA should remain mindful of this and monitoring of both air quality and vegetation within 200m of the main trunk roads within all designated sites within the National Park should be undertaken to ensure that no likely significant effects occur.**
- 5.12.27 This would also enable the National Park Authority and other local authorities around the National Park to comply with their broader obligations (beyond the specific HRA process) to seek and achieve improvements in air quality within the National Park, for example with regard to Regulation 9(5) of the Conservation of Habitats & Species Regulations 2010 which states that *'Without prejudice to the preceding provisions, a competent authority, in exercising any of their functions, must have regard to the requirements of the Habitats*

<sup>47</sup> European Commission (2000): Communication from the Commission on the use of the Precautionary Principle.

<sup>48</sup> To the best of our knowledge, at the time of writing this report there has been no formal air quality monitoring of the Wealden Heaths Phase II SPA as part of the A3 Hindhead Improvement. The Post Opening Project Evaluation for the A3 Hindhead Improvement one year after opening indicates that due to changes in traffic flows resulting from the A3 Hindhead Improvement residential properties near the old A3 have benefited from improved air quality due to lower traffic volumes. However, it also noted that some roads have received higher traffic flows, thus resulting in deterioration in air quality.

*Directive so far as they may be affected by the exercise of those functions*'. The Authority and surrounding authorities should thus adopt a partnership approach to monitoring of air quality on the SAC, which would involve working with other local authorities, land managers, and strategic highway authorities to develop a framework by which air quality measures can be linked to monitoring of the air quality and specific measures devised to achieve an air quality improvement. These measures could include management initiatives to improve the vegetative quality of other parts of the SAC further from the roadside or to counter any additional growth of vegetation close to the roadside, roadside barriers, reallocation of road space (high occupancy vehicle lanes), re-routing of heavy goods and older vehicles, traffic management and calming measures, or measures to change vehicle speeds on the A34 and/or A40 which would also affect emissions. Exactly which measures would be most appropriate would need to be determined at the time (if required at all).

## 6 Hydrology

### 6.1 Introduction

- 6.1.1 Water quality includes components such as dissolved oxygen, acidity/alkalinity, levels of other chemicals such as nitrogen and phosphorous, amount of suspended solids and heavy metals. Dissolved oxygen is affected by the Biochemical Oxygen Demand (BOD); the higher the BOD the lower the dissolved oxygen available in the water for fish and other wildlife. Excess nutrients can lead to various impacts including algal blooms and smothering growth of large algae, while high ammonia concentrations and heavy metals are directly toxic to aquatic life. Each species has its own tolerance range with respect to water quality. For example, fish, such as the salmon, which are totally dependent on water are more sensitive to changes in water quality. Water quality can have other indirect effects, for example high volumes of nitrogen and phosphorous can lead to algal blooms and excessive growth of other water plants.
- 6.1.2 Water quantity has a significant effect on the biodiversity of a river catchment in many different ways. The amount of water falling on a catchment and getting into a river, has an effect on water levels (depth) in a river, water table levels in a floodplain, and a flow rate of a river. In turn, these properties influence other important river properties – for example levels of silt and dissolved oxygen in the water.
- 6.1.3 Different species have their own optimal ranges for these properties (and these can vary from season to season), and their own tolerance levels. So, for example with breeding wading birds of the floodplain such as the redshank, a high water-level during the spring breeding season, resulting in shallow pools to feed from and feed the young chicks is ideal. However, too much water (flooding) can wash away nests and eggs. Too little water (drought) and the invertebrate food in the grassland is more difficult to obtain, and chicks may not get enough food. Internationally designated sites that have potential for likely significant effects resulting from the SDNPA Local Plan are as follows:
- River Itchen SAC
  - Arun Valley SAC, SPA and Ramsar site
- 6.1.4 There is also a pathway of impact on freshwater flows into the Solent European sites such as Chichester & Langstone Harbour SPA/Ramsar site. These are discussed further in the following paragraphs.

### 6.2 River Itchen SAC

- 6.2.1 The River Itchen SAC is vulnerable to changes in both water quantity (maintenance of flow velocity) and water quality (siltation and low nutrient inputs). Policies that allow for development adjacent to or in close proximity to the River Itchen have potential impact on both water quality and water quantity of this SAC.
- 6.2.2 Policy SD23 (Housing) outlines residential development at the settlements of Cheriton (6 new dwellings) and Itchen Abbas (8 new dwellings). These settlements are located adjacent to the River Itchen SAC. Twyford (20 new dwellings) is located approximately 200m from the River Itchen SAC. These settlements are likely to be served by a Waste water Treatment Works (WwTW) which discharges into the River Itchen SAC. However, there are only 34 new dwellings between them and they are not served by the two works that have the biggest impact on Itchen water quality (Chickenhall WwTW and Harestock WwTW).

#### Water Quality

- 6.2.3 Eutrophication in the River Itchen, specifically regarding phosphate inputs (from wastewater discharge), is something the Environment Agency is seeking to resolve. In recent years the Agency has worked with WRc plc to develop modelling evidence to enable permit changes for managing and reducing phosphate loads entering chalk streams in the Upper Itchen catchment and specifically the River Itchen SAC. The Agency used this evidence during 2013/14 to engage with stakeholders and agree revisions to discharge permits for fish farms and watercress farms in the upper catchment to reduce the levels of phosphate discharged to the Itchen. The watercress farms are aiming to comply with these new permits in 2016, while on-going action will reduce loadings from other agriculture sectors in the catchment.
- 6.2.4 The Environment Agency undertook a series of Reviews of Consents for the River Itchen. These identified that phosphorus concentrations in the River Itchen SAC were leading in combination to an adverse effect on the integrity of this site. The major discharge to the River Itchen SAC is from the Chickenhall Lane WwTW in Eastleigh, downstream of the SDNP. Harestock WwTW (also located downstream of the SDNP) also makes a significant contribution. The Agency subsequently introduced a series of amendments to WwTW discharge consents into these receiving watercourses intended to reduce the inputs of these nutrients to acceptable levels.

- 6.2.5 Natural England's Site Improvement Plan for the River Itchen SAC, identifies further works to be undertaken by Partners to aid in improving the water quality of the River Itchen SAC via a Diffuse Water Pollution Plan. Actions include:
- Reducing road runoff (both as pathway for sediment from elsewhere, and as source from roadside) and a review of settling pond maintenance, both trunk roads and other public roads; quantifying the extent of the problem, through systematic catchment-wide risk appraisal, and address septic tank phosphate input. e.g. Compulsory registration of septic tanks and small package plants, to quantify inputs to the system and help reduce them, and to ensure best practice management of septic tanks/package plants is adhered to; and
  - Addressing diffuse pollution from agriculture through a catchment based approach.
- 6.2.6 In addition, the Itchen Valley Grazing project aims to allocate funds to support project advice on land management of existing HLS agreements, and non HLS grazed land
- 6.2.7 The Site Improvement Plan includes additional actions such as: a review of consents for water cress farms and fish farms based on revised phosphate standards for the SAC; and, ensure existing HLS agreements continue to benefit water quality (particularly through control and monitoring of stocking densities where grazed) and southern damselfly habitat. These can all help improve water quality of the SAC
- 6.2.8 In addition to these the Environment Agency is leading a River Restoration Strategy with the aim of improving the quality of the River Itchen.
- 6.2.9 Policy SD23 (Housing) outlines 34 new residential dwellings within close proximity to the River Itchen SAC. This is a relatively small number of new dwellings and the WwTW most likely to serve these dwellings have not been identified as being major contributors to exceedance of the River Itchen's water quality targets in the Review of Consents. Provided new development can be accommodated within the existing consent headroom for the relevant wastewater treatment works the Local Plan will not contribute to an adverse effect on any European sites. Given the small number of dwellings involved it is considered very unlikely that there will be a difficulty accommodating these dwellings.

#### **Water Quantity**

- 6.2.10 The River Itchen is covered by the Environment Agency's Test and Itchen CAMS. The surface water resource is identified as having no water available for licencing, while the Itchen Groundwater supply is identified as 'restricted water available for licensing'. Water availability in the Itchen parts of the CAMS area is therefore very restricted. For salmon, flow rates are critical to the success of the species. Low flow rates affect food availability and migration. Low flows mean reduced invertebrate food, and increased concentrations of pollutants significantly reducing the numbers of salmon returning up river to spawn. In low flow years, salmon returning to spawn can be reduced by as much as 50%. Low flow also means more silt and less oxygen in the water, significantly reducing the survival rate for the eggs of the salmon that do spawn.
- 6.2.11 Natural England's Site Improvement Plan for the River Itchen SAC, identifies further works to be undertaken by Partners to aid in improving the hydrology of the river. Actions include:
- Amending water company abstraction licence identified through the Review of Consent process;
  - Amend/ revoke Environment Agency permits to abstract and then augment river (Candover and Arle schemes respectively) and linked Water Resource Management Plan process; and,
  - Investigate causes of apparent drying on floodplain meadows, with a focus on abstractions (if not covered by RoC) and water level management issues. Implement any changes identified through existing mechanisms. Affects discrete areas of the SAC floodplain
- 6.2.12 The Site Improvement Plan for the River Itchen SAC includes a Water Level Management Plan to manage water levels and avoid potentially damaging low flows. This is linked to the River Restoration Strategy.
- 6.2.13 Historically, the Environment Agency Review of Consents for the River Itchen SAC identified that abstraction could (during a dry year) result in flows in Candover Stream and the main River Itchen south of Winchester to fall to approximately 35% below naturalised flow in September. The Agency has therefore introduced a series of amendments to abstraction licences for the River Itchen SAC to reduce abstraction to acceptable levels. As part of its Review of Consents process, the EA has decided to modify licences to meet the Environment Agency target flow regime for the river by imposing a hands off flow condition (i.e. a condition which stipulates that the abstraction must cease when the river flow drops to a certain point) and by applying monthly totals for June to September (inclusive) (i.e. a maximum volume of water that can be abstracted).
- 6.2.14 An analysis of future water supply-demand balance across Southern Water supply area identified that in 2019 the level of abstraction on the River Itchen must be reduced for environmental reasons. As such the River Itchen will require Sustainability Reductions in abstraction to prevent likely significant effects upon the SAC. New restrictions limit the amount of water that can be abstracted from the River Itchen between the months

of June and September each year. To counter this and to meet water demand within the Hampshire South Water Resource Zone (WRZ), Southern Water has developed a Water Resource Strategy.

- 6.2.15 Southern Water have identified that to meet the future water supply requirements to 2040 implemented in the Hampshire South and Isle of Wight WRZs, so that the security of supplies is maintained throughout the planning period<sup>49</sup>.
- Universal metering;
  - Leakage reduction;
  - Asset improvement schemes for groundwater sources;
  - Increase of Testwood Water Supply Works to licence limit;
  - Development of the enabling Testwood to Otterbourne transfer and associated distribution infrastructure; and
  - Optimisation of inter-zonal transfers (cross-Solent main).
- 6.2.16 Given these interventions identified to meet the public water supply requirement by 2040 it is therefore considered that increased abstraction from the River Itchen would not be required and there would therefore be no likely significant effect upon the River Itchen SAC. The HRA screening for the Southern Water WRMP did conclude that likely significant effects arising from implementation of the revised draft WRMP could not be ruled out due to potential effects of the Candover groundwater scheme for river augmentation on the River Itchen SAC. However, the subsequent Appropriate Assessment by Cascade Consulting confirmed that no adverse effects on integrity of the SAC/SPA/Ramsar site would arise.
- 6.2.17 Provided that new development can be accommodated within existing post-review abstraction licences for the relevant raw water treatment works it will not contribute to an adverse effect on any European sites.

### 6.3 Arun Valley SAC/ SPA/ Ramsar

- 6.3.1 The Arun Valley SAC/ SPA/ Ramsar site is vulnerable to changes in both water quantity (maintenance of flow velocity) and water quality (siltation and low nutrient inputs). The SAC is only designated for lesser whirlpool ram's-horn snail *Anisus vorticulus*. The SPA is designated for Bewick swan and waterfowl generally. Water quantity and water pollution are identified as a threat to these features.
- 6.3.2 Policies that allow for development adjacent to or in close proximity to the River Arun have potential impact on both water quality and water quantity of this site.
- 6.3.3 Policy SD23 (Housing) outlines residential development at the settlements of:
- Amberley (6 new dwellings) located adjacent to the designated sites and Fittleworth (6 new dwellings) located 4km from the designated sites - these settlements are treated by STW which discharge into the River Arun downstream of the Arun Valley SPA/Ramsar
  - Bury (6 new dwellings) located 1km from the designated sites and Coldwaltham (20 new dwellings) located adjacent to the designated sites which are treated by STW which discharge into Arun Valley SPA. Coldwaltham STW is very close to the SPA but Fittleworth STW discharge is about 5km upstream and the STW has recently been upgraded to ensure it meets environmental standards.
  - Washington (un-defined number of new dwellings) located 7km from the designated sites;
  - Watersfield (un-defined number of new dwellings) located 480m from the designated sites;
  - Petworth (150 dwellings) – Petworth STW discharges to a smaller watercourse and then drains to the River Rother and ultimately the Arun upstream of the SPA. However, this is a pathway of 8km.
- 6.3.4 Thus, there is potential for likely significant effects upon the internationally designated site.

#### **Water Quantity**

- 6.3.5 Existing water abstractions are regulated through the Environment Agency's Catchment Abstraction Management Strategies (CAMS). Within the Arun and Western Streams CAMS (2013)<sup>50</sup>, *'the River Arun is assessed as having water available for licensing throughout the flow range with only an MRF restriction. However, water is available because the river is discharge rich and these discharges raise river flows above those that would naturally be present. This is due mainly to the large discharge from Horsham STW just above the Alfoldean assessment point. Much of the public water supply to this catchment is from the Hardham source in the Lower Rother, but this is discharged to the Arun, so there is a net loss in the Rother but gain in the*

<sup>49</sup> Southern Water. (2009) Water Resource Management Plan 2010 - 2035

<sup>50</sup>Environment Agency. River Arun and Western Streams Catchment Abstraction Management Strategy (2013). [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/289932/LIT\\_8062\\_987684.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/289932/LIT_8062_987684.pdf)



*Arun...* This high discharge rate ensures maintenance of flow velocity. In addition to surface water, the 'Lower Greensand Arun & Western Streams' section of the CAMS, which deals with groundwater states that: *'There will be a, general presumption against the issuing of new groundwater licences for consumptive abstraction from the Lower Greensand aquifer. This unit includes the Hardham Basin...The lower Greensand provides baseflow to the River Rother and its tributaries and also provides an important source of water for wetlands such as Pulborough Brooks and Amberley Wild Brooks which are SSSIs and part of Arun Valley SAC and SPA. The smaller area of Waltham Brooks is a SSSI and SPA. Any abstractions which could affect flows into a SPA or SAC may require an appropriate assessment to determine if they will have an adverse effect on the site or not.* Further restrictions on abstraction are stated in the section of the CAMS concerned with the tidal abstraction downstream of the confluence with the River Rother: *'The majority of the surplus freshwater flow to the tidal reach has been licensed to this abstraction and so it is unlikely that any more low to mid flow consumptive surface water abstraction would be allowed from the entire River Arun (and Western Rother combined) in order to protect the tidal ecology and not derogate the tidal abstraction'.* The CAMS clearly indicates overall therefore that there are significant restrictions on the opportunity to undertake further abstraction from the River Arun or its groundwater sources.

- 6.3.6 The public water supply strategy for the Local Plan period and beyond as it relates to this part of the National Park is set out within the Southern Water Resource Management Plan (WRMP). The Arun internationally designated site is located within the Sussex Worthing Water Resource Zone (WRZ). The HRA for Southern Water's WRMP<sup>51</sup> did not identify any likely significant effects upon the Arun sites as a result of the WRMP, due to the large flow rates already present within the river. Moreover, abstraction for the Worthing water resource zone is principally from the Worthing chalk block which is essentially isolated from the Arun Valley. In addition, it is expected that the SDNPA Local Plan will only deliver 189 new dwellings within the Sussex Worthing WRZ that as such, an impact pathway relating to the Worthing WRZ can be screened out.
- 6.3.7 Although located within the Worthing WRZ it is this 'North Sussex' water resource zone that includes both the surface water and groundwater abstraction at Hardham (in the Rother catchment) and the River Arun abstraction below the tidal limit and which could thus have the greatest effect on flows in the Arun Valley. The HRA screening undertaken for the Southern Water WRMP considered future public water supply abstraction impacts on the Arun Valley SAC/SPA/Ramsar site. It concluded that no likely significant effects would arise except potentially from implementation of the Ford WwTW effluent transfer scheme. However, the subsequent Appropriate Assessment by Cascade Consulting confirmed that no adverse effects on integrity of the SAC/SPA/Ramsar site would arise.
- 6.3.8 In addition to confirmation that overall public water supply requirements over the plan period can be achieved without a likely significant effect on European sites, there are policies in place within the SDNPA that ensure for the protection of water courses, notably Policy SD16: (Rivers and Watercourses). This policy states: *'Proposals which affect rivers, river corridors and other watercourses will only be permitted provided they comply with other relevant policies and: a) conserve and enhance their water quality and biodiversity'.* As such, it can be assessed that water quantity issues upon the Arun Valley designated site can be screened out.

### **Water Quality**

- 6.3.9 The Arun Valley designated site is vulnerable to changes in water quality from siltation and low nutrient inputs. According to Natural England's Site Improvement Plan<sup>52</sup> for the Arun Valley SAC and SPA, the rivers Arun and Storr are failing on phosphate levels. The failure on phosphate levels is directly linked to point source pollution from a sewage treatment works (STW) upstream of the site. Siltation on the other hand is primarily due to agricultural runoff rather than point sources. The main source of phosphate is from Marehill STW but the other smaller STWs serving Petworth, Coldwaltham and Fittleworth<sup>53</sup> may make a small contribution. There may also be a risk of increased levels of nutrients and silt entering the site through flooding, especially if the river banks are not maintained (see issue of changes in water levels). The ramshorn snail or which the SAC is designated is sensitive to eutrophication, and bird species for which the SPA and Ramsar site is designated are also vulnerable to increased levels of nutrient enrichment as there is an increased likelihood of certain disease. Increase in growth of vegetation from sustained nutrient enrichment can make the habitat unsuitable for many bird species. Diffuse pollution and siltation from agricultural runoff is likely to be contributing to the phosphate levels (this latter issue is managed via Catchment Sensitive Farming).
- 6.3.10 Although diffuse pollution from agricultural runoff is a significant issue that must be addressed, the principal pathway for a Local Plan to affect water quality in European sites is through increased discharge of treated

<sup>51</sup> Southern Water (2014) Water Resources Management Plan 2015–40 Habitats Regulations Assessment (Summary)

<sup>52</sup> Natural England Site Improvement Plan Arun Valley (2014)

<http://publications.naturalengland.org.uk/file/5185212862431232>

<sup>53</sup> The SDNPA local Plan outlines 150 new dwellings at Petworth, 20 at Coldwaltham and 6 at Fittleworth

sewage effluent. This issue (the potential for an effect from increased volume of treated sewage effluent) was considered in the HRA of the Southern Water WRMP, which stated that:

- 6.3.11 *'The HRA Stage 1 screening assessment concluded uncertainty regarding water quality effects on the Arun Valley SAC, Special Protection Area (SPA) and Ramsar site; further clarification of the option through the WRMP process confirmed reverse osmosis membrane technology as the tertiary treatment process. Reverse osmosis membrane technology delivers effluent treated to a standard where there are very few nutrients or biological organisms remaining in the treated water, therefore allaying the water quality concerns associated with the alternative biological aerated flooded filter (BAFF) process.'*
- 6.3.12 *Detailed water quality assessment previously undertaken identified that the River Rother had the best water quality of the major tributaries entering the tidal Arun, with the River Stor having relatively poorer water quality; treated effluent from Horsham WwTW also results in lower water quality entering from the Upper Arun. Given that the scheme is intended to bring the flows up to and beyond the MRF target, operation of the scheme would not lead to adverse effects on flows from the River Rother into the tidal Arun, which contributes to the dilution of the Stor and Upper Arun discharges.*
- 6.3.13 *Therefore, there are unlikely to be any significant effects on the qualifying features of the River Arun SAC, SPA or Ramsar site [from Southern Water WwTW].<sup>54</sup>*
- 6.3.14 In addition, the following initiatives are being implemented to manage and improve water quality in the Arun catchment:
- Southern Water is leading a study intended to report by 2020 which is investigating impacts of WwTW upstream of the Arun Valley sites, which have not been addressed through Review of Consents (ROC). This action is in place to assess the levels of point source pollution entering the SPA via the rivers Arun and Stor, and to assess their impacts on the SPA features. Mitigation measures are then identified to be in place by 2027.
  - In addition to addressing impacts of point source pollution, the Natural England Site Improvement Plan identifies a specific commitment to '*reduce nitrogen and phosphates from agricultural diffuse pollution through catchment-wide delivery of the options under the New Environmental Land Management Scheme*'. This will be delivered by Natural England in partnership with the SDNPA. Southern Water has also made a commitment to catchment management in the Rother part of the wider Arun catchment to reduce sediment yield in the river which causes outages at the Hardham surface water abstraction.
- 6.3.15 This is supported by Policies SD17: (Flood Risk Management) and SD16: (Rivers and Watercourses). Policy SD17 outlines the requirement for a site specific Flood Risk Assessment. This must demonstrate that the development will not negatively impact upon water quality of surface water and ground water. Policy SD16 Point e) ensures for the prevention of pollution risks to aquatic habitats to maintain their '*ecological and/or chemical status, caused by the harmful discharge of foul water, surface water, and other processes which are part of proposals. Where development does not satisfy these criteria it will be refused.*'
- 6.3.16 Provided new development can be accommodated within the existing consent headroom for the relevant wastewater treatment works, it is considered that the existing initiatives being implemented to ensure compliance of relevant WwTW discharges and improve diffuse pollution, policies SD17 and SD16 within the SDNPA Local Plan and the small amount of development proposed within the catchment enable a conclusion that the South Downs National Park Local Plan will not result in a likely significant effect on the Arun Valley SAC/SPA/Ramsar site.

## 6.4 Solent Sites

### Water quantity

- 6.4.1 The South Downs National Park covers large rural parts of Winchester district, East Hampshire district and Chichester district, all of which contain watercourses (such as the River Meon and River Itchen) that ultimately drain into the Solent or groundwater resources that are connected to those watercourses. The National Park in these areas has public water supply from three companies: Portsmouth Water, Southern Water and South East Water.
- 6.4.2 The Local Plan area in Chichester district is supplied with water from the Environment Agency Arun and Western Streams catchment, which currently assesses groundwater availability as being 'restricted' in terms of supplies from the Chichester chalk. Freshwater flows into Chichester Harbour arise from the Chichester Rifes - the River Lavant, River Ems, Fishbourne Springs, Bosham Stream, Cutmill Creek, Ham Brook, and the springs at Warblington. The Habitats Directive review of consents investigated the impact of abstraction

<sup>54</sup> Southern Water (2014) Water Resources Management Plan 2015–40 Habitats Regulations Assessment (Summary)

on freshwater flows to the SPA and the abstraction management strategy noted that any new licence would need to consider impacts on this conservation site. Portsmouth Water supplies the National Park via their Chichester and Bognor Regis resources zone.

- 6.4.3 Portsmouth Water's licences in the Chichester area are now fully compliant with the Habitats Regulations. The only outcome from the Water Framework Directive investigations in this area was to consider increased augmentation of the River Ems. This scheme is in the EA's National Environment Programme and has been included in the Company's Business Plan. Portsmouth Water has confirmed that overall water demand is not increasing despite increased populations and they do not intend to apply for additional licences over the period to 2040. On this basis, the HRA of the Chichester Local Plan was able to conclude no adverse effect from increased public water supply requirements. The HRA of the Portsmouth Water Resource Management Plan in 2014 did not identify any adverse effects on the integrity of the Chichester & Langstone Harbours SPA/Ramsar site due to public water supply needs over the plan period.
- 6.4.4 Southern Water supplies those parts of the National Park relevant to the Solent coast European sites from its 'Hampshire South' Water Resource Zone. A Habitat Regulations Assessment was undertaken in 2014 which considered the potential for adverse effects on European sites from Southern Water's WRMP, essentially its proposals for meeting public water supply requirements over the period until 2040. The HRA concluded that no likely significant effect would be posed to any of the Solent coastal European sites as a result of the expected population growth and associated water demands in the Southern Water supply area over the plan period.
- 6.4.5 South East Water supplies relevant parts of the north of the National Park from their RZ5 resource zone. RZ5 remains predominantly in surplus for the whole of the planning period to 2040 with the development of two ground water schemes (Greatham and East Meon) at the end of the planning period. Given that South East Water's relevant supply zone will be essentially in surplus for the whole planning period the potential for a water resource/supply effect on European sites can be screened out of this assessment.
- 6.4.6 Based on these information sources there is no reason to expect that development in the National Park over the Local Plan period, and associated population growth, will result in increases in abstraction that would trigger a likely significant effect on the Solent coastal European sites.

#### **Water quality**

- 6.4.7 The Solent European sites are located at their closest is located 2.3km from the SDNPA area. This is Chichester and Langstone Harbours SPA / Ramsar site and Solent Maritime SAC. Pagham Harbour international site is located approximately 8km from the SDNPA area.
- 6.4.8 The following settlements identified within the SDNPA Local Plan to provide new housing feed into the Solent sites and Pagham Harbour internationally designated site and lie within relatively close proximity:
- Lavant (20 dwellings) – located just north of Chichester; it is considered likely that this would be encompassed within the 3,000 dwellings already accounted for at Tangmere STW planned upgrades.

#### **Chichester & Langstone Harbours SPA/Ramsar site and Solent Maritime SAC**

- 6.4.9 Many of the features of Chichester and Langstone Harbours internationally designated site and the Solent Maritime SAC are vulnerable to water quality resulting from eutrophication and toxicity. Sources include both point source discharges (including flood alleviation / storm discharges) and diffuse water pollution from agriculture / road runoff, as well as historic contamination of marine sediments, primarily from copper and Tributyltin (TBT)<sup>55</sup>. The provision of additional housing within the SDNPA Local Plan has potential increase pollution levels from nitrogen outputs from WwTW. This has been discussed in the Chichester Local Plan HRA<sup>56</sup>. Whilst this Local Plan has yet to be adopted, it has been through Examination, and Natural England has agreed with the HRA.
- 6.4.10 The Chichester (Apuldram) WwTW discharges to the head of Chichester Harbour. Due to the sensitive nature of the Harbour the current environmental permit limit at Chichester WwTW is finite. The discharge is already treated to exceptionally tight nitrogen levels, established under the Habitats Directive Review of Consents process. As such, Chichester WwTW is at capacity.
- 6.4.11 Southern Water have an approved upgrade scheme for Tangmere WwTW for AMP 6 (2015-2020) and continue to investigate the groundwater infiltration issue that is impacting Chichester WwTW. Whilst the capacity in that catchment continues to be limited, any additional capacity requirements in the meantime could

<sup>55</sup> Natural England (2014). Site Improvement Plan. Solent Sites

<sup>56</sup> URS (2014) Chichester District Council Chichester Local Plan: Key Policies Submission 2014-2029 Habitats Regulations Assessment

be diverted to Tangmere. The anticipated delivery date of additional capacity at Tangmere WwTW is 2019. Therefore the delivery of the strategic locations would be constrained until at least 2019 in the Plan period<sup>57</sup>.

- 6.4.12 The approach set out above in the Chichester Local Plan HRA has been accepted by Natural England. Due to the nature of the dispersed nature of the proposed residential development within the SDNPA Local Plan, 20 new houses have been proposed within the Plan that could result in treated wastewater discharges into the SPA/Ramsar site and SAC. This is a small number of houses. Provided new development can be accommodated within the adjusted consent headroom for the expanded Tangmere WwTW (or an appropriate alternative WwTW if the connection will not be to Tangmere), it is considered that a conclusion can be drawn that the South Downs National Park Local Plan will not result in a likely significant effect on the Chichester & Langstone Harbours SPA/Ramsar site.

Pagham Harbour SPA/Ramsar site

- 6.4.13 Studies by the Environment Agency under the Review of Consents process indicated that sewage discharges have not had a significant adverse effect on the integrity of the Pagham Harbour SPA/Ramsar site and that WwTW have capacity to accommodate new homes without a significant adverse effect on water quality. As noted above, no settlements within the SDNPA Local Plan identified to provide new housing have been identified that feed into Pagham Harbour SPA/ Ramsar site. As such, this impact pathway can be screened out.

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<sup>57</sup> AMEC (2015) South Downs National Park Authority Water Cycle Study and SFRA Level 1 Scoping and Outline Report.

## 7 Loss of supporting habitat

### 7.1 Introduction

- 7.1.1 European sites are designated on the basis of key habitats and species. While most internationally designated sites have been geographically defined in order to encompass the key features that are necessary for coherence of their structure and function, this is not the case for all such sites. Due to the highly mobile nature of bats and waterfowl it is inevitable that areas of habitat of crucial importance to the maintenance of their populations are outside the physical limits of the internationally designated site for which they are an interest feature. However, this area will still be essential for maintenance of the structure and function of the interest feature for which the site was designated and land use plans that may affect this land should still therefore be subject to appropriate assessment.

### 7.2 Likely Significant Effects

#### Loss of supporting habitat for bats

- 7.2.1 Bats are a designated feature of three international sites within the sphere of influence of the SDNPA Local Plan. These are:

- Ebernoe Common SAC
- The Mens SAC
- Singleton and Cocking Tunnels SAC

- 7.2.2 Any development that has potential to impact greenfield sites or existing mature vegetation lines and/ or river bank corridors has potential to impact upon the commuting and foraging routes of bats for which these sites are designated. This could include direct loss of habitat and light and sound/ vibration pollution.

- 7.2.3 All three of the sites are designated for their populations of barbastelle bats. Ebernoe Common SAC and Singleton and Cocking Tunnels SAC are also designated for their populations of Bechsteins' bats.

#### Ebernoe Common SAC

- 7.2.4 Ebernoe Common is an exceptional site for both species of bats. Much of what is known about the foraging behaviour of barbastelle bats has been derived by studies carried out over the past fifteen years, and the studies are able to give detailed information on flight lines surrounding Ebernoe Common of the barbastelle bat:

- Greenaway, F. (2004) Advice for the management of flightlines and foraging habitats of the barbastelle bat *Barbastellus barbastellus*. English Nature Research Report, Number 657.
- Greenaway, F. (2008) Barbastelle bats in the Sussex West Weald 1997 - 2008

- 7.2.5 These studies revealed that the barbastelle bats at Ebernoe Common SAC had flightlines that followed watercourses, particularly the River Kird, and woodland cover for distances of typically **5km**. Flightlines outside the SAC are particularly to the south (the Petworth and Tillington area) but also to the west, north and east. There has been less study of the Bechstein bat populations. However, those radio-tracking projects which have been implemented for the species have established that the tracked individuals generally remained within approximately **1.5 km** of their roosts<sup>58</sup>. These distances do fit with those identified from radio-tracking of Bechstein's that has been undertaken at Ebernoe Common SAC from 2001, which identified that the maximum distance travelled by a tagged Bechstein's bat to its foraging area was 1,407m, with the average 735.7m<sup>59</sup>. Any development proposals within 5km of Ebernoe Common SAC (including windfall sites and sites not identified within the SDNPA Local Plan) have potential to result in likely significant effects upon the bats species of Ebernoe Common SAC via direct habitat loss or disturbances from lighting, noise and vibrations both during construction and operational phases of development.

- 7.2.6 Within SDNPA Local Plan, Policy SD22 (Development Strategy) and Policy SD23: (Housing) has potential to impact upon the bats of Ebernoe Common. They provide for development at Petworth and Lodsworth, both within 5km of Ebernoe Common SAC.

