

Surrey Heath Core Strategy and  
Development Management Policies  
**Habitat Regulations Assessment of the  
Proposed Submission DPD incorporating  
amendments made post-suspension**

Report  
May 2011



Prepared for  
**Surrey Heath Borough Council**

## Revision Schedule

### Habitat Regulations Assessment

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**URS Scott Wilson**  
Scott House  
Alencon Link  
Basingstoke  
Hampshire  
RG21 7PP

Tel 01256 310200  
Fax 01256 310201

[www.urs-scottwilson.com](http://www.urs-scottwilson.com)

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# 1 Introduction

## 1.1 Background to the Project

- 1.1.1 URS Scott Wilson Ltd was appointed by Surrey Heath Borough Council to assist the Council in undertaking a Habitat Regulations Assessment of the Surrey Heath Core Strategy and Development Management Policies Development Plan Document (DPD): Proposed Submission Document. The objective of the assessment was to identify any aspects of the DPD that would cause an adverse effect on the integrity of Natura 2000 or European sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites), either in isolation or in combination with other plans and projects, and to advise on appropriate policy mechanisms for delivering mitigation where such effects were identified.
- 1.1.2 This document contains the HRA of the Submission Stage Core Strategy and Development Management Policies DPD, altered to reflect instances in which following Examination in Public the Council have made 'suggested changes' (particularly to policies CP3, reflecting the proposed change that the Council have made from delivery of 2,502 to 3,240 dwellings, and CP14, reflecting amendments relating to the Thames Basin Heaths that the Council have made following discussion with Natural England). For this issue of the HRA we have also inserted Appendix 3, which specifically addresses two other development options that we were asked to assess by Surrey Heath Council following the Examination in Public.
- 1.1.3 The Core Strategy will form a central planning document within Surrey Heath Local Development Framework (LDF) that will supersede the current Surrey Heath Local Plan (site allocations and generic development control policies).
- 1.1.4 The core LDF documents will ultimately consist of:
- Core Strategy and Development Management Policies;
  - Site Allocations;
  - Camberley Town Centre Area Action Plan;
  - Surrey Heath Proposals Map; and
  - Supplementary Planning Documents (SPDs) – e.g. Lightwater Village Design Statement.
- 1.1.5 The Council has previously produced an Issues and Options and a Preferred Options document for the Core Strategy. However, the time taken to put in place measures to ensure that new housing would not cause harm to the Thames Basin Heaths SPA has meant that the Council felt they could not submit the Core Strategy to the Secretary of State for approval as a "sound" document at any earlier point. Development Plan Documents dealing with Housing Needs and Development Control policies have now been combined into this single document. In June 2008 the government amended the Development Plan procedures and following a revised Issues and Options consultation the Council has prepared this Core Strategy and Development Management Policies DPD in accordance with the regulations as amended.

## 1.2 Current Legislation

- 1.2.1 The need for Appropriate Assessment is set out within Article 6 of the EC Habitats Directive 1992, and interpreted into British law by Regulation 102 of the Conservation of Habitats and Species Regulations 2010. The ultimate aim of the Directive is to “*maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest*” (Habitats Directive, Article 2(2)). This aim relates to habitats and species, not the European sites themselves, although the sites have a significant role in delivering favourable conservation status.
- 1.2.2 The Habitats Directive applies the precautionary principle to protected areas (Special Areas of Conservation, SACs and Special Protection Areas, SPAs, collectively known as European sites and which comprise the Natura 2000 pan-European network). 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. 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 would be necessary to ensure the overall integrity of the site network.
- 1.2.3 In order to ascertain whether or not site integrity will be affected, an Appropriate Assessment should be undertaken of the plan or project in question:

### Box 1. The legislative basis for Appropriate Assessment

#### Habitats Directive 1992

Article 6 (3) states that:

*“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives.”*

#### Conservation of Habitats and Species Regulations 2010

The Regulations require that:

*“A competent authority, before deciding to ... give any consent for a plan or project which is likely to have a significant effect on a European site ... shall make an appropriate assessment of the implications for the site in view of that site's conservation objectives... The authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site”.*

- 1.2.4 Over the years the phrase ‘Habitat Regulations Assessment’ (HRA) has come into wide currency to describe the overall process set out in the Conservation of Habitats and Species Regulations from screening through to IROPI. This has arisen in order to distinguish the process from the individual stage described in the law as an ‘appropriate assessment’. Throughout this report we use the term Habitat Regulations Assessment for the overall process and restrict the use of Appropriate Assessment to the specific stage of that name.

## 1.3 Scope of the Project

1.3.1 There is no pre-defined guidance that dictates the physical scope of an HRA of a DPD. Therefore, in considering the physical scope of the assessment, we were guided primarily by the identified impact pathways rather than by arbitrary 'zones'. Current guidance suggests that the following European sites be included in the scope of assessment:

- All sites within the Surrey Heath Borough boundary; and
- Other sites shown to be linked to development within the Borough boundary through a known 'pathway' (discussed below)

1.3.2 Briefly defined, pathways are routes by which a change in activity within the DPD area can lead to an effect upon a European site. In terms of the second category of European site listed above, CLG guidance states that the AA should be '*proportionate to the geographical scope of the [plan policy]*' and that '*an AA need not be done in any more detail, or using more resources, than is useful for its purpose*' (CLG, 2006, p.6).

1.3.3 There are two European sites within the borough of Surrey Heath - the Thames Basin Heaths SPA (the entire borough lies within 3km of this site), and the Thursley, Ash, Pirbright and Chobham SAC. The Thames Basin Heaths SPA is made up of many components, spread between numerous local authorities. Numerous European sites also lie in adjoining boroughs and the potential for longer range and indirect effects upon these sites has been considered at least in screening (Table 1). Figures 1a and 1b show the location of the European sites in relation to Surrey Heath Borough.

**Table 1: European sites considered at the screening stage of the Habitats Regulations Assessment**

Site	Minimum distance from Surrey Heath Borough
Thames Basin Heaths SPA	Within the borough
Thursley, Ash, Pirbright and Chobham SAC	Within the borough
Windsor Forest & Great Park SAC	2 km
South West London Waterbodies SPA and Ramsar	4.5 km
Thursley, Hankley and Frensham Commons SPA	11 km
Thursley and Ockley Bog Ramsar	12 km
Mole Gap to Reigate Escarpment SAC	16 km
Wealden Heaths Phase 2 SPA	16 km
East Hampshire Hangers SAC	17 km
Burnham Beeches SAC	18 km

## 1.4 This report

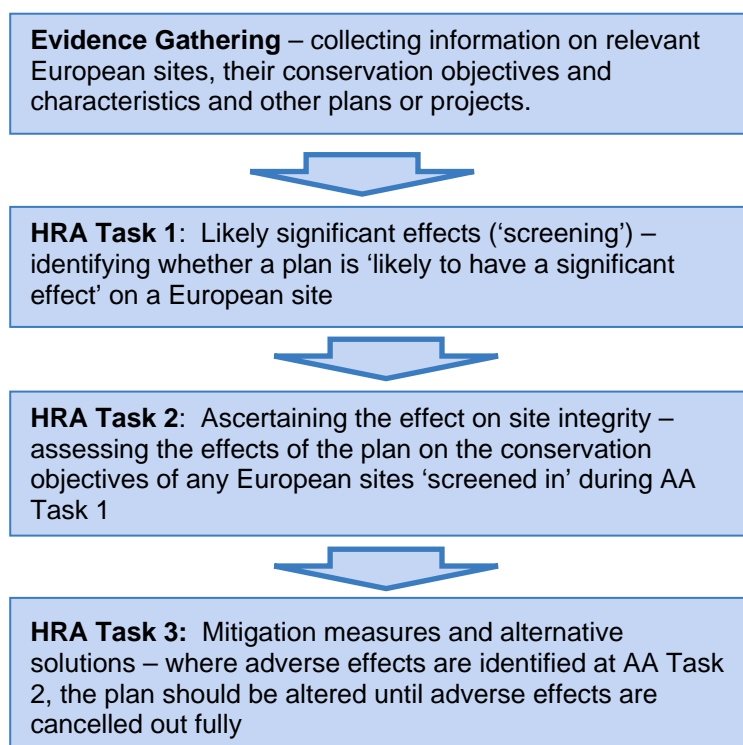
1.4.1 Chapter 2 of this report explains the process by which the HRA has been carried out. Chapter 3 explores the relevant pathways of impact and summarises the screening assessment of DPD

policies. Chapters 4 to 13 are organised on the basis of one chapter per European site. Each chapter begins with a consideration of the interest features and ecological condition of the site and environmental process essential to maintain site integrity. An assessment of the Core Strategy in respect of each European site is then carried out and avoidance and mitigation strategies proposed where necessary. The key findings are summarised in Chapter 14: Overall Conclusions.

## 2 Methodology

### 2.1 Introduction

- 2.1.1 The methodology adopted is in compliance with emerging Government guidance<sup>1</sup>. Communities and Local Government released a consultation paper on Appropriate Assessment of Plans in 2006<sup>2</sup>. As yet, no further formal guidance has emerged from central government. We have also referred to the informal guidance documents produced by RSPB and Natural England. We have also made reference to the EC document 'Assessment of Plans and Projects Affecting Natura 2000 sites'. However, it should be noted that the EC document clearly states that *'this guidance should not be read as imposing or suggesting any procedural requirements for the implementation of the habitats directive. Its use is optional and flexible...'* (Section 1.1).
- 2.1.2 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.



**Figure 1 - Four-Stage Approach to Habitat Regulations Assessment**

Source: CLG, 2006

<sup>1</sup> *Planning for the Protection of European Sites: Appropriate Assessment*. Under The Conservation (Natural Habitats, &c) (Amendment) (England and Wales) Regulations 2006 Guidance for Regional Spatial Strategies and Local Development Documents.  
<sup>2</sup> CLG (2006) *Planning for the Protection of European Sites*, Consultation Paper

## 2.2 HRA Task 1 - Likely Significant Effects (LSE)

- 2.2.1 The first stage of any Habitat Regulations Assessment is a Likely Significant Effect (LSE) test - essentially a risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:
- 2.2.2 "Is the Plan, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites?"
- 2.2.3 The objective is to 'screen out' those plans and projects 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 for an adverse interaction with European sites.

## 2.3 HRA Task 2 - Appropriate Assessment and Mitigation

- 2.3.1 With regard to those European sites where it was considered not possible to 'screen out' the DPD without detailed appraisal, it is necessary to progress to the later 'Appropriate Assessment' stage to explore the adverse effects and devise mitigation.
- 2.3.2 The steps involved are detailed in Box 2.

### **Box 2. The steps involved in the Appropriate Assessment exercise undertaken for the Surrey Heath Core Strategy and Developmental Policies DPD**

1. Explore the reasons for the European designation of these sites.
2. Explore the environmental conditions required to maintain the integrity of the selected sites and become familiar with the current trends in these environmental processes.
3. Gain a full understanding of the plan and its policies and consider each policy within the context of the environmental processes – would the policy lead to an impact on any identified process?
4. Decide if the identified impact will lead to an adverse effect on integrity.
5. Identify other plans and projects that might affect these sites in combination with the Plan and decide whether there are any adverse effects that might not result from the Plan in isolation will do so "in combination".
6. Develop policy mechanisms to enable the delivery of measures to avoid the effect entirely, or if not possible, to mitigate the impact sufficiently that the effect on the European site is rendered effectively inconsequential.

- 2.3.3 In evaluating significance, Scott Wilson have relied on our professional judgement as well as stakeholder consultation.
- 2.3.4 The level of detail concerning developments that will be permitted under land use plans will never be sufficient to make a detailed quantification of adverse effects. Therefore, we have again taken a precautionary approach (in the absence of more precise data) assuming as the default position that if an adverse effect cannot be confidently ruled out, avoidance or mitigation

measures must be provided. This is in line with CLG guidance that the level of detail of the assessment, whilst meeting the relevant requirements of the Habitats Regulations, should be 'appropriate' to the level of plan or project that it addresses (see Appendix 1 for a summary of this 'tiering' of assessment).

## 2.4 Confirming other plans and projects that may act in combination

2.4.1 It is neither practical nor necessary to assess the 'in combination' effects of the DPD within the context of all other plans and projects within the South East. For the purposes of this assessment, we have determined that, due to the nature of the identified impacts, the key other plans and projects relate to the additional housing, transportation and commercial/industrial allocations proposed for other neighbouring authorities over the lifetime of the Core Strategy. The final South East Plan (May 2009) and the London Plan (2004) provide a good introduction to proposals for areas surrounding Surrey Heath borough. Although the South East Plan may be revoked in the future, it still provides the best summary of the currently anticipated levels of housing within authorities surrounding Surrey Heath.

**Table 2. Housing levels to be delivered in authorities within 20km of Surrey Heath borough under the final South East Plan (May 2009) and the London Plan (2004)**

Local Authority	Annual housing average	Total housing from 2006 to 2026 (South East Plan) Total housing from 2007/08 to 2016/17 (London Plan)
Bracknell Forest	639	12,780
Ealing	915	9,150
East Hampshire	260	5,200
East Hampshire (Whitehill/Bordon)	275	5,500
Elmbridge	281	5,620
Epsom and Ewell	199	3,980
Guildford	422	8,440
Hart	220	4,400
Hillingdon	365	3,650
Hounslow	445	4,450
Kingston-upon-Thames	385	3,850
Mole Valley	188	3,760
Reading	611	12,220
Richmond-upon-Thames	270	2,700
Runnymede	286	5,720
Rushmoor	310	6,200
Slough	315	6,300
South Buckinghamshire	94	1,880
South Oxfordshire	547	10,940
Spelthorne	166	3,320
Waverley	250	5,000
West Berkshire	525	10,500
Windsor & Maidenhead	346	6,920
Woking	292	5,840
Wokingham	623	12,460
Wycombe	390	7,800

2.4.2 There are other plans and projects that are often relevant to the ‘in combination’ assessment, most notably Veolia Water Central’s Final Water Resource Management Plan (March 2010) and South East Water’s Final Water Resource Management Plan (December 2010) and the Environment Agency’s Catchment Abstraction Management Strategy for Loddon. These have all been taken into account in this assessment.