- Petworth is located within 3.4km of Ebernoe Common SAC. Bats are identified to use key areas for commuting and foraging. The Petworth area has been identified as a key area for bats of the SAC.

<sup>58</sup> Cited in: Schofield H & Morris C. 2000. 'Ranging Behaviour and Habitat Preferences of Female Bechstein's Bats in Summer'. Vincent Wildlife Trust

<sup>59</sup> Fitzsimmons P, Hill D, Greenaway F. 2002. Patterns of habitat use by female Bechstein's bats (*Myotis bechsteinii*) from a maternity colony in a British woodland

- Lodsworth is located 4km from Ebernoe Common SAC.

7.2.7 Policy SD13 (International Sites) Point 1 takes note of the requirement to take due regard within a defined buffer of international sites designated for bat features (which for Ebernoe Common SAC is 5km). **However, bats may not solely use greenfield sites. Text of Policy SD 13 Point 1 should be amended to include 'Proposals on greenfield sites and sites that support or are in close proximity to mature vegetative linear features and waterways...'** Provided these recommendations are incorporated effects from the SDNPA Local Plan upon bat features of Ebernoe Common SAC can be screened out.

#### The Mens SAC

7.2.8 The Mens SAC is owned and managed by Sussex Wildlife Trust. The Mens SAC is important for its barbastelle populations and radio-tracking studies have been undertaken to identify core foraging areas. These reports have identified that the barbastelles of The Mens SAC forage to the east of the SAC, principally on the floodplain of the river Arun from close to Horsham in the north to Parham in the south. They also cross to the Adur floodplain. In some cases the bats travelled up to **7km** to visit foraging areas<sup>60</sup>. Whilst it is conceivable for barbastelle bats of the SAC to use a wider area for activities such as migrating between hibernation roosts and summer roosts, the currently available radio-tracking evidence indicates that a 7km distance is likely to encompass the core foraging area of importance for barbastelle bats associated with the SAC. Development within 7km of the SAC therefore has greatest potential to significantly affect barbastelle flightlines or foraging areas. Any development proposals within 7km of The Mens SAC (including windfall sites and sites not identified within the SDNPA Local Plan) have potential to result in likely significant effects upon the barbastelle bats of The Mens SAC via direct habitat loss or disturbances from lighting, noise and vibrations both during construction and operational phases of development.

7.2.9 Within the SDNPA Local Plan Policy SD22 (Development Strategy) and Policy SD23: (Housing) has potential to impact upon the bats of The Mens SAC. They provide for development at Petworth, Fittleworth, Coldwaltham, and Watersfield, all within 7km of The Mens SAC.

- Fittleworth is located 2.6km from The Mens SAC
- Petworth is located 3.1km from The Mens SAC
- Coldwaltham is located 5km from The Mens SAC
- Watersfield is located 5.5km from The Mens SAC

7.2.10 As noted above, Policy SD13 (International Sites) Point 1 takes note of the requirement to take due regard within a defined buffer of international sites designated for bat features (which for The Mens SAC is 7km). **However, bats may not solely use greenfield sites. Text of Policy SD 13 Point 1 should be amended to include 'Proposals on greenfield sites and sites that support or are in close proximity to mature vegetative linear features and waterways...'** Provided these recommendations are incorporated effects from the SDNPA Local Plan upon bat features of The Mens SAC can be screened out.

#### Singleton and Cocking Tunnels SAC

7.2.11 Singleton and Cocking Tunnels SAC is designated for its hibernating populations of barbastelle and Bechstein's bats. The tunnels are grilled at both ends and so secured from human disturbance. Whilst the site is designated for hibernating bats, in the wider sense, the habitat that supports the dispersal of the population of bats for which the SAC is designated are also protected is also subject to assessment, this also includes foraging routes. There has been no formal research to determine the areas and/ or distances that the hibernating bat features of the Tunnels SAC disperse to outside of the hibernating season. There is some evidence to indicate that bats from Ebernoe Common SAC hibernate within the Tunnels SAC. In addition, data from ringing has indicated that barbastelle bats from both Ebernoe Common SAC and The Mens SAC have been recorded swarming at the Tunnels SAC (pers. Comm. with Bat Conservation Trust<sup>61</sup>) the Site Improvement Plan for Singleton and Cocking Tunnels SAC<sup>62</sup>

7.2.12 The SIPs includes the following two recommendations that relate to habitat use of bats:

- Investigate movements and requirements of bats to aid future tailored management to enhance and reconnect commuting and foraging habitat in the wider countryside outside of the site and across other nearby related SACs designated for bats.

<sup>60</sup> Greenaway, F. (2008) Barbastelle bats in the Sussex West Weald 1997 - 2008

<sup>61</sup> Email dated 24/06/15

<sup>62</sup> Natural England (2015). Site Improvement Plan Singleton and Cocking Tunnels

- 7.2.13 **It is recommended that this work is undertaken to better inform future planning matters** Bats will travel large distances from a hibernating roost to a summer roost, with transitory roosts in between used as stop over points. It is noted that protected species (such as bats) will be of note during the Planning Process.
- Identify further areas with suitable available, restored or created habitat to provide winter foraging, summer/night/autumn swarming activity and connectivity to related sites.
- 7.2.14 As noted above, Policy SD13 (International Sites) Point 1 takes note of the requirement to take due regard within a defined buffer of international sites designated for bat features. However, Singleton and Cocking Tunnels SAC has been omitted from this policy. This should be included.
- 7.2.15 Whilst research has been undertaken to determine flight lines of bat features of the two nearby SACs (Ebernoe Common and The Mens SAC), there is no information regarding flight lines of the hibernating bats of Singleton and Cocking Tunnels SAC. **It is recommended that the Authority undertake research to help define the area from which bat features of Singleton and Cocking Tunnels SAC travel to use this hibernation feature.** Whilst this is not a recommendation for inclusion within the Local Plan, it will help inform future development policy regarding this issue.
- 7.2.16 In the absence of any formal research detailing flight lines and distances travelled by bats commuting to and from the hibernation sites at Singleton and Cocking Tunnels SAC, **it is recommended that proposed development sites containing, or in close proximity to suitable commuting and foraging habitat (such as mature vegetative boundaries, woodlands, waterways and wetlands areas) are retained to ensure no loss or severance of existing commuting and foraging routes both during construction and operational phase of any development.** In the absence of any definitive data relating to commuting distances of the bat population for which the SAC is designated, each proposed development site should be assessed on a site-by-site basis. Whilst this does not provide deliverability issues, to ensure important features used within the wider landscape by the SAC bat population for commuting to and from the hibernation sites are retained, may pose constraints of the layout of a proposed development site.
- 7.2.17 The following sites have been identified as potentially requiring consideration of this issue during development control (see Appendix B Table 2 for further information):
- Policy SD-WW03: Land at New Road, Midhurst;
  - Policy SD-WW04: Land at Petersfield Road, Midhurst; and
  - Policy SD-WW05: Land at Lamberts Lane, Midhurst.
- 7.2.18 It is considered that the above precautions will ensure policies within the SDNPA Local Plan do not result in likely significant effects upon the hibernating bats features of the Singleton and Cocking Tunnels SAC.

#### **Loss of supporting habitat for birds**

- 7.2.19 The Arun Valley SPA and Ramsar site is designated for its wintering population of Bewick's swan. It is widely accepted<sup>63</sup> that Bewick's swans feed on suitable farmland up to 5km from the designated site. As such, suitable fields within 5km of the SPA could constitute important supporting habitat if they support a large enough percentage of the SPA population on a regular basis. The SDNP Local Plan, includes policies that could result in loss of supporting habitat within 5km of the Arun Valley SPA and Ramsar site depending on how they are delivered. These are as follows: Policy SD22: (Development Strategy), and Policy SD23: (Housing). These provide for residential development within the following settlements, all located within 5km of the designated site and could potentially lead to loss of supporting habitat (it is impossible to know at this stage whether they actually would or not):
- Amberley is located adjacent to the designated site;
  - Coldwaltham is located adjacent to the designated site;
  - Watersfield is located within 480m of the designated site;
  - Bury is located within 1km of the designated site; and
  - Fittleworth is located within 4km of the designated site.
- 7.2.20 Policy SD13: (International Sites), Point 2 includes the following text: *'Development proposals on greenfield sites within 5km of the Arun Valley SPA should undertake an appraisal as to whether the land is suitable for wintering Bewick swan. If it is then survey should be undertaken to determine whether the fields are of importance to the SPA population. If so, appropriate alternative habitat would be required before development*

<sup>63</sup> Whilst there is no formal publication confirming this, from discussions with the Royal Society for the Protection of Birds (RSPB), Wildfowl and Wetland Trust (WWT) and Natural England (NE) on other projects it has been established that Bewick's Swan often use habitat up to 5km from the designated site for foraging in the winter months. As such 5km has been defined as a within which likely significant effects could result from loss of supporting habitat.

*could proceed.* The inclusion of this policy ensures that no likely significant effects upon the Arun Valley SPA and Ramsar site will result as a consequence of loss of supporting habitat resulting from the SDNPA Local Plan.



## 8 Urbanisation

### 8.1 Introduction

- 8.1.1 This impact is closely related to recreational pressure, in that they both result from increased populations within close proximity to sensitive sites. Urbanisation is an issue in area where a designated site is located within close proximity to a large urban area. Urbanisation is considered separately as the detail of the impacts is distinct from the trampling, disturbance and dog-fouling that results specifically from recreational activity and is more related to close proximity of large scale urban development. The list of urbanisation impacts can be extensive<sup>64</sup>, but core impacts can be singled out:
- Increased fly-tipping - Rubbish tipping is unsightly but the principle adverse ecological effect of tipping is the introduction of invasive alien species with garden waste. Garden waste results in the introduction of invasive aliens precisely because it is the 'troublesome and over-exuberant' garden plants that are typically thrown out<sup>65</sup>. Alien species may also be introduced deliberately or may be bird-sown from local gardens.
  - Arson – Heathlands are particularly susceptible to arson or accidental fires. Consultations reported in the Whitehill & Bordon HRA have revealed a snapshot of the extent of fire on European sites over recent years. Monitoring has not always been carried out uniformly, but site managers logged two incidences of fire on Shortheath Common in 2010, with none in the preceding two years. The total area of Shortheath Common lost to wildfire in 2010 was 0.92 hectares, representing about 1.6% of the site, much of which is not heathland (pers. comm., 2011). On Broxhead Common, four fires were logged between 2008 and 2010, totalling 5.60 hectares.
  - Cat predation - A survey performed in 1997 indicated that nine million British cats brought home 92 million prey items over a five-month period<sup>5</sup>. A large proportion of domestic cats are found in urban situations, and increasing urbanisation is likely to lead to increased cat predation.
- 8.1.2 The most detailed consideration of the link between relative proximity of development to European sites and damage to interest features has been carried out with regard to the Thames Basin Heaths SPA.
- 8.1.3 After extensive research, Natural England and its partners produced a 'Delivery Plan'<sup>66</sup> which made recommendations for accommodating development while also protecting the interest features of the European site. This included the recommendation of implementing a series of zones within which varying constraints would be placed upon development. While the zones relating to recreational pressure expanded to 5km (as this was determined from visitor surveys to be the principal recreational catchment for this European site), that concerning other aspects of urbanisation (particularly predation of the chicks of ground-nesting birds by domestic cats but also including other disturbance) was determined at 400m from the SPA boundary. The delivery plan concluded that the adverse effects of development located within 400m of the SPA boundary could not be mitigated and as such, no new housing should be located within this zone.
- 8.1.4 No exact correlation can be made between the incidence of fly-tipping and deliberate arson and the specific proximity of large-scale human settlement, since it does depend on circumstances. However, it is reasonable to conclude that the risk will be particularly high when large amounts of human settlement is very near (for the purposes of this assessment we have as a precaution defined 'very near' as being within 400-500m rather than immediately adjacent). While this is not an empirically derived distance, it does enable urbanisation effects to be defined and the likelihood assessed at this scale.

### 8.2 Discussion

- 8.2.1 The following designated sites are located adjacent to settlements identified within the SDNPA Local Plan to provide new residential development:
- Arun Valley SPA, SAC and Ramsar site
  - East Hampshire Hangers SAC
  - Lewes Down SAC
  - River Itchen SAC

<sup>64</sup> Underhill Day, JC. 2005. A Literature Review of Urban Effects on Lowland Heaths and their Wildlife: English Nature Research Report 623

<sup>65</sup> Gilbert, O. & Bevan, D. 1997. The effect of urbanisation on ancient woodlands. *British Wildlife* 8: 213-218.

<sup>5</sup> Woods, M. et al. 2003. Predation of wildlife by domestic cats *Felis catus* in Great Britain. *Mammal Review* 33, 2 174-188.

<sup>66</sup> [http://www.southeast-ra.gov.uk/documents/sustainability/thames\\_basin\\_heaths/delivery\\_framework\\_march2009.pdf](http://www.southeast-ra.gov.uk/documents/sustainability/thames_basin_heaths/delivery_framework_march2009.pdf)

- Woolmer Forest SAC
- Wealden Heaths Phase II SPA

- 8.2.2 Whilst the Arun Valley designated site is located adjacent to the settlements of Amberley and Coldwaltham, there is a proposal to only bring forward a total of 26 new houses, six at Amberley and 20 at Coldwaltham (Policy SD –WW11: Land at Brookland Way, Coldwaltham). This is a small number of new dwellings. As such, it is not considered that urbanisation is a strategic issue at this designated site.
- 8.2.3 East Hampshire Hangers SAC is located adjacent to Selbourne which is identified to accommodate six new dwellings. This is a small number of new dwellings. In addition, no specific site locations have been assessed, so it is possible that development will not be adjacent or in close proximity to the designated site and as such, it is not considered that urbanisation is a strategic issue at this designated site.
- 8.2.4 Lewes Downs SAC is located in close proximity to Lewes town which is identified to accommodate 835 new dwellings. These same dwellings are identified within the emerging Lewes Joint Core Strategy. Whilst it is noted that this Joint Core Strategy is not yet adopted, it is in its final stages of consultation. The HRA for the emerging Joint Core Strategy has been agreed by Natural England. The HRA did not identify any likely significant effects upon the SAC resulting from the Joint Core Strategy. This is in part because the A26 lies between the SAC and the settlement, separating the settlement from the designated site and is also partly due to the steep topography of the SAC; it is considered that this impact pathway upon Lewes Downs SAC can be screened out.
- 8.2.5 The River Itchen SAC is located adjacent to the settlements of Cheriton and Itchen Abbas. The allocation of dwellings to these settlements will result in a total of 14 new dwellings, including 8 identified in Policy SD-WD01: Land at Itchen Abbas House. This is a small number of new dwellings. In addition, no specific site locations have been assessed, so it is possible that development will not be adjacent or in close proximity to the designated site and, as such, it is not considered that urbanisation is a significant issue at this designated site.
- 8.2.6 Both Liss Forest and Greatham lie immediately adjacent to the SPA at their closest. It was determined during the Examination of the East Hampshire/South Downs Joint Core Strategy that a strategic prohibition on development within 400m of the SPA was not required due to the small number of housing proposals expected within that zone. However, the analysis on which that conclusion was based assumed that approximately 30 dwellings would be delivered over the plan period within 400m of the Wealden Heaths Phase 2 SPA (not just in the National Park, but within the entire 5km zone). Natural England has since advised that new gypsy and traveller pitches should be included within this definition of 'dwellings'. **In order to avoid exceeding this figure (until such time as any study confirms the numbers to be delivered in this zone can be elevated) it is advised that the National Park authority should keep a record of permissions granted within 400m of the SPA in liaison with East Hampshire District Council. For the same reason, it is also recommended that further permissions for gypsy and traveller sites within 400m of the SPA are discouraged and that housing sites at Liss Forest and Greatham should be mainly targeted on land more than 400m from the SPA.** It should be noted that the only specific site allocation at Greatham in the South Downs National Park Local Plan (Policy SD-WW10: Land at Petersfield Road, Greatham, which seeks to accommodate 30 dwellings) is located c. 600m from the SPA and therefore outside the 400m zone.

## 9 Renewable Energy Development

### 9.1 Introduction

9.1.1 The term renewable energy covers a wide range of energy generation methods most of which would not have a negative interaction with any European sites. Renewable energy developments in the form of wind turbines and wind farms have the potential to result in:

- A risk of bird collisions with turbine blades;
- Displacement of birds through disturbance,
- A barrier effect to bird movement through creation of a wind array;
- A risk of bat collisions with turbine blades; and
- A risk of barotrauma effects on bats causing mortality from turbine blades (barotrauma is a decompression effect occurring as a result of rapid pressure changes at moving turbine blades, resulting in mortality of bats)

### 9.2 Discussion

9.2.1 Different types of internationally designated sites that contain bat or bird features have different vulnerabilities, depending on the species present and have potential to result in likely significant effects if a renewable energy scheme is brought forward. Policy SD56 (Renewable Energy) is a development management policy. It does not outline any location, type or extent of renewable energy, and the policy ensures that development will only be permitted in accordance with other policies and plans, such as SD12 (International Sites), that includes the requirement for AA where necessary.

9.2.2 It is advised that where renewable energy development is to take place within proximity to internationally designated sites that contain bird and bat features, caution should be given and Policy SD12 should be strictly adhered to.

## 10 In Combination Assessment

### 10.1 Introduction

- 10.1.1 It is a requirement to consider the effects of the Local Plan in combination with other projects and plans, in particular to identify any issues that only arise when the plans/projects are considered together. Only one significant project has been raised for consideration, which is the proposed A27 bypass around Arundel. There is no current preferred option. The options under consideration involve bypasses on the A27 at Arundel, at Worthing/Lancing or to the east of Lewes. None of the options are close to a European site and none are expected to result in changes in flows at any European sites.
- 10.1.2 With regard to other plans, the main other plans of relevance are the Core Strategies/Local Plans for adjacent authorities and in particular those which overlap with the South Downs National Park.
- 10.1.3 It should be noted that the preceding chapters have effectively already considered effects 'in combination' with respect to:
- East Hampshire District Local Plan: Joint Core Strategy – This was a Joint Core Strategy between East Hampshire district and the South Downs National Park Authority. As such impacts between these authorities were considered 'in combination' as an inherent part of the process. In addition, the accompanying HRA had its own 'in combination' assessment which explored impacts with other surrounding authorities affecting the European sites in East Hampshire (Wealden Heaths Phase 2 SPA, Woolmer Forest SAC, East Hampshire Hangers SAC, Shortheath Common SAC, Butser Hill SAC and River Itchen SAC). As such, impacts on European sites in East Hampshire have already been fully assessed and have informed the conclusion of this HRA report;
  - Lewes Joint Core Strategy – Although this is not yet adopted, the housing identified for Lewes in the Lewes Joint Core Strategy and that identified in the National Park Local Plan are the same as they overlap spatially. As such impacts on Lewes Downs SAC have effectively been fully assessed;
  - All wastewater discharge and public water supply impacts have effectively already been assessed 'in combination' since the analysis is based on water company Water Resource Management Plans and the Environment Agency's Review of Consents work.
- 10.1.4 The potential for in-combination effects has been considered for each remaining European site below.

### 10.2 Arun Valley SAC/SPA/Ramsar site

- 10.2.1 The principal other plans and projects of relevance to development around the Arun Valley SAC/SPA/Ramsar site are the Local Plans for Horsham and to a lesser extent Arun and Adur districts, which between them intend to deliver approximately 25,000 dwellings over the Local Plan period. However, the HRA for the Arun and Adur Core Strategies concluded that no significant recreational impact on the SAC/SPA/Ramsar site would occur, and the Horsham Core Strategy HRA scoped out recreational pressure as an impact pathway.
- 10.2.2 The SDNPA Local Plan outlines at least 38 new houses within 7km of the Arun Valley designated site. This is a very small fraction of the 25,000 new houses to be provided within the Arun and Adur Core Strategy and Horsham Core Strategy. It can be considered that the Local Plan will not result in likely significant effects upon the Arun Valley SPA, SAC and Ramsar site, alone or in-combination with any other project or plan.

### 10.3 Castle Hill SAC

- 10.3.1 Lewes District is in the final stages of preparing a new Joint Core Strategy (2015). This will be the central planning document... A HRA has been undertaken with regards to this plan which screened out any likely significant effects upon this SAC. It can therefore be concluded that any adverse effects associated with the emerging Joint Core Strategy are taken account of as part of the Core Strategy HRA, which screened out recreational pressure on Castle Hill SAC.
- 10.3.2 It can be considered that the SDNPA Local Plan will not result in likely significant effects upon Castle Hill SAC alone or in-combination with other project or plans.

## 10.4 Duncton to Bignor Escarpment SAC

- 10.4.1 The HRA for the neighbouring emerging Arun District Local Plan (2013) screened out any likely significant effects as a result of this Plan. As no impact pathways were identified within this plan or the SDNPA Local Plan, it is considered that there will be no likely significant effects on this SAC alone or in-combination with other projects or plans.

## 10.5 Ebernoe Common SAC

- 10.5.1 Since there is no aspect of the Local plan that could result in likely significant effects upon this SAC provided precautions are taken (as noted in this HRA). It can be concluded that there will be no likely significant effects upon the SAC resulting from other project or plans alone or in-combination. The Chichester Local Plan HRA established that there would be no likely significant effect of development in those parts of Chichester district covered by the Local Plan (i.e. those parts outside the National Park) on this European site and it is considered that there is no mechanism for an in combination effect.

## 10.6 Kingley Vale SAC

- 10.6.1 The Local Plan for the area and surrounding authorities' Plans provides for increased populations to the area through housing provision etc. However, since there is no aspect of the SDNPA Local Plan that could be deemed likely to have a significant adverse effect on the designated SAC site there is no mechanism for it to contribute to any 'in-combination' effect.

## 10.7 The Mens SAC

- 10.7.1 One other project or plan has been identified that could result in a likely significant effect upon the SAC, namely the emerging Horsham District Planning Framework. The radio-tracking studies undertaken for the SAC indicate clearly that the main foraging areas for barbastelle are towards to the east of the SAC into Horsham district. The Horsham District Planning Framework already identifies the need to protect habitat outside the SAC and this is incorporated into the Council's development control decisions. As such, it can be considered that there will be no likely significant effects upon the SAC alone or in-combination with any other project or plan. The Chichester Local Plan HRA established that there would be no likely significant effect of development in those parts of Chichester district covered by the Local Plan (i.e. those parts outside the National Park) on this European site and it is considered that there is no mechanism for an in combination effect.

## 10.8 Pevensey Levels SAC/ Ramsar site

- 10.8.1 No impact pathways have been identified that could result in likely significant effects as a result of the SDNPA Local Plan. As such, it can be considered that there will be no likely significant effect upon the SAC and Ramsar site alone or in-combination with any other project or plan.

## 10.9 Rook Cliff SAC

- 10.9.1 No other projects or plans have been identified that could result in a likely significant effect upon the SAC. As such, it can be considered that there will be no likely significant effects upon the SAC alone or in-combination with any other project or plan.

## 10.10 Singleton and Cocking Tunnels SAC

- 10.10.1 Likely significant effects upon the SAC have been screened out within the SDNPA Local Plan. There is potential for likely significant effects resulting from the re-establishment of the railway line of which the tunnels form a part. However, the SDNPA Local Plan, contains sufficient protection to ensure no likely significant effects result from other projects or plans either alone or in-combination.

## 11 Summary of Recommendations

### 11.1 Recreational Pressure

#### Solent European Sites: Policy SD13 (International Sites)

- 11.1.1 The agreed sphere of influence from the Solent European sites is 5.6km which is not stated within Policy SD13, although it is shown on mapping. It is suggested that this distance should be stated in the policy for clarity. If these changes are included within the policy text, this impact pathway upon Solent European sites can be screened out.

#### Singleton and Cocking Tunnels: Policy SD19: (Walking, Cycling and Equestrian Routes)

- 11.1.2 It is recommended that Policy SD19: (Walking, Cycling and Equestrian Routes) makes specific reference to Policy SD12 (Biodiversity and Geodiversity). Point 3.i of this policy outlines the requirement for AA if development proposals are 'considered likely to have a significant effect on one or more any International Sites'. The constraint imposed by the SAC will have to be a major factor in any feasibility study.

### 11.2 Air Quality

- 11.2.1 As a precaution, it is recommended that as part of the transport assessment required for large developments within Policy SD18: (Transport and Accessibility) an analysis is made of the likely change in AADT flows on the nearest European site and where significant numbers of new vehicles are expected to travel on roads within 200m of an internationally designated site that is sensitive to changes in air quality as a result of the development, vehicular modelling and an air quality assessment should be undertaken as required. This could be factored into the project-level HRA required by Policy SD12.
- 11.2.2 It is recommended that the SDNPA should remain mindful of this and undertake monitoring of both air quality and vegetation within 200m of the main trunk roads within the designated sites should be undertaken to ensure that no likely significant effects occur. This is in line with recommendations already made in the East Hampshire & South Downs National Park Joint Core Strategy.
- 11.2.3 This would also enable the National Park Authority and other local authorities around the National Park to comply with their broader obligations (beyond the specific HRA process) to seek and achieve improvements in air quality within the National Park, for example with regard to Regulation 9(5) of the Conservation of Habitats & Species Regulations 2010 which states that *'Without prejudice to the preceding provisions, a competent authority, in exercising any of their functions, must have regard to the requirements of the Habitats Directive so far as they may be affected by the exercise of those functions'*. The Authority and surrounding authorities should thus adopt a partnership approach to monitoring of air quality on the SAC, which would involve working with other local authorities, land managers, and strategic highway authorities to develop a framework by which air quality measures can be linked to monitoring of the air quality and specific measures devised to achieve an air quality improvement. These measures could include management initiatives to improve the vegetative quality of other parts of the SAC further from the roadside or to counter any additional growth of vegetation close to the roadside, roadside barriers, reallocation of road space (high occupancy vehicle lanes), re-routing of heavy goods and older vehicles, traffic management and calming measures, or measures to change vehicle speeds on the A34 and/or A40 which would also affect emissions. Exactly which measures would be most appropriate would need to be determined at the time (if required at all).

### 11.3 Loss of Supporting Habitats

#### Bat sites: Policy SD13 (International Sites) Point 1

- 11.3.1 Bats may not solely use greenfield sites. Text of Policy SD 13 Point 1 should be amended to include *'Proposals on greenfield sites and sites that support or are in close proximity to mature vegetative linear features and waterways...'*
- 11.3.2 Singleton and Cocking Tunnels SAC: It is recommended that proposed development sites containing, or in close proximity to suitable commuting and foraging habitat (such as mature vegetative boundaries, woodlands, waterways and wetlands areas) are retained to ensure no loss or severance of existing commuting and foraging routes occurs either from direct land take or disturbances from lighting, noise and vibrations both during construction and operational phase of any development.
- 11.3.3 There has been no research to determine the areas and/ or distances that the hibernating bat features of Singleton and Cocking Tunnels SAC disperse to outside of the hibernating season. It is recommended that this work is undertaken to better inform future planning matters.

## 11.4 Urbanisation

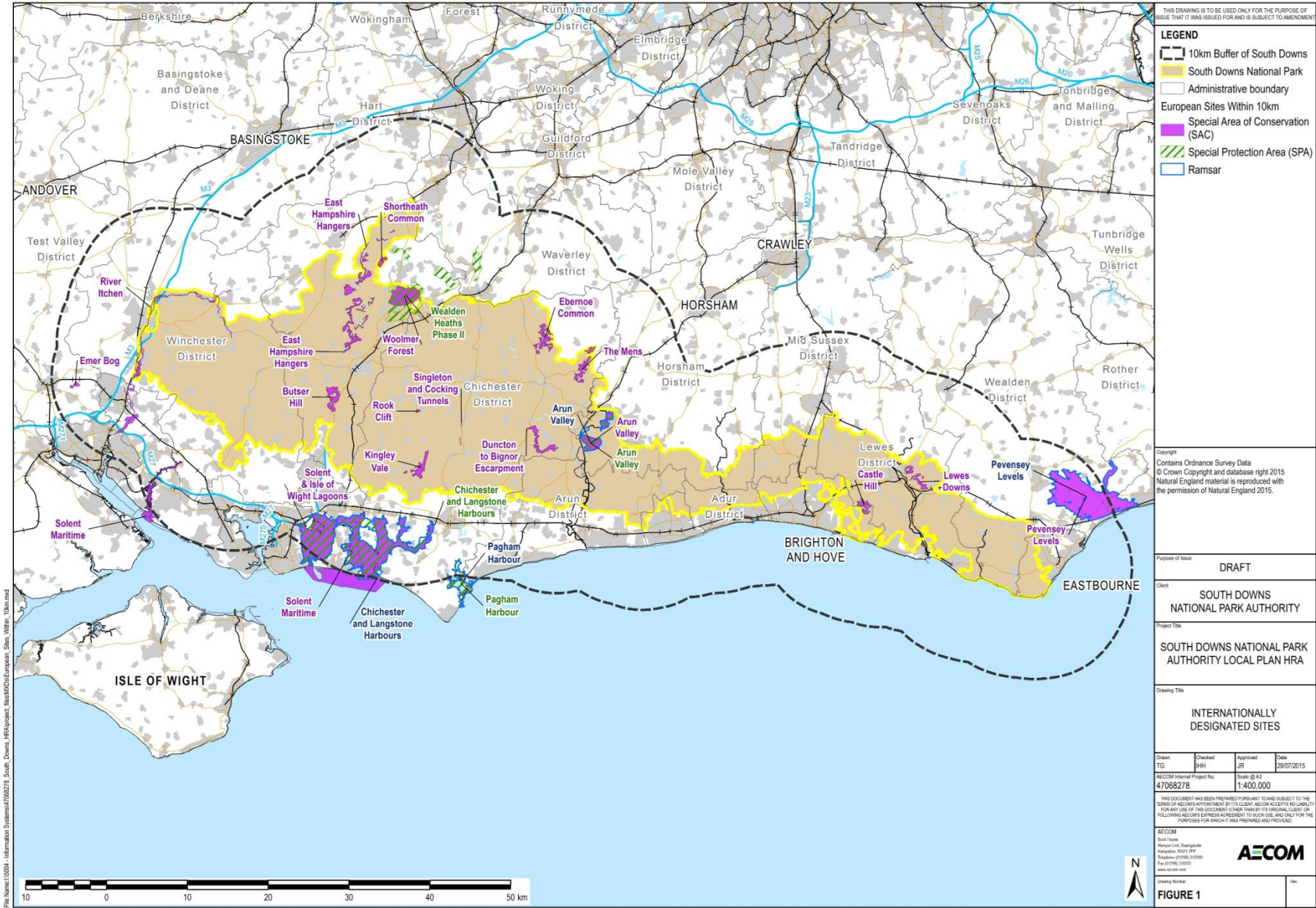
### Wealden Heaths Phase II SPA and Woolmer Forest SAC

- 11.4.1 In order to avoid exceeding the established figure of approximately 30 new dwellings within 400m of the SPA (until such time as any study confirms the numbers to be delivered in this zone can be elevated) it is advised that the National Park authority should keep a record of permissions granted within 400m of the SPA in liaison with East Hampshire District Council. For the same reason, it is also recommended that further permissions for gypsy and traveller sites within 400m of the SPA are discouraged and that housing sites at Liss Forest and Greatham should be mainly targeted on land more than 400m from the SPA.

## Appendix A. Internationally Designated Sites

Appendix A, Figure 1 – Internationally Designated Sites





# 1 Arun Valley SAC/ SPA/ Ramsar site

## 1.1 Introduction

Arun Valley SPA covers 528.62ha of West Sussex, with 95% of the site comprising of mesophile grassland, 2% inland water bodies, 2% bog, marshes, water fringed vegetation, fens and 1% broad leaved deciduous woodland. The site comprises of low-lying grazing marsh, largely on alluvial soils, but with an area of peat derived from a relict raised bog. Southern parts of the Arun Valley are fed by calcareous springs, while to the north, where the underlying geology is Greensand, where the water is more acidic. These water bodies support internationally important numbers of Berwick's swan *Cygnus columbianus bewickii*.

Arun Valley SPA consists of three SSSIs; Amberley Wild Brooks SSSI, Pulborough Brooks SSSI and Waltham Brooks SSSI. Together these sites comprise an area of wet meadows on the floodplain of the River Arun between Pulborough and Amberley.

The birds that winter on many SPAs (the Arun Valley being no exception) are not confined to the boundaries of the SPA, but in fact utilise areas of 'supporting habits' located outside of the boundaries and sometimes many kilometres distant.

## 1.2 Reasons for Designation

### SAC criteria

The site was designated as being of European importance for the following interest feature:

- Ramshorn snail *Anisus vaticulus*, once a species covering over 15 sites in the south east of England, now only remains in a few select locations as a result a massive decline. Arun Valley is one of the few remaining site in the UK to support this particular species.

### SPA criteria

This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:

Over winter;

- Bewick's swan, 115 individuals representing at least 1.6% of the wintering population in Great Britain (5 year peak mean for 1992/93 to 1996/7).

Assemblage qualification: A wetland of international importance.

- The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl.

Over winter, the area regularly supports 27,241 individual waterfowl (5 year peak mean for 1992/93 to 1996/97) including: shoveler, teal, wigeon, Bewick's swan.

### Ramsar criteria

The Arun Valley Ramsar site qualifies on three of the nine Ramsar criteria **Error! Reference source not found.**

**Table 1.** Ramsar criteria and qualification

Ramsar criterion	Description of Criterion	River Arun and marshes
2	A wetland should be considered internationally important if it supports vulnerable, endangered, or critically	The site supports seven wetland invertebrate species listed in the British Red Book and the endangered <i>Pseudamnicola confuse</i> (swollen

	endangered species or threatened ecological communities.	spire snail). As well as four nationally rare and four nationally scarce plant species.
3	A wetland should be considered internationally important if it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region	Within the ditches intersecting the site there are all five British duckweed <i>Lemna</i> species, all five water-cress <i>Rorippa</i> species, and all three British water milfoils <i>Myriophyllum</i> species, all but one of the seven British water dropworts <i>Oenanthe</i> species, and two-thirds of the British pondweeds <i>Potamogeton</i> species.
5	A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds.	<p>Species with peak counts in winter:</p> <ul style="list-style-type: none"> <li>• 13774 waterfowl (5 year peak mean 1998/99-2002/2003)</li> </ul> <p>Species identified subsequent to designation for possible future consideration:</p> <ul style="list-style-type: none"> <li>• Northern pintail , <i>Anas acuta</i>, NW Europe 641 individuals, representing an average of 1% of the population (5 year peak mean 1998/9- 2002/3)</li> </ul> <p>Species currently occurring at levels of national importance:</p> <ul style="list-style-type: none"> <li>• Eurasian wigeon , <i>Anas penelope</i>, NW Europe 4742 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)</li> <li>• Eurasian teal , <i>Anas crecca</i>, NW Europe 2931 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3)</li> <li>• Northern shoveler , <i>Anas clypeata</i>, NW &amp; C Europe 222 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9- 2002/3)</li> <li>• Ruff , <i>Philomachus pugnax</i>, Europe/W Africa 27 individuals, representing an average of 3.8% of the GB population (5 year peak mean 1998/9-2002/3).</li> </ul>

The Arun Valley SPA and Ramsar and SAC site comprises of three SSSIs.

### 1.3 Historic Trends and Current Pressures

#### Amberley Wild Brooks SSSI

The Amberley Wild Brooks SSSI lies within the greensand natural area and covers approximately 322.6ha. The site supports an extensive area of alluvial grazing marsh, which is dissected by draining ditches supporting over 156 flowering plants. This part of the Arun Valley flood each year making it a haven for breeding birds. This site is managed by the RSPB but unlike many other RSPB reserves, recreational visitors are not encouraged because of the sensitivity of the site, and the site is not designed or promoted to attract visitors. Access within the site is severely restricted specifically in order to ensure that disturbance is not possible. Access is therefore restricted to the Wey South Path.

Over-wintering birds are of international importance, with a rich community of breeding birds and several uncommon invertebrate assemblages. These ditches support a range of rich flora which includes one nationally rare plant the cut grass *Leersia oryzoides* which is currently restricted to only ten UK locations. The marsh fern *Thelypteris thelypteroides* an

uncommon plant is found within the fen. Where this fen is situated two rare snails (molluscs): *Anisus vorticulatus* and *Pseudamnicola confusa* can be found.

#### Pulborough Brooks SSSI

A large part of the site is now managed as an area of wet grassland principally for the benefit of breeding waders and internationally important assemblages of wintering wildfowl. Controlled flooding of this part of the valley during the winter attracts large flocks of nationally and internationally important numbers of Bewick's swan, wigeon, teal, pintail, shoveler and ruff. Other wintering species of note include white-fronted goose, golden plover, snipe and large flocks of lapwing.

#### Waltham Brook SSSI

Waltham Brook SSSI is situated the other side of the river to that of Amberley Wild Brooks SSSI. Like Amberley Wild Brooks the site lies within the greensand natural area and covers approximately 47.39ha. The site is comprised of alluvial grazing marsh which is dissected by draining ditches supporting a species-rich community of aquatic plants.

This part of the Arun Valley floods almost every winter, resulting in the site becoming a giant lake. This site is particularly important for wildfowl such as teal, shoveler, wigeon and pintail that take advantage of the sanctuary and feeding opportunities offered.

#### Condition Assessment

During the most recent condition assessment process, 98.05% of Amberley Wild Brooks SSSI was unfavourable but recovering, 100% of Pulborough Brooks SSSI were judged to be meeting PSA targets and in favourable condition, and Waltham Brook SSSI was assessed as being 100% unfavourable condition but recovering. The Arun Valley SPA, Ramsar and SAC were judged to be in favourable condition.

The following key environmental conditions were identified for the Arun Valley SPA/SAC/Ramsar:

- Appropriate ditch management including control of shade-inducing marginal vegetation.
- Good water quality
- Sympathetic management of lowland wet grassland/grazing marsh
- Control of fertilizers.
- Hydrology management (abstraction, river maintenance, ensuring continuation of winter floods).
- Absence of nutrient enrichment.

## 2 Butser Hill SAC

### 2.1 Introduction

Butser Hill is a 238.66ha chalk massif with a discontinuous cap of clay-with-flints. The massif has been eroded to leave a series of deep combs in which the modern spring-line is about 1km from the combe-head. The combs on the south-east flank support dense yew *Taxus baccata* woods and the remaining slopes of the hill are sheep-grazed chalk grassland. The calcareous yew woods are outstanding examples of a habitat with a very small representation in Britain. The series of vegetation types represented in the SSSI (chalk grassland, mixed scrub and yew wood) were the subject of a series of pioneer ecological studies.

### 2.2 Reasons for Designation

Butser Hill qualifies as a SAC for its habitats. The site contains the Habitats Directive Annex I habitats of:

- Semi –natural dry grassland and scrub and facies on calcareous substrate (*Festuco Brometalia*) and an important orchid site. The site contains the richest diversity lichen flora of any chalk grassland site in England. Also supports the distinctive *Scapanietum aspera* or southern hepatic mat association of leafy liverworts and mosses on north-facing chalk slopes. This association is very rare in the UK and Butser Hill supports the largest known example.
- Yew-dominated woodland

### 2.3 Historic Trends and Current Pressures

The site has traditionally been vulnerable to the effects of surrounding agriculture (i.e. spray drift causing eutrophication). Most of the SAC is in favourable condition (92.13%), and landowners, supported by English Woodland Grant Schemes have been removing inappropriate conifers and clearing excessive scrub.

The environmental vulnerabilities of the Butser Hill SAC are:

- Minimal air pollution (nitrogen deposition may cause reduction in diversity, sulphur deposition can cause acidification).
- Absence of direct fertilisation.
- No spray-drift (i.e. eutrophication) from surrounding intensive arable land.

## 3 Castle Hill SAC

### 3.1 Introduction

Castle Hill SAC is situated in Brighton and Hove; East Sussex and covers approximately 114.68ha, with 90% of the site consisting of semi-natural dry grassland and scrubland facies, 5% heath and 5% humid grassland. The site comprises mainly of semi-natural dry grasslands and scrubland facies: on calcareous substrates Festuco-Brometalia which is considered to be one of the best habitats in the UK, this particular habitat is particularly important for orchid species. Early gentian *Gentianella anglica*, which is listed as a nationally scarce species is considered to comprise a significant presence on this site. The site is a NNR leased to Natural England from the local authority.

### 3.2 Reasons for Designation

The site was designated as being of European importance for the following interest feature:

- Semi-natural dry grasslands and scrubland facies: on calcareous substrates Festuco-Brometalia
- Early gentian classified as a nationally scarce species.

### 3.3 Historic Trends and Current Pressures

During the most recent condition assessment process, 100% of the site is classified as having favourable conditions and meeting PSA targets. The site has the occurrence of many positive indicator species at good levels such as tor-grass *Brachypodium pinnatum*, which is abundant in places but is generally confined to the terraces, which are interspersed with short, species-rich turf. Current grazing levels seem appropriate; grasses are not out-competing the herbs and sward height is within suitable levels.

The environmental vulnerabilities of Castle Hill SAC are:

- Controlled encroachment of scrub.
- Maintenance of grazing regimes.
- Absence of nutrient enrichment (leaching and spray drift from surrounding agricultural land).

## 4 Chichester and Langstone Harbours SPA and Ramsar

### 4.1 Introduction

Chichester and Langstone Harbours internationally designated sites are located on the south coast in West Sussex and East Hampshire. They cover approximately 5810ha of sheltered estuarine basins comprising extensive sand and mud-flats exposed at low tide. The two harbours are joined by a stretch of water that separates Hayling Island from the mainland. Tidal channels drain the basin and penetrate far inland. The mud-flats are rich in invertebrates and also support extensive beds of algae, and eelgrasses *Zostera spp.* The basin contains a wide range of coastal habitats supporting important plant and animal communities. The site is of particular significance for waterbirds, especially in migration periods and in winter.

### 4.2 Reasons for Designation

The SPA is designated for:

- Internationally important wintering populations of Brent goose, pintail, shoveler, teal, wigeon, ruddy turnstone, sanderling, dunlin, ringed plover, bar-tailed godwit, whimbrel, red-breasted merganser, grey plover, shelduck, common redshank.
- Internationally important breeding population of little tern, common tern and sandwich tern.
- Over winter the area regularly supports: 93230 waterfowl (5 year peak mean 01/04/1998) Including: *Branta bernicla bernicla* , *Tadorna tadorna* , *Anas penelope* , *Anas crecca* , *Anas acuta* , *Anas clypeata* , *Mergus serrator* ,

The Ramsar site is designated for the following criterion: *Charadrius hiaticula*, *Pluvialis squatarola*, *Calidris alba*, *Calidris alpina alpina*, *Limosa lapponica*, *Numenius arquata*, *Tringa totanus*, *Arenaria interpres*

- Ramsar criterion 1:

Two large estuarine basins linked by the channel which divides Hayling Island from the main Hampshire coastline. The site includes intertidal mudflats, saltmarsh, sand and shingle spits and sand dunes.

- Ramsar criterion 5

Assemblages of international importance: Species with peak counts in winter: 76480 waterfowl (5 year peak mean 1998/99-2002/2003)

- Ramsar criterion 6

Species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation):

Species with peak counts in spring/autumn:

- Ringed plover *Charadrius hiaticula* (Europe/Northwest Africa) 853 individuals, representing an average of 1.1% of the population (5 year peak mean 1998/9- 2002/3)
- Black-tailed godwit *Limosa limosa islandica* (Iceland/W Europe) 906 individuals, representing an average of 2.5% of the population (5 year peak mean 1998/9- 2002/3)
- Common redshank *Tringa totanus*, 2577 individuals, representing an average of 1% of the population (5 year peak mean 1998/9- 2002/3)

Species with peak counts in winter:

- Dark-bellied brent goose *Branta bernicla bernicla*, 12987 individuals, representing an average of 6% of the population (5 year peak mean 1998/9- 2002/3)
- Common shelduck *Tadorna tadorna*, (NW Europe) 1468 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3)
- Grey plover *Pluvialis squatarola*, (E Atlantic/W Africa –wintering) 3043 individuals, representing an average of 1.2% of the population (5 year peak mean 1998/9-2002/3)

- Dunlin *Calidris alpina alpina*, (W Siberia/W Europe) 33436 individuals, representing an average of 2.5% of the population (5 year peak mean 1998/9-2002/3)

Species/populations identified subsequent to designation for possible future consideration under criterion 6.

Species regularly supported during the breeding season:

- Little tern *Sterna albifrons albifrons*, (W Europe) 130 apparently occupied nests, representing an average of 1.1% of the breeding population (Seabird 2000 Census)

### 4.3 Historic Trends and Current Pressures

The key environmental vulnerabilities of the SPA/ Ramsar site are:

- Coastal squeeze.
- Unpolluted water.
- Absence of nutrient enrichment of water.
- Minimal recreational and other disturbance
- Absence of non-native species e.g. from shipping activity.
- Maintenance of appropriate hydrological regime, e.g. freshwater flows at heads of channels are important for birds to preen, drink and feed.
- Short grasslands surrounding the site are essential to maintaining interest features as they are now the key foraging resource for Brent goose.



## 5 Duncton to Bignor Escarpment SAC

### 5.1 Introduction

Duncton to Bignor Escarpment covers 214.47ha. Within the SAC *Asperulo-Fagetum* beech forests occur on steep scarp slopes and on more gently-sloping hillsides in mosaic with ash *Fraxinus excelsior* woodland, scrub and grassland. Much of the beech woodland is high forest but with some old pollards. Rare plants present include the white helleborine *Cephalanthera damasonium*, yellow bird's nest *Monotropa hypopitys* and green hellebore *Helleborus viridis*. The woods also have a rich mollusc fauna.

### 5.2 Reasons for Designation

Duncton to Bignor Escarpment qualifies as a SAC for the Habitats Directive Annex I habitat of:

- Beech forests on acid soils.

### 5.3 Historic Trends and Current Pressures

Historically this site has relatively few threats. The JNCC Natura 2000 data sheet documents; 'The escarpment woodland hosts a number of pheasant shoots which, in general, pose no threat to the woodland. Expansion of these shoots from current levels is undesirable. Plantations of non-native conifers are targeted for complete or partial removal. A large resident deer population is controlled by deer stalkers'.

In the most recent Natural England condition assessment process, 92.33% of the component SSSI of the SAC was considered to be in favourable condition.

The key environmental conditions that support the features of European interest have been defined as:

- Appropriate woodland management.

## 6 East Hampshire Hangers SAC

### 6.1 Introduction

The East Hampshire Hangers describe a series of woodlands (totalling 569.68ha) on the western edge of the Weald. The SAC is made up of a number of SSSIs.

#### Upper Greensand Hangers: Empshott to Hawkley

A series of steep, rocky woodlands on calcareous soils. The dominant tree is ash, often with evidence of past coppicing. A variety of herb layer plants occurs, including ancient woodland indicators such as early purple orchid *Orchis mascula*, herb Paris *quadrifolia*, butcher's broom *Ruscus aculeatus*, sanicle *Sanicula europaea*, wild daffodil *Narcissus pseudonarcissus* and sweet woodruff *Galium odoratum*. The woodland supports the nationally scarce Italian lords-and-ladies *Arum italicum* sub species *neglectum*. Bryophyte communities are notable and include nationally scarce species. Molluscs and hoverflies are also represented by nationally scarce species.

#### Upper Greensand Hangers: Wyck to Wheatley

The geology and species supported are similar to those found at Empshott to Hawkley.

#### Coombe Wood and The Lythe

The hanger woodlands comprise a range of species including ash, oak *Quercus robur*, beech *Fagus sylvatica* and hazel *Corylus avellana*. These woods support a relatively rich calcareous ground flora with substantial populations of green hellebore *Helleborus viridis* and violet helleborine *Epipactis purpurata*. The hanger woods also possess a rich bryophyte flora, mostly epiphytic on the older trees.

#### Wick Wood and Worldham Hangers

The species rich ancient woodland associated with varied soils is ecologically distinct and contains a number of nationally rare woodland types. On the freely draining upper slopes ash and wych elm *Ulmus glabra* predominate forming an extremely rare woodland type. Beech, pedunculate oak and whitebeam *Sorbus aria* also occur on the upper slopes. A few large coppice stools of small leaved lime *Tilia cordata* occur in Wick Hill Hanger. Fifty-seven species of plant which are indicative of ancient woodlands have been found in the SSSI. Two ponds provide added diversity, which attracts a variety of common and uncommon birds, butterflies, dragonflies and damselflies.

#### Selborne Common

This SSSI is beech-dominated woodland on a steep east-facing chalk slope, grading to mixed plateau woodland with relict open acid grassland on clay-with-flints. The ground flora is well-developed, with a number of unusual plant species and rare moss species. On the clay-with-flints plateau, acid grassland adds variety, together with a small water body. A small area of downland turf also exists. Selborne Common is one of the most important mollusc sites in Britain, and a number of notable beetles and butterflies also occur.

#### Noar Hill

Noar Hill exhibits a range of chalk vegetation seral stages from open short-sward chalk grassland overlying ancient quarries, through invasive mixed scrub of hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa*, juniper *Juniperus communis*, and sweetbriar and southern downy roses *Rosa micrantha* and *Rosa tomentosa* to mature beech hanger woodland. In addition, hazel coppice is found on the top of the steep scarp slopes. Eleven species of orchid occur, and the site is of national importance for butterflies and grasshoppers.

#### Wealden Edge Hangers

The Wealden Edge Hangers comprise the mainly wooded easterly facing escarpment of the Hampshire chalk plateau, at the western extremity of the Weald. It exhibits a wide range of woodland types including mono-specific yew (in some cases developed over former juniper scrub), yew/beech and beech/ash with beech/wych elm /field maple *Acer campestre*/ash, and oak /hazel, on deeper soils, and moist ash/alder *Alnus glutinosa* wood by escarpment-foot springs. Ash, beech and elm all occur in coppice forms. A wide range of calcareous shrubs occur. The bryophyte flora is extremely rich, and the lichen flora

is the richest for any woodland on chalk in Britain, after Cranborne Chase, with 74 species. The total vascular flora of the area comprises a known 289 species.

## 6.2 Reasons for Designation

The East Hampshire Hangers qualify as a SAC for both habitats and species. Firstly, the site contains the Habitats Directive Annex I habitats of:

- Dry grasslands and scrublands on chalk or limestone, including important orchid sites: Noar Hill in particular, has an outstanding assemblage of orchids, including one of the largest UK populations of the nationally scarce musk orchid.
- Beech forests on neutral to rich soils: the site is extremely rich in terms of vascular plants.
- Tilio-Acerion forests of slopes, screes and ravines. The bryophyte flora is richer than on the chalk examples and includes several species that are rare in the lowlands
- Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (\* important orchid sites)
- Yew woods of the British Isles

Secondly, the site contains the Habitats Directive Annex II species early gentian.

## 6.3 Historic Trends and Current Pressures

The habitats of the East Hampshire Hangers SAC are dependent upon maintenance of appropriate species composition and cover. The great majority of the SAC is in favourable condition, and where not, this is due to factors such as non-native species present, inappropriate vegetation structure (e.g. lack of regeneration, or too much scrub), and inadequate grazing regimes.

The key vulnerabilities to the SAC are:

- Low nutrient runoff from surrounding land: being steep and narrow, the Hanger woodlands are vulnerable to nutrient run-off leading to eutrophication.
- Disease outbreaks affecting beech trees.
- Absence of direct fertilization (agricultural runoff).
- Appropriate woodland management

## 7 Ebernoe Common SAC

### 7.1 Introduction

Ebernoe Common is a 234.93ha site of international importance as an example of ancient woodland. It contains a wide range of structural and vegetation community types which have been influenced in their development by differences in the underlying soils and past management. The native trees, particularly those with old growth characteristics, support rich lichen and fungal communities, and a diverse woodland breeding bird assemblage. Nationally important maternity roosts for barbastelle bat and Bechstein's bat occur within the woodland.

### 7.2 Reasons for Designation

Ebernoe Common SAC qualifies as a SAC for both habitats and species. Firstly, the site contains the Habitats Directive Annex I habitats of:

- Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrublayer (*Quercion robur-petraeae* or *Ilici-Fagenion*)

Secondly, the site contains the Habitats Directive Annex II species:

- Barbastelle bat; and
- Bechstein's bat

### 7.3 Historic Trends and Current Pressures

Ebernoe Common SAC is owned and managed by Sussex Wildlife Trust (SWT). There is evidence that the Common has contained a mixture of open pasture and high forest for centuries. Ebernoe Nature Reserve is an Open Access site and is fairly well used (SWT estimate up to 3,000 visitors per annum)<sup>67</sup>.

In the most recent Natural England condition assessment process, 92.81% of Ebernoe Common SSSI was considered to be in favourable condition with the remainder recovering from unfavourable status

Ebernoe Common is an exceptional site for both barbastelle and Bechstein bats. Most of what is known about the foraging behaviour of barbastelle bats has been derived by studies carried out over the past ten years, and the studies are able to give detailed information on flight lines surrounding Ebernoe Common of the barbastelle bat:

- Greenaway, F. (2004) Advice for the management of flightlines and foraging habitats of the barbastelle bat *Barbastellus barbastellus*. *English Nature Research Report*, Number 657.
- Greenaway, F. (2008) Barbastelle bats in the Sussex West Weald 1997 - 2008

The barbastelles at Ebernoe Common SAC had flightlines that followed watercourses, particularly the River Kird, and woodland cover for distances of typically 5km. Flightlines outside the SAC are particularly to the south (the Petworth and Tillington area) but also to the west, north and east. There has been less study of the Bechstein bat populations. However, those radio-tracking projects which have been implemented for the species have established that the tracked individuals generally remained within approximately 1.5 km of their roosts<sup>68</sup>. These distances do fit with those identified from radio-tracking of Bechstein's that has been undertaken at Ebernoe Common SAC from 2001, which identified that the maximum distance travelled by a tagged Bechstein's bat to its foraging area was 1,407m, with the average 735.7m<sup>69</sup>.

Studies have indicated that barbastelle bat flightlines from Ebernoe Common SAC cross the northern part of Chichester District. Most of this area now lies within the South Downs National Park for strategic planning purposes.

The key vulnerabilities to the SAC are:

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<sup>67</sup> Monk-Terry, M and Lyons, G. Sussex Wildlife Trust Ebernoe Nature Reserve Management Plan 2010-2015.

<sup>68</sup> Cited in: Schofield H & Morris C. 2000. 'Ranging Behaviour and Habitat Preferences of Female Bechstein's Bats in Summer'. Vincent Wildlife Trust

<sup>69</sup> Fitzsimmons P, Hill D, Greenaway F. 2002. Patterns of habitat use by female Bechstein's bats (*Myotis bechsteinii*) from a maternity colony in a British woodland

- Traditional management to maintain the structural diversity and associated lichen and fungal flora, including appropriate grazing regime.
- The retention of deadwood within the site
- Minimal atmospheric pollution - may increase the susceptibility of beech trees to disease and alter epiphytic communities.
- Absence of disturbance.
- In a wider context, bats require good connectivity of landscape features to allow foraging and commuting. For barbastelle bats this is up to 5km from a known roost and up to 1.5km for Bechstein bats.
- Both bat species have close association with woodland. Areas of undesignated woodland adjacent to SAC may be of most importance to population.
- Barbastelles require a constant humidity around their roosts; any manipulation of the shrub layer must be carefully considered.

## 8 Kingley Vale SAC

### 8.1 Introduction

The Kingley Vale SAC comprises 208ha of chalk grassland, scrub, mixed oak *Quercus* sp. and ash woodland and ancient yew forest. The reserve is a steep sided dry valley, the bottom of which is covered in ancient yew forest. The slopes of the valley support up to 50 species of flowering plant and grasses per square metre.

### 8.2 Reasons for Designation

The Kingley Vale valley qualifies as a SAC due to the following Annex I habitats:

- Semi-natural dry grasslands and scrubland facies: on calcareous substrates *Festuco-Brometalia* for which the area is considered to support a significant presence;
- Yew-dominated woodland for which this is considered to be one of the best areas in the UK.

### 8.3 Historic Trends and Current Pressures

The long-term conservation of the yew forest requires the maintenance of nurse scrub habitat and the regulation of numbers of resident deer. Current management practices address these problems. The threat to characteristic chalk grassland of scrub invasion is considered to be adequately countered by the cutting and grazing regimes currently employed.

The key vulnerabilities to the SAC are:

- Over grazing by deer
- Scrub invasion
- Management of cutting and grazing regimes.

## 9 Lewes Downs SAC

### 9.1 Introduction

Lewes Downs SAC covers 146.86ha of east Sussex, with 85% dry grassland steepes, 5% heath/scrub/maquis and garrigue/phygrana, 5% humid grassland, 5% Mesophile grassland and 5% improved grassland. The site comprises mainly of semi-natural dry *Festuco-Brometalia* grasslands and scrubland facies on calcareous substrates and is considered to be one of the best examples of this habitat in the UK. This particular habitat is particularly important for orchid species. The site is a National Nature Reserve (NNR) managed by the landowner under a management agreement.

### 9.2 Reasons for Designation

The site was designated as being of European importance for the following interest feature:

- Semi-natural dry grasslands and scrubland facies: on calcareous substrates *Festuco-Brometalia*.
- This site contains an important assemblage of rare and scarce orchids, including early spider-orchid *Ophrys sphegodes*, burnt orchid *Orchis ustulata* and musk orchid *Herminium monorchis*. The colony of burnt orchid is one of the largest in the UK.

### 9.3 Historic Trends and Current Pressures

During the most recent condition assessment process, 95.32% of the site is in favourable condition, 1.8% of the site is unfavourable recovering and 2.88% is unfavourable declining. Unfavourable conditions have been created due to unsuitable grazing regimes across the site and lack of vegetation removal leading to leaf litter build up and scrub encroachment, resulting in a loss of plant diversity.

The following key environmental conditions needed to maintain the interest features are identified as follows:

- Controlled encroachment of scrub.
- Maintenance of grazing regimes.
- Avoidance of heavy poaching.
- Absence of nutrient enrichment.
- Appropriate levels of recreational activity.
- Absence of non-native species.
- Good air quality.

## 10 The Mens SAC

### 10.1 Introduction

The Mens remains as one of the most extensive examples of Wealden Woodland in West Sussex and measures 203.28ha. It is important for its size, structural diversity and the extremely rich fungal and lichen floras which occur here. The wood supports a diverse community of breeding birds, and is the locality of a nationally endangered species of fly.

### 10.2 Reasons for Designation

The Mens SAC qualifies as a SAC for both habitats and species. Firstly, the site contains the Habitats Directive Annex I habitats of:

- Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrublayer (*Quercion robur-petraeae* or *Ilici-Fagenion*)

Secondly the site contains the Annex II species:

- Barbastelle bat

### 10.3 Historic Trends and Current Pressures

The Mens SAC is owned and managed by Sussex Wildlife Trust. The Mens SAC is important for its barbastelle populations and radio-tracking studies have been undertaken to identify core foraging areas. These reports have identified that the barbastelles of The Mens SAC forage to the east of the SAC, principally on the floodplain of the river Arun from close to Horsham in the north to Parham in the south. They also cross to the Adur floodplain. In some cases the bats travelled up to 7km to visit foraging areas. Development within 7km of the SAC has potential to affect barbastelle flightlines or foraging areas.

In the most recent Natural England condition assessment process, 97.32% of The Mens SSSI was considered to be in favourable condition.

The key environmental conditions that support the features of European interest have been defined as:

- Appropriate woodland management.
- Low recreational pressure (because management is by minimum intervention and Bridleway degradation by horse riding is a recurring threat).
- Retention of deadwood
- Minimal air pollution - may increase the susceptibility of beech trees to disease and alter epiphytic communities.
- Barbastelles require a constant humidity around their roosts; any manipulation of the shrub layer must be carefully considered.
- In a wider context, bats require good connectivity of landscape features to allow foraging and commuting.



## 11 Pevensey Levels SAC/ Ramsar site

### 11.1 Introduction

Pevensey Levels is 3585ha in size located on the south coast within East Sussex, 3.2km east of the South Downs National Park boundary. 97.5% of the site comprises humid grassland and mesophile grassland, whilst 2.5% comprises inland waterbodies. The levels support a range of important communities of wetland flora and fauna including the internationally designated ramshorn snail *Anisus vorticulus*.

### 11.2 Reasons for Designation

The SAC is designated for:

- Ramshorn snail

The Ramsar site is designated under:

Criterion 2:

- The site supports an outstanding assemblage of wetland plants and invertebrates including many British Red Data Book species.

Criterion 3:

- The site supports 68% of vascular plant species in Great Britain that can be described as aquatic. It is probably the best site in Britain for freshwater molluscs, one of the five best sites for aquatic beetles Coleoptera and supports an outstanding assemblage of dragonflies Odonata

### 11.3 Historic Trends and Current Pressures

#### Pevensey Levels SSSI

Pevensey Levels SSSI covers approximately 3585ha. The site is comprised of low-lying grazing meadows, intersected by a system of ditches, showing a large variety of form and species composition and support important communities of flora and fauna. The site supports one nationally rare and several nationally scarce aquatic plants and many nationally rare invertebrates. Ornithologically, the site is of national importance as the number of wintering lapwings has regularly exceeded 1% of the total British population.

The following key environmental sensitivities were identified for Pevensey Levels SAC/ Ramsar site:

- Eradication and prevention of invasion of non-native invasive species such as: floating pennywort *Hydrocotyle ranunculoides*, and *Crassula helmsii*.
- Phosphates in the water. This comes from sewerage outputs. Phosphate striping has been introduced
- The maintenance of ditches
- Sea level rise from climate change

## 12 Pagham Harbour SPA / Ramsar site

### 12.1 Introduction

Pagham Harbour comprises 636.68ha of an extensive central area of saltmarsh and tidal mudflats, with surrounding habitats including lagoons, shingle, open water, reed swamp and wet permanent grassland. The intertidal mudflats are rich in invertebrates and algae and provide important feeding areas for birds.

Most of the site is a Local Nature Reserve managed by West Sussex County Council.

### 12.2 Reasons for Designation<sup>70</sup>

Pagham Harbour SPA qualifies under Article 4.1 of the Birds Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive. During the breeding season:

- Little Tern *Sterna albifrons*: 0.3% of the breeding population in Great Britain (5-year mean, 1992-1996);
- Common Tern *Sterna hirundo*: 0.5% of the breeding population in Great Britain (1996).
- Over winter:
- Ruff *Philomachus pugnax*: 1.4% of the population in Great Britain (5-year peak mean 1995 - 1999);
- Little Egret *Egretta garzetta*: 100 individuals, representing up to 20.0% of the wintering population in Great Britain (1998).

This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species. Over winter:

- Dark-bellied Brent Goose *Branta bernicla bernicla*: 0.6% of the population (5-year peak mean 1991/2 - 1995/6).

Pagham Harbour Ramsar site qualifies under one of the nine Ramsar criteria.