2.4.3 Table 3 summarises documents that we have reviewed to inform our assessment:

**Table 3. Documents reviewed in order to inform this assessment**

Document		Relevant contents
Surrey Heath Borough Council (2010)	The Surrey Heath Core Strategy and Development Management Policies DPD – Proposed Submission Document	<ul style="list-style-type: none"> <li>Document under assessment.</li> </ul>
Neighbouring local authorities	LDF Core Strategies and associated HRAs	<ul style="list-style-type: none"> <li>Background to potential in combination effects</li> </ul>
Surrey Heath Borough Council (2009)	Strategic Housing Land Availability Assessment	<ul style="list-style-type: none"> <li>Provides information on development patterns within Surrey Heath</li> </ul>
Surrey Heath Borough Council (2010)	Report of further Assessment of Alternative Sites for SANGS	<ul style="list-style-type: none"> <li>Surrey Heath’s approach to development in consideration of the Thames Basin Heaths area.</li> </ul>
Surrey Heath Borough Council (2008)	The Special Protection Area - Interim Avoidance Strategy	<ul style="list-style-type: none"> <li>Surrey Heath’s approach to development in consideration of the Thames Basin Heaths area.</li> </ul>
Natural England (2006)	Thames Basin Heaths Special Protection Area: Mitigation Standards for Residential Development. 26 May 2006.	<ul style="list-style-type: none"> <li>Avoidance and mitigation for recreational impacts on heathland SPA.</li> </ul>
Thames Basin Heaths Joint Strategic Partnership Board (2009)	Thames Basin Heaths SPA Delivery Framework	<ul style="list-style-type: none"> <li>Sets out the agreed Framework regarding the Thames Basin Heaths SPA</li> </ul>
Environment Agency (various)	Stage 3 and Stage 4 Appropriate Assessments: Review of Consents	<ul style="list-style-type: none"> <li>Understanding of existing conditions at European sites</li> </ul>
Environment Agency (2009a)	Water for People and the Environment: Water Resources Strategy Regional Action Plan for Thames Region	<ul style="list-style-type: none"> <li>Water resources.</li> </ul>
Environment Agency (2003)	The Loddon Catchment Abstraction Management Plan	<ul style="list-style-type: none"> <li>Sets out the Environment Agency’s position regarding future abstraction within the Loddon Catchment</li> </ul>
South East Water (Jan 2010)	Revised Draft Water Resource Management Plan	<ul style="list-style-type: none"> <li>Sets out the proposed approach to providing water resources in the future</li> </ul>
Veolia Water Central (March 2010)	Final Water Resource Management Plan	<ul style="list-style-type: none"> <li>Sets out the proposed approach to providing water resources in the future</li> </ul>

Document		Relevant contents
Environment Agency (2009b)	River Basin Management Plan: Thames River Basin District	<ul style="list-style-type: none"> <li>• Sets out the Environment Agency's position regarding future management within the Thames river basin</li> </ul>
Environment Agency (2006)	Creating a Better Place: Planning for Water Quality and Growth in the South East. Version 11	<ul style="list-style-type: none"> <li>• Sewage treatment capacity.</li> </ul>
Capita Symonds Ltd (2008)	Surrey Heath Strategic Flood Risk Assessment	<ul style="list-style-type: none"> <li>• Background to potential water quality impacts from flooding in Surrey Heath</li> </ul>
Government Office for the South East (2009)	The South East Plan (final version)	<ul style="list-style-type: none"> <li>• Housing figures for Surrey Heath borough and for surrounding boroughs.</li> <li>• Other local proposals.</li> <li>• General development context for SE England.</li> </ul>
Assessors Report by Peter Burley (2007)	Report to the Panel for the Draft South East Plan Examination in Public on the Thames Basin Heaths Special Protection Area and Natural England's Draft Delivery Plan. 19 February 2007.	<ul style="list-style-type: none"> <li>• Comments on Natural England's Draft Delivery Document.</li> </ul>
Liley, D., Jackson, D., & Underhill-Day, J.C. 2005.	<i>Visitor access patterns on the Thames Basin Heaths.</i> Natural England Research Report	<ul style="list-style-type: none"> <li>• Information on recreational catchment of Thames Basin Heaths</li> </ul>
Reigate and Banstead Borough Council (2009)	Revised Appropriate Assessment of the Core Strategy for Reigate & Banstead Incorporating the Assessment of the Council's Suggested Modifications (to The Planning Inspector) to the Core Strategy	<ul style="list-style-type: none"> <li>• Contains visitor information on Mole Gap to Reigate Escarpment SAC</li> </ul>

## 3 Pathways of impact

### 3.1 Introduction

3.1.1 In carrying out an HRA it is important to determine the various ways in which land use plans can impact on European sites by following the pathways along which development can be connected with European sites, in some cases many kilometres distant. Briefly defined, pathways are routes by which a change in activity associated with a development can lead to an effect upon a European site.

### 3.2 Urbanisation

3.2.1 This impact is closely related to recreational pressure, in that they both result from increased populations within close proximity to sensitive sites. Urbanisation is considered separately as the detail of the impacts is distinct from the trampling, disturbance and dog-fouling that results specifically from recreational activity. The list of urbanisation impacts can be extensive, 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>3</sup>. Alien species may also be introduced deliberately or may be bird-sown from local gardens.
- 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>4</sup>. A large proportion of domestic cats are found in urban situations, and increasing urbanisation is likely to lead to increased cat predation.

3.2.2 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.

3.2.3 After extensive research, Natural England and its partners produced a 'Delivery Plan' (superceded by the Delivery Framework in February 2009) 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) was determined at 400m from the SPA boundary. The Delivery Framework concluded that the adverse effects of any development located within 400m of the SPA boundary could not be mitigated, partly since this was the range within cats could be expected to roam as a matter of routine and there was no realistic way of restricting their movements, and partly due to other proximity effects including garden waste dumping, garden extensions, fly tipping, accidental and malicious fires

<sup>3</sup> Gilbert, O. & Bevan, D. 1997. The effect of urbanisation on ancient woodlands. *British Wildlife* 8: 213-218.

<sup>4</sup> Woods, M. et al. 2003. Predation of wildlife by domestic cats *Felis catus* in Great Britain. *Mammal Review* 33, 2 174-188

and human recreational pressure where mitigation measures would be unlikely to be effective given the short walking distance.

3.2.4 The Surrey Heath DPD policy CP14 (Biodiversity and Nature Conservation) specifically states that '*no new residential development will be permitted within 400m of the [Thames Basin Heaths] SPA or [Thursley, Ash, Pirbright and Chobham] SAC*'

3.2.5 Therefore it can be concluded that there will be no significant urbanisation impacts of development within Surrey Heath on European sites, other than those which are associated with recreation.

### 3.3 Recreational pressure

3.3.1 Consultation for the HRA of the South East Plan revealed that potentially damaging levels of recreational pressure are already faced by many European sites. Recreational use of a site has the potential to:

- Cause disturbance to sensitive species, particularly ground-nesting birds such as woodlark and nightjar, and wintering wildfowl;
- Prevent appropriate management or exacerbate existing management difficulties;
- Cause damage through erosion; and
- Cause eutrophication as a result of dog fouling.

3.3.2 Different types of European sites (e.g. heathland, chalk grassland) 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.

3.3.3 The effects of recreation on heathland sites have been described in a series of recent reports<sup>5 6 7 8 9 10 11 12 13</sup>. It would appear that recreational pressure can have a significant adverse effect on the Annex 1 bird species for which the SPAs in this area are designated. Disturbance can have an adverse effect in various ways, with increased nest predation by natural predators as a result of adults being flushed from the nest and deterred from returning to it by the presence of people and dogs likely to be a particular problem. Disturbance may also have indirect impacts on breeding success of sensitive species as birds may be displaced from optimal habitat to less suitable areas where breeding success may be lower. A literature review on the effects of

<sup>5</sup> Liley, D. and R.T. Clarke (2002) – Urban development adjacent to heathland sites in Dorset: the effect on the density and settlement patterns of Annex 1 bird species. *English Nature Research Reports*, No. 463.

<sup>6</sup> Murison, G. (2002) – The impact of human disturbance on the breeding success of nightjar *Caprimulgus europaeus* on heathlands in south Dorset, England. *English Nature Research Reports*, No. 483.

<sup>7</sup> Land Use Consultants (2005) – Going, going, gone? The cumulative impact of land development on biodiversity in England. *English Nature Research Reports*, No. 626.

<sup>8</sup> Rose, R.J. and R.T. Clarke (2005) – Urban impacts on Dorset Heathlands: Analysis of the heathland visitor questionnaire survey and heathland fires incidence data sets. *English Nature Research Reports*, No. 624.

<sup>9</sup> Tyldesley, D. and associates (2005) – Urban impacts on Dorset heaths: A review of authoritative planning and related decisions. *English Nature Research Reports*, No. 622.

<sup>10</sup> Underhill-Day, J.C. (2005) – A literature review of urban effects on lowland heaths and their wildlife. *English Nature Research Reports*, No. 623.

<sup>11</sup> Langston, R. H. W., Liley, D., Murison, G., Woodfield, E. & Clarke, R. T. (2007) What effects do walkers and dogs have on the distribution and productivity of breeding European Nightjar *Caprimulgus europaeus*? *Ibis*, 149, 27-36.

<sup>12</sup> Underhill-Day, J. C. & Liley, D. (2007) Visitor patterns on southern heaths: a review of visitor access patterns to heathlands in the UK and the relevance to Annex 1 bird species. *Ibis*, 149, 112-119.

<sup>13</sup> Clarke, R. T., Liley, D. & Sharp, J. (2008) Assessment of visitor access effects and housing on nightjar numbers on the Thames Basin Heaths and Dorset Heaths SPAs. *Footprint Ecology / Natural England*.

human disturbance on bird breeding found that 36 out of 40 studies reported reduced breeding success as a consequence of disturbance<sup>14</sup>. The main reasons given for the reduction in breeding success were nest abandonment and increased predation of eggs or young. Over years, studies of other species have shown that birds nest at lower densities in disturbed areas, particularly when there is weekday as well as weekend pressure<sup>15</sup>.

- 3.3.4 A number of studies have shown that birds are affected more by dogs and people with dogs than by people alone, with birds flushing more readily, more frequently, at greater distances and for longer<sup>10</sup>. In addition, 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>16</sup>.
- 3.3.5 Underhill-Day<sup>10</sup> summarises the results of visitor studies that have collected data on the use of semi-natural habitat by dogs. In surveys where 100 observations or more were reported, the mean percentage of visitors who were accompanied by dogs was 54.0%.
- 3.3.6 However 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>17</sup>. A recent literature review undertaken for the RSPB<sup>18</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.
- 3.3.7 It should be emphasised that recreational use is not inevitably a problem. Many European sites are also National Nature Reserves (e.g. Thursley Common) or nature reserves managed by wildlife trusts and the RSPB. At these sites, access is encouraged and resources are available to ensure that recreational use is managed appropriately.
- 3.3.8 Where increased recreational use is predicted to cause adverse impacts on a site, avoidance and mitigation should be considered. Avoidance of recreational impacts at European sites involves location of new development away from such sites; Local Development Frameworks (and other strategic plans) provide the mechanism for this. Where avoidance is not possible, mitigation will usually involve a mix of access management, habitat management and provision of alternative recreational space.
- *Access management* – restricting access to some or all of a European site - is not usually within the remit of the Borough Council and restriction of access may contravene a range of Government policies on access to open space, and Government objectives for increasing

<sup>14</sup> Hockin, D., M. Oundsted, M. Gorman, D. Hill, V. Keller and M.A. Barker (1992) – Examination of the effects of disturbance on birds with reference to its importance in ecological assessments. *Journal of Environmental Management*, **36**, 253-286.

<sup>15</sup> Van der Zande, A.N., J.C. Berkhuisen, H.C. van Letesteyn, W.J. ter Keurs and A.J. Poppelaars (1984) – Impact of outdoor recreation on the density of a number of breeding bird species in woods adjacent to urban residential areas. *Biological Conservation*, **30**, 1-39.

<sup>16</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>17</sup> Gill et al. (2001) - Why behavioural responses may not reflect the population consequences of human disturbance. *Biological Conservation*, **97**, 265-268

<sup>18</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.

exercise, improving health etc. However, active management of access may be possible, for example as practised on nature reserves.

- *Habitat management* is not within the direct remit of the Council. However the Council can help to set a framework for improved habitat management by promoting cross-authority collaboration and S106 funding of habitat management. In the case of Surrey Heath, there may be opportunities for this since, according to Natural England, large areas of Site of Special Scientific Interest habitat underpinning SAC/SPA in Surrey Heath are not currently in favourable condition<sup>19</sup>.
- *Provision of alternative recreational space* can help to attract recreational users away from sensitive European sites, and reduce additional pressure on them. Some species for which European sites have been designated are particularly sensitive to dogs, and many dog walkers may be happy to be diverted to other, less sensitive, sites. However the location and type of alternative space must be attractive for users to be effective.

3.3.9 It must be noted that this HRA does not seek to re-examine the principles underlying the Thames Basin Heaths Delivery Framework, as it is considered that these have been subject to considerable technical scrutiny, have been endorsed by Natural England and formed part of the evidence base for the South East Plan that was taken into account when it passed Examination in Public in 2007 and was subsequently adopted by the Secretary of State in 2009.

## 3.4 Atmospheric pollution

3.4.1 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.

**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, bed rock 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 which 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.

<sup>19</sup> <http://www.natureonthemap.org.uk/>

Pollutant	Source	Effects on habitats and species
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 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 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 of O <sub>3</sub> above 40 ppb can be toxic to humans and wildlife, and can affect buildings. Increased 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.

3.4.2 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 Local Development Frameworks. NO<sub>x</sub> emissions, however, are dominated by the output of vehicle exhausts (more than half of all emissions). Within a 'typical' housing development, by far the largest contribution to NO<sub>x</sub> (92%) will be made by the associated road traffic. Other sources, although relevant, are of minor importance (8%) in comparison<sup>20</sup>. 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 LDF.

3.4.3 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>21</sup> of atmospheric nitrogen deposition (that is, NO<sub>x</sub> combined with ammonia NH<sub>3</sub>) for key habitats within the European sites

<sup>20</sup> Proportions calculated based upon data presented in Dore CJ et al. 2005. UK Emissions of Air Pollutants 1970 – 2003. UK National Atmospheric Emissions Inventory. <http://www.airquality.co.uk/archive/index.php>

<sup>21</sup> The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur

considered within this assessment (Table 5.). All sites currently exceed their critical loads for nitrogen deposition although all also have NO<sub>x</sub> concentrations below the critical level.

**Table 5. Critical nitrogen loads, actual rates of nitrogen deposition and NO<sub>x</sub> concentrations<sup>22</sup> for the ten European sites considered within this assessment (APIS<sup>23</sup> data accessed on 29/06/10)**

Site	Grid reference <sup>24</sup>	Key habitats	Minimum critical loads (Kg N/ha/yr) <sup>25</sup>	Actual nitrogen deposition <sup>26</sup>	Actual NO <sub>x</sub> concentration (µgm <sup>-3</sup> )
Thames Basin Heaths SPA	SU929608	Wet heaths	10	15.0	28.8
		Dry heath	10		
Thursley, Ash, Pirbright and Chobham SAC		Coniferous woodland	10		
		Raised bog and blanket bog	5		
Thursley, Hankley and Frensham Commons SPA	SU890433	Wet heaths	10	14.7	14.6
		Dry heath	10		
		Raised bog and blanket bog	5		
Thursley and Ockley Bogs Ramsar site	SU906420	Raised bog and blanket bog	5	16.0	16.4
Windsor Forest and Great Park SAC	SU 963687	Oak woodland	10	28.6	26.3
		Beech forest	10		
South West London Waterbodies SPA and Ramsar	TQ023679	Open water	NA	32.3	36.9
		Improved grassland	NA		
		Mixed woodland	10		
Mole Gap to Reigate Escarpment SAC	TQ155544	Dry calcareous grassland	15	16.5	20.0
		Yew woodland	NA		
		Box scrub	NA		
Wealden Heaths Phase 2 SPA	SU894384	Dry heath	10	16.8	14.9
		Coniferous woodland	10		
		Beech woodland	10		
		Beech woodland	10		
East Hampshire Hangers SAC	SU790404	Dry calcareous grassland	15	17.4	14.7
		Beech forest	10		
		Mixed woodland	10		
		Yew dominated woodland	10		
			10		

<sup>22</sup> As NO<sub>2</sub>

<sup>23</sup> UK Air Pollution Information System. <http://www.apis.ac.uk>

<sup>24</sup> For sites outside Surrey Heath borough, grid references relate to the closest points to the District.

<sup>25</sup> APIS provides a critical load range – on a precautionary basis, this assessment uses the lowest figure in that range

<sup>26</sup> To a resolution of 5 km

Site	Grid reference <sup>24</sup>	Key habitats	Minimum critical loads (Kg N/ha/yr) <sup>25</sup>	Actual nitrogen deposition <sup>26</sup>	Actual NOx concentration (µgm <sup>-3</sup> )
Burnham Beeches SAC	SU950842	Beech woodland	10	17.1	38.4

3.4.4 The National Expert Group on Transboundary Air Pollution (2001)<sup>27</sup> concluded that:

- In 1997, critical loads for acidification were exceeded in 71% of UK ecosystems. This was expected to decline to 47% by 2010.
- Reductions in SO<sub>2</sub> concentrations over the last three decades have virtually eliminated the direct impact of sulphur on vegetation.
- By 2010, deposited nitrogen was expected to be the major contributor to acidification, replacing the reductions in SO<sub>2</sub>.
- Current nitrogen deposition is probably already changing species composition in many nutrient-poor habitats, and these changes may not readily be reversed.
- The effects of nitrogen deposition are likely to remain significant beyond 2010.
- Current ozone concentrations threaten crops and forest production nationally. The effects of ozone deposition are likely to remain significant beyond 2010.
- Reduced inputs of acidity and nitrogen from the atmosphere may provide the conditions in which chemical and biological recovery from previous air pollution impacts can begin, but the timescales of these processes are very long relative to the timescales of reductions in emissions.