**Table 2:** Pagham Harbour Ramsar site criteria

Ramsar criterion	Description of Criterion	Pagham Harbour
6	A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.	Dark-bellied brent goose <i>Branta bernicla bernicla</i> : 2512 individuals, representing an average of 1.1% of the populations (5-year peak mean 1998/99-2002-03)  Black-tailed godwit <i>Limosa limosa islandica</i> : 377 individuals, representing an average of 1% of the population (5-year peak mean 1998/99 – 2002/03). <sup>71</sup>

It is important to note that this area also includes the Medmerry Realignment Scheme which was created in order to provide compensatory habitat for future effects on the Solent European sites as a result of coastal defence work.

### 12.3 Historic Trends and Current Pressures

The majority of the site is managed as a nature reserve by West Sussex County Council. Historical land drainage for agricultural purposes is being addressed through the Local Nature Reserve Management Plan and Management Agreements, while pollution from inadequate treatment of sewage discharges is reviewed by the Environmental Agency.

<sup>70</sup> Features of European Interest are the features for which a European sites is selected. They include habitats listed on Annex 1 of the Habitats Directive, species listed on Annex II of the EC Habitats Directive and populations of bird species for which a site is designated under the EC Birds Directive.

<sup>71</sup> This population was identified subsequent to designation, for possible future consideration.

Studies by the Environment Agency indicate that existing sewage discharges are not having a significant adverse effect on the integrity of the Pagham Harbour SPA/Ramsar site.

The latest Natural England condition assessment of Pagham Harbour SSSI indicated that 93% of the site was in favourable condition.

## 12.4 Key Environmental Conditions

The following key environmental conditions have been identified for the site:

- Sufficient space between the European site and development to allow for managed retreat of intertidal habitats (to avoid coastal squeeze)
- Maintenance of appropriate hydrological regime
- Unpolluted water
- Absence of nutrient enrichment of water
- Absence of non-native species
- Absence of disturbance

## 13 River Itchen SAC

### 13.1 Introduction

This 309.26ha site comprises chalk stream and river, fen meadow, flood pasture and swamp habitats, particularly formations of in-channel vegetation dominated by water crowfoot *Ranunculus* spp, riparian vegetation communities (including wet woodlands) and side channels, runnels and ditches associated with the main river and former water meadows. There are significant populations of the nationally-rare southern damselfly *Coenagrion mercuriale* and assemblages of nationally-rare and scarce freshwater and riparian invertebrates, including the white-clawed crayfish *Austropotamobius pallipes*. Other notable species include otter *Lutra lutra*, water vole *Arvicola terrestris*, freshwater fishes including bullhead *Cottius gobbo*, brook lamprey *Lampetra planeri* and Atlantic salmon *Salmo salar*. A good range of wetland bird species breed.

### 13.2 Reasons for Designation

The River Itchen qualifies as a SAC for both habitats and species. Firstly, the site contains the Habitats Directive Annex I habitat:

- Water courses of plain to montane levels with the *Ranuncion fluitantis* and *Callitricho-Batrachion* vegetation. The Itchen is a classic example of a sub-type 1 chalk river.

Secondly, the SAC also contains the following Annex II species:

- Southern damselfly: Representing one of the major population centres in the UK
- Bullhead: High densities occur along much of the river's length
- White-clawed crayfish (though not a primary reason for site selection)
- Otter (though not a primary reason for site selection)
- Atlantic salmon (though not a primary reason for site selection)
- Brook lamprey (though not a primary reason for site selection)

### 13.3 Historic Trends and Current Pressures

A principal threat to the habitats within this SAC has been decreases in flow velocities and increases in siltation, in turn affecting macrophyte cover. Surveys during the 1990s showed declines in *Ranunculus* cover since 1990, attributable to increased abstractions in the upper catchment, coupled with a series of years with below-average rainfall. Low flows interact with nutrient inputs from point sources to produce localised increases in filamentous algae and nutrient-tolerant macrophytes at the expense of *Ranunculus*. The Environment Agency has undertaken assessments to inform licensed water abstraction at critical times. Efforts are currently being made to increase the viability of the southern damselfly population through population studies and a Species Action Plan.

Recent Condition Assessment process reviews indicated that large sections of the river are suffering from inappropriate water levels, with siltation and abstraction cited as problems in places. In some areas, discharges were causing reduced water quality.

The key environmental conditions needed to maintain site integrity include:

- Maintenance of flow velocities - low flows interact with nutrient inputs from point sources to produce localised increases in filamentous algae and nutrient-tolerant macrophytes at the expense of *Ranunculus*.
- Low levels of siltation,
- Unpolluted water and low nutrient inputs.
- Maintenance of grazing pressure is essential for southern damselfly habitat

## 14 Rook Clift SAC

### 14.1 Introduction

At 10.82ha, Rook Clift is the largest known remnant stand of *Tilio-Acerion* forests dominated by large-leaved lime *Tilia platyphyllos* in the south of England. It lies on the deeper soils towards the base of the slope and valley bottom of a small wooded combe, which gives the site its humid microclimate. The soils are rather deeper and there is less exposed rock at this site because the chalk is more readily weathered than the limestones on which many of the other sites lie. Despite this, the vegetation is otherwise typical of the habitat type, with an abundance of ferns such as hart's-tongue *Phyllitis scolopendrium* and shield-fern *Polystichum* spp. In addition to species more common in the west of Britain, continental species such as Italian lords-and-ladies *Arum italicum* also occur.

### 14.2 Reasons for Designation

Rook Clift qualifies as a SAC for its habitats. The site contains the Habitats Directive Annex I habitats of:

- *Tilio-Acerion* forests of slopes, screes and ravines for which this is considered to be one of the best areas in the United Kingdom

### 14.3 Historic Trends and Current Pressures

Rook Clift is a small wooded coombe on the scarp slope of the South Downs. Large-leaved lime dominates the canopy together with ash and some beech. The site is in private ownership and is managed under the Woodland Grant Scheme. As with almost any woodland in southern England, deer could be a problem when plans are instituted for regeneration. Its small size and unusual composition mean that any planting inside the wood would need to be tightly controlled. At present 100% of the site is in favourable condition.

The key vulnerabilities to the SAC are:

- Over grazing by deer – deer management
- Controlled planting of appropriate species of tree

## 15 Shortheath Common SAC

### 15.1 Introduction

Shortheath Common SAC is a 58.94ha heathland site located on the western Weald. Large areas of open heathland and habitats and the seral stages of the succession to oak wood contribute to the considerable habitat diversity of the site as a whole. Substantial valley mire exists, dominated by Sphagnum mosses, but with a large population of cranberry *Vaccinium oxycoccus*, a low-growing shrub now rare and declining in southern England. The invertebrate fauna includes 23 breeding species of dragonflies, including a number which are rare or local, e.g. *Cordulia aenea*, *Erythromma najas*, *Orthetrum coerulescens* and *Anax imperator*, and a colony of the rare damselfly *Ceragrion tenellum*. The full heathland range of *Orthoptera* is represented, including a recent re-introduction of the field cricket *Gryllus campestris* and grayling *Hipparchia semele*, purple hairstreak *Quercusia quercus* and purple emperor *Apatura iris* butterflies are present in substantial populations.

### 15.2 Reasons for Designation

Shortheath Common qualifies as a SAC for its habitats. The site contains the Habitats Directive Annex I habitats of:

- Transition mires and quaking bogs
- European dry heaths
- Bog woodland

### 15.3 Historic Trends and Current Pressures

The Common was not managed for conservation until its purchase by Hampshire County Council in 1994. Though this site has been historically grazed, this has since ceased and much of the site is now in a position of recovery from encroachment of scrub, whilst conversely, in some of the acid grassland, rabbit control has been required. The most recent condition assessment by Natural England found that 97.96% is in unfavourable recovering condition, previously in 2003 it was found that almost 10% of the site had been destroyed by the presence of 4-5 recently built houses and part of Oakhanger village green. The village green is used for recreation, contains a children's play area, and the grassland is regularly mown. Opportunities for recreation at Shortheath Common include horse riding, walking, jogging and angling. There have been occasional incidents of fire and fly-tipping on the Common.

The key vulnerabilities to the SAC are:

- Control of invasive scrub and tree encroachment
- Grazing regime

## 16 Singleton and Cocking Tunnels SAC

### 16.1 Introduction

Singleton and Cocking Tunnels cover 2.45ha and are of international importance as the most important sites for hibernating bats in south-east England and are the fifth most important in Britain.

These two disused brick railway tunnels, located in rural Sussex, once formed part of the Chichester to Midhurst railway line. They now support, during the winter months, large numbers of hibernating bats, and are the only known location in Britain for the Mouse-eared bat *Myotis myotis*. Eight species have been found in all; those best represented include Natterer's *Myotis nattereri*, Daubenton's *Myotis daubentoni*, brown long-eared *Plecotus auritus* and Brandt's *Myotis brandti*/Whiskered *Myotis mystacinus* (these two cannot normally be distinguished in the field, but are both known to occur here). Other species regularly occur in small numbers.

### 16.2 Reasons for Designation

Singleton and Cocking Tunnels qualifies as a SAC for its species. The site contains the Habitats Directive Annex II species of:

- Hibernating Barbastelle bat *Barbastella barbastellus*
- Hibernating Bechstein's bat *Myotis bechsteinii*

### 16.3 Historic Trends and Current Pressures

The tunnels are grilled at both ends and so secured from human disturbance (100% of the site is in favourable condition). In the long-term the tunnels may start to deteriorate (collapse) but this is not anticipated for many years. There have previously been proposals to use the tunnels as a cycle route.

The barbastelle bat is very rare, found in southern and central England and Wales. Few breeding sites are currently known in the UK and it is important that surrounding environments of these and winter hibernation sites are maintained. It is thought that they prefer pastoral landscapes with deciduous woodland, wet meadows and water bodies, such as woodland streams and rivers. Barbastelle bats tend to forage over a wide area. They are fast, agile flyers and specialist foragers in a range of habitats. The majority of UK winter records are of single bats in underground sites<sup>72</sup>.

Until recently very little was known about the Bechstein's bat in the UK; in 2005 there were just six breeding populations of Bechstein's bat. They are found in southern Wales and parts of southern England. The UK is at the northernmost edge of its distribution range. The Bechstein's bat has gone from being one of the commonest UK species after the last ice age to one of the rarest, due largely to the destruction of ancient woodland that once covered the UK (it now represents around 2%)<sup>Error! Bookmark not defined.</sup>.

The key vulnerabilities to the SAC are:

- Lack of disturbance
- In a wider context, bats require good connectivity of landscape features to allow foraging and commuting.
- Both bat species have close association with woodland. Areas of undesignated woodland adjacent to SAC may be of most importance to population.
- Barbastelles require a constant humidity around their roosts; any manipulation of the shrub layer must be carefully considered.

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<sup>72</sup> [www.bats.org.uk](http://www.bats.org.uk)

## 17 Solent Maritime SAC

### 17.1 Introduction

Solent maritime SAC is a 11325ha site located on the south coast within West Sussex and East Hampshire. Habitats on site include: marine areas, sea inlets (14%), tidal rivers, estuaries, mud flats, sand flats, lagoons (including saltwork basins) (59%), salt marshes, salt pastures, salt steppes (23%), coastal sand dunes, sand beaches, machair (0.5%), shingle, sea cliffs, islets (3%), and broad-leaved deciduous woodland (0.5%). The SAC also include Chichester and Langstone Harbours SPA and Ramsar site.

### 17.2 Reasons for Designation

The site is designated for:

Annex 1 habitats

- Estuaries
- *Spartina* swards *Spartinion maritimae*
- Atlantic salt meadows
- Sandbanks which are slightly covered by sea water all the time
- Mudflats and sandflats not covered by seawater at low tide
- Coastal lagoons \* Priority feature
- Annual vegetation of drift lines
- Perennial vegetation of stony banks
- *Salicornia* and other annuals colonizing mud and sand
- "Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes")"
- Annex 2 species
- Desmoulin's whorl snail

### 17.3 Historic Trends and Current Pressures

The key environmental vulnerabilities of the SPA/ Ramsar site are:

- Existing and proposed flood defence and coast protection works;
- Coastal squeeze of intertidal habitats due to coastal erosion/ sea level rise and sea-walls/ development in the hinterland;
- Developments pressures including ports, marinas, jetties etc. Proposals often involve capital/ maintenance dredging to provide/ improve deep water access, and land-claim of coastal habitats;
- Potential accidental pollution from shipping, oil/chemical spills, heavy industrial activities, former waste disposal sites and waste-water discharge;
- Introduction of non-native species e.g. from shipping activity.



## 18 Wealden Heaths Phase 2 SPA

### 18.1 Introduction

The Wealden Heaths Phase 2 SPA is a 2,053.83 ha site made up of four separate SSSI units.

#### Woolmer Forest SSSI and SAC

See Section 19.1

#### Broxhead and Kingsley Commons SSSI

The site comprises a mosaic of heathland and acid grassland with areas of scrub and secondary woodland. The bird fauna includes breeding populations of nightjar, woodlark and Dartford warbler. Other heathland species include stonechat and tree pipit.

#### Bramshott and Ludshott Commons SSSI

Bramshott and Ludshott Commons support extensive tracts of mature heathland vegetation dominated by heather *Calluna vulgaris*, bell heather *Erica cinerea*, dwarf gorse *Ulex minor* and common gorse *U. europaeus*. Dartford warbler, woodlark, stonechat, nightjar and hobby breed.

#### Devil's Punch Bowl SSSI

This site, comprising Hindhead Common, the Devil's Punch Bowl and the Highcomb Valley supports an excellent series of semi-natural habitats including broadleaved and coniferous woodland, heathland, scrub and small meadows. The site contains an outstanding variety of birdlife, with over sixty breeding species. The Highcombe Valley supports breeding wood warblers. Rarer woodland breeding species include firecrest, redpoll and crossbill whilst siskin and hawfinch may breed occasionally. Heathland breeding species include nightjar, woodlark, Dartford warbler, stonechat, and tree pipit.

### 18.2 Reasons for Designation

Wealden Heaths Phase 2 qualifies as a SPA for its breeding bird species. The site contains:

- 1.3% of the British breeding population of nightjar (5 year mean, 1989-1993)
- 2.5% of the British breeding population of woodlark (1997)
- 1% of the British breeding population of Dartford warbler (5 year mean 1989-1993; 1994)

### 18.3 Historic Trends and Current Pressures

In the most recent Condition Assessment process, almost all of the Devil's Punch Bowl SSSI was considered to be recovering from unfavourable condition that had resulted largely from inappropriate grazing regimes. The other SSSI components of the Wealden Heaths Phase 2 SPA were also largely recovering from unfavourable status. Although many constituent units lie adjacent to the A3, air quality was not implicated as a factor in unfavourable status during these assessments.

The SPA is designated for ground-nesting bird species that would be particularly vulnerable to cat predation, and the heathland habitat itself is extremely vulnerable to accidentally or deliberately started fires.

The heathland habitats of the SPA are very dependent upon grazing and other traditional management practices. In the absence of a functional commoning system the re-establishment of successful grazing management is dependent on the involvement landscape scale heathland management projects. The SPA is vulnerable to heathland fires and there has been pressure for development associated with military training activities. This and the problems caused by formal and informal recreation activities (e.g. mountain biking, orienteering, car and motorcycle events) that are a potential threat to the breeding success of the Annex 1 birds are being addressed by improved liaison and annual consultation meetings with the Ministry of Defence and through management plans on National Trust land.

A visitor survey was conducted to study recreational access the Devil's Punchbowl and Hindhead Common, commissioned as a result of the tunnelling of the A3 that has historically run through the SPA/SSSI<sup>73</sup>. Among the main findings of the report were that the site receives approximately 1,830 to 1,930 visitors per week (the survey was carried out between June and October). Most visitors were relatively local, with 75% of dog walkers and 54% of visitors generally coming from within 5km, and the majority of the remaining visitors origins (those outside 5km) showed clear correlation with the A3 corridor. Haslemere, Grayshott and Beacon Hill were clearly foci from which visitors journeyed. Eighty percent of visitors travelled to the site by car. Once on the site, 82% of visitors travelled 1km, with 70% travelling over 2km. 60% of dog walkers were found to travel over 2.8km.

The study mapped visitor movements and the territories of the bird species for which the SPA is designated. There was found to be no correlation between the visitor distribution and bird distribution.

The Hindhead Concept Statement HRA (RPS, 2010; the report is called a Conservation Regulations Assessment on the report cover) examined the status of bird populations for which the Wealden Heaths SPA has been designated, at Hindhead. The report identifies that at present SPA bird territory distribution does not correlate to patterns of visitor activity, indicating that there is no evidence of SPA birds consistently avoiding areas of high visitor usage at present.

The Whitehill Bordon HRA (UE Associates, 2009 and 2010) compared population trends in European protected bird species at the national level with those for the Wealden Heaths Phase 1 SPA (Thursley Hankley & Frensham Commons SPA) and Phase 2 SPA, to help determine whether the European sites around Whitehill and Bordon are in favourable conservation status. For example, if the national population for a certain species is growing, whereas the local population is declining, it might be surmised that conservation status within the local site is unfavourable. The data are summarised below for Dartford warbler, nightjar and woodlark<sup>74</sup>:

- Dartford warbler: between 1994 and 2006 the England population grew by 70%, from 1,800 to 3,214. Over the same period, the Wealden Heaths (both Phase 1 and Phase 2) population grew by 81%, from 152 pairs to 275 (146 pairs in Phase 1 and 129 pairs in Phase 2);
- Nightjar: between 1992/93 and 2004/05 the UK population grew by 36% to 4,605 males. Over the same period, the Wealden Heaths (Phase 1 and 2) population grew by 117%, from 63 pairs to 133; and
- Woodlark: between 1997 and 2006 the England population grew by 88%, from 1,552 to 3,064. Over the same period, the Wealden Heaths (Phase 1 and 2) population grew by 36%, from 84 pairs to 114<sup>75</sup>.

In other words, data from the early nineties to 2006 indicate that the increases in the populations of Dartford warbler and nightjar on the Wealden Heaths Phase 1 and 2 exceeded the national trend while for all three species (including woodlark) the numbers at 2006 exceeded the numbers at the time of designation. The increase in both the SPA bird populations and housing in proximity to the SPA since designation does not constitute evidence that further housing could not have an adverse effect. It is likely that habitat improvements over the same time period have contributed to the population increase, along with other factors such as more thorough surveying, and any effect from new housing will be dependent upon the scale and location/density of that housing.

Analysis by 2J's Ecology of data specific to Wealden Heaths Phase 2 SPA and covering the period 2006-2010 does confirm that the populations of woodlark and nightjar are 'stable' and although the population of Dartford warbler is currently lower than it has been for some years, this is most likely attributable to adverse winters.

As a summary therefore, SPA bird populations are identified as being 'stable' at current levels of recreational activity (with the exception of Dartford warbler, which has been affected by recent poor weather rather than anthropogenic impacts, and is expected to recover) and studies have not identified any evidence of a negative correlation between areas of current greatest recreational activity and territory density/location.

The environmental requirements of the Wealden Heaths Phase 2 SPA are mainly:

- Appropriate management: maintenance of traditional grazing regimes
- Risk of fire (military/ urbanisation).

<sup>73</sup> Sharp, J. & Liley, D. (2010). Visitor flow monitoring and analysis at Hindhead Common and the Devil's Punchbowl. Footprint Ecology.

<sup>74</sup> Email correspondence between UE Associates and Nick Radford, Senior Specialist, Natural England (Lyndhurst), cited in the draft UE Associates HRA for Whitehill-Bordon Masterplan (2009), updated by reference to the final Whitehill-Bordon Eco-town HRA Report (July 2011)

<sup>75</sup> The sedentary woodlark population of the Hampshire/Surrey border is more susceptible to cold winters which may explain why the scale of increase locally was lower than the national figure

- Management of disturbance during breeding season (March to July).
- Minimal air pollution.
- Absence or control of urbanisation effects, such as fires and introduction of invasive non-native species.
- Maintenance of appropriate water levels.
- Maintenance of water quality.

## 19 Woolmer Forest SAC

### 19.1 Introduction

The Woolmer Forest SAC is part of the Wealdon Heaths Phase 2 SPA. Woolmer Forest SSSI contains the largest and most diverse area of lowland heathland habitats in Hampshire (outside of the New Forest), covering 666.68ha, and is considered the most important area of heathland in the Weald of southern England.

Woolmer Forest SSSI is of international importance for its rich diversity of breeding and wintering heathland birds including nationally important breeding populations of nightjar, woodlark and Dartford warbler. The heathland also supports breeding hobby *Falco subbuteo*, breeding populations of stonechat *Saxicola torquata*, tree pipit *Anthus trivialis* and linnet *Acanthis cannabina*. In winter up to two roosts of hen harrier *Circus cyaneus*, as well as merlin *Falco columbarius* and great grey shrike *Lanius excubitor* are regularly recorded in the heathland. The valley mires and wetlands around Woolmer and Cranmer Ponds attract breeding curlew, redshank *Tringa totanus* and snipe *Gallinago gallinago*. The sandy shores of Woolmer Pond also provide habitat for nesting little-ringed plover. The woodlands of Holm and Holly Hills and Passfield Common support redstart *Phoenicurus phoenicurus*. These mature pasture woodlands have also attracted several breeding pairs of wood warbler *Phylloscopus sibilatrix*.

### 19.2 Reasons for Designation

Woolmer Forest qualifies as a SAC for its habitats. The site contains the Habitats Directive Annex I habitats of:

- Natural dystrophic lakes and ponds: Cranmer Pond is a southern example of a dystrophic pond in an area of Northern Atlantic wet heaths with *Erica tetralix* and depressions on peat substrates of the *Rhynchosporion*.
- European dry heaths
- Woolmer Forest contains the largest and most diverse area of lowland heathland in Hampshire, outside the New Forest, representing a transition between this and the Surrey heaths. Dry heaths in Woolmer Forest include examples of NVC type H1b *Calluna vulgaris* – *Festuca ovina* heath, *Hypogymnia physodes* – *Cladonia impexa* sub-community, dominated by heather *Calluna vulgaris* and *Cladonia* lichens. Most of the dry heath is H2 *Calluna vulgaris* – *Ulex minor*, characterised by dwarf gorse *Ulex minor*. Woolmer Forest is the only site in Britain that supports all six native reptiles (including the Annex IV species sand lizard *Lacerta agilis* and smooth snake *Coronella austriaca*) and all six native amphibians (including great crested newt *Triturus cristatus*). It also supports an outstanding invertebrate fauna and bird assemblage, including European nightjar, wood lark, Dartford warbler, Eurasian hobby, hen harrier and merlin.
- Depressions on peat substrates of the *Rhynchosporion*
- Northern Atlantic wet heaths with *Erica tetralix*
- Transition mires and quaking bogs

### 19.3 Historic Trends and Current Pressures

The key vulnerabilities to the SAC are:

- The site is vulnerable to neglect (encroachment of invasive scrub and trees due to cessation of traditional grazing management) and vulnerable to military activities

## Appendix B. Settlement Screening Table and Policy Screening Table

### Appendix B Table 1. Impact pathways linking each settlement likely to receive housing, based on distances from European sites

Settlements identified in **green** present no conceivable impact pathways present. They are considered not to result in likely significant effects upon an internationally designated site.

Development at settlements identified in **orange** present potential impact pathways to European sites. Development at these settlements is considered in more detail in Appendix B Table 2 and in the main text of the report.

Geographic area	Settlement	Quantum of housing	Distance from designated site(s)	Impact pathways
<b>Settlements with defined strategic housing allocations</b>				
East Sussex	Alfriston	6	8.5km from Lewes Down	– None
			9km from Pevensey Levels SAC/ Ramsar	– None
West Sussex	Amberley	6	Adjacent to Arun Valley SAC/ SPA/ Ramsar	<ul style="list-style-type: none"> <li>– Water quality (absence of nutrient enrichment)</li> <li>– Water quantity (abstraction)</li> <li>– Loss of supporting habitat (Bewicks swan)</li> <li>– Recreational pressure</li> <li>– Urbanisation</li> </ul>
East Hampshire	Binsted	12	3km from Wealden Heaths Phase II SPA	– Recreational Pressure
			3.7km from Shortheath Common SAC	– Recreational Pressure
East Hampshire	Buriton	7	1.2km from Butser Hill SAC	– Recreational pressure
West Sussex	Bury	6	1km Arun Valley SAC/ SPA/ Ramsar	<ul style="list-style-type: none"> <li>– Water quality (absence of nutrient enrichment)</li> <li>– Water quantity (abstraction)</li> <li>– Loss of supporting habitat (Bewicks swan)</li> <li>– Recreational pressure</li> </ul>
East Hampshire	Chawton	6	4.2km from East Hampshire Hangers SAC	<ul style="list-style-type: none"> <li>– Low nutrient runoff from surrounding land</li> <li>– Absence of direct fertilisation</li> </ul>

Geographic area	Settlement	Quantum of housing	Distance from designated site(s)	Impact pathways
			6.3km from Shortheath Common SAC	– Recreational pressure
East Hampshire	Cheriton	6	Adjacent to River Itchen SAC	<ul style="list-style-type: none"> <li>– Water quantity (maintenance of flow velocity)</li> <li>– Water quality (siltation and low nutrient inputs)</li> <li>– Recreational pressure</li> <li>– Urbanisation</li> </ul>
West Sussex	Coldwaltham	20	Adjacent to Arun Valley SAC/ SPA/ Ramsar	<ul style="list-style-type: none"> <li>– Water quality (absence of nutrient enrichment)</li> <li>– Water quantity (abstraction)</li> <li>– Loss of supporting habitat (Bewicks swan)</li> <li>– Recreational pressure</li> </ul>
			3.8km from Duncton to Bignor Escarpment SAC	– Recreational pressure
			5km from The Mens SAC	– Loss of supporting habitat (barbastelle bats)
West Sussex	Compton	6	5km from Rook Clift SAC	– Recreational pressure
			5.4km from Kingley Vale SAC	– Recreational pressure
			6.4km from Butser Hill SAC	– Recreational pressure
East Sussex	Ditchling	15	10km from Lewes Downs SAC	– None
East Hampshire	Droxford	11	9.8km from Butser Hill SAC	– None
West Sussex	Easebourne	20	7km from Ebernoe Common SAC	– None

Geographic area	Settlement	Quantum of housing	Distance from designated site(s)	Impact pathways
East Sussex	East Dean and Friston	11	10km from Pevensey Levels SAC/Ramsar site	– None
East Hampshire	East Meon	15	2.6km from Butser Hill SAC	– Recreational pressure
West Sussex	Fernhurst	211 (including Syngenta)	6.7km from Ebernoe Common SAC	– No HRA implications
West Sussex	Findon	20	9km from Arun Valley SAC/ SPA/ Ramsar	<ul style="list-style-type: none"> <li>– Water quality (absence of nutrient enrichment)</li> <li>– Water quantity (abstraction)</li> </ul>
West Sussex	Fittleworth	6	2.6km from The Mens SAC	<ul style="list-style-type: none"> <li>– Recreational pressure</li> <li>– Potential loss of supporting habitat for barbastelle bats</li> </ul>
			4km from Arun Valley SAC/ SPA/ Ramsar	<ul style="list-style-type: none"> <li>– Water quality (absence of nutrient enrichment)</li> <li>– Water quantity (abstraction)</li> <li>– Loss of supporting habitat (Bewicks swan)</li> <li>– Recreational pressure</li> </ul>
			5km from Duncton to Bignor Escarpment SAC	<ul style="list-style-type: none"> <li>– Recreational pressure</li> </ul>
East Hampshire	Greatham (Hampshire)	30	Adjacent to Woolmer Forest SAC	<ul style="list-style-type: none"> <li>– Recreational pressure</li> </ul>
			Adjacent to Wealden Heaths Phase 2 SPA	<ul style="list-style-type: none"> <li>– Urbanisation (fire &amp; invasive species)</li> <li>– Recreational pressure (bird breeding season)</li> <li>– Water quality</li> <li>– Water quantity</li> </ul>
			1.6km from East Hampshire Hangers SAC	<ul style="list-style-type: none"> <li>– Recreational pressure</li> </ul>



Geographic area	Settlement	Quantum of housing	Distance from designated site(s)	Impact pathways
			4.8km from Shortheath Common SAC	– Recreational pressure
East Hampshire	Hambledon	6	6.8km from Butser Hill SAC	– Recreational pressure
East Hampshire	Itchen Abbas	8	Adjacent to the River Itchen SAC	<ul style="list-style-type: none"> <li>– Water quantity (maintenance of flow velocity)</li> <li>– Water quality (siltation and low nutrient inputs)</li> </ul>
East Sussex	Kingston near Lewes	11	1.7km from Castle Hill SAC	– Recreational pressure
			2.9km from Lewes Downs SAC	<ul style="list-style-type: none"> <li>– Absence of nutrient enrichment.</li> <li>– Appropriate levels of recreational activity.</li> <li>– Good air quality</li> </ul>
West Sussex	Lavant (including Mid Lavant and East Lavant)	20	2.8km from Kingley Vale SAC	– Recreational pressure
			3.8km from Chichester and Langstone Harbours SPA/ Ramsar	<ul style="list-style-type: none"> <li>– Water quality</li> <li>– Water quantity</li> <li>– Recreational disturbance</li> <li>– Loss of supporting habitat</li> </ul>
			Solent Maritime SAC	– None
Lewes	Lewes	835(including North Street Quarter)	Adjacent to Lewes Downs SAC	<ul style="list-style-type: none"> <li>– Absence of nutrient enrichment.</li> <li>– Appropriate levels of recreational activity.</li> <li>– Absence of non-native species.</li> <li>– Good air quality</li> </ul>
			3.3km Castle Hill SAC	– Recreational pressure
East Hampshire	Liss (including West Liss and Liss Forest)	150	Adjacent to Wealden Heaths Phase 2 SPA	<ul style="list-style-type: none"> <li>– Urbanisation (fire &amp; invasive species)</li> <li>– Recreational pressure (bird breeding season)</li> <li>– Water quality</li> <li>– Water quantity</li> </ul>

Geographic area	Settlement	Quantum of housing	Distance from designated site(s)	Impact pathways
			1.8km from East Hampshire Hangers SAC	– Recreational pressure
			2.2km from Woolmer Forest SAC	– Recreational pressure
East Hampshire	Meonstoke and Corhampton	11	9km from Butser Hill SAC	– None
West Sussex	Midhurst	150	3.3km Singleton & Cocking Tunnels SAC	– Loss of supporting habitat for bats – Recreational pressure
			6km from Rook Clift SAC	– Recreational pressure
			8.4km from Duncton to Bignor Escarpment SAC	– None
			8.4km from Ebernoe Common SAC	– None
West Sussex	Northchapel	6	1.7km from Ebernoe Common SAC	– Loss of supporting habitat for barbastelle and bechstein's bats – Air quality – Recreational pressure
			7.2km from Wealden Heaths Phase 2 SPA	– None The settlement of Petersfield is over 5km from Wealden Heaths Phase II SPA
East Hampshire	Petersfield	700	1.5km from East Hampshire Hangers SAC	– Recreational pressure
			2.3km from Butser Hill SAC	– Recreational pressure
			5.7km from Wealden Heaths Phase 2 SPA	– None
West Sussex	Petworth	150	3.1km from The Mens SAC	– Loss of supporting habitat for barbastelle bats – Air quality – Recreational pressure