3.4.5 Grice et al<sup>28 29</sup> do however suggest that air quality in the UK will improve significantly over the next 15 years due primarily to reduced emissions from road transport and power stations.

#### **Local air pollution**

3.4.6 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>30</sup>.

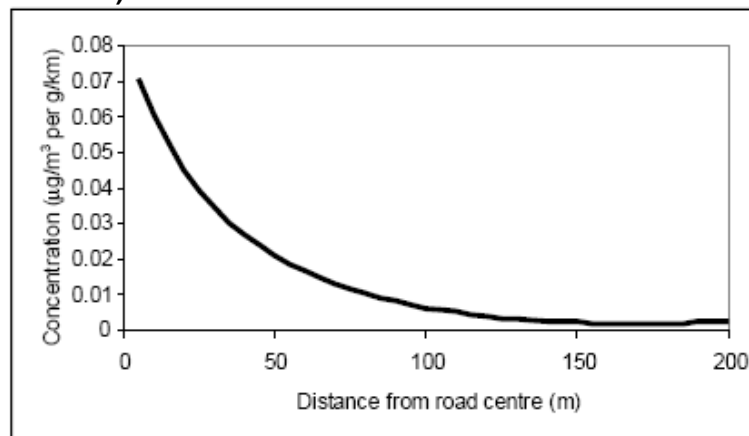
<sup>27</sup> National Expert Group on Transboundary Air Pollution (2001) Transboundary Air Pollution: Acidification, Eutrophication and Ground-Level Ozone in the UK.

<sup>28</sup> Grice, S., T. Bush, J. Stedman, K. Vincent, A. Kent, J. Targa and M. Hobson (2006) Baseline Projections of Air Quality in the UK for the 2006 Review of the Air Quality Strategy, report to the Department for Environment, Food and Rural Affairs, Welsh Assembly Government, the Scottish Executive and the Department of the Environment for Northern Ireland.

<sup>29</sup> Grice, S., J. Stedman, T. Murrells and M. Hobson (2007) Updated Projections of Air Quality in the UK for Base Case and Additional Measures for the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007, report to the Department for Environment, Food and Rural Affairs, Welsh Assembly Government, the Scottish Executive and the Department of the Environment for Northern Ireland.

<sup>30</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)**



3.4.7 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 by development under the Core Strategy. Given that sites detailed in Table 6 lie within 200m of major roads that may be regularly used by vehicle journeys arising from Surrey Heath as a result of the increased population, it was concluded that air quality should be included within the scope of this assessment. The location of these roads in relation to the European sites is shown in Figures 3a and 3b.

**Table 6. Major roads within 200 m of the ten European sites considered in detail within this assessment**

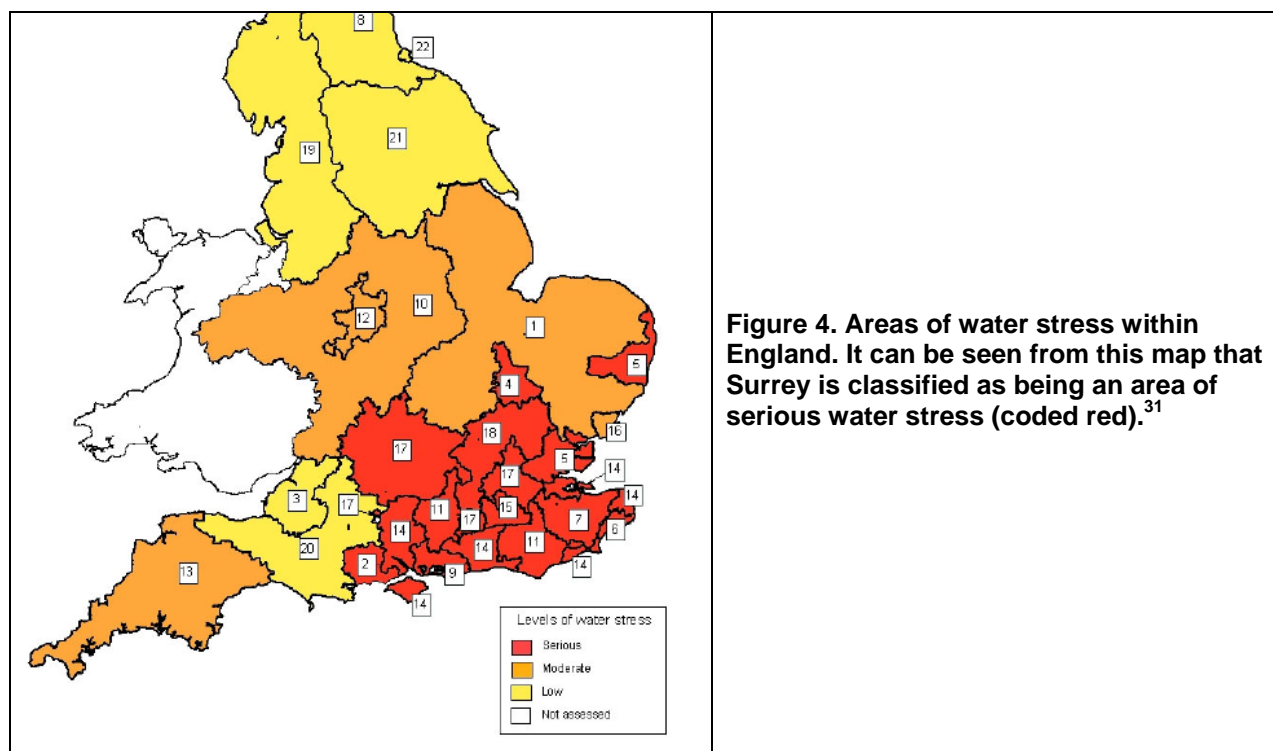
Site	Proximity to major roads
Thames Basin Heaths SPA	Lies close to various major roads including the A3095, A322 and M3 within Surrey Heath, as well as several B-roads, and A-roads beyond Surrey heath that connect to major routes within the borough.
Thursley, Ash, Pirbright and Chobham Common SAC	Lies close to various major roads including the A322 and M3 within Surrey Heath, as well as several B-roads, and A-roads beyond Surrey Heath (including the A3) that connect to major routes within the borough.
Thursley Hankley & Frensham Commons SPA	Lies close to the A3
Thursley & Ockley Bogs Ramsar	No major roads.
Windsor Forest and Great Park SAC	Lies close to the A329 and A332
South West London Waterbodies SPA and Ramsar	Lies close to the M3, M25, and several A-roads within the M25 ring.
Mole Gap to Reigate Escarpment SAC	Lies close to M25 (though a considerable distance from Surrey Heath), and also to the A24
Wealden Heaths Phase 2 SPA	Lies close to the A3
East Hampshire Hangers SAC	No major roads
Burnham Beeches SAC	Lies close to the A355

### **Diffuse air pollution**

- 3.4.8 In addition to the contribution to local air quality issues, development can also contribute cumulatively to an overall deterioration in background air quality across an entire region. In July 2006, when this issue was raised by Runnymede Borough Council in the South East, Natural England advised that their Local Development Framework '*can only be concerned with locally emitted and short range locally acting pollutants*' as this is the only scale which falls within a local authority remit. It is understood that this guidance was not intended to set a precedent, but it inevitably does so since (as far as we are aware) it is the only formal guidance that has been issued to a Local Authority from any Natural England office on this issue.
- 3.4.9 In the light of this, diffuse air quality issues will not therefore be considered further within this HRA.

## 3.5 Water abstraction

3.5.1 The South East is generally an area of high water stress (see Figure 4).



3.5.2 Development within Surrey Heath Borough over the plan period will increase water demand.

3.5.3 Part of Surrey Heath lies within Veolia Water Central's supply area, specifically their Southern Resource Zone. Veolia Water Central state in their Water Resource Management Plan (WRMP) that if expected reductions in water use as a result of metering are sustained in the longer term coupled with further leakage reductions, they will not need to develop any new water resources until after 2035. Their analysis indicates that they do not have a deficit of demand plus headroom over water availability before 2026. A supply-demand deficit emerges after 2025-26 so that at 2035 there is a supply demand surplus of 0.6 Ml/d at average demand and a deficit of 44 Ml/d during critical period demand. A combination of metering, resource development, strategic transfers, pressure management, water audits, optimisations of licences and water efficiency and water audit schemes are planned to address this long-term deficit.

3.5.4 The west of Surrey Heath borough is supplied by South East Water's Resource Zone 4 (RZ4). This is predicted to remain in surplus under average daily demand conditions throughout the lifetime of the Surrey Heath LDF. However, under a peak demand scenario, RZ4 is predicted to be in deficit by 2020. Taking into account Total Headroom, this could apply from 2015. South East Water intends to extend their water efficiency, leakage reduction and metering programmes into the zone in order to conserve resources. Surplus supply from South East Water's Resource Zone 5 will provide part support to meet any shortfall in Resource Zone 4 until 2035. A bulk supply to South East water's RZ4 is available from Veolia's Southern

<sup>31</sup> Figure adapted from Environment Agency. 2007. Identifying Areas of Water Stress. <http://publications.environment-agency.gov.uk/pdf/GEHO0107BLUT-e-e.pdf>

Resource Zone. The supply has a maximum capacity of 36 Ml/d and this capacity is often taken. In the longer term (post-2021) output enhancements from groundwater sources at Bray Gravel, Lasham, Woodgarston and West Ham PS are proposed.

- 3.5.5 According to the Loddon Catchment Abstraction Management Strategy, which applies to the west of the borough (including Camberley), Surrey Heath lies within Water Resource Management Unit 2 (Blackwater). This WRMU is assessed as having 'water available.' More water abstraction licences could be granted, but not so much as to change the status of the units to 'no water available'.

## 3.6 Water Quality

- 3.6.1 The Surrey Heath Infrastructure Requirements Interim Report<sup>32</sup> found that the Camberley STW was at capacity with planned expansion or improvement that will accommodate expected development up to 2016. Any increase in housing requirements up to 2016 would be a problem within this timeframe as the Camberley STW would be over capacity. Beyond 2016 there would be problems with capacity without improvements or expansion to the Camberley STW. There was no problem, either current or future, with the Lightwater and Chobham STW.
- 3.6.2 Treated wastewater from Surrey Heath borough discharges to the River Blackwater and therefore ultimately drains to the River Thames. Neither of these rivers are European sites. Moreover, research carried out by the Environment Agency has indicated that future sewage treatment capacity for the sewage treatment works within Surrey Heath can be rendered adequate to deal with projected growth to 2026 without upgrades being required<sup>33</sup> and will therefore not have an adverse effect upon receiving waters. However, further study is to be carried out for sewage treatment works that discharge into the River Blackwater Catchment, due to high phosphorus level recordings, and the EA also encountered problems related to unidentified ammonia sources. They therefore identified a need to carry out further study on Camberley STW.
- 3.6.3 In conclusion, no European designated sites are susceptible to reduced water quality through STW discharges arising from Surrey Heath borough, and therefore such considerations are screened out as not requiring further assessment. Impacts of direct run-off still require consideration for Thursley, Ash, Pirbright and Chobham SAC however.

## 3.7 Summary of Screening

- 3.7.1 All policies within the DPD were screened for potential conflicts within European sites when the Submission HRA was prepared. We have not updated the screening appraisal for the purposes of this report for reasons of simplicity. The majority of the policies could be 'screened out' as there was no potential for any of these policy options to result in adverse effects on European sites. The full screening table for the policies is contained within Appendix 2.
- 3.7.2 The following policies were deemed to require consideration as they may lead to adverse effects on European sites generally because they promote and determine the location or scale of development (particularly housing and commercial development):
- CP1 – Spatial Strategy

<sup>32</sup> Surrey Heath Borough Council 2005. Infrastructure Requirements Interim Report.

<sup>33</sup> Environment Agency. May 2006. Creating a Better Place: Planning for Water Quality and Growth in the South East

- CP3 – Scale and Distribution of New Housing
- CP4 – Deepcut
- CP7 – Gypsies and Travellers and Travelling Showpeople
- CP8 – Employment
- CP9 – Hierarchy and Role of Centres
- CP10 – Camberley Town Centre
- DM1 – The Rural Economy
- DM2 – Development Within Chobham
- DM3 – Equestrian Related Development
- DM4 – Replacement, Extension or Alteration of Existing Residential Dwellings in the Countryside beyond the Green Belt
- DM5 – Rural Exception Sites

3.7.3 It should be noted that only policies that have the potential for negative impact on European sites are screened in for assessment. Those policies that might have a beneficial effect are referred to where appropriate in the following chapters, but have not been actually assessed. This is due to the fact that HRA is only concerned with adverse effects.

## 4 Thames Basin Heaths SPA

### 4.1 Introduction

4.1.1 Thames Basin Heaths Special Protection Area consists of a number of fragments of lowland heathland scattered across Surrey, Hampshire and Berkshire. It is predominantly dry and wet heath but also includes area of deciduous woodland, gorse scrub, acid grassland and mire, as well as associated conifer plantations. Around 75% of the SPA has open public access being either common land or designated as open country under the Countryside and Rights of Way Act 2000. The SPA consists of 13 Sites of Special Scientific Interest. Three of the SSSIs are also designated as part of the Thursley, Ash, Pirbright and Chobham Special Area of Conservation.

4.1.2 Four SSSI units that are contiguous with the SPA lie within Surrey Heath borough – these are Ash to Brookwood Heaths; Broadmoor to Bagshot Woods and Heaths; Chobham Common; and Colony Bog and Bagshot Heath.

4.1.3 The location of the Thames Basin Heaths has resulted in the area being subject to high development pressure. English Nature (now Natural England) published a Draft Delivery Plan for the Thames Basin Heaths SPA in May 2006, partly in response to the European Court of Justice ruling of October 2005. This is updated by the 'Thames Basin Heaths Special Protection Delivery Framework' published by the Thames Basin Heaths Joint Strategic Partnership Board in January 2009. These documents aim to allow a strategic approach to accommodating development by providing a method through which local authorities can meet the requirements of the Habitats Regulations through avoidance and mitigation measures.

### 4.2 Features of European Interest<sup>34</sup>

4.2.1 Thames Basin Heaths 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:
  - Nightjar *Caprimulgus europaeus*: 7.8% of the breeding population in Great Britain (count mean, 1998-1999);
  - Woodlark *Lullula arborea*: 9.9% of the breeding population in Great Britain (count as at 1997);
  - Dartford warbler *Sylvia undata*: 27.8% of the breeding population in Great Britain (count as at 1999).

4.2.2 These species nest on or near the ground and as a result are susceptible to predation and disturbance.

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<sup>34</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.

## 4.3 Historic Trends and Current Conditions

- 4.3.1 At the beginning of the 20th Century the Thames Basin Heaths area could be considered a mainly heathland landscape. However its location to the south west of London, on the M3 corridor has led to high development pressure from the mid 20th Century continuing into the present day. A 53% loss in the total area of heathland has occurred over the last 100 years in the Thames Basin Heaths area<sup>35</sup>. At the same time the non-heathland open land declined by only 29% showing a disproportionately high loss of heaths.
- 4.3.2 Natural England and its partners have produced a 'Delivery Plan' which makes recommendations for accommodating development while also protecting the interest features of the European site. This includes the recommendation of implementing a series of zones within which varying constraints are placed upon development. While the zones relating to recreational pressure expand 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) was determined at 400m from the SPA boundary. The delivery plan concludes that the adverse effects of any development located within 400m of the SPA boundary cannot be mitigated since this is the range within cats can be expected to roam as a matter of routine and there is no realistic way of restricting their movements, and as such, no new housing should be located within this zone.
- 4.3.3 The Thames Basin Heaths Joint Strategic Partnership (JSP) was subsequently established to plan the long-term protection of the Thames Basin Heaths SPA in a consistent and coordinated way. A Delivery Framework was endorsed by the JSP in February 2009.
- 4.3.4 In the most recent Natural England site condition assessment, Ash to Brookwood Heath SSSI had 13% area in favourable condition, with 85% recovering from unfavourable status (2006-09); Broadmoor to Bagshot Woods and Heaths was 66% favourable and 30% unfavourable recovering (2009-10); Chobham Common had 49% unfavourable declining and 35% unfavourable with no change (2004-09); and Colony Bog and Bagshot Heath had 93% unfavourable recovering (2001-10). The major reasons for unfavourable status related to inappropriate vegetation structure.

## 4.4 Key environmental conditions

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

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<sup>35</sup> Natural England (English Nature) (2006). Thames Basin Heaths Special Protection Area: Mitigation Standards For Residential Development

- Maintenance of water quality

## 4.5 Potential effects of the plan

4.5.1 Three potential impacts of the Surrey Heath DPD upon the SPA have been identified:

- Recreational disturbance
- Air pollution
- Reduction of water levels

### Recreational Pressure

4.5.2 Ground-nesting birds are vulnerable to disturbance, particularly from walkers and dogs. Disturbance can have an adverse effect in various ways, with increased nest predation by natural predators as a result of adults being flushed from the nest and deterred from returning to it by the presence of people and dogs likely to be a particular problem. Several studies have demonstrated that site-specific information is required to understand the relationship between recreational use of a site and any disturbance effects.

4.5.3 An estimated 5 million visitors use the Thames Basin Heaths per annum and of those people interviewed 13% had arrived on foot from less than 1.5km away and 83% had driven from within 5 km<sup>36</sup>. The survey was conducted at a number of access points to the SPA and reported a positive correlation between the number of visitors recorded and both the proximity of the access point to a residential area and the amount of parking available.

4.5.4 The population of the 11 authorities around the Thames Basin Heaths SPA is forecast to increase from 1.19 million in 2003 (1.21 million in 2006) to 1.3 million in 2026 (2003 sub-national population projections). This 10% increase in population is notwithstanding the forecasted reduction in average household size or any changes in population growth trends subsequent to the 2003 statistics. The projected 10% growth in population (assuming similar usage of recreational facilities) could lead to at least comparable increase in visits to the Thames Basin Heaths<sup>37</sup>. Such an increased use could have a cumulative impact upon the SPA (and the other nearby European sites).

4.5.5 Given that nowhere in Surrey Heath is greater than 3km from the Thames Basin Heaths SPA, then an increase of 3,240 new dwellings requires concomitant development of open space and recreational facilities that are appropriate to deflect users from the SPA.

4.5.6 Analysis of the Strategic Housing Land Availability Assessment (SHLAA) shows that of the 741 deliverable dwellings in Core Strategy years 1-5, 467 have already been assigned to strategic SANGS or have their own bespoke SANGS solution. There is currently capacity for a further 2,200 dwellings in the Borough based on confirmed SANGS as set out in the Table below.

<sup>36</sup> Liley, D. et al. 2005. Visitor access patterns on the Thames Basin Heaths. *English Nature Research Report*, English Nature, Peterborough

<sup>37</sup> Submission of Wokingham Borough Council (7265) to the Thames Basin Heaths Technical Sessions for the Examination in Public of The South East Plan

**Table 1: Estimated Capacity (2011-2028) of Confirmed SANGS**

<b>SANGS</b>	<b>Details</b>	<b>Capacity</b>
Chobham Place Woods	As at 31st March 2011 (date of SHLAA review in terms of completions & commitments) there was capacity remaining at the Chobham Place Woods SANGS for 59 units. This SANGS provides for sites of 9 or less dwellings across the Borough or sites of 10 or more dwellings within 2km of that SANGS.	59
Hawley Meadows	A SANGS which allows developments of 10 or more residential units to come forward in the Camberley, Frimley, Frimley Green and Mytchett areas of the Borough has now been implemented in the form of the Hawley Meadows and Blackwater Valley Park SANGS. This is a shared SANGS with Rushmoor Borough and Hart District Council's and Surrey Heaths' proportion equates to 475 dwellings.	475 (attributable to Surrey Heath)
Heather Farm	Further work is being undertaken to deliver a SANGS in the east of the Borough at Heather Farm in Chobham /Mimbridge with capacity shared between Surrey Heath and Woking Borough Council's. The Heather Farm SANGS is expected to be implemented in 2011 with capacity in Surrey Heath for 466 residential units. This would allow small sites of 9 or less dwellings to come forward across the Borough or larger sites of 10 or more units in parts of the east of the Borough.	466
Princess Royal Barracks	The Core Strategy & Development Management Policies DPD also allocates the Princess Royal Barracks site, Deepcut for residential led development of 1200 dwellings. This has the ability to provide its own bespoke on-site SANGS solution and as such this SANGS has capacity for 1200 units <sup>38</sup> .	1200
<b>Total</b>		<b>2,200</b>

4.5.7 In addition, Defence Estates confirmed at the Core Strategy Examination that there is the possibility of providing an additional 10ha of SANGS at the Princess Royal Barracks, which does not have to be tied into higher dwelling numbers on that particular site. Based on a rate of SANGS provision of at 8ha per 1,000 population this amounts to potential capacity for 521 dwellings within a 5km catchment (assuming dwelling occupation rate of 2.4). This would cover the majority of Camberley and all of Frimley, Frimley Green, Mytchett and Deepcut.

4.5.8 The Core Strategy also sets out an intention to acquire a site for SANGS at Lake Road/St Catherine's Road in Frimley Green. This is a 30ha site, part of which is covered by an SNCI which already has public access. A site of this size would be likely to deliver capacity for 1,562 dwellings in the Camberley, Frimley, Frimley Green, Mytchett and Deepcut areas of the Borough. However, as part of the site is already publicly accessible, discounting would apply, which if applied at 50% yields a capacity of 781. Further, acquisition of the site is not a straightforward process under Compulsory Purchase (CPO) as the Borough Council would have to demonstrate that the SANGS is required i.e. there are no other SANGS solutions available. If this site could be achieved then Surrey Heath's probable SANGS capacity would be sufficient to support approximately 3, 502 dwellings.

4.5.9 The amendment of CP3 to seek to deliver 3,240 dwellings would involve delivery of sufficient SANGS to accommodate the residual South East Plan allocation. Policy NRM5 and NRM6 of the South East Plan (as adopted) set out the regionally agreed approach to SANGS for the

<sup>38</sup> As this is a bespoke solution for a large development close to the SPA the SANGS requirement will need to be over and above the Delivery Framework standard

- Thames Basin Heaths (including a provision rate of 8ha/1000 population) and were based upon the housing levels identified in the South East Plan; an Appropriate Assessment of the RSS was undertaken and the Plan was adopted with the agreement of Natural England on that basis. As such it is reasonable to conclude that the 8ha/1000 population standard for SANGS provision will be suitable for all housing up to the adopted South East Plan levels.
- 4.5.10 Since 467 dwellings have already been assigned to SANGS or have their own bespoke SANGS solution sufficient SANGS (at a rate of 8/1000 population) to accommodate a further 2,773 dwellings would be required. Current confirmed<sup>39</sup> additional SANGS capacity in the borough is 2,200. There would therefore be a shortfall based upon confirmed SANGS (573 dwellings or 18% of the total housing required). However, given the realistic prospect that both the additional land at Princess Royal Barracks and the potential SANGS at Lake Road/St Catherine's Road in Frimley Green could be achieved before the end of the plan period (2028) it is considered that despite this current shortfall the risk of being unable to deliver adequate SANGS over the Core Strategy period to meet the requirement is small.
- 4.5.11 Moreover, the reworded Policy CP14B provides a fundamental safeguard in that it states clearly that all net new residential development shall provide or contribute to SANGS at a rate of at least 8ha/1000 population. The obvious corollary of this is that net new dwellings that cannot provide or contribute to SANGS at a rate of at least 8ha/1000 population would fail to comply with Council policy and could not therefore be permitted.
- 4.5.12 In the event therefore that the two currently un-confirmed SANGS mentioned above did not come forward, there would still be no risk of an adverse effect on the SPA since Policy CP14B would require the Council to either meet the SANGS provision from alternative strategic SANGS, meet the shortfall by releasing development sites that can provide their own SANGS, or revise its overall housing allocation to reflect that for which SANGS could definitely be provided e.g. 2,667 net new dwellings based on current estimates<sup>40</sup>. The approach set out in Policy CP14B would also comply with South East Plan policy NRM5 which states that *'In the event that a local planning authority concludes that it cannot distribute an allocation accordingly, or otherwise avoid or adequately mitigate any adverse effect, it should make provision up to the level closest to its original allocation for which it can be concluded that it can be distributed without adversely affecting the integrity of any European sites'*.
- 4.5.13 It is therefore concluded that despite the residual uncertainty regarding the SANGS required for approximately 18% of the residual South East Plan target to be delivered by the end of the Core Strategy period, the Core Strategy does include clear policy protection to ensure that adverse effects on the integrity of the SPA will not occur even if the remaining unconfirmed SANGS cannot be guaranteed. It would be preferable for Policy CP3 and/or CP14 to acknowledge the uncertainties associated with delivery of 573 dwellings towards the end of the plan period, but this would be a matter of clarity rather than essential requirement to avoid an adverse effect.
- 4.5.14 In addition to provision of SANGS, the other key element of the approach for avoiding impacts on the SPA is the implementation of a Strategic Access Management & Monitoring Strategy (SAMMS) which is being steered by Natural England. This is close to completion and is likely to be implemented during summer 2011 with agreement from all 11 local authorities affected by

<sup>39</sup> Agreed with Natural England

<sup>40</sup> All of those that either already have their own SANGS solution or for which strategic SANGS are already confirmed. In a sense therefore, 2,667 dwellings could be considered the 'worst case' scenario housing level from a deliverability point of view in that this is the housing for which SANGS can definitely be provided.

the SPA along with Natural England. As such it would be in place before the Core Strategy was adopted.

4.5.15 Moreover, Surrey Heath's Proposed Submission Core Strategy and Development Management Policies DPD does contain strong mitigation to reduce its potential contribution toward impacts on the SPA:

- Policy CP14B has been drafted with input from Natural England and specifically addresses protection of the Thames Basin Heaths SPA. The policy states that 'The Council will only permit development where it is satisfied that this will not give rise to likely significant adverse effect upon the integrity of the Thames Basin Heaths Special Protection Area. All new residential (net) development within 5km of the Thames Basin Heaths Special Protection Area is considered to give rise to the possibility of likely significant effect. Accordingly only new development that complies with the following requirements will be permitted.
  - (i) No (net) new residential development will be permitted within 400m of the SPA.
  - (ii) Non-residential development within 400m of the SPA will be required to demonstrate that it is not likely to have a significant effect either alone or in combination with other plans or projects.
  - Such measures shall include:
    - (iii) All net new residential development shall provide or contribute toward the provision of Suitable Alternative Natural Green Spaces (SANGS)
    - (iv) SANGS will be provided at a standard of at least 8ha per 1,000 new occupants.
    - (v) Developments of 10 or more net new dwellings will only be permitted within the identified catchment areas of SANGS
    - (vi) All net new residential development shall contribute toward strategic access management and monitoring (SAMM) measures
- Policy CP13 (Green Infrastructure), supported by CP14 (Biodiversity and Nature Conservation), clearly indicates that the Council will aim to provide an integrated network of green space across the borough and will work with partners to extend this beyond. In its policy wording the Council states that '*in considering proposals for any new development the Borough Council will encourage schemes which contribute toward, or provide, opportunities to enhance the function of existing green infrastructure, increase provision and improve connectivity.*'
- In the supporting text to policy CP13, it is stated that '*The Borough Council is working as part of a Joint Strategic Partnership of other local authorities affected by the SPA, together with SEEPB, Natural England, the local wildlife trusts and other organisations to find ways of ensuring harm does not occur to the SPA*' This is very positive given the dispersed nature of the Thames Basin Heaths SPA. It is indicated that part of the outcome of this partnership working will be implementation of Strategic Access Management and also monitoring, including visitor surveys.
- The supporting text to the overarching spatial strategy policy CP1 states that '*the overriding constraint that will determine how much, where and when most new housing development takes place within the Borough will be the need to avoid or mitigate for adverse effects upon the Thames Basin Heaths Special Protection Area and Thursley, Pirbright, Ash and*

*Chobham Special Area of Conservation both are protected under European and national legislation. A green infrastructure strategy will be central to addressing this constraint.'*

- In the supporting text to Policy CP3 (Scale and Distribution of New Housing) the Council expand on their plans for mitigating the effects of recreational pressure on European designated sites within (and beyond) the borough. *'The ability of the Borough to provide new housing...is dependent upon its ability to ensure that no harm is caused to the European sites. Some 23% of the Borough is covered by such sites and much of the area immediately around the Borough is also covered by this designation. As a result all new residential development in the Borough must contribute toward mitigation and avoidance measures. The agreed approach to avoidance and mitigation [is] the provision of areas of Suitable Alternative Natural Green Space (SANGS) and the setting up of an Access Management Project [as] set out in South East Plan Policy NRM 6.'* Given the potential revoking of the South East Plan, it would be logical for the key elements of Policy NRM6 to be incorporated into Core Strategy policy.
- Policy CP4 considers residential development at Deepcut. This policy explicitly states that development will not be allowed to harm European designated sites, and confirms that recreational impacts will be mitigated by the allocation of SANGS. It is noted that a small part of the site lies within Guildford borough, and that the Council's will liaise and produce a joint SPD.
- Policy CP10 deals with development in Camberley town centre, including the potential for up to 200 new homes. Again this policy specifically aims to avoid harm to European designated sites.

4.5.16 Given the measures outlined above we consider that there will be no adverse effects on the SPA as a consequence of recreational impacts resulting from the development described in the Core Strategy.

### Air Quality

4.5.17 Development proposed within the DPD is likely to result in increased car use, notably as a consequence of housing and business development. The revised Policy CP3 (Scale and Distribution of New Housing) indicates that 3,240 new homes will be delivered in the LDF timeframe, with the majority at Deepcut and Camberley. Policy CP8 (Employment) identifies the need for up to 7,500 new jobs, with a focus on Camberley. It is reasonable to assume that the increased population (both residential and business) and retail floorspace (primarily in Camberley as outlined in Policy CP10) will lead to increased vehicle movements.

4.5.18 When coupled with the 88, 800 new homes identified in Policy H1 of the South East Plan (May 2009) for the remaining Boroughs adjacent to the Heaths (Windsor & Maidenhead, Wokingham, Bracknell Forest, Basingstoke & Dean, Hart, Guildford, Rushmoor, Elmbridge, Mole Valley, Runnymede and Woking), there is an even greater likelihood of a substantial increase in traffic movements on the major roads that bisect the components of the SPA that lie within the Borough.