Geographic area	Settlement	Quantum of housing	Distance from designated site(s)	Impact pathways
			3.4km from Ebernoe Common SAC	<ul style="list-style-type: none"> <li>– Loss of supporting habitat for barbastelle bat</li> <li>– Air quality</li> <li>– Recreational pressure</li> </ul>
			4.7km from Duncton to Bignor Escarpment SAC	<ul style="list-style-type: none"> <li>– Recreational pressure</li> </ul>
West Sussex	Pyecombe	8	9.2km from Castle Hill SAC	<ul style="list-style-type: none"> <li>– None</li> </ul>
East Sussex	Rodmell	11	3km from Lewes Downs SAC	<ul style="list-style-type: none"> <li>– Air quality</li> <li>– Appropriate levels of recreational activity.</li> </ul>
			3.5km from Castle Hill SAC	<ul style="list-style-type: none"> <li>– Recreational pressure</li> </ul>
West Sussex	Rogate	11	5km from Rook Clift SAC	<ul style="list-style-type: none"> <li>– Recreational pressure</li> </ul>
			6km from Wealden Heaths Phase 2 SPA	<ul style="list-style-type: none"> <li>– None</li> </ul> <p>The settlement of Petersfield is over 5km from Wealden Heaths Phase II SPA</p>
			7km from East Hampshire Hangers SAC	<ul style="list-style-type: none"> <li>– None</li> </ul>
			9km from Butser Hill SAC	<ul style="list-style-type: none"> <li>– None</li> </ul>
East Hampshire	Selbourne	6	Adjacent to East Hampshire Hangers SAC	<ul style="list-style-type: none"> <li>– Recreational pressure</li> </ul>
			3.6km from Shortheath Common SAC	<ul style="list-style-type: none"> <li>– Recreational pressure</li> </ul>
			4km from Wealden Heaths Phase 2 SPA	<ul style="list-style-type: none"> <li>– Recreational pressure (bird breeding season)</li> </ul>
East Hampshire	Sheet	20	2.6km to East Hampshire Hangers SAC	<ul style="list-style-type: none"> <li>– Recreational pressure</li> </ul>
			4.7km from Wealden Heaths Phase 2 SPA	<ul style="list-style-type: none"> <li>– Recreational pressure (bird breeding season)</li> </ul>

Geographic area	Settlement	Quantum of housing	Distance from designated site(s)	Impact pathways
			5.1km from Butser Hill SAC	– Recreational pressure
West Sussex	South Harting	8	3km from Rook Clift SAC	– Recreational pressure
			6km from Butser Hill SAC	– Recreational pressure
West Sussex	Stedham	6	4.8 Singleton & Cocking Tunnels SAC	– Loss of supporting habitat for bats – Recreational pressure
			5.5km from Rook Clift SAC	– Recreational pressure
			8.5km from Ebernoe Common SAC	– None
			9km from Duncton to Bignor Escarpment SAC	– None
East Hampshire	Stroud	11	1.8km from East Hampshire Hangers SAC	– Recreational pressure
			2.3 km from Butser Hill SAC	– Recreational pressure
			6.7km from Wealden Heaths Phase 2 SPA	– None The settlement of Petersfield is over 5km from Wealden Heaths Phase II SPA
East Hampshire	Twyford	20	Less than 200m from the River Itchen SAC	– Water quantity (maintenance of flow velocity) – Water quality (siltation and low nutrient inputs)
East Hampshire	West Meon	16	6.6km from Butser Hill SAC	– Recreational pressure
			8.3km from East Hampshire Hangers SAC	– None
Settlements without defined allocations but may accommodate windfall housing				
West Sussex	Funtington	Un-defined	1.7km from Kingly Vale SAC	– None

Geographic area	Settlement	Quantum of housing	Distance from designated site(s)	Impact pathways
			2.8km from Chichester and Langstone Harbours SPA/ Ramsar	<ul style="list-style-type: none"> <li>– Water quality</li> <li>– Water quantity</li> <li>– Recreational disturbance</li> <li>– Loss of supporting habitat</li> </ul>
			2.8km from Solent Maritime SAC	– None
West Sussex	West Ashling	Un-defined	2.7km from Kingly Vale SAC	– None
			2.1km from Chichester and Langstone Harbours SPA/ Ramsar	<ul style="list-style-type: none"> <li>– Water quality</li> <li>– Water quantity</li> <li>– Recreational disturbance</li> <li>– Loss of supporting habitat</li> </ul>
			2.1km from Solent Maritime SAC	– None
West Sussex	Singleton	Un-defined	700m from Singleton and Cocking Tunnels SAC	<ul style="list-style-type: none"> <li>– Loss of supporting habitat for bats</li> <li>– Recreational pressure</li> </ul>
			4.2km from Kingly Vale SAC	– Recreational pressure
			7.3km from Rook Clift SAC	– None
			7.4km from Duncton to Bignor Escarpment SAC	– Recreational pressure
East Hampshire	Lower and Upper Farringdon	Un-defined	1.9km from East Hampshire Hangers SAC	– Recreational pressure
			5.6km from Shortheath Common SAC	– None
			7km from Wealden Heaths Phase 2 SPA	– None
West Sussex	Cocking	Un-defined	400m from Singleton and Cocking Tunnels SAC	<ul style="list-style-type: none"> <li>– Loss of supporting habitat for bats</li> <li>– Recreational pressure</li> </ul>

Geographic area	Settlement	Quantum of housing	Distance from designated site(s)	Impact pathways
			5.3km from Rook Clift SAC	– Recreational pressure
			6.1km from Kingley Vale SAC	– Recreational pressure
			7.7km from Duncton to Bignor Escarpment SAC	– Recreational pressure
West Sussex	Poynings	Un-defined	10.8km from Castle Hill SAC	– None
			15.5km from Lewes Downs SAC	– None
West Sussex	Lodsworth	Un-defined	4.0km from Ebernoe Common SAC	– Loss of supporting habitat for barbastelle bats – Recreational pressure
			8km from The Mens SAC	– None
			7.8km from Wealden Heaths Phase 2 SPA	– None – The settlement of Petersfield is over 5km from Wealden Heaths Phase II SPA
West Sussex	Watersfield	Un-defined	480m from Arun Valley SPA/ SAC/ Ramsar site	– Water quality (absence of nutrient enrichment) – Water quantity (abstraction) – Loss of supporting habitat (Bewicks Swan) – Recreational pressure
			2.5km from Duncton to Bignor Escarpment SAC	– Recreational pressure
			5.5km from The Mens SAC	– Loss of supporting habitat
			10km from Ebernoe Common SAC	– None
East Hampshire	Steep	Unknown – in Policy SD4/SS:	0.6km from East Hampshire Hangers SAC	– Recreational pressure

Geographic area	Settlement	Quantum of housing	Distance from designated site(s)	Impact pathways
		The Scarp Slope area.	4.2km from Butser Hill SAC	– Recreational pressure
			5km from Wealden Heaths Phase 2 SPA	– Recreational pressure (bird breeding season)
West Sussex	Graffham	Unknown – in Policy SD4/SS: The Scarp Slope area	2.4km from Duncton to Bignor Escarpment SAC	– Recreational pressure
			5km from Singleton and Cocking Tunnels SAC	– Loss of supporting habitat for bats – Recreational pressure
West Sussex	Washington	Unknown – in Policy SD4/SS: The Scarp Slope area	7km from Arun Valley SAC/ SPA/ Ramsar	– Water quality (absence of nutrient enrichment) – Water quantity (abstraction) – Recreational pressure
Western Weald	Milland	Unknown – in Policy SD4/WW: The Western Weald area	3.7km from Wealden Heath Phase II SPA	– Recreational Pressure
			5.4km from Woolmer Forest SAC	– None

## Appendix B Table 2. Initial Screening of Each Policy

Policies identified in **green** have been identified for no further screening as there are no conceivable impact pathways present. They are considered not to result in likely significant effects upon an internationally designated site.

Policies identified in **orange** have potential for impact pathways, and therefore likely significant effects. These policies cannot be dismissed at the initial screening stage and are subject to further detailed discussion of likely significant effects within the main report.

Policy	Detail	Screening outcome: likely significant effect (LSE)
<b>Core Policies</b>		
<b>Policy SD1: Sustainable Development in the South Downs National Park</b>	<p>1. When considering development proposals the Authority will take a positive approach that reflects the presumption in favour of sustainable development provided that they:</p> <ul style="list-style-type: none"> <li>a) are consistent with the National Park purposes;</li> <li>b) pay due regard to the duty in pursuit of the purposes;</li> <li>c) conserve and enhance the special qualities of the National Park; and</li> <li>d) comply with all the relevant policies within this Local Plan.</li> </ul> <p>2. If there is a conflict between the purposes, greater weight will be given to the first purpose.</p> <p>3. The Authority will work with applicants to find solutions to ensure that development proposals that are in accordance with the policies in this Local Plan can be approved without delay, unless material considerations indicate otherwise.</p>	<p>No HRA implications.</p> <p>This outlines policy for sustainable development and is a policy that seeks to manage development rather than allocating development.</p> <p>There are no impact pathways present.</p>
<b>Policy SD2: Ecosystems Services</b>	<p>Proposals that deliver sustainable development and comply with other relevant policies will be permitted provided that they do not have an unacceptable adverse impact on the natural environment and its ability to contribute goods and services. Proposals will be expected, as appropriate, to:</p> <ul style="list-style-type: none"> <li>a) provide more and better joined up natural habitats;</li> </ul>	<p>No HRA implications.</p> <p>This is a positive policy.</p> <p>It ensures development does 'not have an unacceptable adverse impact on the natural environment' and outlines that</p>



	<p>b) conserve water resources;</p> <p>c) sustainably manage land and water environments;</p> <p>d) improve the National Park's resilience and the mitigation of climate change;</p> <p>e) increase the ability to store carbon through new planting or other means;</p> <p>f) conserve and improve soils;</p> <p>g) reduce pollution;</p> <p>h) mitigate the risk of flooding;</p> <p>i) improve opportunities for peoples' health and wellbeing;</p> <p>j) stimulate sustainable economic activity; and</p> <p>k) deliver high-quality sustainable design.</p>	<p>proposals will be expected to provide a number of environmentally beneficial outcomes such as '<i>more and better joined up natural habitats</i>', '<i>conserve water resources</i>', '<i>sustainably manage land and water environments</i>' amongst others.</p> <p>This policy does encourage economic activity and improve opportunities for people's health and wellbeing. As such the following impact pathways exist:</p> <ul style="list-style-type: none"> <li>– Disturbance from increased recreational pressure</li> <li>– Water quality</li> <li>– Water quantity</li> <li>– Urbanisation (fires/ invasive species)</li> </ul> <p>However, this policy ensures that development will accord with other policies (including the SD 12, SD13, SD37 and SD39)</p>
<b>Policy SD3: Major Development in the South Downs National Park</b>	<p>1. In determining what constitutes major development the SDNPA will consider whether the development, by reason of its scale, character or nature, has the potential to have an unacceptable adverse impact on the natural beauty, wildlife or cultural heritage of, or opportunities for quiet recreation provided by, the National Park. The potential for adverse impact on the National Park will be dependent on the individual characteristics of each proposal and its context.</p> <p>2. Major Development will only be permitted in exceptional circumstances and where it can be demonstrated to be in the public interest. In assessing development proposals, consideration will be given to:</p>	<p>No HRA implications.</p> <p>This is a policy that seeks to manage major development rather than allocating development..</p> <p>This does provide consideration for any '<i>detrimental effect on the environment</i>'.</p>

	<p>a) the proven need for the development, including in terms of any national considerations;</p> <p>b) the impact of permitting it, or refusing it, upon the local economy;</p> <p>c) the cost of, and scope for, developing elsewhere outside the designated area, or meeting the need for it in some other way;</p> <p>d) any detrimental effect on the environment, the landscape and quiet recreation, and the extent to which that could be moderated; and</p> <p>e) any detrimental effect on the special qualities of the National Park and whether they can be mitigated.</p>	<p>This policy could be made more robust by including specific reference to consider any detrimental effect upon internationally designated sites or to refer to development being in accordance with other relevant policies.</p>
<p><b>Policy SD4/CP: The Coastal Plain</b></p>	<p>1. Development proposals in the Coastal Plain that comply with this Policy and the Development Strategy (SD22) will be supported provided that they comply with other relevant policies in this Local Plan.</p> <p>2. Limited growth is proposed recognising the sensitivity of the predominantly open landscape. Small-scale opportunities for further growth in settlements identified in Policy SD22 will be delivered.</p> <p>3. Any growth in the Coastal Plain should, as appropriate, deliver multiple benefits through ecosystem services. These may include provisioning services such as farming and regulating services such as water management.</p> <p>4. Development will be guided by the South Downs Integrated Landscape Character Assessment and Built Characterisation Study, in compliance with Policy SD5 (Landscape Character) and Policy SD6 (Design), by taking into account the management and development considerations for the landscape types in this area.</p>	<p>HRA implications</p> <p>This policy includes for the growth of settlements.</p> <p>Whilst no specific settlements are identified within this policy, new housing within the following settlements within the Coastal Plain have potential for likely significant effects upon internationally designated sites:</p> <ul style="list-style-type: none"> <li>– Lavant (West Sussex)</li> <li>– Funtingdon (West Sussex)</li> <li>– West Ashling (West Sussex).</li> </ul> <p>Impact pathways are detailed in <b>Appendix B Table 1</b>.</p> <p>However, this policy does also ensure that development within The Coastal Plain will '<i>comply with other relevant policies in this Local Plan</i>' such as policies SD13 and SD12.</p>

<b>Policy SD4/ DS: The Dip Slope</b>	<ol style="list-style-type: none"> <li>1. Development proposals in the Dip Slope that comply with this Policy and the Development Strategy (SD22) will be supported provided that they comply with other relevant policies in this Local Plan.</li> <li>2. Moderate-scale growth, which is proportionate to the size of settlements and the landscape's capacity to accommodate further development, will be delivered in settlements identified in Policy SD22.</li> <li>3. Any growth in the Dip Slope should, as appropriate, deliver multiple benefits through ecosystem services. These may include provisioning services such as viticulture and regulating services such as water management.</li> <li>4. Development will be guided by the South Downs Integrated Landscape Character Assessment and Built Characterisation Study, in compliance with Policy SD5 (Landscape Character) and Policy SD6 (Design), by taking into account the management and development considerations for the landscape types in this area.</li> </ol>	<p>HRA implications</p> <p>This policy includes for the growth of settlements.</p> <p>Whilst no specific settlements are identified within this policy, new housing within the following settlements located within the Dip Slope have potential for likely significant effects upon internationally designated sites:</p> <ul style="list-style-type: none"> <li>– Twyford (Hampshire)</li> <li>– Findon (West Sussex)</li> <li>– Singleton (West Sussex)</li> </ul> <p>Impact pathways are detailed in <b>Appendix B Table 1</b>.</p> <p>However, this policy does also ensure that development within The Dip Slope will '<i>comply with other relevant policies in this Local Plan</i>' such as policies SD13 and SD12.</p>
<b>Policy SD4/ WD: The Western Downs</b>	<ol style="list-style-type: none"> <li>1. Development proposals in the Western Downs that comply with this Policy and the Development Strategy (SD22) will be supported provided that they comply with other relevant policies in this Local Plan.</li> <li>2. Limited growth is proposed in the Western Downs recognising the relative tranquillity and sense of isolation in this Broad Area.</li> <li>3. Any growth in the Western Downs should, as appropriate, deliver multiple benefits through ecosystem services. These may include provisioning services such as aquaculture and cultural services such as tranquillity.</li> <li>4. Development will be guided by the South Downs Integrated Landscape Character Assessment and Built Characterisation Study, in compliance with Policy SD5 (Landscape</li> </ol>	<p>HRA implications</p> <p>This policy includes for the growth of settlements.</p> <p>Whilst no specific settlements are identified within this policy, new housing within the following settlements located within the Western Downs have potential for likely significant effects upon internationally designated sites:</p>

	<p>Character) and Policy SD6 (Design), by taking into account the management and development considerations for the landscape types in this area.</p>	<ul style="list-style-type: none"> <li>– Itchen Abbas (Hampshire)</li> <li>– Cheriton (Hampshire)</li> <li>– Chawton (Hampshire)</li> <li>– Lower and Upper Farringdon (Hampshire)</li> </ul> <p>Impact pathways are detailed in <b>Appendix B Table 1</b>.</p> <p>However, this policy does also ensure that development within The Western Downs will 'comply with other relevant policies in this Local Plan' such as policies SD13 and SD12.</p>
<p><b>Policy SD4/SS: The Scarp Slope</b></p>	<ol style="list-style-type: none"> <li>1. Development proposals in the Scarp Slope that comply with this Policy and the Development Strategy (SD22) will be supported provided that they comply with other relevant policies in this Local Plan.</li> <li>2. The focus of development in this area will be in Lewes, reflecting the scale, accessibility and strategic importance of this market town as a service and employment centre.</li> <li>3. Small-scale growth, which is sensitively planned to reflect the Scarp Slope setting and important views will be delivered in settlements identified in Policy SD22.</li> <li>4. Any growth on the Scarp Slope should, as appropriate, deliver multiple benefits through ecosystem services. These may include regulating services such as water management and cultural services such as the arts.</li> <li>5. Development will be guided by the South Downs Integrated Landscape Character Assessment and Built Characterisation Study, in compliance with Policy SD5 (landscape Character) and Policy SD6 (Design), by taking into account the management and development considerations for the landscape types in this area.</li> </ol>	<p>HRA implications</p> <p>This policy includes for the growth of settlements.</p> <p>Whilst no specific settlements are identified within this policy, new housing within the following settlements located within the Scarp Slope have potential for likely significant effects upon internationally designated sites:</p> <ul style="list-style-type: none"> <li>– Lewes Town Centre</li> <li>– Amberley (West Sussex)</li> <li>– Cheriton (Hampshire)</li> <li>– Bury (West Sussex)</li> <li>– Cocking (West Sussex)</li> <li>– Kingston Near Lewes (East Sussex)</li> <li>– Rodmell (East Sussex)</li> </ul>

		<ul style="list-style-type: none"> <li>– Selborne (Hampshire)</li> <li>– Steep (Hampshire)</li> <li>– Washington (West Sussex)</li> </ul> <p>Impact pathways are detailed in <b>Appendix B Table 1</b>.</p> <p>However, this policy does also ensure that development within The Scarp Slope will <i>'comply with other relevant policies in this Local Plan'</i> such as policies SD13 and SD12.</p>
<b>Policy SD4/WW: The Western Weald</b>	<p>1. Development proposals in the Western Weald that comply with this Policy and the Development Strategy (SD22), will be supported provided that they comply with other relevant policies in this Local Plan.</p> <p>2. The focus of development in this area will be in the market town of Petersfield, reflecting the scale, accessibility and strategic importance of this settlement as a service and employment centre.</p> <p>3. Moderate scale growth will be supported in the two smaller market towns of Midhurst and Petworth and the large village of Liss, which provides sustainable development consistent with the scale and function of these settlements and further enables each town to meet its own needs and those of the surrounding areas.</p> <p>4. Any growth in the Western Weald should, as appropriate, deliver multiple benefits through ecosystem services. These may include supporting services such as biodiversity and provisioning services such as timber.</p> <p>5. Development will be guided by the South Downs Integrated Landscape Character Assessment and Built Characterisation Study, in compliance with Policy SD5 (Landscape Character) and Policy SD6 (Design), by taking into account the management and development considerations for the landscape types in this area.</p>	<p>HRA implications</p> <p>This policy includes for the growth of settlements.</p> <p>Whilst no specific settlements are identified within this policy, new housing within the following settlements located within the Western Weald have potential for likely significant effects upon internationally designated sites:</p> <ul style="list-style-type: none"> <li>– Midhurst (West Sussex)</li> <li>– Petworth (West Sussex)</li> <li>– Sheet (Hampshire)</li> <li>– Liss (including Liss Forest and West Liss) (Hampshire)</li> <li>– Coldwaltham (West Sussex)</li> <li>– Fittleworth (West Sussex)</li> <li>– Greatham (Hampshire)</li> </ul>

		<ul style="list-style-type: none"> <li>– Lodsworth (West Sussex)</li> <li>– Northchapel (West Sussex)</li> <li>– Stedham (West Sussex)</li> <li>– Watersfield (West Sussex)</li> </ul> <p>Impact pathways are detailed in <b>Appendix B Table 1</b>.</p> <p>However, this policy does also ensure that development within The Scarp Slope will <i>'comply with other relevant policies in this Local Plan'</i> such as policies SD13 and SD12.</p>
<b>Strategic Policies</b>		
<b>Policy SD5: Landscape Character</b>	<p>1. Development proposals which conserve and enhance the landscape character of the South Downs National Park and comply with other relevant policies, in particular, Policy SD6 (Design) will be permitted. It should be clearly demonstrated that development proposals are informed by:</p> <ul style="list-style-type: none"> <li>• the South Downs Integrated Landscape Character Assessment (SDILCA) (2011);</li> <li>• community-led/local landscape character assessments; and</li> <li>• appropriate site based investigations.</li> </ul> <p>And are, as appropriate, in accordance with the following requirements:</p> <p>a) The design, layout and scale of proposals should conserve and enhance existing landscape character features including topography, vegetation, scale and pattern, natural drainage, existing trees and hedgerows, whilst safeguarding the experiential and amenity qualities of the landscape. Where appropriate, the creation of green corridors which extend into settlements will be supported.</p> <p>b) The use of locally appropriate design and layout, which limits the need for screening planting, in accordance with Policy SD6 (Design). Any appropriate planting should be consistent with local character, enhance biodiversity and be in accordance with Policy</p>	<p>No HRA implications</p> <p>This policy provides protection for International Sites (SD13)</p> <p>This is a positive policy in that it allows for the conservation and enhancement of natural drainage.</p> <p>There are no impact pathways present</p>

	<p>SD14 (Green Infrastructure). New planting should be native species unless there are appropriate and justified reasons to select non-native species.</p> <p>c) Natural and historic features which contribute to the distinctive character and pattern of the landscape and its evolution are conserved and enhanced, including reference to the South Downs and Pan Sussex Historic Landscape Character Assessments and other appropriate research material.</p> <p>d) Where proposals are within designed landscapes (including historic parkscapes and those on the English Heritage Register of Historic Parks and Gardens) they should be based on a demonstrable understanding of the design principles of the landscape and should be complementary to it.</p> <p>e) The open and undeveloped nature of existing gaps between settlements will be conserved and, where appropriate, enhanced.</p> <p>2. The restoration of landscapes where either natural or cultural heritage features have been lost or degraded will be sought.</p> <p>3. Development proposals that would have an unacceptable adverse impact on the character of the immediate and wider landscape or the special qualities of the National Park will be refused.</p>	
<b>Policy SD6: Design</b>	<p>1) Development proposals will only be permitted where they comply with other relevant policies, in particular, Policy SD5 (Landscape Character), and are of a high-quality design which, where relevant, clearly demonstrates that it has been informed by:</p> <ul style="list-style-type: none"> <li>• village and town design statements where available;</li> <li>• the Built Form Characterisation Study;</li> <li>• Strategic Stone Study (where available);</li> <li>• a robust master plan or all estate plan, where relevant; and</li> <li>• appropriate site-based investigations.</li> </ul> <p>2) Development proposals, where appropriate, will:</p>	<p>No HRA implications.</p> <p>This outlines a development control policy regarding design.</p> <p>There are no impact pathways present.</p>

	<p>a) make a positive contribution to the character, functions and local distinctiveness of the built environment and landscape through their design, layout, scale and use of locally appropriate materials;</p> <p>b) demonstrate a locally appropriate design and layout which takes into account its location and context, reduces the need for screening planting, and respects the setting of settlements, including farmsteads, land at the settlement edge, green corridors and the links to the settlement.</p> <p>c) be suitable for their location and use locally appropriate design and layout and ensure green infrastructure is effectively provided;</p> <p>d) create high-quality public and private realms that are clearly defined;</p> <p>e) incorporate appropriate hard and soft landscaping which provides a setting for development within the immediate surroundings and a connection to the wider landscape to enhance local landscape character, green infrastructure and biodiversity;</p> <p>f) ensure buildings are durable and adaptable over time; and</p> <p>g) avoid harmful impact upon neighbouring uses and amenities.</p>	
<p><b>Policy SD7: Safeguarding Views</b></p>	<p>1. Development proposals that conserve and enhance views and comply with other relevant policies will be permitted where they take into account the following view types and patterns which are identified in the Viewshed Study:</p> <p>a) landmark views to and from viewpoints and tourism and recreational destinations;</p> <p>b) views from publicly accessible areas which are within, to and from settlements which contribute to the viewers enjoyment of the National Park;</p> <p>c) views from public rights of way, open access land and other publicly accessible areas; and</p> <p>d) views which include specific features relevant to the National Park and its special qualities, such as cultural heritage and biodiversity features.</p> <p>63</p>	<p>No HRA implications</p> <p>This is a policy that seeks to manage development to safeguard views, rather than allocating development.</p> <p>There are no impact pathways present.</p>



	<p>2. Sequential views and cumulative features and impacts within views have been appropriately assessed and appropriately mitigated for, where necessary.</p> <p>3. Development proposals that would have an unacceptable adverse impact on this special quality of the National Park will be refused.</p>	
<b>Policy SD8: Relative Tranquillity</b>	<p>1. Development proposals that conserve and enhance the relative tranquillity of the National Park and comply with other relevant policies will be permitted. It should be clearly demonstrated that development proposals are informed by the South Downs Tranquillity Study and should consider the following impacts on relative tranquillity:</p> <p>a) direct impacts that the proposals are likely to cause by changes in the visual and aural environment in the immediate vicinity of the proposals;</p> <p>b) indirect impacts that may be caused within the National Park that are remote from the location of the proposals themselves such as vehicular movements; and</p> <p>c) experience of users of the public right of way network and other publicly accessible locations.</p> <p>2. Development proposals that are located in areas which are either vulnerable to change, or at the higher range of relative tranquillity (as identified in the Tranquillity Study) will be subject to the most rigorous scrutiny in order to ensure that relative tranquillity is conserved and enhanced.</p> <p>3. Development proposals that would have an unacceptable adverse impact on relative tranquillity will be refused.</p>	<p>No HRA implications</p> <p>This is a policy that seeks to manage development to safeguard tranquillity, rather than allocating development.</p> <p>There are no impact pathways present.</p>
<b>Policy SD9: Dark Night Skies</b>	<p>1. Development proposals that conserve and enhance relative tranquillity, in relation to light pollution and dark night skies, and comply with other relevant policies will be permitted, provided it can be demonstrated that they meet or exceed the Institute of Lighting Professionals guidance and other relevant standards or guidance (CIE 150:2003 Guide on the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations) for lighting within environmental zones, and have regard to the following hierarchy:</p> <p>a) The installation of lighting is avoided.</p> <p>b) If lighting is installed it is necessary for its intended purpose or use and any adverse impacts are avoided.</p>	<p>No HRA implications</p> <p>This is a positive policy in that it avoids the use of lighting as much as possible and any adverse impacts are avoided. This will allow for uninterrupted use of foraging and commuting routes by species of bats associated with SACs and some nocturnal bird species associated with SPAs.</p>

	<p>c) If it is demonstrated that (a) or (b) is not achievable, then adverse impacts are appropriately mitigated.</p> <p>2. To be appropriate, lighting for development proposals should ensure that:</p> <p>a) The measured and observed sky quality in the surrounding area is not reduced;</p> <p>b) Lighting is not unnecessarily visible in nearby designated and key habitats;</p> <p>c) The visibility of lighting from the surrounding landscape is avoided; and</p> <p>d) Building design that results in increased light spill from internal lighting is avoided, unless suitable mitigation measures are implemented.</p> <p>3. Development proposals that are located in or unnecessarily visible from the dark sky core boundary, as shown on the Policies Map, with SQM values exceeding 20 mag per arcsecond<sup>5</sup> or in areas identified as being vulnerable to change will be subject to the most rigorous scrutiny in order to ensure that relative tranquillity is conserved and enhanced.</p>	There are no impact pathways present.
<b>Policy SD10: The Open Coast</b>	<p>1. Development proposals within the Sussex Heritage Coast area of the National Park and the undeveloped coastal zone of the National Park as defined on the Policies Map and that comply with other relevant policies will be permitted providing that they:</p> <p>a) are appropriate to the coastal location and conserve and enhance the character of the Heritage Coast / undeveloped National Park coastline; or</p> <p>b) involve changes of use or alterations or additions to buildings, or improvements that similarly conserve and enhance the character of Heritage Coast /undeveloped coastline; or</p> <p>c) are necessary for the operational needs of coastal defence, agriculture, forestry or fishing enterprises or countryside management; and</p> <p>d) conserve and enhance coastal access to / from the coast and along the coastline; and</p> <p>e) cause no adverse impact to the Beachy Head West Marine Conservation Zone and should ensure its conservation and, where possible, enhancement.</p>	<p>No HRA implications.</p> <p>This provides policy for development along the coastal stretches of the SDNP.</p> <p>There are no impact pathways present.</p> <p>This policy ensures that development within The Open Coast will 'comply with other relevant policies in this Local Plan' such as policies SD13 and SD12.</p>

	2. Proposals that would have an unacceptable adverse impact on the Heritage Coast area of the National Park and the undeveloped coastal zone or impede access to/from or along the coastline will be refused.	
<b>Policy SD11: Historic Environment</b>	<p>1. Planning permission and, where necessary, listed building consent, will be granted for development proposals that comply with other relevant policies, conserve the cultural heritage of the National Park and realise opportunities to re-use redundant or under-used heritage assets with an optimal viable use which secures its long-term conservation and enhancement, including setting.</p> <p>2. Development proposals which affect identified heritage assets (whether nationally designated, locally designated or non-designated) or their setting will be determined with proper regard to the National Park's Purposes and Duty including promoting opportunities for their understanding and enjoyment.</p> <p>3. Development proposals that would have an unacceptable adverse impact on a designated heritage asset or its setting will only be permitted in wholly exceptional circumstances.</p> <p>4. Development proposals that would have an unacceptable adverse impact on a non-designated heritage asset will be weighed against assured and substantial public benefits related to the proposed works.</p>	<p>No HRA implications.</p> <p>This outlines a development control policy regarding the historic environment.</p> <p>There are no impact pathways present.</p>
<b>Policy SD12: Biodiversity and Geodiversity</b>	<p>1. Development proposals that conserve and enhance biodiversity and geodiversity and comply with other relevant policies and European and National Legislation will be permitted, provided that they are in accordance with the requirements and hierarchy of designation set out below.</p> <p>2. Development proposals should give particular regard to ecological networks and areas with high potential for priority habitat restoration or creation and should:</p> <p>(a) retain, protect and enhance features of biodiversity and geological interest and ensure appropriate management of those features; and</p> <p>(b) ensure that any adverse impacts (either alone or in-combination) are avoided, or, if unavoidable, minimised through mitigation with any residual impacts being compensated for (having regard to the hierarchy of designation).</p> <p>3. The following hierarchy of designation will apply:</p>	<p>No HRA implications</p> <p>This allows for proposals that 'conserve and enhance biodiversity and geodiversity' provided they adhere to other relevant policies.</p> <p>This is a positive policy; it is a hook within the LP for widely protecting internationally designated sites. 3.i of this policy outlines the requirement for AA if development proposals are 'considered likely to have a significant effect on one or more any International Sites'</p>