4.5.19 Modelling results suggest that the SPA is currently experiencing deposition rates of key pollutants that exceed the critical loads for nitrogen deposition and ozone. Information on actual (i.e. measured rather than modelled) deposition rates of key pollutants at the site, along with evidence that the site is suffering as a consequence of air pollution (i.e. survey data indicating a decline in vegetative quality in line with changes in air quality), are not available but

- the UK Air Pollution Information System data is considered to provide a reasonable approximation.
- 4.5.20 Several major roads pass close to the SPA and pollutants from traffic may have a limited effect on parts of the site; road-generated pollutants rarely extend beyond 200m, with most being deposited closer to the road especially within denser habitats. The A322 within Surrey Heath is an example of such a road that runs within 200m of the SPA, but the major artery of concern would be the M3, which bisects Chobham Common, and passes within 200m of the SPA elsewhere. Development at Camberley and Deepcut has potential to lead to traffic increases on this road, and in addition it is noted within the DPD that traffic flows on the M3 are projected to worsen, which could lead to increased traffic on other roads within Surrey Heath that may also run within 200m of the SPA. Without mitigation, it cannot be concluded that traffic increases in combination with increases resulting from development proposed within adjacent boroughs and beyond would not have an adverse effect upon the qualifying interests of the overall SPA.
- 4.5.21 Habitats at the roadside are often subject to qualitative deteriorations that may have little to do with atmospheric nitrogen deposition – for example the process of road construction can affect local drainage and can involve the importation of fill materials that are different in character to the substrates in the wider area, which can in turn both affect vegetation composition. Moreover, vegetative changes that theory identifies as being likely to result from atmospheric nitrogen deposition can fail to appear in practice since they are relatively subtle and can be dwarfed by changes in management regime. Separating out the effects of atmospheric nitrogen deposition and other causes is difficult and separating the effects of atmospheric nitrogen deposition arising from vehicle exhausts and that arising from other sources (e.g. agriculture) complicates the situation further.
- 4.5.22 For those measures which are available at the strategic planning level It is therefore extremely difficult to predict in advance the precise scale of improvement that can be delivered by a given mitigation measure (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), although a specified reduction can be set as a monitoring target against which the success or failure of mitigation measures can be defined.
- 4.5.23 Despite this, it would not be proportionate to conclude as a result of these knowledge gaps that there is no way that any development could ever be accommodated (since the absence of evidence is due to the novel nature of the mitigation tools available and the limitations of the science, rather than any indication that a problem exists).
- 4.5.24 The Council does include policies that seek to protect the SPA, and to both reduce traffic demand and improve public transport and non-motorised movement:
- The supporting text to the overarching spatial strategy policy CP1 states that *‘the overriding constraint that will determine how much, where and when most new housing development takes place within the Borough will be the need to avoid or mitigate for adverse effects upon the Thames Basin Heaths Special Protection Area and Thursley, Pirbright, Ash [sic] and Chobham Special Area of Conservation both are protected under European and national legislation.’* ‘Adverse effects’ are not limited in this policy and so would include adverse air quality effects.
  - In the supporting text to Policy CP3 (Scale and Distribution of New Housing) the Council state that *‘the ability of the Borough to provide new housing...is dependent upon its ability to*

*ensure that no harm is caused to the European sites. Some 23% of the Borough is covered by such sites and much of the area immediately around the Borough is also covered by this designation. As a result all new residential development in the Borough must contribute toward mitigation and avoidance measures.'* Again, the nature of such measures is not explicitly defined, but could cover delivery of air quality enhancements.

- Policy CP4 considers residential development at Deepcut, which will provide almost half the Council's projected allocation over the lifetime of the LDF. This policy explicitly states that development will not be allowed to harm European designated sites. It also promises *'measures to reduce the impact of traffic upon and arising from Deepcut which will include reducing demand for travel, improved public transport provision, a safe integrated footpath/cycle route network linking to neighbouring settlements and key services and improvements to the surrounding highway network.'* It is noted that a small part of the site lies within Guildford borough, and that the Council's will liaise and produce a joint SPD.
- Policy CP10 deals with development in Camberley town centre, including the potential for up to 200 new homes. Again this policy specifically aims to avoid harm to European designated sites.
- The supporting text to Policy CP8 notes the need for new employment opportunities to have regard for congestion on the road transport network. *'The issue of congestion is being explored through a joint study with neighbouring local authorities in Hart and Rushmoor, the county highways authorities for Hampshire and Surrey and the Highways Agency.'* The potential outcomes from this are not determined, but since free-flowing traffic generates considerably less localised air pollution than idling traffic, this is an important consideration.
- Crucially, Policy CP11 (Movement) sets out support for proposals to improve public transport, a partnership approach to improve walking and cycling routes and facilities, and the need for new development to reduce the need to travel. The approach is supported by policy DM11 (Traffic Management and Highway Safety), which also determines that *'development which would adversely impact the safe and efficient flow of traffic movement on the highway network will not be permitted unless it can be demonstrated that measures to reduce and mitigate such impacts to acceptable levels can be implemented.'* Since free-flowing traffic generates considerably less localised air pollution than idling traffic, this is an important consideration.
- On a smaller scale, policy DM6 ensures that sustainable transport links will be a consideration for any new gypsy and traveller provision.
- Policy CP12 (Infrastructure Delivery and Implementation) identifies the need for appropriate timing of infrastructure provision and provides a framework for funding its delivery. Transport is included as an infrastructure consideration within this policy.
- Importantly, the scale of intended achievement of these sustainable transport initiatives are quantified in the overarching Objective for travel and transport that underpins policies CP11 and DM11, setting targets for transport options including:
  - An indicative figure of 80% of all new dwellings or class B floorspace to be *'within 400m or 5 minute walk time of a half hourly bus service in urban areas and within 800m or a 10 minute walk time of an hourly bus service in rural areas (local)'*
  - An indicative figure of 50% of all new dwellings or class B floorspace to be *'within 10 minute walk time or 800m of rail service (local)'*
  - A confirmed figure of 50% of all major developments to have Travel Plans.

4.5.25 These constitute a highly extensive suite of policies, measures and initiatives to maximise use of sustainable transportation and thus minimise air quality deteriorations associated with new development. In line with our experiences elsewhere, we believe that some further tightening of measures is required. We recommend the Council should:

- Be explicit regarding the need for transport assessments required for planning applications to specifically include consideration of impacts on European sites, through which it can be demonstrated that all opportunities are being taken for minimizing car use in line with the objective targets identified above; and
- most importantly, develop a framework by which these measures can be linked to monitoring of the air quality in the European site before and for a number of years after introduction of the measures, such that further measures<sup>41</sup> can be devised if the air quality does not improve. In making these assessments the critical load for the relevant habitat should be used as the target for assessment. While monitoring is not in itself a mitigation measure, it is an important component of a mitigation package, particularly when there are inherent uncertainties over the degree of effectiveness of any given mitigation measures, such as with air quality.

The Core Strategy already includes sustainable transport policies and a requirement for some developments to produce travel plans and thus presents an adequate policy framework to mitigate adverse effects, subject to some slight amendments regarding specific objectives for the travel plans to achieve.

In order to support the policy framework, a separate framework to undertake air quality monitoring should be explored with other relevant local authorities (e.g. the other Thames Basin Heaths authorities and strategic highway authorities). This would include monitoring of the air quality in the Thames Basin Heaths before and for a number of years after introduction of sustainable transport measures, such that further measures can be devised if air quality does not improve. In making these assessments the critical load for the relevant habitat should be used as the target for assessment.

## Water Resources

4.5.26 In order to maintain the integrity of the habitats upon which the bird species (particularly woodlark and Dartford warbler) for which the Thames Basin Heaths SPA is designated depend, adequate water supply and flows are required.

4.5.27 The Surrey Heath DPD includes in its background text that ‘water supply is an issue in the Borough, at present there is an adequate supply of drinking water and it is not anticipated that this will be a problem during the plan period although there is a growing problem in other parts of the South East.’

4.5.28 We understand that the Environment Agency considers that it will be possible for water companies to meet the future water resource requirements for the Surrey Heath area (and indeed the entire South East of England) without increased abstractions from watercourses and

<sup>41</sup> Such as low emission zone(s) (applicable to road traffic and non-road mobile machinery), reallocation of road space (high occupancy vehicle lanes), re-routing of heavy goods and older vehicles, traffic management and calming measures (such as residential / access only zones), one way systems etc

- groundwaters that are of importance to the Thames Basin Heaths SPA. This conclusion is based on modelling work that assumes new strategic water resource options, ongoing leakage control and increasing water efficiencies.
- 4.5.29 Unlike most of the indirect impacts on European sites that can derive from development (e.g. from recreational pressure or vehicle exhaust emissions) and which are generally not covered by any independent assessment or consenting regime, water supply is covered by a detailed abstraction licencing and Review of Consents process controlled by the Environment Agency. One of the principal functions of this regime is to ensure that the abstraction of water at volumes, rates or times of year that would result in adverse effects on internationally designated sites do not take place.
- 4.5.30 Avoiding adverse effects on European sites as a result of increased scales of abstraction to supply new housing must therefore be principally the responsibility of the water companies through their Water Resource Management Plans, water supply operations and abstraction licence applications and the Environment Agency through their licencing regime and Review of Consents process.
- 4.5.31 Clearly the concept of strategic forward planning of development requires local authorities to play their part in ensuring the pressures on available water resources are minimised as far as is practical, rather than relying entirely on the Environment Agency licencing regime, and this is the context within which the Surrey Heath LDF can deliver measures on its own account to supplement those avoidance strategies that will be implemented by the Environment Agency and water company as part of their wider resource planning roles. This it seeks to do primarily through encouraging water efficiency in new developments. Specifically:
- Policy CP2 (Sustainable Development and Design) requires all development to ‘*secure water efficiency in new development or improve on existing efficiencies within existing development*’ and in the case of Policy CP4 (Deepcut), where 48% of new residential build is proposed, requires ‘*water efficiency in line with Code Level 6 of the Code for Sustainable Homes.*’
  - Policy DM9 (Design Principles) states that new development must ‘*reduce potable water consumption in residential development to water efficiency standards equivalent to Code for Sustainable Homes level 3-4 between 2011 and 2015, and code level 5-6 from 2016 onwards with provision for measures to reduce external water use.*’ This would be in line with the South East Plan (May 2006) Policy NRM1 (Sustainable Water Resources and Groundwater Quality) which requires local authorities, through their Local Development Documents, to ‘*identify any circumstances under which new development will need to be supported by water efficiency standards exceeding extant Building Regulations standards.*’
  - Policy CP12 (Infrastructure Delivery and Implementation) identifies the need for appropriate timing of infrastructure provision and provides a framework for funding its delivery. Water supply is included as an infrastructure consideration within this policy.
- 4.5.32 As a consequence, we are able to conclude that future water resources required for the housing allocations within Surrey Heath can be met without an adverse effect on European sites.

## 4.6 Conclusion

- 4.6.1 It can be concluded that following the amendment to Policy CP14 and the confirmation that sufficient SANGS can be provided the Surrey Heath DPD does include an adequate policy framework to deliver measures to avoid or mitigate the adverse effects of development on the Thames Basin Heaths SPA, provided that the effectiveness of measures is adequately monitored.

## 5 Thursley, Ash, Pirbright and Chobham SAC

### 5.1 Introduction

5.1.1 Thursley, Ash, Pirbright and Chobham Special Area of Conservation (SAC) is a large and varied site consisting of four Sites of Special Scientific Interest, three of which also form part of the Thames Basin Heaths SPA, with the fourth forming Thursley, Hankley and Frensham Commons (Wealden Heaths Phase 1) SPA. The SSSIs within Surrey Heath are: Ash to Brookwood Heaths; Chobham Common; and Colony Bog and Bagshot Heath.

### 5.2 Features of European interest

5.2.1 Thursley, Ash, Pirbright and Chobham Special Area of Conservation is designated for three Annex I habitats.

5.2.2 The qualifying Annex 1 habitats are:

- Wet heathland with cross-leaved heath
- Dry heaths
- Depressions on peat substrates

#### **Wet heathland with cross-leaved heath**

5.2.3 Wet heath is an important habitat for a range of vascular plant and bryophyte species of an oceanic or Atlantic distribution in Europe, several of which have an important part of their EU and world distribution in the UK.

5.2.4 Wet heath usually occurs on acidic, nutrient-poor substrates, such as shallow peats or sandy soils with impeded drainage. The vegetation is typically dominated by mixtures of cross-leaved heath *Erica tetralix*, heather *Calluna vulgaris*, grasses, sedges and *Sphagnum* bog-mosses.

5.2.5 Northern Atlantic wet heaths with *Erica tetralix* are restricted to the Atlantic fringe of Europe between Norway and Normandy. A high proportion of the EU resource occurs in the UK.

5.2.6 The wet heath at Thursley contains several rare plants, including great sundew *Drosera anglica*, bog hair-grass *Deschampsia setacea*, bog orchid *Hammarbya paludosa* and brown beak-sedge *Rhynchospora fusca*. There are transitions to valley bog and dry heath. Thursley Common is an important site for invertebrates, including the nationally rare white-faced darter *Leucorhinia dubia*.

#### **Dry heaths**

5.2.7 European dry heaths typically occur on freely-draining, acidic to circumneutral soils with generally low nutrient content. Ericaceous dwarf-shrubs dominate the vegetation. The most common is heather *Calluna vulgaris*, which often occurs in combination with gorse *Ulex* spp., bilberry *Vaccinium* spp. or bell heather *Erica cinerea*, though other dwarf-shrubs are important locally. Nearly all dry heath is semi-natural, being derived from woodland through a long history of grazing and burning. Most dry heaths are managed as extensive grazing for livestock or, in upland areas, as grouse moors.

- 5.2.8 European dry heaths are found in every EU Member State except for Greece, but are only extensive in the western oceanic fringes of Europe. A high proportion of the EU resource of European dry heaths occurs in the UK and dry heaths in the UK exhibit exceptional diversity in comparison with examples found elsewhere in the EU.
- 5.2.9 Dry heaths occur throughout the UK. They are particularly abundant in the uplands, where they may form extensive stands, which dominate the landscape. They are more localised in lowland areas, especially in south and central England, where they have declined in extent due to afforestation, agricultural improvement and other modifications of the landscape.

#### Depressions on peat substrates

- 5.2.10 Depressions on peat substrates of the *Rhynchosporion* occur in complex mosaics with lowland wet heath and valley mire vegetation, in transition mires, and on the margins of bog pools and hollows in both raised and blanket bogs. The vegetation is typically very open, usually characterised by an abundance of white beak-sedge *Rhynchospora alba*, often with well-developed algal mats, the bog moss *Sphagnum denticulatum*, round-leaved sundew *Drosera rotundifolia* and, in relatively base-rich sites, brown mosses such as *Drepanocladus revolvens* and *Scorpidium scorpioides*. The Nationally scarce species brown beak-sedge *Rhynchospora fusca* and marsh clubmoss *Lycopodiella inundata* also occur in this habitat.
- 5.2.11 Depressions on peat substrates of the *Rhynchosporion* is a rare habitat type in the UK that exhibits a narrow range of ecological variation and has a restricted geographical distribution. This habitat type has a very discontinuous distribution, being found in largest quantity on heaths in southern England and on blanket and raised bogs in western Britain, with an outlying example in East Anglia.

### 5.3 Historic Trends and Current Conditions

- 5.3.1 The mosaic of habitats across this large and varied site is largely dependent on active heathland management. Insufficient grazing or other traditional practices, including bracken control and scrub clearance, is therefore a serious potential threat, as is lowering of water tables as a result of water abstraction or other reasons which could cause loss or damage to wet heath and mire communities. Extensive grazing is absent from much of the site.
- 5.3.2 The Ministry of Defence is a major landowner/manager and a Memorandum of Understanding exists between Natural England and the MoD through which the impact of military activities is regulated. The MoD have produced comprehensive Management Plans which recognise the outstanding nature conservation importance of their land.
- 5.3.3 In the most recent Natural England site condition assessment, Ash to Brookwood Heath SSSI had 13% area in favourable condition, with 85% recovering from unfavourable status (2006-09); Chobham Common had 49% unfavourable declining and 35% unfavourable with no change (2004-09); and Colony Bog and Bagshot Heath had 93% unfavourable recovering (2001-10). The major reasons for unfavourable status related to inappropriate vegetation structure. The Thursley, Hankley and Frensham Commons SSSI, which lies south of Surrey Heath was 47% favourable and 53% unfavourable recovering (2006-10).

## 5.4 Key environmental conditions

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

- Appropriate management
- Managed recreational pressure
- 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

## 5.5 Potential effects of the plan

5.5.1 Four potential impacts of the Surrey Heath DPD upon the SAC have been identified:

- Recreational pressure
- Air pollution
- Water abstraction
- Water quality

### Recreational Pressure

5.5.2 The population of the 11 authorities around the Thames Basin Heaths SPA is forecast to increase from 1.19 million in 2003 (1.21 million in 2006) to 1.3 million in 2026 (2003 sub-national population projections). This 10% increase in population is notwithstanding the forecasted reduction in average household size or any changes in population growth trends subsequent to the 2003 statistics. The projected 10% growth in population (assuming similar usage of recreational facilities) could lead to at least comparable increase in visits to Thursley, Ash, Pirbright and Chobham SAC as it covers numerous areas that fall within the Thames Basin Heaths SPA<sup>42</sup>. Such an increased use could have a cumulative impact upon the SAC.

5.5.3 An increase of 3,240 new dwellings requires concomitant development of open space and recreational facilities that are appropriate to deflect users from these sites.

5.5.4 The amendment of CP3 to seek to deliver 3,240 dwellings would involve delivery of sufficient SANGS to accommodate the residual South East Plan allocation. Policy NRM5 and NRM6 of the South East Plan (as adopted) set out the regionally agreed approach to SANGS for the Thames Basin Heaths (including a provision rate of 8ha/1000 population) and were based upon the housing levels identified in the South East Plan; an Appropriate Assessment of the RSS was undertaken and the Plan was adopted with the agreement of Natural England on that basis. As such it is reasonable to conclude that the 8ha/1000 population standard for SANGS provision will be suitable for all housing up to the adopted South East Plan levels.

<sup>42</sup> Submission of Wokingham Borough Council (7265) to the Thames Basin Heaths Technical Sessions for the Examination in Public of The South East Plan

- 5.5.5 Since 467 dwellings have already been assigned to SANGS or have their own bespoke SANGS solution sufficient SANGS (at a rate of 8/1000 population) to accommodate a further 2,773 dwellings would be required. Current confirmed additional SANGS capacity in the borough is 2,200. There would therefore be a shortfall based upon confirmed SANGS of 573 dwellings or 18% of the total housing required. However, it is considered that the protection mechanisms outlined in the previous chapter for the Thames Basin Heaths SPA would also serve to protect the underlying SAC.
- 5.5.6 Moreover, Surrey Heath's Proposed Submission Core Strategy and Development Management Policies DPD does contain strong mitigation to reduce its potential contribution toward impacts on the SPA:
- Policy CP14B has been drafted with input from Natural England and specifically addresses protection of the Thames Basin Heaths SPA. The policy states that 'The Council will only permit development where it is satisfied that this will not give rise to likely significant adverse effect upon the integrity of the Thames Basin Heaths Special Protection Area. All new residential (net) development within 5km of the Thames Basin Heaths Special Protection Area is considered to give rise to the possibility of likely significant effect. Accordingly only new development that complies with the following requirements will be permitted.
    - (i) No (net) new residential development will be permitted within 400m of the SPA.
    - (ii) Non-residential development within 400m of the SPA will be required to demonstrate that it is not likely to have a significant effect either alone or in combination with other plans or projects.
    - Such measures shall include:
      - (iii) All net new residential development shall provide or contribute toward the provision of Suitable Alternative Natural Green Spaces (SANGS)
      - (iv) SANGS will be provided at a standard of at least 8ha per 1,000 new occupants.
      - (v) Developments of 10 or more net new dwellings will only be permitted within the identified catchment areas of SANGS
      - (vi) All net new residential development shall contribute toward strategic access management and monitoring (SAMM) measures
  - Policy CP13 (Green Infrastructure), supported by CP14 (Biodiversity and Nature Conservation), clearly indicates that the Council will aim to provide an integrated network of green space across the borough and will work with partners to extend this beyond. In its policy wording the Council states that '*in considering proposals for any new development the Borough Council will encourage schemes which contribute toward, or provide, opportunities to enhance the function of existing green infrastructure, increase provision and improve connectivity.*'
  - In the supporting text to policy CP13, it is stated that '*The Borough Council is working as part of a Joint Strategic Partnership of other local authorities affected by the SPA, together with SEEPB, Natural England, the local wildlife trusts and other organisations to find ways of ensuring harm does not occur to the SPA.*' Although not explicitly stated, it is apparent that given the overlap between the SPA and SAC, the outcomes should be of mutual benefit to both designations.

- The supporting text to the overarching spatial strategy policy CP1 states that *'the overriding constraint that will determine how much, where and when most new housing development takes place within the Borough will be the need to avoid or mitigate for adverse effects upon the Thames Basin Heaths Special Protection Area and Thursley, Pirbright, Ash and Chobham Special Area of Conservation both are protected under European and national legislation. A green infrastructure strategy will be central to addressing this constraint.'*
  - In the supporting text to Policy CP3 (Scale and Distribution of New Housing) the Council expand on their plans for mitigating the effects of recreational pressure on European designated sites within (and beyond) the borough. *'The ability of the Borough to provide new housing...is dependent upon its ability to ensure that no harm is caused to the European sites. Some 23% of the Borough is covered by such sites and much of the area immediately around the Borough is also covered by this designation. As a result all new residential development in the Borough must contribute toward mitigation and avoidance measures. The agreed approach to avoidance and mitigation [is] the provision of areas of Suitable Alternative Natural Green Space (SANGS) and the setting up of an Access Management Project [as] set out in South East Plan Policy NRM 6.'* Given the potential revoking of the South East Plan, it would be logical for the key elements of Policy NRM6 to be incorporated into Core Strategy policy.
  - Policy CP4 considers residential development at Deepcut. This policy explicitly states that development will not be allowed to harm European designated sites, and confirms that recreational impacts will be mitigated by the allocation of SANGS. It is noted that a small part of the site lies within Guildford borough, and that the Council's will liaise and produce a joint SPD.
  - Policy CP10 deals with development in Camberley town centre, including the potential for up to 200 new homes. Again this policy specifically aims to avoid harm to European designated sites.
- 5.5.7 Given the measures outlined above we consider that there will be no adverse effects on the SAC as a consequence of recreational impacts resulting from the development described in the DPD.

### Air Quality

- 5.5.8 Development proposed within the DPD is likely to result in increased car use, notably as a consequence of housing and business development. The revised Policy CP3 (Scale and Distribution of New Housing) indicates that 3,240 new homes will be delivered in the LDF timeframe, with the majority at Deepcut and Camberley. Policy CP8 (Employment) identifies the need for up to 7,500 new jobs, with a focus on Camberley. It is reasonable to assume that the increased population (both residential and business) and retail floorspace (primarily in Camberley as outlined in Policy CP10) will lead to increased vehicle movements.
- 5.5.9 When coupled with the 64,680 new homes identified in Policy H1 of the South East Plan (May 2009) for the remaining Boroughs adjacent to the SAC (Windsor & Maidenhead, Bracknell Forest, Waverley, Hart, Guildford, Rushmoor, Elmbridge, Mole Valley, Runnymede and Woking), there is an even greater likelihood of a substantial increase in traffic movements on the major roads that bisect the components of the two European sites that lie within the Borough.
- 5.5.10 Modelling results suggest that the SAC is currently experiencing deposition rates of key pollutants that exceed the critical loads for nitrogen deposition and ozone. Information on

- actual (i.e. measured rather than modelled) deposition rates of key pollutants at the site, along with evidence that the site is suffering as a consequence of air pollution (i.e. survey data indicating a decline in vegetative quality in line with changes in air quality), are not available but the UK Air Pollution Information System data is considered to provide a reasonable approximation.
- 5.5.11 Several major roads pass close to the SAC and pollutants from traffic may have a limited effect on parts of the site; road-generated pollutants rarely extend beyond 200m, with most being deposited closer to the road especially within denser habitats. The A322 within Surrey Heath is an example of such a road that runs within 200m of the SAC, but the major artery of concern would be the M3, which bisects Chobham Common. Development at Camberley and Deepcut has potential to lead to traffic increases on this road, and in addition it is noted within the DPD that traffic flows on the M3 are projected to worsen, which could lead to increased traffic on other roads within Surrey Heath that may also run within 200m of the SAC. Without mitigation, it cannot be concluded that traffic increases in combination with increases resulting from development proposed within adjacent boroughs and beyond would not have an adverse effect upon the qualifying interests of the overall SAC.
- 5.5.12 Habitats at the roadside are often subject to qualitative deteriorations that may have little to do with atmospheric nitrogen deposition – for example the process of road construction can affect local drainage and can involve the importation of fill materials that are different in character to the substrates in the wider area, which can in turn both affect vegetation composition. Moreover, vegetative changes that theory identifies as being likely to result from atmospheric nitrogen deposition can fail to appear in practice since they are relatively subtle and can be dwarfed by changes in management regime. Separating out the effects of atmospheric nitrogen deposition and other causes is difficult and separating the effects of atmospheric nitrogen deposition arising from vehicle exhausts and that arising from other sources (e.g. agriculture) complicates the situation further.
- 5.5.13 For those measures which are available at the strategic planning level It is therefore extremely difficult to predict in advance the precise scale of improvement that can be delivered by a given mitigation measure (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), although a specified reduction can be set as a monitoring target against which the success or failure of mitigation measures can be defined.
- 5.5.14 Despite this, it would not be proportionate to conclude as a result of these knowledge gaps that there is no way that any development could ever be accommodated (since the absence of evidence is due to the novel nature of the mitigation tools available and the limitations of the science, rather than any indication that a problem exists).
- 5.5.15 The Council does include policies that seek to protect the SAC, and to both reduce traffic demand and improve public transport and non-motorised movement
- The supporting text to the overarching spatial strategy policy CP1 states that *‘the overriding constraint that will determine how much, where and when most new housing development takes place within the Borough will be the need to avoid or mitigate for adverse effects upon the Thames Basin Heaths Special Protection Area and Thursley, Pirbright, Ash and Chobham Special Area of Conservation both are protected under European and national*

*legislation.* 'Adverse effects' are not limited in this policy and so would include adverse air quality effects.

- In the supporting text to Policy CP3 (Scale and Distribution of New Housing) the Council state that *'the ability of the Borough to provide new housing...is dependent upon its ability to ensure that no harm is caused to the European sites. Some 23% of the Borough is covered by such sites and much of the area immediately around the Borough is also covered by this designation. As a result all new residential development in the Borough must contribute toward mitigation and avoidance measures.'* Again, the nature of such measures is not explicitly defined but could cover delivery of air quality enhancements.
- Policy CP4 considers residential development at Deepcut. This policy explicitly states that development will not be allowed to harm European designated sites. It also promises *'measures to reduce the impact of traffic upon and arising from Deepcut which will include reducing demand for travel, improved public transport provision, a safe integrated footpath/cycle route network linking to neighbouring settlements and key services and improvements to the surrounding highway network.'* It is noted that a small part of the site lies within Guildford borough, and that the Council's will liaise and produce a joint SPD.
- Policy CP10 deals with development in Camberley town centre, including the potential for up to 200 new homes. Again this policy specifically aims to avoid harm to European designated sites.
- The supporting text to Policy CP8 notes the need for new employment opportunities to have regard for congestion on the road transport network. *'The issue of congestion is being explored through a joint study with neighbouring local authorities in Hart and Rushmoor, the county highways authorities for Hampshire and Surrey and the Highways Agency.'* The potential outcomes from this are not determined, but since free-flowing traffic generates considerably less localised air pollution than standing traffic, this is an important consideration.
- Crucially, Policy CP11 (Movement) sets out support for proposals to improve public transport, a partnership approach to improve walking and cycling routes and facilities, and the need for new development to reduce the need to travel. The approach is supported by policy DM11 (Traffic Management and Highway Safety), which also determines that *'development which would adversely impact the safe and efficient flow of traffic movement on the highway network will not be permitted unless it can be demonstrated that measures to reduce and mitigate such impacts to acceptable levels can be implemented.'* Since free-flowing traffic generates considerably less localised air pollution than idling traffic, this is an important consideration.
- On a smaller scale, policy DM6 ensures that sustainable transport links will be a consideration for any new gypsy and traveller provision.
- Policy CP12 (Infrastructure Delivery and Implementation) identifies the need for appropriate timing of infrastructure provision and provides a framework for funding its delivery. Transport is included as an infrastructure consideration within this policy.
- Importantly, the scale of intended achievement of these sustainable transport initiatives are quantified in the overarching Objective for travel and transport that underpins policies CP11 and DM11, which does set targets for transport options including:

- An indicative figure of 80% of all new dwellings or class B floorspace to be 'within 400m or 5 minute walk time of a half hourly bus service in urban areas and within 800m or a 10 minute walk time of an hourly bus service in rural areas (local)'
- An indicative figure of 50% of all new dwellings or class B floorspace to be 'within 10 minute walk time or 800m of rail service (local)'
- A confirmed figure of 50% of all major developments to have Travel Plans.

5.5.16 These constitute a highly extensive suite of policies, measures and initiatives to maximise use of sustainable transportation and thus minimise air quality deteriorations associated with new development. In line with our experiences elsewhere, we believe that some further tightening of measures is required. We recommend the Council should:

- Be explicit regarding the need for transport assessments required for planning applications to specifically include consideration of impacts on European sites, through which it can be demonstrated that all opportunities are being taken for minimizing car use in line with the objective targets identified above; and
- most importantly, develop a framework by which these measures can be linked to monitoring of the air quality in the European site before and for a number of years after introduction of the measures, such that further measures<sup>43</sup> can be devised if the air quality does not improve. In making these assessments the critical load for the relevant habitat should be used as the target for assessment. While monitoring is not in itself a mitigation measure, it is an important component of a mitigation package, particularly when there are inherent uncertainties over the degree of effectiveness of any given mitigation measures, such as with air quality.

The Core Strategy already includes sustainable transport policies and a requirement for some developments to produce travel plans and thus presents an adequate policy framework to mitigate adverse effects, subject to some amendments to identify specific objectives for the travel plans to achieve.

In order to support the policy framework, a separate framework to undertake air quality monitoring should be explored with other relevant local authorities (e.g. the other Thames Basin Heaths authorities and strategic highway authorities). This would include monitoring of the air quality in the Thursley, Ash, Pirbright and Chobham SAC before and for a number of years after introduction of sustainable transport measures, such that further measures can be devised if air quality does not improve. In making these assessments the critical load for the relevant habitat should be used as the target for assessment.

## Water Resources

5.5.17 Habitats within the Thursley, Ash, Pirbright and Chobham SAC are dependent on adequate water supply and flows.

<sup>43</sup> Such as low emission zone(s) (applicable to road traffic and non-road mobile machinery), reallocation of road space (high occupancy vehicle lanes), re-routing of heavy goods and older vehicles, traffic management and calming measures (such as residential / access only zones), one way systems etc

- 5.5.18 The Surrey Heath DPD includes in its background text that ‘water supply is an issue in the Borough, at present there is an adequate supply of drinking water and it is not anticipated that this will be a problem during the plan period although there is a growing problem in other parts of the South East.’
- 5.5.19 We understand that the Environment Agency considers that it will be possible for water companies to meet the future water resource requirements for the Surrey Heath area (and indeed the entire South East of England) without increased abstractions from watercourses and groundwaters that are of importance to the SAC. This conclusion is based on modelling work that assumes new strategic water resource options, ongoing leakage control and increasing water efficiencies.
- 5.5.20 Unlike most of the indirect impacts on European sites that can derive from development (e.g. from recreational pressure or vehicle exhaust emissions) and which are generally not covered by any independent assessment or consenting regime, water supply is covered by a detailed abstraction licencing and Review of Consents process controlled by the Environment Agency. One of the principal functions of this regime is to ensure that the abstraction of water at volumes, rates or times of year that would result in adverse effects on internationally designated sites do not take place.
- 5.5.21 Avoiding adverse effects on European sites as a result of increased scales of abstraction to supply new housing must therefore be principally the responsibility of the water companies through their Water Resource Management Plans, water supply operations and abstraction licence applications and the Environment Agency through their licencing regime and Review of Consents process.
- 5.5.22 Clearly the concept of strategic forward planning of development requires local authorities to play their part in ensuring the pressures on available water resources are minimised as far as is practical, rather than relying entirely on the Environment Agency licencing regime, and this is the context within which the Surrey Heath Core Strategy can deliver measures on its own account to supplement those avoidance strategies that will be implemented by the Environment Agency and water company as part of their wider resource planning roles. This it seeks to do primarily through encouraging water efficiency in new developments. Specifically:
- Policy CP2 (Sustainable Development and Design) requires all development to ‘*secure water efficiency in new development or improve on existing efficiencies within existing development*’ and in the case of Policy CP4 (Deepcut) requires ‘*water efficiency in line with Code Level 6 of the Code for Sustainable Homes.*’
  - Policy DM9 (Design Principles) states that new development must ‘*reduce potable water consumption in residential development to water efficiency standards equivalent to Code for Sustainable Homes level 3-4 between 2011 and 2015, and code level 5-6 from 2016 onwards with provision for measures to reduce external water use.*’ This would be in line with the South East Plan (May 2006) Policy NRM1 (Sustainable Water Resources and Groundwater Quality) which requires local authorities, through their Local Development Documents, to ‘*identify any circumstances under which new development will need to be supported by water efficiency standards exceeding extant Building Regulations standards.*’
  - Policy CP12 (Infrastructure Delivery and Implementation) identifies the need for appropriate timing of infrastructure provision and provides a framework for funding its delivery. Water supply is included as an infrastructure consideration within this policy.