	<p>(i) International Sites: Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar Sites, or candidate/formally proposed versions of these designations.</p> <p>If a development proposal is considered likely to have a significant effect on one or more international sites, an Appropriate Assessment (AA) will be required (the need for AA should be assessed at the Habitat Regulations Assessment (HRA) Screening stage).</p> <p>Development proposals that will result in any adverse effect on the integrity of any international site which cannot be either avoided or adequately mitigated will be refused unless it can be demonstrated that there are:</p> <ul style="list-style-type: none"> <li>(a) no alternatives to the proposal;</li> <li>(b) imperative reasons of over-riding public interest why the proposal should nonetheless proceed; and</li> <li>(c) adequate compensatory provision secured.</li> </ul> <p>(ii) National Sites: Sites of Special Scientific Interest (SSSI), National Nature Reserves and Marine Conservation Zone.</p> <p>Development Proposals considered likely to have an adverse effect on national sites will be required to assess the impact by means of an Ecological Impact Assessment.</p> <p>Development Proposals that will result in any adverse effect on the integrity of any national site which cannot be either avoided or adequately mitigated will be refused, unless exceptional circumstances are clearly demonstrated.</p> <p>(iii) Irreplaceable Habitats (including ancient woodland and the loss of aged or veteran trees found outside ancient woodland:</p> <p>Planning permission will be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss.</p> <p>(iv) Local Sites: Sites of Nature Conservation Importance (SNCIs) / Sites of Importance for Nature Conservation (SINCs), Local Nature Reserves, Local Geological Sites and ancient woodland not identified within (ii) above.</p>	
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	<p>Development proposals considered likely to have an adverse effect upon local sites will be required to assess the impact by means of an Ecological Impact Assessment.</p> <p>Development proposals will not be permitted unless they are necessary for biodiversity or geodiversity management work or can demonstrate no adverse impact to the biodiversity or geodiversity interest.</p> <p>(v) Outside of designated sites (including habitats listed in the Biodiversity 2020 priority species and habitats list):</p> <p>Development proposals will, where appropriate, be required to contribute to the protection, management and enhancement of biodiversity and geodiversity.</p> <p>4. Development proposals should retain, protect and enhance the species interest of the site (including commuting routes through the site where appropriate, and taking due account of any use by migratory species) and ensure appropriate management.</p> <p>5. Development proposals will be encouraged to make a positive contribution to biodiversity, through the restoration/enhancement of existing habitats, the creation of wildlife habitats, where appropriate, and the creation of linkages between sites to create local and regional ecological networks. The Authority will encourage the enhancement of significant features of nature conservation value on development sites.</p> <p>6. Development proposals should seek to eradicate (if feasible) or control any invasive non-native species present on site, especially those which are significantly damaging to biodiversity and/or geological features.</p> <p>7. Development proposals that have an adverse impact on biodiversity or geodiversity, which cannot be adequately avoided, mitigated or compensated for, or which harm the special qualities will be refused.</p>	
<b>Policy SD13:</b> <b>International Sites</b>	<p>1. Development proposals on greenfield sites within 7km of the Mens SAC, within 5km of the Ebernoe Common SAC and within (distance to be confirmed) of the Singleton and Cocking Tunnels SAC should have due regard to the possibility that barbastelle and Bechstein bats will be utilising the site, and will be required to undertake necessary surveys and ensure that key features (foraging habitat and commuting routes) are retained.</p> <p>2. Development proposals on greenfield sites within 5km of the Arun Valley SPA should undertake an appraisal as to whether the land is suitable for wintering Bewick swan. If it is then surveys should be undertaken to determine whether the fields are of importance to</p>	<p>No HRA implications</p> <p>This is a positive policy.</p> <p>Point 1 takes note of the requirement to take due regard within a defined buffer of international sites designated for bat features. <b>However, bats may not solely use greenfield sites. This text</b></p>

	<p>the swan population. If so, appropriate alternative habitat would be required before development could proceed.</p> <p>3. Development proposals resulting a net increase in residential units within 5km of the boundary of the Wealden Heaths Phase II SPA will be required to submit a screening opinion to the Authority for a project-specific Habitat Regulations Assessment (HRA) which, in consultation with Natural England, will determine whether a likely significant effect on the integrity of the site will result. Likely significant effects will be assessed through the HRA and any requirement for mitigation identified.</p> <p>4. Development proposals resulting in a net increase in residential units, within the Solent Coast Special Protection Area's (SPA) (Chichester &amp; Langstone Harbours SPA, Portsmouth Harbour SPA and Solent &amp; Southampton Water SPA) zone of influence shown on the Policies Map, that accord with other relevant policies may be permitted where 'in combination' effects of recreation on the Solent Coastal Special Protection Areas are satisfactorily mitigated through the provision of an appropriate financial contribution to the delivery of strategic mitigation. In the absence of a financial contribution toward mitigation, an appropriate assessment may be required to demonstrate that any 'in combination' negative effects can be avoided or can be satisfactorily mitigated through a developer-provided package of measures.</p>	<p><b>should be amended to include 'Proposals on greenfield sites and sites that support or are in close proximity to mature vegetative linear features and waterways...'</b></p> <p>Point 2 takes note of the requirement to take due regard within a buffer of 5km from the Arun Valley SPA for supporting habitat for Bewick's Swan and the need for a project specific HRA.</p> <p>Point 3 outlines the requirement for any net increase in residential development within 5km of Wealden Heaths Phase II SPA to undertake a project specific HRA or screening assessment.</p> <p>Point 4 outlines the requirement for any net increase in residential units within the Solent Coast SPAs zone of influence to mitigate any 'in-combination' effects of the increase in recreational pressure either via financial contributions or bespoke developer provided mitigation packages. <b>However, this policy does not define the Zone of Influence. This is 5.6km from one of the Solent European sites and should be stated.</b></p> <p>This is a hook policy to ensure protection of specific internationally designated sites and their features, and includes pre-defined avoidance</p>
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		measures for those listed specifically.
<b>Policy SD14: Green Infrastructure</b>	<p>1. Development proposals that comply with other relevant policies will be permitted where, as appropriate, they:</p> <p>a. incorporate, reinforce and link green infrastructure; and</p> <p>b. contribute to the delivery of green infrastructure that meets the needs of communities both within and beyond its boundaries, including establishment of new and enhancement of existing green infrastructure.</p> <p>2. Green infrastructure assets will be identified, enhanced and safeguarded through:</p> <p>a. not permitting development that unacceptably compromises the integrity of green infrastructure assets and that of the overall green infrastructure network; and</p> <p>b. facilitating improvements to the quality, use and provision of multi-functional green assets and green linkages, either through developer contributions or through integrating them into development design.</p> <p>3. The SDNPA will support proposals that deliver a strategic cross-boundary green infrastructure resource, which underpins a network of natural and semi-natural spaces and features as set out in the emerging Green Infrastructure Framework.</p>	<p>No HRA implications</p> <p>This policy includes the promoting and making use of green infrastructure. This could include internationally designated sites.</p> <p>Impact pathways include:</p> <ul style="list-style-type: none"> <li>– Recreational pressure</li> </ul> <p>However, proposals must accord with other relevant policies (such as SD12 and SD13)As such, there are no impact pathways present.</p>
<b>Policy SD15: Aquifers</b>	Development proposals that comply with other relevant policies will be permitted provided that they safeguard ground water aquifers from contamination.	<p>No HRA implications</p> <p>This is a brief policy to ensure that ground water aquifers are safeguarded from contamination.</p>
<b>Policy SD16: Rivers and Watercourses</b>	<p>1. Development proposals that affect rivers, river corridors, estuaries and other watercourses will only be permitted provided they comply with other relevant policies and conserve and enhance their:</p> <p>a) water quality and biodiversity;</p>	<p>No HRA implications</p> <p>Whilst this policy does have impact pathway that could have a likely significant effect upon internationally</p>

	<p>b) cultural heritage and public access for recreational opportunities as appropriate;</p> <p>c) character, appearance, and setting;</p> <p>d) ability to function within the immediate vicinity and both upstream and downstream of the site of the proposal; and</p> <p>e) incorporate measures to prevent pollution risks to rivers, river corridors, estuaries and other watercourses which harm their ecological and/or chemical status, caused by the harmful discharge of foul water, surface water, and other processes which are part of proposals.</p> <p>2. Development proposals that would have an unacceptable adverse impact on rivers and watercourses will be refused.</p>	<p>designated sites, it also provides sufficient protection.</p> <p>Point a) ensures for the protection of water quality and biodiversity;</p> <p>Point d) ensures the function of the river both at the location and up and downstream is conserved; and</p> <p>Point e) ensures for the prevention of pollution risks to aquatic habitats to maintain their <i>'ecological and/or chemical status, caused by the harmful discharge of foul water, surface water, and other processes which are part of proposals.'</i></p> <p>Policy SD12 (Biodiversity and Geodiversity) ensures protection of internationally designated sites if a development proposal is considered likely to have a significant effect on one or more International Sites, an Appropriate Assessment will be required.</p>
<b>Policy SD17: Flood Risk Management</b>	<p>1. Development proposals will be permitted that comply with other relevant policies and where:</p> <p>a) the sequential and exception tests demonstrate that the development is acceptable;</p> <p>b) the risk of flooding is not increased elsewhere and, wherever possible, is reduced;</p> <p>c) the integrity of existing coastal and river defences are not undermined; and</p>	<p>No HRA Implications.</p> <p>This is a positive policy in that it ensures that development will not impact upon flooding at that location or elsewhere and where possible is reduced. A site specific Flood Risk Assessment is required and must demonstrate that the development will not negatively</p>



	<p>d) a site specific Flood Risk Assessment, where required<sup>13</sup> demonstrates an acceptable flood risk and/or suitable flood protection mitigation measures are incorporated into the proposals, where necessary, which can be satisfactorily implemented. The site specific flood risk assessment will need to demonstrate:</p> <p>i.) safe access and egress from the site; and</p> <p>ii.) management and maintenance plans for flood protection/mitigation measures, including arrangements for adoption by any public authority or statutory undertaker and any other arrangements to secure the operation of the scheme throughout its lifetime;</p> <p>e) it would not negatively impact on water quality of surface water and ground water.</p>	<p>impact upon water quality of surface water and ground water.</p> <p>Policy SD12 (Biodiversity and Geodiversity) ensures protection of internationally designated sites if a development proposal is considered likely to have a significant effect on one or more International Sites, an Appropriate Assessment will be required.</p>
<p><b>Policy Transport Accessibility</b></p> <p><b>SD18: and</b></p>	<p>1. New development should be located and designed to reduce the need to travel. Development proposals that are likely to generate a significant number of vehicle movements will be required to be located near existing centres and supportive infrastructure, including main roads. Development proposals will be required to include measures, to be funded by the developer, that address the impact of the new development so as to ensure the continued safe and efficient operation of the strategic and local road networks.</p> <p>2. The following public transport improvements will be permitted provided they comply with other relevant policies:</p> <p>a) Public transport facilities, including reliable and accessible information and attractive, well-designed public transport infrastructure, including bus shelters, throughout the National Park.</p> <p>b) Existing rail services and new or enhanced connections, including the transfer of freight from road to rail; improvements to walking, cycling and bus connectivity at railway stations (in particular, connectivity and signage to walking routes into the countryside), and improvements to the quality and provision of cycle parking at railway stations.</p> <p>3. The former Lewes-Uckfield railway line, where extant, and the Wey and Arun Canal are safeguarded for future restoration to railway and canal use respectively. Development proposals will not be permitted where it would adversely affect their future potential for such restoration. Proposals for their restoration to such use will be supported, provided it complies with other relevant policies and that they are accompanied wherever feasible by a suitable route for non-motorised travel running in parallel.</p>	<p>No HRA implications</p> <p>This policy does not outline any specific new development relating to transport and accessibility that could impact upon an internationally designated site. It is essentially a policy that seeks to manage development rather than allocating development and one that promotes sustainable transport. As such there are no impact pathways present.</p> <p>Policy text includes '<i>New development should be located and designed to reduce the need to travel</i>' and where '<i>Development that is likely to generate a significant number of vehicle movements will normally be expected to be located near existing centres and supportive infrastructure</i>' thus limiting any increase in air pollution from development.</p> <p>This policy encourages improvements to public</p>

	<p>4. Historic rural roads, including within villages, will be protected for their intrinsic value, so that their convenience and safety are conserved for their users, and their ecological, landscape and recreational value are conserved and enhanced wherever possible:</p> <p>a) Any development proposals outside Lewes and Petersfield which comprise at least one net additional dwelling or the addition or change of use of 100m<sup>2</sup> floorspace must demonstrate through a Design and Access Statement that they do not cause harm to the convenience, safety, ecological, landscape or recreational value of historic rural roads. Any major development proposals as defined in Policy SD2 (Major Development in the South Downs National Park) must also be accompanied by a transport assessment and travel plan to be agreed with the SDNPA.</p> <p>b) Any new access points to the rural road network must not detract from the character and appearance of the locality. Particular attention should be given to the need to retain banks, hedges, walls and roadside trees.</p> <p>5. Priority will be given to movement by pedestrians, cyclists and horse riders in town and village centres, where appropriate. The SDNPA will work with the Local Transport Authorities, District Councils, landowners and developers to provide safe and convenient facilities through the implementation of traffic management schemes, including improved footways and cycle routes, cycle parking and traffic calming, and measures to restrict the impact of heavy goods vehicles and other traffic on historic streets.</p>	<p>transport, within the National Park such as bus shelters, improvements to walking, cycling and bus connectivity and shifting freight from road to rail where possible, thus reducing the need for car use further.</p> <p>Pont 3: whilst the restoration of the Wey and Arun Canal could lead to likely significant effects upon Arun Valley internationally designated site via water quality issues, the Canal itself is not actually joined to the River Arun, therefore any water quality issues arising from the restoration works would be highly unlikely.</p> <p>Point 4 a) ensures that any <i>'major development proposals (as defined in Policy SD2) must also be accompanied by a transport assessment and travel plan to be agreed with the NPA.'</i> <b>As part of the transport assessment, where significant numbers of new vehicles are expected to travel on roads within 200m of an internationally designated site that is sensitive to changes in air quality as a result of major development an air quality assessment should be undertaken, in accordance with Annex F of the Design Manual for Roads and Bridges (DMRB), Volume 11, Section 3, Part 1 (HA207/07).</b></p>
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<b>Policy SD19: Walking, Cycling and Equestrian Routes</b>	<p>1. The SDNPA supports the development of a network of high-quality, multiuser non-motorised routes with appropriate signage throughout the National Park where consistent with the special qualities.</p> <p>2. The following disused railway line routes (where they lie within the National Park) are safeguarded for future use as non-motorised transport corridors. Development proposals for such use will be permitted provided they comply with other relevant policies. Development proposals will not be permitted where it would adversely affect their future potential as routes for non-motorised travel:</p> <ul style="list-style-type: none"> <li>a) Bordon-Bentley disused railway line,</li> <li>b) Petersfield-Pulborough disused railway lines (via Midhurst),</li> <li>c) Chichester-Midhurst disused railway line (Centurion Way),</li> <li>d) Wickham-Alton disused railway line (Meon Valley Line),</li> <li>e) Guildford-Shoreham-by-Sea disused railway line (Downs Link), and</li> <li>f) New Alresford–Kingsworthy disused railway line.</li> </ul> <p>3. Access points across major roads and railways for the public rights of way network and other strategic non-motorised routes will be protected, and proposals for new crossings will generally be supported.</p> <p>4. Residential development should, wherever possible, incorporate attractive links, accessible to all, to the nearest point on the public right of way network and local footway networks.</p> <p>5. Development proposals that would have an unacceptable adverse impact on the amenity value of public rights of way, other public non-motorised routes and access land will be refused.</p>	<p>HRA implications</p> <p>The development of the Chichester –Midhurst disused railway line has potential to impact upon Singleton &amp; Cocking Tunnels SAC designated for barbastelle and Bechsteins bats as this line passes through both of these tunnels.</p> <p>Impact pathways include:</p> <ul style="list-style-type: none"> <li>– Direct disturbance to roosting bats</li> <li>– Changes in humidity</li> </ul>
<b>Policy SD20: Sustainable Tourism and the Visitor Economy</b>	<p>1. Development proposals for visitor accommodation and visitor attractions will be permitted provided that they comply with other relevant policies and they are in accordance with the following requirements:</p> <p>(a) It should be clearly demonstrated and evidenced that:</p>	<p>HRA Implications</p> <p>This policy encourages tourism and the visitor economy.</p>

	<p>i) the facilities proposed will provide opportunities for visitors to increase their awareness, understanding and enjoyment of the special qualities;</p> <p>ii) proposals are in accordance with Policy SD18 (Transport and Accessibility), SD19 (Walking, Cycling and Equestrian Routes) and SD44 (Car and Cycle Parking Provision) and the design and location of the development reduces the need for travel by private car and encourages access by sustainable means.;</p> <p>iii) development proposals will not generate an increased level of activity which would detract from the experience of visitors or adversely affect the character, appearance and amenity of the area;</p> <p>iv) development proposals make use of existing buildings, where appropriate; and</p> <p>v) it is demonstrated that any proposed on-site facilities or ancillary buildings are necessary and that on-site facilities will not have an unacceptable adverse impact on the vitality and viability of town or village centres or assets of community value.</p> <p>b) In addition, where proposals are located in the countryside as defined on the Policies Map, it should be clearly demonstrated and evidenced that it is in accordance with Policy SD22 (Development Strategy) and:</p> <p>i) there is a need for development in that location;</p> <p>ii) the scale, intensity of use or activity is appropriate in that location;</p> <p>iii) it can be satisfactorily accessed by sustainable means, including public transport, walking, cycling or horse riding; and</p> <p>iv) it is closely associated with other attractions/established tourism uses, including the public rights of way network.</p> <p>2. Visitor accommodation will be controlled and retained as such, unless it can be demonstrated that it is financially unviable or that any net loss of accommodation is necessary to allow appropriate relocation or redevelopment. Evidence of a robust marketing campaign of at least 12 months, for accommodation located within settlement boundaries, or of at least 24 months for accommodation located close to a geographically specific feature or a long distance footpath or outside of settlement boundaries, will be required that clearly demonstrates that there is no market demand for the premises.</p>	<p>This policy includes for the <i>'design and location of the development reduces the need for travel by private car and encourages access by sustainable means'</i> thus reducing the need for car use, however, impact pathways are still present.</p> <p>Impact pathways present include:</p> <ul style="list-style-type: none"> <li>– Recreational pressure</li> <li>– Air quality</li> <li>– Water quality</li> <li>– Water quantity</li> </ul> <p>It is however noted that this policy support 'sustainable' tourism. Tourism that has an adverse effect upon internationally designated sites would not be sustainable by definition. Nonetheless, the policy is discussed further in the main report.</p>
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	<p>3. Opportunities for appropriate relocation or redevelopment of existing visitor accommodation or related development which is currently resulting in harm to the special qualities will be encouraged.</p> <p>4. The Authority will support a year-round visitor economy, through the relaxation or removal of seasonal planning restrictions, where appropriate, while ensuring the facility remains for visitor use.</p> <p>5. Development proposals for visitor accommodation and visitor attractions that would have an unacceptable adverse impact on the National Park's special qualities or that do not provide adequate opportunities for visitors to increase their awareness, understanding and enjoyment of the special qualities will be refused.</p>	
<b>Policy Recreation</b>  <b>SD21:</b>	<p>1. Development proposals for recreational activities, environmental education and interpretation will be permitted provided that they comply with other relevant policies and they are in compliance with the Development Strategy (SD22) and located in sustainable or gateway locations.</p> <p>2. It should be clearly demonstrated and evidenced that:</p> <p>a) the facilities proposed will provide opportunities for visitors to increase their awareness, understanding and enjoyment of the special qualities;</p> <p>b) proposals are in accordance with Policy SD18 (Transport and Accessibility), SD19 (Walking, Cycling and Equestrian Routes) and SD44 (Car and Cycle Parking Provision), and the design and location of the development reduces the need for travel by private car and encourages access by sustainable means;</p> <p>c) development proposals make use of existing buildings, where possible; and</p> <p>d) it is demonstrated that any proposed on-site facilities or ancillary buildings are necessary and that on-site facilities will not undermine the vitality and viability of town or village centres or assets of community value.</p> <p>3. In addition, where proposals are located in the countryside as defined on the Policies Map, it should be clearly demonstrated and evidenced that it is in accordance with Policy SD22 (Development Strategy) and:</p> <p>a) there is a need for development in that location;</p>	<p>HRA implications</p> <p>This policy encourages the use of sustainable transport methods, thus reducing the impact of any increases in traffic (air quality), however, there is scope for the following impact pathways to impact upon internationally designated sites:</p> <ul style="list-style-type: none"> <li>– Air quality</li> <li>– Water quality</li> <li>– Water quantity</li> <li>– Recreational disturbance</li> </ul> <p>This policy also includes the following text 'Development proposals for recreational activities, environmental education and interpretation will be permitted provided that they comply with other relevant policies.</p> <p>Point 5, identifies that any development proposals for</p>

	<p>b) the scale, intensity of use or activity is appropriate in that location;</p> <p>c) it can be satisfactorily accessed by sustainable means, including public transport, walking, cycling or horse riding; and</p> <p>d) it is closely associated with other attractions/established tourism uses, including the public rights of way network.</p> <p>4. Development proposals must not, on their own or cumulatively with other development and uses, prejudice or disadvantage people's enjoyment of other existing and appropriate recreation, environmental education or interpretation activities, including the informal quiet enjoyment of the National Park.</p> <p>5. Development proposals for recreational activities, environmental education and interpretation that would have an unacceptable adverse impact on the National Park's special qualities or that do not provide adequate opportunities for visitors to increase their awareness, understanding and enjoyment of the special qualities will be refused.</p> <p>6. Development proposals that involves the loss of existing recreational facilities which serve the Purposes of the National Park, will be refused except where provision is made for an equivalent or improved replacement of the existing facilities on site or in another equally accessible and suitable location.</p>	<p>recreational activities, environmental education and interpretation that would have a potential adverse impact on the National Park's Special Qualities. These would include internationally designated sites. As such this policy provides additional protection for these sites in addition to Policies SD12 (Biodiversity and Geodiversity) and SD13 (International Sites)</p>
<b>Policy SD22: Development Strategy</b>	<p>1.The following settlements within the five Broad Areas of the National Park will have defined settlement boundaries:</p> <ul style="list-style-type: none"> <li>• Alfriston (Scarp Slope)</li> <li>• Amberley (Scarp Slope)</li> <li>• Binsted (Western Weald)</li> <li>• Buriton (Scarp Slope)</li> <li>• Bury (Scarp Slope)</li> <li>• Chawton (Western Downs)</li> <li>• Cheriton (Western Downs)</li> <li>• Cocking (Scarp Slope)</li> <li>• Coldwaltham (Western Weald)</li> <li>• Compton (Dip Slope)</li> <li>• Ditchling (Scarp Slope)</li> <li>• Droxford (Dip Slope)</li> <li>• Easebourne (Western Weald)</li> <li>• East Dean and Friston (Dip Slope)</li> <li>• East Meon (Scarp Slope)</li> <li>• Fernhurst (Western Weald)</li> <li>• Lewes (Scarp Slope)</li> <li>• Liss (including Liss Forest and West Liss) (Western Weald)</li> <li>• Lodsworth (Western Weald)</li> <li>• Lower and Upper Farringdon (Western Downs)</li> <li>• Meonstoke and Corhampton (Dip Slope)</li> <li>• Midhurst (Western Weald)</li> <li>• Milland (Western Weald)</li> <li>• Northchapel (Western Weald)</li> <li>• Petersfield (Western Weald)</li> <li>• Petworth (Western Weald)</li> <li>• Poynings (Scarp Slope)</li> <li>• Pyecombe (Dip Slope)</li> <li>• Rodmell (Scarp Slope)</li> </ul>	<p>HRA implications</p> <p>It is assumed that residential development will be permitted within the Settlements identified in Point 1.</p> <p>Potential impact pathways:</p> <ul style="list-style-type: none"> <li>– Water quality (absence of nutrient enrichment)</li> <li>– Water quantity (abstraction)</li> <li>– Recreational pressure</li> <li>– Loss of supporting habitat</li> <li>– Air quality</li> </ul>

	<ul style="list-style-type: none"> <li>• Findon (Dip Slope)</li> <li>• Fittleworth (Western Weald)</li> <li>• Funtington (Coastal Plain)</li> <li>• Graffham (Scarp Slope)</li> <li>• Greatham (Western Weald)</li> <li>• Hambledon (Coastal Plain)</li> <li>• Itchen Abbas (Western Downs)</li> <li>• Kingston Near Lewes (Scarp Slope)</li> <li>• Lavant (including East Lavant and Mid Lavant) (Coastal Plain)</li> </ul> <ul style="list-style-type: none"> <li>• Rogate (Western Weald)</li> <li>• Selborne (Scarp Slope)</li> <li>• Sheet (Western Weald)</li> <li>• Singleton (Dip Slope)</li> <li>• South Harting (West Sussex)</li> <li>• Stedham (Western Weald)</li> <li>• Steep (Scarp Slope)</li> <li>• Stroud (Western Downs)</li> <li>• Twyford (Dip Slope)</li> <li>• Washington (Scarp Slope)</li> <li>• Watersfield (Western Weald)</li> <li>• West Ashling (Coastal Plain)</li> <li>• West Meon (Scarp Slope)</li> </ul> <p>2. The principle of development within the settlement policy boundaries as defined on the Policies Map will be supported provided that it complies with the other relevant policies, is of a scale and nature appropriate to the character and function of the settlement and is in compliance with the policy for the relevant Broad Area (policies SD4/CP Coastal Plain, SD4/DS Dip Slope, SD4/WD Western Downs, SD4/SS Scarp Slope and SD4/WW Western Weald)</p> <p>3. Development proposals will not normally be permitted outside of settlement boundaries and the countryside will be protected in accordance with relevant policies in the Local Plan and national policy. In exceptional circumstances, development in the open countryside will be permitted, where it is demonstrated to the satisfaction of the Authority that it is in accordance with the policy for the relevant Broad Area (policies SD4/CP Coastal Plain, SD4/DS Dip Slope, SD4/WD Western Downs, SD4/SS Scarp Slope and SD4/WW Western Weald), and:</p> <ul style="list-style-type: none"> <li>a) It is in accordance with Policy SD25 on rural exception sites, or</li> <li>b) It is in accordance with Policy SD27 on Sustaining the rural economy, or</li> <li>c) There is an essential need for a countryside location, or</li> <li>d) It is an appropriate reuse or redevelopment of an existing building(s)</li> </ul> <p>4. Development proposals within estates and large farms that support appropriate diversification, which may not otherwise be considered acceptable outside of settlement</p>	<p>– Urbanisation</p>
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	<p>boundaries, may be exceptionally considered suitable providing that they clearly meet the following criteria to the satisfaction of the Authority:</p> <p>a) The development proposals comply with other relevant policies and are part of a comprehensive Estate or Farm Plan that conserves and enhances the landscape.</p> <p>b) The development proposals deliver multiple benefits in line with the Purposes and Duty and the special qualities of the National Park and in regard to ecosystem services.</p> <p>5. Small sites with the potential for development that are located within the National Park, but on the edge of settlements which are outside of the National Park, will only be allocated for development where they comply with other relevant policies.</p> <p>6. The efficient and effective re-use of previously developed land will be encouraged, where appropriate, and in compliance with other relevant policies.</p>	
<b>Policy SD23: Housing</b>	<p>1. In accordance with Policy SD24 (Affordable Housing), the SDNPA will aim to deliver approximately 1,840 affordable homes between 2014 and 2032.</p> <p>2. The SDNPA will make overall provision for approximately 4,596 net additional homes between 2014 and 2032.</p> <p>3. These will be delivered through:</p> <p>(i) the development of strategic sites and the allocation of land for housing in the Local Plan and neighbourhood plans;</p> <p>(ii) the implementation of planning permissions; and</p> <p>(iii) the development of land previously unallocated or identified (windfall), in accordance with Policy SD22 (Development Strategy) and subject to relevant policies in this Local Plan.</p> <p>4. The allocation of sites to accommodate approximately the following levels of housing in addition to extant planning permissions and windfalls:</p> <ul style="list-style-type: none"> <li>• Alfriston – 6*</li> <li>• Amberley – 6*</li> </ul>	<p>HRA implications</p> <p>The delivery of strategic housing allocations at some of the settlements outlined within this policy has potential for likely significant effects upon internationally designated sites. See <b>Appendix B Table 1</b> for more detail.</p> <p>The following impact pathways exist:</p> <ul style="list-style-type: none"> <li>– Disturbance from increased recreational pressure</li> <li>– Water quality</li> <li>– Water quantity</li> <li>– Urbanisation (fires/ invasive species)</li> <li>– Loss of supporting habitat</li> <li>– Air quality</li> </ul>



	<ul style="list-style-type: none"><li>• Binsted – 12</li><li>• Buriton – 7</li><li>• Bury – 6*</li><li>• Chawton – 6*</li><li>• Cheriton – 6*</li><li>• Coldwaltham – 20</li><li>• Compton – 6*</li><li>• Ditchling – 15</li><li>• Droxford – 11*</li><li>• Easebourne – 20*</li><li>• East Dean and Friston (East Sussex) –11*</li><li>• East Meon –15</li><li>• Fernhurst – 211 (including Syngenta)</li><li>• Findon – 20</li><li>• Fittleworth – 6</li><li>• Greatham (Hampshire) – 30</li><li>• Hambledon – 6*</li><li>• Itchen Abbas – 8</li><li>• Kingston Near Lewes –11*</li><li>• Lavant (including Mid Lavant and East Lavant) – 20*</li></ul>	
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	<ul style="list-style-type: none"><li>• Lewes – 835 (including North Street Quarter)</li><li>• Liss (including West Liss and Liss Forest) - 150</li><li>• Meonstoke and Corhampton –11*</li><li>• Midhurst – 150*</li><li>• Northchapel – 6*</li><li>• Petersfield – 700</li><li>• Petworth – 150</li><li>• Pyecombe – 8</li><li>• Rodmell – 11*</li><li>• Rogate – 11</li><li>• Selbourne – 6*</li><li>• Sheet – 20*</li><li>• South Harting – 8</li><li>• Stedham – 6*</li><li>• Stroud –11*</li><li>• Twyford – 20*</li><li>• West Meon – 16</li></ul> <p>5. Development that meets an identified local housing need in settlements, in addition to the requirements set out above, is identified in neighbourhood plans and is in compliance with Policy SD22 (Development Strategy) and other relevant policies in this Local Plan will be supported.</p>	
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	<p>6. The size and type of homes for each proposal will be based on up-to-date evidence of local needs. A suitable mix will be determined through liaison with parish or town councils, housing authorities and rural housing enablers where applicable.</p>	
<p><b>Policy</b> <b>Affordable</b> <b>Provision</b></p> <p><b>SD24:</b> <b>Housing</b></p>	<p>1. Development proposals for new residential development that maximise the delivery of affordable housing and provide for the size, type and tenure of homes to meet local needs as set out in this policy will be permitted, provided they comply with other relevant policies. The application of this policy will maintain a focus on affordable housing, but will be sufficiently flexible to take account of viability and changing market conditions over time.</p> <p>2. A target of at least 40 per cent of all net dwellings (C3 use class) on schemes of 6 or more units will be provided as affordable homes in perpetuity to meet local needs.</p> <p>3. Development proposals of 11 or more net dwellings will provide affordable housing on-site unless in exceptional circumstances when the Authority, at its discretion, may accept an alternative form of delivery in a cascade of forms with first preference for provision on an alternative site, then the provision of serviced land in lieu and then a financial contribution in lieu.</p> <p>4. Development proposals of 6 to 10 net dwellings will provide affordable housing on-site where possible. Where on-site provision is not possible in whole or in part, commuted financial payments in lieu will be accepted.</p> <p>5. The layout and design of affordable housing will be appropriately integrated into each development to assist the management by registered providers where necessary.</p> <p>6. The size (number of bedrooms), type (flat, house) and tenure (social and affordable rented, intermediate, shared ownership or other) of affordable homes for each proposal will be based on up-to-date evidence of local needs. A suitable mix will be determined through liaison with the applicant, parish council, relevant housing authority and rural housing enablers where applicable.</p> <p>7. Occupancy conditions and local connection criteria will be applied to affordable housing to ensure local needs are met. Selection will be managed through a partnership approach with the housing authority and established community-led and legally constituted organisations where applicable.</p>	<p>No HRA implications</p> <p>This policy is a development control policy outlining provision for affordable housing.</p> <p>There are no impact pathways present.</p>