5.5.23 As a consequence, we are able to conclude that future water resources required for the housing allocations within Surrey Heath can be met without an adverse effect on European sites.

### Water Quality

5.5.24 Direct run-off from new development within a few hundred metres of Thursley, Ash, Pirbright and Chobham SAC would, without adequate drainage facilities, lead to a concern over the possibility of reduced water quality on the sensitive habitats of the SAC, most notably the depressions on peat substrates, and the wet heathland.

5.5.25 To a large extent, the issue is avoided by the fact that new residential development will not be permitted within 400m of the Thames Basin Heaths SPA (and thus the contiguous SAC), and that non-residential development would have to satisfy HRA requirements, which would include water quality as a factor.

5.5.26 However, the DPD does contain policies that provide further protection to the SAC through seeking to avoid reduced water quality within the borough:

- Policy CP2 (Sustainable Development and Design) aims to ensure that new development will *'reduce the risk from all types of flooding and improve water quality.'*
- New development at Deepcut (CP4) will need to contribute toward *'addressing the issue of ground and surface water flood risk.'*
- Policy CP12 (Infrastructure Delivery and Implementation) identifies the need for appropriate timing of infrastructure provision and provides a framework for funding its delivery. Waste water treatment is included as an infrastructure consideration within this policy.
- Policy DM10 (Development and Flood Risk) states that *'the Borough Council will expect development to reduce the level and rate of surface water run-off through the incorporation of appropriately designed Sustainable Drainage Systems (SuDS) at a level appropriate to the scale and type of development.'* It also states that *'development within flood risk zones 2 & 3 or on sites of 1ha or greater in zone 1 and sites at medium or high risk from other sources of flooding as identified by the Borough Council's SFRA, will not be supported unless the risk and/or consequences can be made acceptable.'*

## 5.6 Conclusion

5.6.1 It can be concluded that the Surrey Heath Core Strategy DPD does include an adequate policy framework to deliver measures to avoid or mitigate the adverse effects of development on the Thursley, Ash, Pirbright and Chobham SAC, provided that the effectiveness of measures is adequately monitored.

## 6 Windsor Forest and Great Park SAC

### 6.1 Introduction

6.1.1 The Windsor Forest and Great Park SAC covers over 1600 ha with 95% of the site consisting of broadleaved deciduous woodland and the largest number of veteran oak trees in Britain. The site is important for its rich fungal assemblages and also for its diversity of saproxylic invertebrates (including many rare species), for some of which it is the only known site in the UK.

### 6.2 Features of European interest

6.2.1 Windsor Forest and Great Park qualifies as a SAC for its habitats and species. The site contains the Habitats Directive Annex I habitats of:

- Dry oak-dominated woodland
- Beech forests on acid soil

6.2.2 The site contains the Habitats Directive Annex 2 species of:

- Violet click beetle *Limoniscus violaceus*, for which it is thought to support the largest population in the UK.

### 6.3 Historic Trends and Current Conditions

6.3.1 The special invertebrate interest is heavily dependent upon a continuous supply of very old and decaying trees. Both the invertebrate interest and oak woodland are vulnerable to changes in management practices. Continuity of sympathetic management is being undertaken through a Declaration of Intent between Natural England and the owners, the Crown Estate. Significant restoration work is ongoing in the woodlands, partly supported by Woodland Grant Scheme funding.

6.3.2 In the most recent Natural England site condition assessment, 46% of the site was in favourable conditions with the remainder cited as unfavourable recovering (2009).

### 6.4 Key environmental conditions

6.4.1 The key environmental conditions that have been defined for this site are:

- Minimal atmospheric pollution - may increase the susceptibility of beech trees to disease and alter epiphytic (lichen) communities.
- Managed public access (site is already heavily accessed; extensive public access may compromise ability to retain falling timber associated with old trees).
- Appropriate management.

## 6.5 Potential effects of the plan

6.5.1 One potential impact of the Surrey Heath DPD upon the SAC has been identified:

- Recreational pressure

### Recreational Pressure

6.5.2 The proposed increase in residential dwellings within Surrey Heath borough, in combination with development in adjacent authorities, is likely to place extra demand on recreational and open space facilities and capacity in the region. Windsor Forest and Great Park SAC lies only 2km from Surrey Heath, and is known as a popular destination for recreational visits. A survey carried out in 1993 identified that visitors tend to live about 5 miles (8km) away on average<sup>44</sup>. Surrey Heath borough would therefore fall within the average catchment of this site. Visitors came to the site primarily for dog walking, the appreciation of nature and family walks.

6.5.3 However, Surrey Heath's Proposed Submission Core Strategy and Development Management Policies DPD contains strong mitigation to reduce its potential contribution toward impacts on the SAC by ensuring that Surrey Heath district delivers new greenspace, specifically directed at dog walking and the appreciation of nature, located very close to new development, thus reducing the need for recreational users to travel further afield. While the need to deliver this space is driven by identified impacts on the Thames Basin Heaths, it will of course serve to reduce pressure on other European sites in the area given the high scale of provision.

- An increase of 3,240 new dwellings requires concomitant development of open space and recreational facilities that are appropriate to deflect users from these sites. Policy CP13 (Green Infrastructure), supported by CP14 (Biodiversity and Nature Conservation), clearly indicates that the Council will aim to provide an integrated network of green space across the borough and will work with partners to extend this beyond. In its policy wording the Council states that *'in considering proposals for any new development the Borough Council will encourage schemes which contribute toward, or provide, opportunities to enhance the function of existing green infrastructure, increase provision and improve connectivity.'*
- In the supporting text to Policy CP3 (Scale and Distribution of New Housing) the Council expand on their plans for mitigating the effects of recreational pressure on European designated sites within (and beyond) the borough. *'The ability of the Borough to provide new housing...is dependent upon its ability to ensure that no harm is caused to the European sites. Some 23% of the Borough is covered by such sites and much of the area immediately around the Borough is also covered by this designation. As a result all new residential development in the Borough must contribute toward mitigation and avoidance measures. The agreed approach to avoidance and mitigation [is] the provision of areas of Suitable Alternative Natural Green Space (SANGS) and the setting up of an Access Management Project [as] set out in South East Plan Policy NRM 6.'*
- Policy CP4 considers residential development at Deepcut. This policy explicitly states that development will not be allowed to harm European designated sites, and confirms that recreational impacts will be mitigated by the allocation of SANGS. It is noted that a small part of the site lies within Guildford borough, and that the Council's will liaise and produce a joint SPD.

<sup>44</sup> Bellringer, A. & Gillam, S. (1998) Forest Visitor Surveys – 1994 and Earlier Years. Forestry Commission

- Policy CP10 deals with development in Camberley town centre, including the potential for up to 200 new homes. Again this policy specifically aims to avoid harm to European designated sites.
- The Council is working toward providing sufficient SANGS to enable the Council to deliver its housing allocation up to 2028 and allow for some provision beyond that date and has adopted an Interim Avoidance strategy to address this issue. In its Objectives, the Council confirms that the SANGS provision will meet Natural England guidance of 8ha/1000 population for new developments.
- The Council has identified the need to provide for an additional large SANGS in the west of the Borough. The Council has identified land off Lake Road/ St Catherine's Road, Frimley Green as the most suitable site and indicated its intention to acquire this site. The need for and use of this site as a SANGS will be explored further as part of the work on the Site Allocations Development Plan Document.
- In terms of delivery of SANGS, the Site Allocations DPD will define location and extent, as well as type, and so it will be important that a HRA of this document is undertaken as and when appropriate.

6.5.4 The Natura 2000 data sheet for the site indicates that the internationally important features of the site are more vulnerable to inappropriate management and damage/loss to veteran trees rather than recreational activity. Given the scale of additional open space provision in Surrey Heath and the fact that recreational activity in Windsor Forest & Great Park is well-managed, and 'off track' recreational activity is restricted, it is considered that adverse effects are unlikely to result from any increase in recreational visitors arising from the borough, even when considered in combination with the increase in visitors that can be expected from the other authorities surrounding the SAC such as Bracknell Forest, Windsor & Maidenhead and Runnymede.

## 6.6 Conclusion

6.6.1 It can be concluded that the Surrey Heath DPD does include an adequate policy framework to deliver measures to avoid or mitigate the adverse effects of development on Windsor Forest and Great Park SAC.

## 7 South West London Waterbodies SPA and Ramsar

### 7.1 Introduction

7.1.1 The South-West London Water Bodies SPA comprises a series of embanked water supply reservoirs and former gravel pits that support a range of man-made and semi-natural open water habitats. The reservoirs and gravel pits function as important feeding and roosting sites for wintering wildfowl, in particular Gadwall *Anas strepera* and Shoveler *Anas clypeata*, both of which occur in numbers of European importance.

7.1.2 There are seven discrete SSSIs that form the SPA and Ramsar site: Wraysbury No. 1 Gravel Pit; Wraysbury Reservoir; Wraysbury and Hythe End Gravel Pits; Staines Moor; Knight and Bessborough Reservoirs; Kempton Park Reservoirs; and Thorpe Park No. 1 Gravel Pit. At 4.5km distance, the Thorpe Park No.1 Gravel Pit is significantly closer to Surrey Heath borough than the other components.

### 7.2 Features of European Interest

7.2.1 South West London Waterbodies 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:

- Over-winter:
  - Gadwall *Anas strepera* - 2.6% of the wintering Northwestern Europe population (5 year peak mean 1991/2 - 1995/6)
  - Shoveler *Anas clypeata* - 2.7% of the wintering Northwestern/Central Europe population (5 year peak mean 1991/2 - 1995/6)

7.2.2 South West London Waterbodies Ramsar site qualifies as illustrated in Table 7.

**Table 7. Qualifying criteria of South West London Waterbodies Ramsar**

Ramsar Criterion	Description of Criterion	South West London Waterbodies
6	Regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.	Supports internationally important numbers of gadwall and shoveler over winter.

### 7.3 Historic Trends and Current Condition

7.3.1 Thorpe Park No. 1 Gravel Pit is a former gravel pit which has now matured to a relatively stable ecological state, the banks being almost entirely dominated by trees and shrubs. It was designated as a SSSI in 1999 and is also known as St. Ann's Lake. Four of the other SSSIs that form the SPA/Ramsar are owned and managed by Thames Water. EA investigations on this site have concluded that no significant abstraction impact on either the surface water or groundwater was occurring. There is significant pressure on the SPA/Ramsar and surrounding sites for mineral extraction, decommissioning and redevelopment, and recreation.

- 7.3.2 Thorpe Park No.1 gravel pit holds relatively few of the designated species (the five year mean 2002/03-2007/08 for gadwall is 44 and for shoveler is 8)<sup>45</sup>. The highest concentrations of birds are located on Staines Moor and Knight & Bessborough Reservoirs.
- 7.3.3 The maintenance of internationally important numbers of shoveler in the southwest London area relies on the protection and management of complexes of sites, the individual components of which may each hold particular value for birds at different times of the day or winter, or even in different years. Reversing the decline in numbers of Gadwall in the area relies on the provision of large numbers of food-rich habitats with low levels of disturbance or disturbance-free zones<sup>36</sup>.
- 7.3.4 During the most recent Natural England site condition assessment, Thorpe Park No. 1 gravel pit was in favourable condition (2009). The other SSSI components were generally in good condition.

## 7.4 Key Environmental Conditions

7.4.1 The key environmental conditions that have been defined for this site are:

- Lack of disturbance during winter months (October to March).
- Area of open water.
- Area of shallow water (<30cm) for feeding.
- Presence and abundance of aquatic plant food (e.g. sweet-grass and pondweeds).
- Presence and abundance of aquatic invertebrate food.
- Adjacent grassland nearby (especially Staines Moor), used for loafing.

## 7.5 Potential effects of the plan

7.5.1 One potential impact of the Surrey Heath DPD upon the SPA/Ramsar has been identified:

- Recreational pressure

7.5.2 St Ann's Lake is located immediately adjacent to Thorpe Park theme park and provides water-skiing facilities. England Leisure Day Visits survey indicates that the average distance travelled to visit an 'inland waterbody without boats' for the day was 11 miles (17.7km). If St Ann's Lake fits the average profile then Surrey Heath would lie within its catchment. St Ann's Lake is also easily accessible from Surrey Heath along the M3.

7.5.3 However, the waterski facilities at St. Ann's Lake are managed such that access is restricted to times at which the operating club is open and to a specific number of water-skiers at any one time; moreover, the distribution of wintering waterfowl is focussed on the western end of the waterbody, whereas water-skiing activities occupy the eastern end. Therefore, unless there is a change of policy on behalf of the operators (which is beyond the control of Surrey Heath Council), the recreational pressure will not exceed current (acceptable) levels.

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<sup>45</sup> South West London Waterbodies Study (2007): Implications For Planning and Nature Conservation

## 7.6 Conclusion

- 7.6.1 It can be concluded that development in Surrey Heath district as set out in the Core Strategy is unlikely to lead to significant effects on the South West London Waterbodies SPA and Ramsar site.

## 8 Thursley, Hankley and Frensham Commons SPA

### 8.1 Introduction

8.1.1 This extensive site represents some of the finest remaining heathland on the Lower Greensand in Southern England. The valley mire on Thursley Common is regarded as one of the best in Britain. The site is of national importance for its bird, reptile and invertebrate populations.

8.1.2 Hankley Common has the most extensive tracts of dry heath, but the habitat is also well represented on the other Commons. Peatland is of greatest value on Thursley Common, but on the other commons is less extensive but still important.

8.1.3 The site is one of the richest for birds in Southern England. Breeding birds specifically associated with the heathland include woodlark, Dartford warbler, and nightjar.

### 8.2 Reasons for Designation

8.2.1 Thursley, Hankley and Frensham Commons SPA is designated for its breeding bird populations, specifically:

- 0.6% of the British breeding population of nightjar *Caprimulgus europaeus* (5 year mean, 1985-1990)
- 1.8% of the British breeding population of woodlark *Lullula arborea* (1994)
- 1.3% of the British breeding population of Dartford warbler *Sylvia undata* (1984)

### 8.3 Historical and Current Pressures

8.3.1 Thursley, Hankley and Frensham Commons together incorporate a heath and valley mire complex. Much of the site is in secure tenure. Thursley Common is a National Nature Reserve managed by Natural England. Frensham and Witley Commons are managed by the National Trust and a large part of the site is owned by the MoD (Hankley Common and Ockley Common), being regularly used for military activities and informal recreation.

8.3.2 Neglect/ lack of appropriate management still exists as a potential threat to the site especially on the site margins, however, the majority of the site is in conservation management and this situation is generally improving with the existence of countryside management schemes. The lowering of water levels due to water abstraction from the Greensand aquifer has affected the wet heath and bog components of the site.

8.3.3 During the most recent Natural England site condition assessment, 47% of Thursley, Hankley and Frensham Commons was in favourable condition, with the rest recovering from unfavourable status (2005-10).

### 8.4 Key Environmental Conditions

8.4.1 The key environmental conditions of the SPA are mainly:

- Maintenance of grazing and other traditional management practices.
- Unfragmented habitat
- Minimal air pollution
- Minimal recreational pressure and a low incidence of wildfires;
- Maintenance of water levels.

## 8.5 Potential effects of the plan

8.5.1 Two potential impacts of the Surrey Heath DPD upon the SPA has been identified:

- Recreational pressure
- Air quality

### Recreational pressure

8.5.2 Ground-nesting birds are vulnerable to disturbance, particularly from walkers and dogs. Disturbance can have an adverse effect in various ways, with increased nest predation by natural predators as a result of adults being flushed from the nest and deterred from returning to it by the presence of people and dogs likely to be a particular problem. Several studies have demonstrated that site-specific information is required to understand the relationship between recreational use of a site and any disturbance effects.

8.5.3 The proposed increase in residential dwellings within Surrey Heath borough, in combination with development in adjacent authorities, is likely to place extra demand on recreational and open space facilities and capacity in the region. However, Thursley, Hankley and Frensham Commons SPA lies, at its closest point, 11km from Surrey Heath, and given that equivalent habitat occurs within Surrey Heath itself, it is unlikely that significant numbers of visitors will make the effort to travel to this SPA from Surrey Heath rather than use the Thames Basin Heaths and the SANGS which Surrey Heath will be delivering, as already described.