<b>Policy SD25: Rural Exception Sites</b>	<p>1. Proposals for new residential development of 100 per cent affordable housing outside of settlement boundaries as shown on the Policies Map will be permitted, provided they comply with other relevant policies and the following tests are all met:</p> <p>a) affordable housing is provided in perpetuity;</p> <p>b) the site has been selected through a site-specific sustainability appraisal process;</p> <p>c) the scale and location relates well to the existing settlement; and</p> <p>d) effective community engagement has been undertaken.</p> <p>2. The size (number of bedrooms), type (flat, house, extra care etc.) and tenure (social and affordable rented, intermediate, shared ownership or other) of affordable homes for each proposal will be based on up-to-date evidence of local needs. A suitable mix will be determined through liaison with the applicant, parish council, relevant housing authority and rural housing enablers, where applicable.</p> <p>3. Occupancy conditions and local connection criteria will be applied to affordable housing to ensure local needs are met. Selection will be managed through a partnership approach with the relevant housing authority and established community-led and legally constituted organisations or CLTs where applicable.</p>	<p>No HRA implications.</p> <p>This is a policy that seeks to manage development rather than allocating development. Whilst it encourages new residential development, there are no specific locations or quantities mentioned.</p> <p>This policy includes reference to development complying 'with other relevant policies'.</p> <p>As such there are no impact pathways present.</p>
<b>Policy SD26: Gypsies and Travellers and Travelling Showpeople</b>	<p>1) Existing lawful permanent sites for Gypsies and Travellers and Travelling Showpeople that are required to meet the identified needs of these communities will be safeguarded, unless it can be established that the site is no longer necessary based on identified local need.</p> <p>2) Development proposals for the provision of permanent or transit accommodation, or temporary stopping places, to meet the needs of Gypsies and Travellers and Travelling Showpeople will be supported where they meet a proven need, as identified by a Gypsy and Traveller Accommodation Assessment.</p> <p>3) In addition to proving a need for either permanent or transit accommodation, development proposals for both types of sites will only be permitted where they comply with other relevant policies and they:</p> <p>a) are well related to existing settlements and do not harm the character and appearance of the area;</p>	<p>No HRA implications</p> <p>This policy does not outline any specific development. Whilst there is potential for the policy to lead to an increase in residential development, 'sites will only be permitted where they comply with other relevant policies...' such as policies SD12, and SD13.</p> <p>It should be noted, that to keep in line with current strategic strategy, new gypsy, travellers and travelling showpeople sites within 400m of Wealden</p>

	<p>b) avoid sites being over-concentrated in any one location or disproportionate in size to nearby communities;</p> <p>c) are capable of being provided with adequate infrastructure such as power, water supply, foul water drainage and recycling/waste management;</p> <p>d) are accessible to education and healthcare facilities;</p> <p>e) have clearly defined physical boundaries and, where appropriate, include suitable additional landscaping and any surfacing or boundary treatments;</p> <p>f) provide sufficient amenity space for residents;</p> <p>g) do not cause unacceptable harm to the amenities of neighbouring uses and occupiers;</p> <p>h) have a safe vehicular access from the public highway and adequate provision for parking, turning and safe manoeuvring of vehicles within the site;</p> <p>i) restrict any permanent built structures in rural locations to essential facilities;</p> <p>j) demonstrate there is no alternative empty lawful pitch which could be used and confirmed by the local housing authority; and</p> <p>k) demonstrate that occupiers of the site satisfy either the definition of a Gypsy and Traveller or Travelling Showpeople as outlined in Planning Policy for Traveller Sites (2012) or any subsequent policy.</p> <p>Development proposals that would have an unacceptable adverse impact on the special qualities of the National Park will be refused.</p>	Heaths Phase II SPA should be discouraged.
<b>Policy SD27: Sustaining the Rural Economy</b>	<p>1. Development proposals for rural businesses will be permitted provided that they comply with other relevant policies, as appropriate, and they:</p> <p>a) promote and protect the National Park's key sectors such as tourism and the visitor economy, forestry and wood-related activities, and local food and beverages;</p> <p>b) promote and protect green businesses linked to ecosystem services;</p>	<p>HRA implications</p> <p>This policy promotes and encourages tourism and the visitor economy. An increase in these activities has potential to have likely significant effects upon internationally designated sites.</p>

	<p>c) support rural supply chains across the National Park and encourage closer ties between rural businesses;</p> <p>d) encourage and support small businesses through the provision of small, flexible, start-up and move-on business units;</p> <p>e) facilitate flexible working practices and promote home working, providing this does not cause unacceptable harm to the amenity of neighbours, and</p> <p>f) encourage smart economic growth and promote advances in information and communications technologies, particularly, superfast broadband.</p> <p>2. Business proposals that would have an unacceptable adverse impact on the special qualities of the National Park will be refused</p>	<p>Impact pathways present:</p> <ul style="list-style-type: none"> <li>– Disturbance from increased recreational pressure</li> <li>– Water quality</li> <li>– Water quantity</li> <li>– Urbanisation (fires/ invasive species)</li> <li>– Loss of supporting habitat</li> <li>– Air quality</li> </ul>
<b>Policy SD28: Employment Land</b>	<p>1. The SDNPA will to seek to accommodate the following amounts of new employment land between 2014 and 2032 provided that development proposals comply with other relevant policies:</p> <ul style="list-style-type: none"> <li>• Office (B1a/b): approximately 2 to 3 hectares.</li> <li>• Industrial (B1c/B2) and small-scale warehousing (B8): approximately 5 hectares.</li> </ul> <p>2. The Authority will take a flexible approach to the change of use of redundant B2 premises and land to accommodate the need for new offices and/or warehousing providing that there would not be a potentially adverse impact on the landscape and other special qualities of the National Park including traffic, noise or pollution.</p> <p>3. The Authority will safeguard all existing employment sites and allocations that are fit for purpose from development proposals for non-employment uses. Evidence of a robust marketing campaign of at least 12 months will be required that clearly demonstrates that there is no market demand for the business premises. The key employment sites safeguarded by the SDNPA are shown on the Policies Map.</p>	<p>HRA implications</p> <p>This is a development control policy for employment land, and does not provide any locations or extent of employment land.</p> <p>However, dependent on the location, and extent of the employment land there is potential for likely significant effects.</p> <p>Impact pathways present include:</p> <ul style="list-style-type: none"> <li>– Water quality</li> <li>– Water quantity</li> <li>– Air pollution</li> </ul>
<b>Policy SD29: Town and Village Centres</b>	<p>1. Development proposals for town centre development that comply with other relevant policies will be permitted where they promote and protect the following hierarchy of identified centres as shown on the Policies Map:</p>	<p>No HRA implications</p> <p>This is a policy that seeks to manage development in town</p>

	<ul style="list-style-type: none"> <li>• Market Town Centres: Lewes, Midhurst, Petersfield and Petworth.</li> <li>• Larger Village Centre: Liss.</li> <li>• Smaller Village Centres: Alfriston, Ditchling, Fernhurst and Findon.</li> </ul> <p>Development proposals will be supported where they retain and enhance:</p> <p>(a) local markets, including farmers' markets; and</p> <p>(b) independent retailers, particularly those linked to supply chains across the National Park.</p> <p>2. The Market Towns and Larger Village Centres</p> <p>(a) Within these defined town and village centre areas as shown on the Policies Map, development proposals for retail and town centre uses will be supported providing that they are compatible with the size, scale and historic nature of the town or village centres, and comply with other relevant policies.</p> <p>(b) Within the defined primary shopping frontage, as shown on the Policies Map, the loss of units in use Class A (including retail, financial and professional services, restaurants and cafes) will not be supported.</p> <p>(c) Other appropriate uses within the town and village centres including tourism, cultural and leisure facilities will be supported so long as these do not harm the retail function of the town centre. There will be a presumption in favour of such uses within the secondary shopping frontage as shown on the Policies Map. (d) Development that supports the evening economy, particularly for visitors/tourists will, in principle, be supported, provided the use would not result in adverse impacts on the amenity of town centre residents.</p> <p>3. Smaller village centres</p> <p>(a) Development proposals for retail development will be supported providing they are of a size and scale appropriate to the community they sit within and comply with other relevant policies. Such development should be well related to any existing shops and services within the village centre unless it can be demonstrated that this is not possible.</p> <p>(b) The Authority will safeguard existing retail units (A1, A2, A3) that are fit for purpose from development proposals for non-retail uses. Evidence of a robust marketing campaign</p>	<p>and village centres rather than allocating development. It does not provide any locations or extent of employment land.</p> <p>There are no impact pathways present.</p>
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	<p>of at least 12 months will be required that clearly demonstrates that there is no market demand for the premises.</p> <p>4. Retail Impact Assessments</p> <p>In order to promote and protect the town and village centres, a retail impact assessment will be required for development outside of the defined Market Town and Larger Village Centre boundary, where the proposal exceeds the following thresholds for retail floorspace:</p> <ul style="list-style-type: none"> <li>• Market Town: 750 sqm</li> <li>• Larger Village: 500 sqm</li> <li>• All other locations (including farm shops and garden centres): 150 sqm</li> </ul> <p>5. Development proposals that fail the sequential test or would have an unacceptable adverse impact on the vitality and viability of the market or village centres will be refused.</p>	
<p><b>Policy SD30 – Strategic Infrastructure Provision</b></p>	<p>1. Strategic infrastructure proposals will be accepted only in exceptional circumstances and where it can be demonstrated they are in the public interest. If these tests are met, the highest level of mitigation and improvements to the landscape, biodiversity and cultural heritage of the National Park will be sought.</p> <p>2. The design of infrastructure through partnership working with developers and infrastructure providers should reflect the high-quality landscape and ensure, where possible, benefits to the economic and social wellbeing of the local community.</p>	<p>No HRA implications</p> <p>This policy is a policy that seeks to manage development rather than allocating development. It does not identify any specific development.</p> <p>This is a positive policy in that it will secure '<i>the highest level of mitigation and improvements to the landscape, biodiversity and cultural heritage of the National Park</i>'. However, this policy does not secure no likely significant effects upon biodiversity and internationally designated sites.</p> <p><b>To ensure robustness, direct reference to the protection</b></p>



		<b>of internationally designated sites or development according with Policies SD 12 and SD 13 should be included.</b>
<b>Policy SD31 Climate Change and Sustainable Construction</b>	<p>1) Development proposals that incorporate high standards of sustainable construction and comply with other relevant planning policies will be permitted provided, where appropriate, they:</p> <ul style="list-style-type: none"> <li>• reduce;</li> <li>• mitigates against; and/or</li> <li>• adapt to the impacts of climate change.</li> </ul> <p>2) Major non-residential development must meet at least BREEAM 'excellent' standard. All other non-residential development must meet at least BREEAM 'Very Good' standard.</p>	<p>No HRA implications.</p> <p>This is a positive policy in that it promotes sustainable development, which has potential to reduce greenhouse gas emissions, and thus theoretically improve air quality.</p> <p>There are no impact pathways present.</p>
<b>Strategic Sites</b>		
<b>Policy SD32: Shoreham Cement Works</b>	<p>1. Development proposals for the sustainable mixed use development of land at the Shoreham Cement Works site, as shown on the Policies Map, will be permitted provided they comply with Core Policies SD1(Sustainable Development), SD2 (Ecosystem Services), SD3 (Major Development) and other relevant policies of this Local Plan, and the criteria below.</p> <p>2. The SDNPA will work collaboratively with the landowners, relevant public bodies and the local community to bring forward proposals for the redevelopment of Shoreham Cement Works which deliver the principle objective of securing the environmentally-led restoration of the cement works site, with significant landscape improvements compatible with its sensitive location within the National Park and uses which meet the second National Park purpose. The development mix should be based on some or all of the following uses:</p> <p>a. self-catering visitor accommodation restricted to holiday use;</p>	<p>No HRA implications</p> <p>This outlines key points required for the development of this site. The principle objective is for '<i>sustainable mixed use development</i>' of the site.</p> <p>Whilst the use of this site for tourism accommodation, a small number of affordable homes and B1 and B2 business use has potential to impact upon internationally designated sites (increases in recreational pressure, water quality and water quantity</p>

	<p>b. B1 and B2 business uses with a focus on environmentally sustainable activity related to sustainable travel, local food and drink, and 'green industries';</p> <p>c. appropriate leisure and/or tourism uses (including hotel(s), a hostel, public house, restaurant and cafés, small shops, and services related to the National Park);</p> <p>d. a number of affordable homes sufficient to serve the employment uses;</p> <p>e. sustainable transport uses, including park and ride facilities and cycle/electric vehicle hire; and</p> <p>f. renewable energy generation.</p> <p>3. In addition to complying with Policy SD3 (Major Development) any development proposal should:</p> <p>a) achieve the principle objective of enhancing the landscape of the area by a significant improvement to adverse visual impact from the both nearby and distant public viewpoints, including the re-modelling of the most prominent quarry faces, the removal or remodelling of unsightly uses and buildings, and natural landscape screening of development from the main road and towpath;</p> <p>b) conserve, enhance and provide opportunities for understanding the biodiversity, geodiversity and cultural heritage of the site;</p> <p>c) provide opportunities for visitors to enjoy this part of the National Park and its special qualities, including improved walking and cycling links from urban areas, to the South Downs Way and along the River Adur towpath, and outdoor recreational facilities compatible with the special qualities;</p> <p>d) be a comprehensive scheme for the whole site;</p> <p>e) conform with a masterplan to be approved in advance of a planning application addressing the site's characteristics and relationship to the wider area;</p> <p>f) include no more development than is necessary to secure the satisfactory restoration of the site;</p> <p>g) make realistic proposals for the relocation of existing employment and storage uses that are not appropriate to a national park setting; and</p>	<p>issues), at its closest it is located 16.3km from Castle Hill SAC and 16.8km from the Arun Valley SAC/ Ramsar site. Due to the distances involved this policy can be screened out. As such there are no impact pathways present.</p>
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	h) provide the necessary transport and infrastructure improvements, including the provision of sustainable transport facilities, while minimising the intrusiveness of hard surfacing, signage and lighting.	
<b>Policy SD33: Syngenta, Fernhurst</b>	<p>1. Development proposals for the sustainable mixed use development of approximately 11 hectares of land at the former Syngenta site, as shown on the Policies Map, will be permitted from 2025, provided they comply with Core Policies SD1 (Sustainable Development), SD2 (Major Development), SD3 (Ecosystem Services) and other relevant policies of this Local Plan, and the criteria below. The development should deliver a significant positive contribution to ecosystems services and natural capital, and provide for local needs. Land uses should include:</p> <p>a. approximately 200 homes with the focus on affordable housing to meet local needs and comprising approximately 50 per cent of all housing on site, including an appropriate balance of tenure types. The new homes will provide a balanced mix of dwelling types and sizes and at a scale to meet the local needs of young families, key workers, older people and first time buyers. Housing not needed to meet local needs should be limited to that necessary to ensure the viability of the scheme and an appropriate social mix;</p> <p>c. business use that supports the National Park including the wood fuel economy, retention of existing business, new floorspace for smaller businesses and live-work units;</p> <p>d. tourism uses including self-catering accommodation and provision for the visitor economy;</p> <p>e. social and leisure facilities which complement and do not compete with existing facilities in Fernhurst; and</p> <p>f. other land uses which meet the policy objectives of the Local Plan, cater for local needs and support the purposes and duty of the National Park, which may include allotments, an extra care development for older people, a hotel and a community building/visitor centre.</p> <p>2. In addition to complying with Policy SD3 (Major Development) any development proposal should:</p> <p>a) comply with a development brief and masterplan to be approved in advance of a planning application addressing the site's characteristics and relationship to the wider area;</p>	<p>HRA implications</p> <p>This policy provides for 200 new homes and tourism accommodation, in addition to business use and social and leisure facilities. These uses have potential for the following impact pathways to affect internationally designated sites: disturbance from increased recreational pressure, water quality, water quantity, loss of supporting habitat, and air quality. However, the closest internationally designated site Ebernoe Common SAC, is located 6.7km from the site. In addition the site is located 8km from Wealden Heaths Phase II SPA, and 17.7km from the Arun Valley.SPA / Ramsar site in a straight line via a stream and the River Rother; in reality this distance will be considerably more. Due to the distances involved these above impact pathways can be screened out.</p> <p>There are no impact pathways present.</p>

	<p>b) deliver high-quality public realm and substantial environmental improvements including remediation of the existing expansive areas of hard ground cover;</p> <p>c) provide and enhance biodiversity and natural habitats on site and improve the relationship with the surrounding natural environment;</p> <p>d) include an integrated sustainable transport solution incorporating: links to Fernhurst, Haslemere and the King Edward VII site; enhancement and promotion of existing bus services; submission and approval of a travel plan; appointment of a travel plan coordinator; an electric car club or car-sharing scheme; provision of electric vehicle charging points; and meeting the further requirements of policies SD18 (Transport and Accessibility), SD19 (Walking, Cycling and Equestrian Routes), SD43 (Public Realm and Highway Design) and SD44 (Car and Cycle Parking Provision)</p> <p>e) Restore the culverted watercourse to a surface flow feature as part of a site-wide sustainable drainage scheme;</p> <p>f) Respond in terms of design to local distinctiveness and the site's natural setting within the National Park;</p> <p>g) Ensure that all development contributes to a healthy, diverse, integrated and sustainable community, which has a balanced range and mix of tenures and dwelling sizes, including provision for young families, key workers, older people and first time buyers.</p>	
<p><b>Policy SD34: North Street Quarter and adjacent Eastgate area, Lewes</b></p>	<p>1. Development proposals for the sustainable mixed-use development of land amounting to approximately 9 hectares at North Street and the neighbouring part of Eastgate, as shown on the Policies Map, will be permitted provided they comply with Core Policies SD1 (Sustainable Development), SD2 (Ecosystem Services), SD3 (Major Development) and other relevant policies of this Local Plan, and the criteria below. The development would create a new neighbourhood for the town of Lewes. The development mix should be based on the following uses and broad quantum of development:</p> <p>a) approximately 415 residential units, predominantly focused towards the northern part of the site, of which 40 per cent should be affordable;</p> <p>b) at least 5,000 square metres of B1a office and / or B1c light industrial floorspace, subject to market needs and general viability;</p> <p>c) the redevelopment or relocation of the existing A1 food supermarket;</p>	<p>HRA implications.</p> <p>This policy outlines residential development for 415 new dwellings, of B1a office and / or B1c light industrial floorspace, a food supermarket and other uses. At its closest approximately 500m from Lewes Downs SAC.</p> <p>Impact pathways present:</p> <ul style="list-style-type: none"> <li>– Disturbance – recreational pressure</li> </ul>

	<p>d) other uses that are deemed to aid in the successful delivery of a new neighbourhood, whilst not undermining the wider function of the town (this could include A1 Shops, A2 Financial and Professional Services, A3 Restaurants and Cafes, A4 Drinking Establishments, A5 Hot Food Takeaways, C1 hotel, D2 Assembly and Leisure uses and community floorspace);</p> <p>e) C2 nursing/ care home (self-contained units will be counted as residential within the above figure);</p> <p>f) D1 non-residential institutions such as medical and health services, crèches, exhibition and training space; and</p> <p>g) other cultural, artistic and artisanal floorspace not covered by the above uses.</p> <p>2.The redevelopment should comply with the following criteria:</p> <p>a) It incorporates the early provision of flood defences to an appropriate standard and to the approval of the Environment Agency,</p> <p>b) It facilitates improved linkages across Phoenix Causeway and Eastgate Street and a better balance between the car and other modes of transport, in order to enable the safe flow of pedestrians and the improved integration of the area to the north of Phoenix Causeway with the wider town centre,</p> <p>c) It delivers enhancements to vehicular access and off-site highway improvements, arising from and related to the development and its phasing,</p> <p>d) It respects and enhances the character of the town and achieves a high standard of design, recognising the high quality built environment, on and within the vicinity of the site, and the site's setting within the South Downs National Park and adjacent to a Conservation Area,</p> <p>e) It is subject to an analysis and appropriate recognition of the site's cultural heritage and a programme of archaeological work, including, where applicable, desk-based assessment, geophysical survey, geo-archaeological survey and trial trenching to inform design and appropriate mitigation,</p> <p>f) A riverside shared foot/cycle route along the western bank of the River Ouse is incorporated to extend the town's riverside focus and contribute to its character and quality, and additional pedestrian and cycling routes are incorporated to aid in linking the site to</p>	<p>– Air quality</p>
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	<p>the rest of the town, in improving permeability within the site and in providing views out of the site,</p> <p>g) It results in no net loss of public parking provision,</p> <p>h) The retail element is incorporated into the designated town centre boundary as far as possible and the amount of retail provision is informed by a Retail Impact Assessment, if necessary.</p> <p>i) Alternative uses on the bus station site are subject to the facility being replaced by an operationally satisfactory and accessible site elsewhere.</p> <p>j) It makes contributions towards off-site infrastructure improvements arising from, and related to, the development, and</p> <p>k) It provides a connection to the sewerage and water supply systems at the nearest point of adequate capacity, as advised by Southern Water, and ensures future access to the existing sewerage and water supply infrastructure for maintenance and upsizing purposes.</p>	
<b>Allocations</b>		
<b>Policy SD-SS03: Land at Old Mall Farm, Lewes</b>	<p>Approximately 200 dwellings.</p> <p>Approximately 10ha in size.</p>	<p>This site is 1km from Lewes Down SAC.</p> <p>There is potential for LSE in combination with other projects and/ or plans. Impact pathways present:</p> <ul style="list-style-type: none"> <li>– Air quality</li> <li>– Recreational pressure</li> </ul>
<b>Policy SD-WW03: Land at New Road, Midhurst</b>	<p>Approximately 5 dwellings.</p> <p>Approximately 0.1ha in size.</p>	<p>This site is located 4km from Singleton and Cocking Tunnels SAC.</p> <p>There is potential for loss of supporting habitat for commuting barbastelle bats. It</p>

		<p>should be noted that this site is already a developed site, located in an existing urban setting. It is however located within 50m of a small tributary to the River Rother that could be used by commuting barbastelle bats. Whilst this impact can be screened out at a strategic Local Plan-level (as it is easily avoided), the possible impacts of the development on bats in general and barbastelle bats in particular should be taken into account as part of the development control process. If river/stream corridors and mature hedgerows/treelines can be preserved it is likely that no issues will arise.</p>
<p><b>Policy SD-WW04: Land at Petersfield Road, Midhurst</b></p>	<p>Approximately 40 dwellings. Approximately 1.3ha in size.</p>	<p>This site is located 4.6km from Singleton and Cocking Tunnels SAC.</p> <p>The site contains mature trees and linear features. As such there is potential for loss of supporting habitat for commuting barbastelle bats. It should be noted that this site is already a developed site, located in an existing urban setting. Whilst this impact can be screened out at a strategic Local Plan-level (as it is easily avoided), the possible impacts of the development on bats in general and</p>

		<p>barbastelle bats in particular should be taken into account as part of the development control process. If river/stream corridors and mature hedgerows/treelines can be preserved it is likely that no issues will arise.</p>
<p><b>Policy SD-WW05: Land at Lamberts Lane, Midhurst</b></p>	<p>Approximately 15 dwellings. Approximately 0.4ha in size.</p>	<p>This site is located 5km from Singleton and Cocking Tunnels SAC.</p> <p>The site contains limited linear features that could be used by commuting barbastelle bats. It should be noted that this site is already a developed site, located in an existing urban setting. Whilst this impact can be screened out at a strategic Local Plan-level (as it is easily avoided), <b>the possible impacts of the development on bats in general and barbastelle bats in particular should be taken into account as part of the development control process. If river/stream corridors and mature hedgerows/treelines can be preserved it is likely that no issues will arise.</b></p>
<p><b>Policy SD-WW09: Land at Clements Close, Binsted</b></p>	<p>Approximately 12 dwellings. Approximately 0.5ha in size.</p>	<p>HRA implications</p>



		<p>This site is located 3km from the Wealden Heaths Phase II SPA.</p> <p>Impact pathways include:</p> <ul style="list-style-type: none"> <li>– Recreational pressure</li> </ul>
<b>Policy SD-SS02: Land at Kiln Lane, Buriton</b>	<p>Approximately 7 dwellings.</p> <p>Approximately 0.2ha in size.</p>	<p>No HRA implications.</p> <p>This site is 1.2km from Butser Hill SAC, and 5.34km from East Hampshire Hangers SAC. Due to the topography and isolated location of these sites they are not vulnerable to impact pathways resulting from the SDNPA Local Plan.</p> <p>There are no impact pathways present</p>
<b>Policy SD –WW11: Land at Brookland Way, Coldwaltham</b>	<p>Approximately 20 dwellings.</p> <p>Approximately 1ha in size.</p>	<p>HRA implications</p> <p>This site is located 120m from Arun Valley Ramsar and SPA, and 650m from the SAC. In addition it is 3.8km from Duncton to Bignor Escarpment SAC, and 2.6km from The Mens SAC.</p> <p>Potential impact pathways:</p> <ul style="list-style-type: none"> <li>– Loss of supporting habitat for barbastelle bats of The Mens SAC (see SD13)</li> </ul>

		<ul style="list-style-type: none"> <li>– Loss of supporting habitat for Bewicks Swan (see SD13)</li> <li>– Water quality</li> <li>– Absence of nutrient enrichment</li> </ul>
<b>Policy SD-WW01: Land at east of Cowdry Road, Easebourne</b>	<p>Approximately 14 dwellings.</p> <p>Approximately 0.7ha in size.</p>	<p>No HRA implications.</p> <p>Although this site is located within 5km of Singleton and Cocking Tunnels SAC, the site does not contain any mature and/ or connected linear features that could support commuting bats from the SAC. As such this site can be screened out.</p> <p>There are no impact pathways present.</p>
<b>Policy SD-WW10: Land at Petersfield Road, Greatham</b>	<p>Approximately 30 dwellings</p> <p>Approximately 2.4ha in size</p>	<p>HRA implications</p> <p>This site is located 600m from Wealden Heaths Phase II SPA, 1.4km from Woolmer Forest SAC, 1.5km from East Hampshire Hangers SAC and 5.2km from Shortheath Common SAC.</p> <p>Potential impact pathways:</p> <ul style="list-style-type: none"> <li>– Recreational pressure (bird breeding season) and habitats</li> <li>– Water quality</li> </ul>

		– Water quantity
<b>Policy SD-WD01: Land at Itchen Abbas House</b>	Approximately 8 dwellings. Approximately 0.7ha in size.	<p>HRA implications</p> <p>This site is located within 50m of the River Itchen SAC:</p> <p>Impact pathways present:</p> <ul style="list-style-type: none"> <li>– Water quantity (maintenance of flow velocity)</li> <li>– Water quality (siltation and low nutrient inputs)</li> </ul>
<b>Policy SD-DS01: Land between Church Land and the A273, Pyecombe</b>	Approximately 8 dwellings. Approximately 1ha in size.	<p>No HRA implications.</p> <p>Castle Hill SAC is 9.15km from the site.</p> <p>Due to the large distance from the SAC, there are realistic no impact pathways present.</p>
<b>Policy SD-WW02: Land at Farnham Road, Sheet</b>	Approximately 15 dwellings. Approximately 0.9ha in size.	<p>No HRA implications.</p> <p>This site is located 2.5km from East Hampshire Hangers, 5km from Butser Hill SAC and 5.2km from Wealden Heaths Phase II SPA. Due to the topography and isolated location of these sites they are not vulnerable to impact pathways resulting from the SDNPA Local Plan.</p>

		There are no impact pathways present.
<b>Policy SD-SS01: Land south of Loppers Ash, South Harting</b>	Approximately 8 dwellings. Approximately 0.4ha in size.	No HRA implications  Rook Clift SAC is the located 3km from the site, Wealden Heaths Phase II SPA is located 10.2km from the site and Singleton and Cocking Tunnels is located 8.7km from the site.  Due to the small number of houses identified, and the distances involved, there are no realistic impact pathways present.
<b>Policy SD-SS07: Land at Meadow House, West Meon</b>	Approximately 6 dwellings. Approximately 0.1ha in size.	No HRA implications.  Butser Hill SAC is located 6.8km from the site.  There are no impact pathways present.
<b>Policy SD-SS06: Land at Long Priors, West Meon</b>	Approximately 10 dwellings. Approximately 0.3ha in size.	No HRA implications.  Butser Hill SAC is located 6.9km from the site.  There are no impact pathways present.
<b>Policy SD-DS03: Land at Hoe Court, Lancing</b>	Approximately 15 dwellings. Approximately 1ha in size.	No HRA implications.

		<p>Arun Valley internationally designated site is located 16.9km from the site.</p> <p>There are no impact pathways present.</p>
<b>Policy SD-DS02: Land at Normansal Park Avenue, Seaford</b>	<p>Approximately 20 dwellings.</p> <p>Approximately 1ha in size.</p>	<p>No HRA implications.</p> <p>Lewes Downs SAC is located 9.4km from the site.</p> <p>There are no impact pathways present.</p>
<b>Development Management Policies</b>		
<b>Policy SD35: Provision and Protection of Open Space</b>	<p>1. Development proposals for new residential development that comply with other relevant policies will be permitted where they:</p> <ul style="list-style-type: none"> <li>a. improve the multi-functional environmental and social benefits and accessibility of existing open spaces by conserving and enhancing biodiversity, landscape, recreation, water management, social and cultural benefits to underpin the health, enjoyment and wellbeing of the community and, where appropriate, achieve a national standard such as a Green Flag Award;</li> <li>b. retain open spaces, including children's play space and sports facilities, which are valued by local communities unless a suitable alternative can be provided; or</li> <li>c. create new open spaces that are located within or close to housing developments, that are safe and accessible for all members of the community; and</li> <li>d. support increased non-motorised access, through the design of the development, and create and improve connectivity with the wider rights of way network.</li> </ul> <p>2. Planning permission will not be granted for development proposals that would result in the loss of open space unless like-for-like provision of a similar quantity, quality and accessibility is made in close proximity to the existing open space. Robust evidence will also have to be provided of the following criteria:</p>	<p>No HRA implications.</p> <p>This is a positive policy. It outlines the provision and protection of open space. This is beneficial as open space can be used as an alternative location for recreation, diverting recreational pressure away from sensitive internationally designated sites.</p> <p>Whilst open spaces that also includes internationally designated sites could result in likely significant effects upon the sensitive designated sites, it ensures that proposals will 'accord with other relevant policies' such as SD 12 (Biodiversity and Geodiversity).</p>

	<p>a. alternative provision is available in the vicinity without causing an unreasonable reduction or shortfall in meeting the local need; and</p> <p>b. it has been demonstrated that the land cannot reasonably be converted to another form of open space provision for which the SDNPA has identified a deficit.</p> <p>3. Development proposals for new cemeteries and burial grounds that comply with other relevant policies will be permitted where they are:</p> <p>a. appropriately sited in a sustainable location.</p> <p>b. designed to make the most of opportunities to improve and/or create new biodiversity, habitats and green infrastructure; and</p> <p>c. will have no adverse impact on controlled waters including groundwater and surface water.</p>	
<b>Policy SD36: Local Green Spaces</b>	<p>1. Development proposals that protect or enhance Local Green Spaces and which comply with other relevant policies will be permitted.</p> <p>2. Development proposals that would have an unacceptable adverse impact on these Local Green Spaces will not be permitted other than in very special circumstances.</p>	<p>No HRA implications.</p> <p>This is a positive policy. It outlines the provision and protection of local green spaces. This is a positive policy as local green spaces can be used as an alternative location for recreation, diverting recreational pressure away from sensitive internationally designated sites.</p>
<b>Policy SD37: Trees, Woodland and Hedgerows</b>	<p>1. Development proposals that affect trees hedgerows and woodland should clearly demonstrate that:</p> <p>(a) Development proposals have been informed by a full site survey, including an arboricultural survey, and</p> <p>(b) Appropriate protection measures are in place throughout the development process.</p> <p>2. An appropriate buffer zone, where applicable of semi-natural habitat, should be established between any development and an area of woodland. A minimum buffer of 15 metres will normally be required between the development and ancient woodland or veteran trees.</p>	<p>No HRA implications.</p> <p>This is a positive policy. It provides protection for features of internationally designated sites such as woodlands and supportive habitat outside of a designated habitat such as trees and hedgerows that could be used for internationally designated</p>

	<p>3. Development proposals should provide adequate protection zones and buffers around trees, woodland and hedgerows to prevent damage to root systems and taking account of future growth.</p> <p>4. The felling of protected trees, groups of trees or woodland will only be permitted in exceptional circumstances and in accordance with the relevant legislation, policy and good practice recommendations. Where protected trees are subject to felling, a replacement of an appropriate number, species, size and in an appropriate location will normally be required.</p> <p>5. Where the loss of non-protected trees, woodland or hedgerows is proposed as part of development proposals, appropriate replacement or compensation will be required.</p>	<p>features such as barbastelle and Bechstein bats.</p>
<b>Policy SD38: Energy Performance and Historic Buildings</b>	<p>1.Planning permission and, where relevant, listed building consent will be granted for works required to improve the energy performance of heritage assets where it complies with other relevant policies and can be clearly demonstrated that this is consistent with all of the following:</p> <p>a) The heritage asset's character and appearance,</p> <p>b) The heritage asset's special architectural or historic interest,</p> <p>c) The long-term conservation of the built fabric; and</p> <p>d) The wider setting of the heritage asset.</p>	<p>No HRA implications</p> <p>This is a development management policy relating to energy performance in historic buildings.</p> <p>There are no impact pathways present.</p>
<b>Policy SD39: Conservation Areas</b>	<p>1. Planning permission will only be granted for development proposals that conserve or enhance the character and appearance of a conservation area and comply with other relevant policies.</p> <p>2. Consideration will be given to all the following matters for development proposals within a conservation area or sufficiently close to or prominent in their setting:</p> <p>a) the relevant conservation area appraisal and management plan;</p> <p>b) overall settlement layout and relationship to established landscape setting;</p> <p>c) historic pattern of thoroughfares, roads, paths and open spaces, where these provide evidence of the past life of the settlement;</p>	<p>No HRA implications</p> <p>This is a development management policy relating to conservation areas.</p> <p>There are no impact pathways present.</p>

	<p>d) the historic street scene;</p> <p>e) distinctive character zones within the settlement;</p> <p>f) mix of building types and uses, if significant to the historic development of the settlement;</p> <p>g) use of locally distinctive building materials, styles or techniques;</p> <p>h) historic elevation features including fenestration, or shop fronts, where applicable;</p> <p>i) significant trees, landscape features, boundary treatments and focal points; and</p> <p><b>j) existing views and vistas through the settlement as well as views into it which contribute to its character and appearance.</b></p>	
<b>Policy SD40 : Enabling Development</b>	<p>1. Planning permission will only be granted for development proposals presented as enabling development in wholly exceptional circumstances and where they represent the last resort to secure the conservation of designated heritage assets.</p> <p>2. Planning permission will only be granted for development proposals that demonstrably meet the tests and criteria set out in the English Heritage guidance Enabling Development and the Conservation of Significant Places (or guidance superseding it) and fulfil national park purposes.</p>	<p>No HRA implications.</p> <p>This is a development management policy relating to heritage.</p> <p>There are no impact pathways present.</p>
<b>Policy SD41: Archaeology</b>	<p>1. Development proposals will only be permitted where they comply with other relevant policies and do not cause unacceptable harm to archaeological heritage assets and/or their setting.</p> <p>2. The Authority will require applicants to provide sufficient information to allow an informed assessment of the significance of the archaeological heritage asset and its setting, and the impact of the proposed development on that significance.</p> <p>3. There will be a presumption in favour of preservation in-situ for Scheduled Monuments and other archaeological heritage assets of equivalent significance.</p> <p>4. Development proposals that will result in unavoidable harm to, or loss of, an archaeological heritage asset's significance, will only be permitted where there is a clear</p>	<p>No HRA implications.</p> <p>This is a development management policy relating to archaeology.</p> <p>There are no impact pathways present.</p>



	<p>justification in terms of public benefits arising from the development which outweigh that harm and, in the case of substantial harm/loss, also meet the following requirements:</p> <p>(a) there is no less harmful viable option; and</p> <p>(b) the amount of harm has been reduced to the minimum possible.</p> <p>In these cases, preservation by record secured through an agreed Written Scheme of Archaeological Investigation will be required.</p> <p>5. The SDNPA will require all archaeological works to be undertaken to proper professional standards, as defined by the Chartered Institute for Archaeologists (CIfA).</p>	
<p><b>Policy SD42: Sustainable Drainage</b></p>	<p>1. In order to attenuate the rate and volume of surface water run-off and improve water quality all new development in areas at risk of flooding will identify opportunities to incorporate Sustainable Drainage Systems (SuDS) that is appropriate to the size and characteristics of the development at an early stage of the design process, taking consideration of natural site drainage and topography. SUDS that comply with other relevant policies will be permitted providing that they satisfy the following criteria:</p> <p>a. Compliant with the National Standards and Specified Criteria for Sustainable Drainage;5</p> <p>b. Take account of the 1 in 100 year 6 hour storm event plus 30 per cent allowance for climate change, on stored volumes, to ensure that there is no flooding of properties or the public highway or inundation of the foul sewerage system. Any excess flows must be contained within the site boundary, and within designated storage areas and compliant with Policy SD17 on Flood Risk Management;</p> <p>c. The SUDS is designed to ensure that there is no flooding on a 1 in 30 year storm event;</p> <p>d. Demonstrate that management and maintenance arrangements for the lifetime operation of the scheme are in place;</p> <p>e. Retain existing open drainage ditches in their current form;</p> <p>f. Follow the hierarchy of preference for different types of surface water drainage disposal systems as set out in Approved Document H of the Building Regulations, planning practice guidance and the SUDS manual produced by CIRIA;</p>	<p>No HRA implications</p> <p>This is a positive policy in that it encourages the use of SuDS, reducing runoff that could have a detrimental effect upon internationally designated sites.</p>

	<p>g. Effectively manage water including maintenance of and, where possible improvement to water quality; and</p> <p>h. Provide amenity for local residents whilst ensuring a safe environment.</p> <p>2. Where SUDS via ground infiltration is feasible, in order to ensure that SUDS discharge water from the development at the same or lesser rate as prior to construction, developers must undertake:</p> <p>a. up to six months groundwater monitoring within the winter period;.</p> <p>b. winter percolation testing in accordance with BRE365.</p> <p>3. Proposals for 'major' development should seek to integrate SUDS within public open spaces and roads, in liaison with the appropriate county council or unitary authority.</p>	
<b>Policy SD43: Public Realm and Highway Design</b>	<p>Local Guidance</p> <p>1. Development proposals that comply with other relevant policies will be permitted where they maintain highway safety and follow the principles set out in the draft document, Roads in the South Downs.</p> <p>Street Layout</p> <p>2. Every element of the street scene should be well designed and sensitively placed. Site layout should be designed to protect pedestrians and other road users and limit the need for further physical measures. The design and layout of new development should give priority to the needs of pedestrians, cyclists and equestrians. Movement through the site should be a safe, legible and attractive experience for all users, with roads and surfaces that contribute to the experience rather than dominate it.</p> <p>Sensitivity to context</p> <p>3. Street design and management proposals should be context-sensitive, responding to the specific character, activities, heritage, built form and layout, paving materials and street furniture of the location. Highway design should pay particular attention to the role and location of buildings, doors and entry points.</p> <p>Public art</p>	<p>No HRA implications.</p> <p>This is a development management policy relating to design.</p> <p>There are no impact pathways present.</p>

	4. Appropriately designed and located new public art will be supported where it complies with other relevant policies.	
<b>Policy SD44: Car and Cycle Parking Provision</b>	<p>1) Development proposals for new public parking provision that comply with other relevant policies will be permitted where they are located in or adjacent to the settlements listed in Policy SD22 (Development Strategy) provided that:</p> <p>a) there is evidence that overriding traffic management or recreation management benefits can be achieved;</p> <p>b) it is a component of a strategic traffic management scheme which gives precedence to sustainable transport; and</p> <p>c) the site is close to and easily accessible from main roads by appropriate routes.</p> <p>2) Development proposals that comply with other relevant policies will be permitted where they provide an appropriate level of private cycle and vehicle parking to serve the needs of that development in accordance with the appropriate adopted parking standards for the locality. Further guidance will be provided in a parking standards SPD.</p> <p>3) All new private and public parking provision will comply with Policy SD42 (Public Realm and Highway Design); be of a location, scale and design that reflects its context and make a positive contribution in terms of ecosystem services, protect and enhance the landscape, and incorporate appropriate sustainable drainage systems.</p>	<p>No HRA implications</p> <p>This outlines development management policy relating to car and cycle parking provision.</p> <p>There are no impact pathways present.</p>
<b>Policy SD45: Replacement Dwellings and Extensions</b>	<p>1. Proposals for the replacement of an existing dwelling, where it does not make a positive contribution to the character and appearance of the locality, will be permitted provided that they comply with other relevant policies and:</p> <p>a) the replacement dwelling is sited in the same position as the existing dwelling, unless there are clear environmental benefits for re-siting the dwelling elsewhere within the residential curtilage;</p> <p>b) it does not result in the loss of a small dwelling; and</p> <p>c) outside of the market towns of Petersfield, Midhurst, Petworth and Lewes the replacement dwelling is not materially larger than the one it replaces.</p> <p>2. Proposals for the extension of an existing dwelling will be permitted provided that they comply with other relevant policies and:</p>	<p>No HRA implications.</p> <p>This is a development management policy.</p> <p>This policy ensures that proposals for new replacement dwellings and extensions '<i>comply with other relevant policies</i>' such as SD12 and SD13.</p> <p>This policy potentially allows for an increase in population size of an individual dwelling. However this policy does state that development will only be permitted if '<i>It does not result in</i></p>

	<p>a) is of an appropriate design, in accordance with Policy SD6 (Design), and is visually subservient to the main dwelling and in keeping with the scale and character of the existing dwelling;</p> <p>b) the extension does not compromise the established character and pattern of the surrounding area;</p> <p>c) it is not overbearing or of a form which would be detrimental to the amenity of nearby residents, particularly in regard to natural light and overshadowing;</p> <p>d) it does not result in a loss of a small dwelling; and</p> <p>e) outside of the market towns of Petersfield, Midhurst, Petworth and Lewes, it does not increase the floorspace of the dwelling by more than 30%.</p> <p>f) in the case of annexes, as well as the above, it has a functional or physical dependency to the main dwelling.</p> <p>3. Where permission is granted future extensions may be controlled by the removal of permitted development rights.</p>	<p><i>a loss of a small dwelling' thus reducing the extent of the increase in the population at that dwelling.</i></p> <p>Whilst this policy does have potential to lead to an increase in floor space per dwelling, the expected population increase is expected to be small. As such, this policy is screened out.</p>
<p><b>Policy SD46: Agriculture and Forestry</b></p>	<p>1. Development proposals for new buildings, tracks or structures for the purposes of agriculture or forestry that comply with other relevant policies will be permitted where:</p> <p>a) there is a functional need for the development and its scale is commensurate with that need;</p> <p>b) appropriate measures are taken to ensure development does not, including through the level of activity, have an adverse impact on the locality, exacerbate flood risk or surface water run-off, cause pollution or other unacceptable environmental impacts;</p> <p>c) the development is designed for the purposes of agriculture or forestry;</p> <p>d) the site is related physically and functionally to existing buildings associated with the business, and, where possible, on previously developed land, unless there are exceptional circumstances relating to agricultural or forestry necessity for a more isolated location;</p>	<p>No HRA implications.</p> <p>This is a development management policy. This is a positive policy in that it ensures that flood risk and surface water run-off is not exacerbated, and prevents other '<i>unacceptable environmental impacts...</i>'.</p> <p>There are no impact pathways present.</p>

	<p>e) a landscaping scheme which reduces the visual impact of the proposal on the wider landscape and is appropriate to the character of the locality is submitted as part of the proposal; and</p> <p>f) the owner has not been instrumental in disposing of a building in the last three years which would otherwise have met the need proposed.</p> <p>2. Buildings and structures permitted under this policy will be required to be dismantled and removed from the site when no longer in agricultural or forestry use (as relevant), and the site restored to its previous condition as far as practicable, unless permission is given for change of use within three years of their falling out of use.</p> <p>3. New or improved access tracks for forestry will be permitted if all the following criteria are met:</p> <p>a) the proposal would be essential for the management of the land;</p> <p>b) all other possible opportunities have been fully considered;</p> <p>c) the layout and design is to a high environmental standard and is located to minimise impacts on the special qualities of the National Park; and</p> <p>d) appropriate measures are taken to ensure they do not, including through the level of activity, have an adverse impact on the locality, exacerbate flood risk or surface water runoff, cause pollution or other unacceptable environmental impacts.</p> <p>4. Development proposals that would have an unacceptable adverse impact on the Special Qualities of the National Park will be refused.</p>	
<b>Policy SD47: Farm Diversification</b>	<p>1. Development proposals for farm diversification that comply with other relevant policies will be permitted where there is no harm to the special qualities.</p> <p>2. Wherever possible, development proposals should utilise disused agricultural buildings from before 1914, or disused agricultural buildings from later periods which make a positive contribution to landscape character. Where no such buildings are available, proposals should use new buildings which are sited within an existing group of buildings and have a modest scale and design which harmonises with the surrounding area.</p> <p>3. Development proposals should provide long-term benefit to the farming business as an agricultural operation. Development proposals must be accompanied by a comprehensive</p>	<p>No HRA implications.</p> <p>This is a development management policy.</p> <p>There are no impact pathways present.</p>

	<p>farm or estate diversification plan in line with Core Policy SD22 (Development Strategy). Outdoor storage will not be allowed other than as a minor ancillary element of other uses.</p> <p>4. All diversified activities should remain ancillary to the farming operation and not cause severance or disruption to the agricultural holding.</p>	
<b>Policy SD48: Rural Workers' Dwellings</b>	<p>1. Development proposals for agricultural workers' dwellings that comply with other relevant policies will be permitted where:</p> <p>a) the nature and demands of the work concerned make it essential for one or more people engaged in the enterprise to live at, or very close to, the site of their work;</p> <p>b) the functional need could not be fulfilled by another existing dwelling on the unit, or any other existing accommodation in the area which is suitable and available for occupation by the workers concerned;</p> <p>c) no other dwellings either on or closely connected to the holding/enterprise have been sold separately or in some way alienated from the holding/ enterprise in the past ten years; and</p> <p>d) the size of the proposed dwelling would not result in a total habitable floorspace exceeding 120m<sup>2</sup>;</p> <p>e) where practicable and appropriate, first consideration has been given to the conversion of an existing building under the terms of Policy SD49; and</p> <p>f) the continued use of such dwellings by agriculture and forestry will be protected by condition. Applications for the removal of such conditions will not be permitted unless it can be demonstrated that there is no longer a current or possible renewed need for the dwellings in its current use for the foreseeable future.</p> <p>2. Temporary dwellings for agricultural workers will be permitted where they comply with other relevant policies and accommodation is essential to support a new farming activity, whether on a newly created agricultural unit or an established one, and it should satisfy the following criteria:</p> <p>a) clear evidence of a firm intention and ability to develop the enterprise concerned;</p> <p>b) there is a clearly established functional need to support the activity;</p>	<p>No HRA implications</p> <p>This is a development management policy. Whilst this policy does allow for an increase in residential dwellings, these will be in low numbers (e.g. a single dwelling). As such it is considered that there are no impact pathways present</p>

	<p>c) clear evidence that the proposed enterprise has been planned on a sound financial basis;</p> <p>d) the location would be suitable for a permanent agricultural worker's dwelling; and</p> <p>e) easily dismantled or taken away.</p> <p>The Authority will specify the period for which the temporary permission is granted and the date by which the temporary dwelling will have to be removed. Successive extensions to a temporary permission will not be granted unless material considerations indicate otherwise.</p>	
<b>Policy SD49: Conversions of Redundant Agricultural Buildings</b>	<p>1) The conversion of redundant agricultural buildings outside of defined settlement boundaries will only be permitted where they comply with other relevant policies and:</p> <p>a) it is not in a wholly isolated location from infrastructure, amenities and services;</p> <p>b) it is structurally sound and capable of conversion without substantial reconstruction which may constitute a re-build;</p> <p>c) existing traditional buildings within the holding are not capable of being re-used in the first instance;</p> <p>d) it can accommodate the proposed use(s) without the need for significant extensions or ancillary buildings;</p> <p>e) it incorporates measures to enhance the environmental performance of the building, where appropriate;</p> <p>f) the proposed use does not impact upon the amenities and/or activities of neighbouring properties and uses;</p> <p>And in instances where agricultural buildings are identified as heritage assets:</p> <p>g) the optimal viable use is proposed to conserve and enhance its architectural and historic interest and leads to an enhancement of its setting;</p> <p>h) wherever possible, essential utilities and other functional requirements do not harm significant internal fabric.</p>	<p>No HRA implications.</p> <p>This is a development management policy relating to the conversion of redundant agricultural buildings. It does not outline any type or location of development.</p> <p>There are no impact pathways present.</p>

<b>Policy: SD50 Equestrian Uses</b>	<p>1. Development proposals for equestrian development will be permitted provided that they comply with other relevant policies and they:</p> <ul style="list-style-type: none"> <li>a) have a scale and/or an intensity of equestrian use which would be compatible with the landscape and its special qualities;</li> <li>b) demonstrate good design which responds to local character and distinctiveness including location and siting, any subdivision of field(s) and earthworks;</li> <li>c) have a location which satisfactorily relates to existing infrastructure, where necessary, which includes vehicular and field accesses, tracks and bridleways;</li> <li>d) re-use existing buildings wherever practicable and viable;</li> <li>e) locate new buildings, stables, yard areas and facilities adjacent to existing buildings provided they respect the amenities of surrounding properties and uses;</li> <li>f) provide new or supplementary planting, hard landscape features and boundary treatments consistent with local character, where appropriate; and</li> <li>g) are compatible with other users of the countryside.</li> </ul> <p>2. Development proposals for equestrian development that would have an unacceptable adverse impact on the special qualities of the National Park will be refused.</p>	<p>No HRA implications</p> <p>This outlines policy for equestrian development.</p> <p>There are no impact pathways present.</p>
<b>Policy SD51: Shops Outside Centres</b>	<p>1. Development proposals for small convenience stores that comply with other relevant policies will be permitted where they:</p> <ul style="list-style-type: none"> <li>(a) have a net sales area less than 150m<sup>2</sup>; and</li> <li>(b) are to meet the everyday shopping needs of the local community.</li> </ul> <p>2. The SDNPA will safeguard existing retail units (A1, A2, A3) outside of centres, that are fit for purpose, from development proposals for non-retail uses. Evidence of a robust marketing campaign of at least 12 months will be required that clearly demonstrates that there is no market demand for the premises.</p> <p>3. Farm Shops</p>	<p>No HRA implications.</p> <p>This is a development management policy and does not specify any location or quantity of development.</p> <p>There are no impact pathways present.</p>



	<p>(a) Development proposals for the introduction or expansion of a farm shop will be permitted provided its scale and scope would not harm the retail offer in the immediate area. Such shops should aim to sell:</p> <ul style="list-style-type: none"> <li>• at least 40 per cent of goods that are own produce plus local foods;</li> <li>• 40 per cent of goods that are regional; and</li> <li>• 20 per cent are from elsewhere.</li> </ul> <p>(b) In the first instance applicants should explore the re-use of existing buildings and, if not possible, then set out why not. New buildings and associated parking should be positioned to ensure that the overall feeling of development does not extend out into open countryside and will minimise negative impact on the landscape.</p> <p>4. Garden Centres</p> <p>(a) The primary purpose of a garden centre must remain the sale of plants and gardening related products.</p> <p>(b) Development proposals for new, or extensions to, existing garden centres will be permitted if it can be demonstrated that it is required in order to support a local horticultural business and are of a scale and scope appropriate to the location.</p> <p>(c) Garden centres seeking to diversify into other retail markets and leisure will only be permitted where this will not introduce inappropriate types and levels of use in the area. Such developments should seek to provide opportunities for visitors to increase their awareness, understanding and enjoyment of the special qualities.</p> <p>(d) In the first instance applicants should explore the re-use of existing buildings and, if not possible, then set out why not. New buildings and associated parking should be positioned to ensure that the overall feeling of development does not extend out into open countryside and will minimise negative impact on the landscape.</p>	
<b>Policy SD52: Shop Fronts</b>	<p>1. Development proposals for new, or changes to, existing shop fronts that comply with other relevant policies will be permitted where they:</p> <p>(a) relate well to the building in which they are situated, giving special regard to upper floors, in terms of scale, proportion, vertical alignment, architectural style and materials;</p>	<p>No HRA implications.</p> <p>This is a development management policy relating to shop fronts.</p>

	<p>(b) take account of good architectural features of neighbouring shopfronts so that the development will fit in well with the street scene; and</p> <p>(c) use appropriate materials which respect the street scene.</p> <p>2. If a single shop front is to be created by joining two or more units, it should respect and show the original divisions that existed, particularly in the case of historic properties and their setting.</p> <p>3. There will be a presumption against internally illuminated signage/logos and solid shutters or any other feature which obscures window displays, unless this is a traditional feature of a historic premises.</p> <p>4. External lighting is only normally appropriate for businesses operating in the evening. If required, it should be kept to a minimum and be discreetly positioned.</p> <p>5. Any blinds/canopies will be expected to be traditional in nature.</p>	<p>There are no impact pathways present.</p>
<p><b>Policy SD53: New and Existing Community Infrastructure</b></p>	<p>1. In Lewes, Petersfield, Midhurst, Petworth, Liss and Fernhurst, planning permission will be granted for new and expanded community infrastructure that comply with other relevant policies, where there is an established need and local community engagement, including identification in a community led plan, where relevant. Consideration should be given to the re-use of existing buildings or the shared use of space to maximise efficiency and viability.</p> <p>2. In all other settlements planning permission will be granted for community infrastructure proposals that comply with other relevant policies serving an proven local need where the scale, nature and location is appropriate for the existing settlement. Larger-scale proposals addressing an established wider need will be supported where they serve a cluster of communities and the following criteria are all met:</p> <p>a) there is local community engagement including identification in a community led plan where relevant;</p> <p>b) the catchment area serves a coherent cluster of settlements and is accessible by sustainable means; and</p> <p>c) consideration has been given to the shared use, partial re-use or partial redevelopment of existing buildings to maximise efficiency and viability.</p>	<p>No HRA implications</p> <p>This is a development management policy that outlines the provision of Community Infrastructure.</p> <p>This policy does not identify any new development specifically.</p> <p>There is no impact pathway present.</p>

	<p>3. Planning permission will only be granted for development proposals resulting in the loss of community infrastructure by change of use or demolition if the following criteria are all met:</p> <p>a) Alternative provision is available in the vicinity or accessible by sustainable means, including through clustering or shared facilities, without causing an unreasonable reduction or shortfall in meeting the local need.</p> <p>b) The existing use is not viable in whole or in part, including through cross subsidy from a shared use or enabling development, or</p> <p>c) There is a demonstrable lack of need for the existing use.</p> <p>4. Evidence of a robust marketing campaign of at least 12 months will be required that clearly demonstrates that there is no market demand for the premises.</p> <p>5. Partial loss of floorspace through change of use will be supported when the operational need of the community use requires less floorspace, or where clustered uses are able to share premises, or in order to sustain the viability of the existing use by cross-subsidy.</p>	
<b>Policy SD54 – Supporting Infrastructure for New Development</b>	<p>1. New development will contribute towards new infrastructure or improve the capacity of existing infrastructure, as appropriate.</p> <p>2. Critical service and utility infrastructure will be provided on-site by the developer and utility providers to ensure development is properly serviced.</p> <p>3. In addition, a suitable package of supporting infrastructure will be negotiated by the Authority and secured through legal agreements to ensure the development is acceptable in planning terms, self-supporting and its impacts are properly mitigated.</p> <p>4. On-site infrastructure will be secured through legal agreements based on the needs of each proposal and delivered directly by the developer or through financial contributions and/or land. Infrastructure delivery will be integrated with development phasing to ensure timely provision and commuted payments will secure necessary future maintenance.</p> <p>5. Off-site infrastructure will be secured through development contributions (including the CIL). Section 278 agreements will be secured, where appropriate, to ensure safe and suitable access and highway improvements.</p>	<p>No HRA implications</p> <p>This is a development management policy relating to supporting infrastructure for new development.</p> <p>It is a positive policy in that it ensures that critical services and utilities are provided by the developer and utility companies (thus ensuring that new development will be encapsulated in existing licencing etc.)</p> <p>There are no impact pathways present.</p>

	<p>6. The need for Superfast broadband is a key issue for the National Park. Proposals for residential and business development should include sufficient on-site Superfast and Ultrafast broadband infrastructure to enable connectivity to wider networks.</p> <p>7. The design of infrastructure through partnership working with developers and infrastructure providers should reflect the high-quality landscape and ensure, where possible, benefits to the economic and social wellbeing of the local community.</p>	
<b>Policy SD55: Advertisements and Signage</b>	<p>1. Advertisement Consent will only be permitted provided it complies with other relevant policies and where:</p> <p>a) their location, size, scale, proportions, design and materials respect the character and appearance of a host building, site, or area;</p> <p>b) the number of adverts is kept to a minimum and amalgamated with existing signage;</p> <p>c) there is no harmful cumulative impact in relation to other signage in the vicinity;</p> <p>d) there is no adverse impact on neighbouring amenities,</p> <p>e) there is no harmful impact to public safety; and</p> <p>f) for advance directional signage, it is reasonably necessary for the purposes of a business and complies with other policy criteria of this policy.</p> <p>2. Where an advertisement would have an unacceptable adverse impact on the special qualities it will be refused.</p> <p>3. Relevant conditions will also be applied to consents, including that where adverts with permanent consent are no longer required these should be removed and the site is left in a condition that does not endanger the public or harm the character and appearance of the area.</p>	<p>No HRA implications</p> <p>This is a development control policy referring to advertisements and signage.</p> <p>There are no impact pathways present.</p>
<b>Policy SD56: Renewable Energy</b>	<p>1. Renewable energy installations in the National Park that comply with other relevant policies will be encouraged providing that:</p> <p>a. The siting, scale, design and appearance will not have an adverse impact upon landscape character, including cultural heritage, and wildlife;</p>	<p>No HRA implications</p> <p>This is a positive policy in that it seeks to contribute to reducing greenhouse gas</p>

	<p>b. adjoining uses, residential amenity and relative tranquillity are not adversely impacted in terms of noise and disturbance, vibration, stroboscopic effect, or electromagnetic interference;</p> <p>c. existing public access is not impeded; and</p> <p>d. the installation does not result in the loss in use of Grade 1 or 2 agricultural land.</p>	<p>emissions, thus improving air quality.</p> <p>This policy does not identify type, location or extent of any development. Dependent on the development, there is potential for likely significant effects, however, this policy ensures for the protection of wildlife and proposals will only be encouraged provided they comply with other policies</p> <p>Any wind-turbine renewable energy proposals would need to have due regard to the proximity of European sites designated for bats and birds.</p>
<b>Policy SD57: Telecommunications, Services and Utilities</b>	<p>1. Development proposals for new telecommunications infrastructure that comply with other relevant policies will be permitted where the telecommunications need could not be met using existing masts or other appropriate structures; and they:</p> <p>a) are of a scale, design and location that would not have a potential adverse impact on the special qualities;</p> <p>b) make use of all available technologies to minimise landscape impact;</p> <p>c) take opportunities on any new infrastructure to meet the needs of local communities as far as possible;</p> <p>d) are located in close proximity to existing buildings, without damaging the setting of those buildings where they contribute to the special qualities;</p> <p>e) ensure that the number of sites is kept to a minimum consistent with the efficient operation of the network and the protection of the landscape; and</p> <p>f) take all available opportunities for the removal or reduction in prominence of previously permitted telecommunications infrastructure that is prominent in the landscape, including through the undergrounding of infrastructure.</p>	<p>No HRA implications.</p> <p>This is a positive policy in that with improved telecommunications the need to travel by car can be reduced, thus reducing air pollution from vehicles.</p> <p>There are no impact pathways present.</p>

	<p>2. Development proposals for the undergrounding or appropriate screening of utilities infrastructure that is prominent in the landscape will be encouraged where they comply with other relevant policies.</p> <p>3. Development proposals for new or improved utility service infrastructure providing essential services and facilities, including electricity supply, gas or heating supply, water supply and waste water management, that comply with other relevant policies will be permitted provided they minimise environmental harm, and provide adequate mitigation measures, having regard to all deployment options and in light of operational requirements and technical limitations.</p>	
<b>Policy SD58: Air Quality</b>	<p>1. The Authority, working with local authority partners and other relevant agencies will seek to improve air quality throughout the National Park. Development proposals that may lead to a significant deterioration in local air quality resulting in unacceptable effects on human health, the natural environment or local amenity, will require the submission of an air quality assessment, which should address:</p> <p>a) The existing background levels of air quality;</p> <p>b) The cumulative impact of development levels of air quality; and</p> <p>c) The feasibility of any measures of mitigation that would prevent the national air quality objectives being exceeded, or would reduce the extent of the air quality deterioration.</p> <p>2. Development proposals that by virtue of their location, nature or scale could impact on an AQMA will be required to:</p> <p>a) Have regard to any relevant Air Quality Action Plans (AQAP) and to seek improvements in air quality through implementation of measures in the AQAP.</p> <p>b) Provide mitigation measures where the development and/or associated traffic would adversely affect any declared AQMA.</p> <p>3. Development proposals that comply with other relevant policies, will be permitted where they:</p> <p>a) Provide mitigation measures where the development and/or its associated traffic could lead to a declaration of a new or extended AQMA,</p>	<p>No HRA implications.</p> <p>This is a positive policy, in that it seeks to improve air quality. Point 3b provides explicit protection to the natural environment from negative impacts resulting from development.</p> <p>There are no impact pathways present.</p>

	<p>b) Ensure that the development will not have a negative impact on the surrounding area in terms of its effect on health, the natural environment or general amenity, taking into account cumulative impacts,</p> <p>c) Promote opportunities for walking, cycling and public transport and congestion management to reduce traffic levels in areas of reduced air quality, particularly in town or village centre locations, and promote the opportunity for cycling through the provision of cycleways, and</p> <p>d) Secure best practice methods to reduce levels of dust and other pollutants arising from the construction of development and/or from the use of the completed development.</p> <p>4. Development proposals that would have a potentially adverse impact on air quality that would result in the national Air Quality Objectives<sup>11</sup> being exceeded will be refused.</p>	
<b>Policy SD59: Contaminated Land</b>	<p>Development proposals for sites with known or suspected contamination will require the submission of robust evidence regarding investigations and remedial measures sufficient to ensure that any unacceptable risk to health or environmental health or aquifers in accordance with Policy SD15 (Aquifers) is removed prior to development proceeding</p>	<p>No HRA implications.</p> <p>This is a development management policy relating to contaminated land.</p> <p>There are no impact pathways present.</p>

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Scott House  
Alençon Link  
Basingstoke  
Hampshire  
RG21 7PP  
United Kingdom  
+44 1256 310200