### Air Quality

8.5.4 Development proposed within the DPD is likely to result in increased car use, notably as a consequence of housing and business development. Policy CP3 (Scale and Distribution of New Housing) indicates that 3,240 new homes will be delivered in the LDF timeframe, with the majority at Deepcut and Camberley. Policy CP8 (Employment) identifies the need for up to 7,500 new jobs, with a focus on Camberley. It is reasonable to assume that the increased population (both residential and business) and retail floorspace (primarily in Camberley as outlined in Policy CP10) will lead to increased vehicle movements.

8.5.5 Modelling results suggest that the SPA is currently experiencing deposition rates of key pollutants that exceed the critical loads for nitrogen deposition. Information on actual (i.e. measured rather than modelled) deposition rates of key pollutants at the site, along with evidence that the site is suffering as a consequence of air pollution (i.e. survey data indicating a decline in vegetative quality in line with changes in air quality), are not available but the UK Air Pollution Information System data is considered to provide a reasonable approximation.

- 8.5.6 Several major roads pass close to the SPA and pollutants from traffic may have a limited effect on parts of the site; road-generated pollutants rarely extend beyond 200m, with most being deposited closer to the road especially within denser habitats.
- 8.5.7 It is unlikely that any increases in traffic flows on the A3, A286 or A287 resulting from development proposed in the Core Strategy within Surrey Heath would have a significant effect upon the qualifying interest of the SPA as a consequence of air pollution. However, it cannot be concluded that this increase in combination with increases in traffic resulting from development proposed within adjacent boroughs and beyond would not have an adverse effect upon the qualifying interests of the SPA given that the A3 is one of the core strategic transport routes in the sub-region. Given the uncertainties involved in local air quality issues as they relate to European sites, this needs further measures.
- 8.5.8 Habitats at the roadside are often subject to qualitative deteriorations that may have little to do with atmospheric nitrogen deposition – for example the process of road construction can affect local drainage and can involve the importation of fill materials that are different in character to the substrates in the wider area, which can in turn both affect vegetation composition. Moreover, vegetative changes that theory identifies as being likely to result from atmospheric nitrogen deposition can fail to appear in practice since they are relatively subtle and can be dwarfed by changes in management regime. Separating out the effects of atmospheric nitrogen deposition and other causes is difficult and separating the effects of atmospheric nitrogen deposition arising from vehicle exhausts and that arising from other sources (e.g. agriculture) complicates the situation further.
- 8.5.9 For those measures which are available at the strategic planning level It is therefore extremely difficult to predict in advance the precise scale of improvement that can be delivered by a given mitigation measure (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), although a specified reduction can be set as a monitoring target against which the success or failure of mitigation measures can be defined.
- 8.5.10 Despite this, it would not be proportionate to conclude as a result of these knowledge gaps that there is no way that any development could ever be accommodated (since the absence of evidence is due to the novel nature of the mitigation tools available and the limitations of the science, rather than any indication that a problem exists).
- 8.5.11 The Council does include policies that would reduce traffic demand and improve public transport and non-motorised movement:
- Policy CP4 considers residential development at Deepcut. This policy explicitly states that development will not be allowed to harm European designated sites. It also promises *‘measures to reduce the impact of traffic upon and arising from Deepcut which will include reducing demand for travel, improved public transport provision, a safe integrated footpath/cycle route network linking to neighbouring settlements and key services and improvements to the surrounding highway network.’* It is noted that a small part of the site lies within Guildford borough, and that the Council’s will liaise and produce a joint SPD.
  - Policy CP10 deals with development in Camberley town centre, including the potential for up to 200 new homes. Again this policy specifically aims to avoid harm to European designated sites.

- The supporting text to Policy CP8 notes the need for new employment opportunities to have regard for congestion on the road transport network. *'The issue of congestion is being explored through a joint study with neighbouring local authorities in Hart and Rushmoor, the county highways authorities for Hampshire and Surrey and the Highways Agency.'* The potential outcomes from this are not determined, but since free-flowing traffic generates considerably less localised air pollution than standing traffic, this is an important consideration.
- Crucially, Policy CP11 (Movement) sets out support for proposals to improve public transport, a partnership approach to improve walking and cycling routes and facilities, and the need for new development to reduce the need to travel. The approach is supported by policy DM11 (Traffic Management and Highway Safety), which also determines that *'development which would adversely impact the safe and efficient flow of traffic movement on the highway network will not be permitted unless it can be demonstrated that measures to reduce and mitigate such impacts to acceptable levels can be implemented.'* Since free-flowing traffic generates considerably less localised air pollution than idling traffic, this is an important consideration.
- On a smaller scale, policy DM6 ensures that sustainable transport links will be a consideration for any new gypsy and traveller provision.
- Policy CP12 (Infrastructure Delivery and Implementation) identifies the need for appropriate timing of infrastructure provision and provides a framework for funding its delivery. Transport is included as an infrastructure consideration within this policy.
- Importantly, the scale of intended achievement of these sustainable transport initiatives are quantified in the overarching Objective for travel and transport that underpins policies CP11 and DM11, does set targets for transport options including:
  - An indicative figure of 80% of all new dwellings or class B floorspace to be *'within 400m or 5 minute walk time of a half hourly bus service in urban areas and within 800m or a 10 minute walk time of an hourly bus service in rural areas (local)'*
  - An indicative figure of 50% of all new dwellings or class B floorspace to be *'within 10 minute walk time or 800m of rail service (local)'*
  - A confirmed figure of 50% of all major developments to have Travel Plans.

8.5.12 These constitute a highly extensive suite of policies, measures and initiatives to maximise use of sustainable transportation and thus minimise air quality deteriorations associated with new development. In line with our experiences elsewhere, we believe that some further tightening of measures is required. We recommend the Council should:

- Be explicit regarding the need for transport assessments required for planning applications to specifically include consideration of impacts on European sites, through which it can be demonstrated that all opportunities are being taken for minimizing car use in line with the objective targets identified above; and
- most importantly, develop a framework by which these measures can be linked to monitoring of the air quality in the European site before and for a number of years after introduction of the measures, such that further measures<sup>46</sup> can be devised if the air

<sup>46</sup> Such as low emission zone(s) (applicable to road traffic and non-road mobile machinery), reallocation of road space (high occupancy vehicle lanes), re-routing of heavy goods and older vehicles, traffic management and calming measures (such as residential / access only zones), one way systems etc

quality does not improve. In making these assessments the critical load for the relevant habitat should be used as the target for assessment. While monitoring is not in itself a mitigation measure, it is an important component of a mitigation package, particularly when there are inherent uncertainties over the degree of effectiveness of any given mitigation measures, such as with air quality.

The Core Strategy already includes sustainable transport policies and a requirement for some developments to produce travel plans and thus presents an adequate policy framework to mitigate adverse effects, subject to some amendments to identify specific objectives for the travel plans to achieve.

To supplement this, the Council should explore opportunities to contribute as required to any monitoring of the air quality in Thursley, Hankley & Frensham Commons SPA that Waverley Council or highways authorities embark upon to determine the effectiveness of air quality mitigation measures, such that further measures can be devised if the air quality does not improve. Surrey Heath Council cannot unilaterally take on this responsibility as it has no control over Thursley, Hankley & Frensham Commons SPA, which lie in Waverley district.

## 8.6 Conclusion

- 8.6.1 With this amendment, it can be concluded that the Surrey Heath DPD does include an adequate policy framework to deliver measures to avoid or mitigate the adverse effects of development on Thursley, Hankley and Frensham Commons SPA.

## 9 Thursley and Ockley Bogs Ramsar

### 9.1 Introduction

9.1.1 The peatland complex on Thursley Common represents one of the finest valley mires in Britain and supports vegetation communities which are exclusively characteristic of nutrient-poor soils. Ockley bog has developed on relatively flat, poorly drained ground and shows a remarkable similarity to a raised mire in that the surface of the bog is gradually growing above the ground water influence. The presence of a river valley mire with a clear vegetation zonation and with relatively high nutrient status along the central water-course, adds to the interest of the Thursley peatland complex. In addition several areas represent former open water which is being colonised by peatland; parts of Pudmore Pond are a good example of this.

### 9.2 Features of European Interest

9.2.1 Thursley and Ockley Bog Ramsar site qualifies as illustrated in Table 8.

**Table 8. Qualifying Features of Thursley and Ockley Bog Ramsar**

Ramsar Criterion	Description of Criterion	Thursley and Ockley Bog
2	Supports vulnerable, endangered, or critically endangered species or threatened ecological communities	Supports a community of rare wetland invertebrate species including notable numbers of breeding dragonflies.
3	Supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.	It is one of few sites in Britain to support all six native reptile species. The site also supports nationally important breeding populations of European nightjar <i>Caprimulgus europaeus</i> and woodlark <i>Lullula arborea</i> .

### 9.3 Historical Trends and Current Pressures

9.3.1 Thursley and Ockley Bogs incorporate a heath and valley mire complex. Much of the site is in secure tenure. Thursley Common is a National Nature Reserve managed by Natural England. Ockley Common is owned by the MoD, being regularly used for military activities and informal recreation.

9.3.2 Neglect/ lack of appropriate management still exists as a potential threat to the site, however, the majority of the site is in conservation management and this situation is generally improving with the existence of countryside management schemes. The lowering of water levels due to water abstraction from the Greensand aquifer has affected the wet heath and bog components of the site.

9.3.3 The Ramsar site is contained within Thursley, Hankley and Frensham Commons SSSI. During the most recent Natural England site condition assessment, 47% of Thursley, Hankley and Frensham Commons was in favourable condition, with the rest recovering from unfavourable status (2005-10).

## 9.4 Key Environmental Conditions

9.4.1 The key environmental conditions of the Ramsar are mainly:

- Maintenance of water levels
- Maintenance of high water quality.

## 9.5 Potential effects of the plan

9.5.1 The Ramsar site does not lie within the Loddon CAMS that covers Surrey Heath borough. Therefore, it is concluded that water resource demand in Surrey Heath will not create any likely significant effects on the Thursley and Ockley Bog Ramsar site. While atmospheric nitrogen deposition could affect the site, there are no major roads within 200m of the Ramsar site.

## 9.6 Conclusion

9.6.1 There is no pathway of impact by which development in Surrey Heath will lead to likely significant effects on Thursley and Ockley Bog Ramsar site, and therefore it is screened out of this HRA.

## 10 Mole Gap to Reigate Escarpment SAC

### 10.1 Introduction

- 10.1.1 Extensive areas of woodland survive within this site, some of which can be termed as ancient, for example at Dean Wood and Updown Wood. On the lime-rich chalk slopes, the dominant trees of the best developed woodland are beech, ash and yew, together with field maple *Acer campestre* and whitebeam *Sorbus aria* and occasional large-leaved lime *Tilia platyphyllos*, which is scarce as a native tree. Box *Buxus sempervirens* is rare as a native tree; and is only native at this site and a few other places in Britain.
- 10.1.2 Chalk grassland supports local or rare plants; musk orchid *Herminium monorchis*, greenwinged orchid *Orchis morio*, round-headed rampion *Phyteuma orbiculare*, early gentian *Gentianella anglica* (found only in Britain), ground pine *Ajuga chamaepitys* and meadow clary *Salvia pratensis*. Areas of open turf at Burford Bridge Ridge and Juniper Top support a rich lichen flora with many noteworthy species. A small area of chalk heath is found, a habitat that is particularly sensitive to damage, and now only found in a few places in Britain.
- 10.1.3 A large number of rare beetles (Coleoptera) have been recorded and a large true bug (a Hemipteran) *Gonocerus acuteangulatus* found here occurs nowhere else in Britain. A wide variety of woodland birds breed within the site, including hawfinch, sparrowhawk, nightingale, and all three species of British woodpecker. An old chalk mine is used as a winter roost by several species of bats, and the site also supports great-crested newts.

### 10.2 Features of European Interest

- 10.2.1 The site is designated as a SAC for its:
- Natural box scrub
  - Dry grasslands and scrublands on chalk or limestone
  - Dry grasslands and scrublands on chalk or limestone, including important orchid sites
  - Yew-dominated woodland

### 10.3 Historical Trends and Current Pressures

- 10.3.1 Recreational pressure is high and requires management and monitoring. The National Trust and Surrey County Council own and manage a significant proportion of the site. In addition smaller areas are owned by other local authorities and the local wildlife trust. Recreation and conservation requirements tend to be taken into consideration by such bodies. The rest of the site is in smaller private ownerships. For these areas appropriate management has been addressed through the Site Management Statement process. These areas are most under threat from neglect and a lack of appropriate grazing.
- 10.3.2 In the most recent Natural England Condition assessment process, the SSSI within which the SAC occurs was 51% favourable, with the remainder recovering from unfavourable status (2008-09).

## 10.4 Key Environmental Conditions

10.4.1 The key environmental conditions of the SAC are mainly:

- Maintenance of grazing;
- Minimal trampling of sensitive woodland ground flora;
- Minimal air pollution – nitrogen deposition may cause reduction in diversity, sulphur deposition can cause acidification;
- Absence of direct fertilisation; and
- Well-drained soils
- Suitable foraging and refuge habitat within 500m of ponds
- Relatively unpolluted water of roughly neutral pH;
- Some ponds deep enough to retain water throughout February to August at least one year in every three;
- In a wider context, great crested newts require good connectivity of landscape features (ponds, hedges etc) as they often live as meta-populations in a number of ponds.

## 10.5 Potential Effects of the Plan

10.5.1 Two potential impacts of the Surrey Heath DPD upon the SAC have been identified:

- Recreational pressure
- Air pollution

### Recreational Pressure

10.5.2 The proposed increase in residential dwellings within Surrey Heath borough, in combination with development in adjacent authorities, is likely to place extra demand on recreational and open space facilities and capacity in the region. However, since Surrey Heath lies 16km from the SAC at its closest, and given that this is close to the limit of the distance visitors are likely to travel to visit a woodland site, it is considered that recreational impacts on the SAC can be screened out.

10.5.3 Additionally there is no direct access from Surrey Heath borough to Mole Gap to Reigate Escarpment SAC, and therefore recreational pressure is not considered to be likely to have a significant effect on the SAC.

### Air Quality

10.5.4 Development proposed within the DPD is likely to result in increased car use, notably as a consequence of housing and business development. Policy CP3 (Scale and Distribution of New Housing) indicates that 3,240 new homes will be delivered in the LDF timeframe, with the majority at Deepcut and Camberley. Policy CP8 (Employment) identifies the need for up to 7,500 new jobs, with a focus on Camberley. It is reasonable to assume that the increased population (both residential and business) and retail floorspace (primarily in Camberley as outlined in Policy CP10) will lead to increased vehicle movements.

10.5.5 However, as there is no direct simple access from Surrey Heath borough to Mole Gap to Reigate Escarpment SAC, traffic volumes from Surrey Heath are not expected to be significant, and therefore reduced air quality is not considered likely to have a significant effect on the SAC.

## 10.6 Conclusion

10.6.1 There is therefore no pathway of impact by which development in Surrey Heath will lead to likely significant effects on Mole Gap to Reigate Escarpment SAC, and therefore it is screened out of this HRA.

## 11 Wealden Heaths Phase II SPA

### 11.1 Introduction

11.1.1 The Wealden Heaths Phase II SPA is made up of four separate SSSI units.

#### Woolmer Forest SSSI and SAC

11.1.2 Woolmer Forest SSSI contains the largest and most diverse area of lowland heathland habitats in Hampshire (outside the New Forest) 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 *Caprimulgus europaeus*, woodlark *Lullula arborea* and Dartford warbler *Sylvia undata*.

#### Broxhead and Kingsley Commons SSSI

11.1.3 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.

#### Bramshott and Ludshott Commons SSSI

11.1.4 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 *Saxicola rubicola*, nightjar and hobby *Falco subbuteo* breed.

#### Devil's Punch Bowl SSSI

11.1.5 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.

### 11.2 Features of European Interest

11.2.1 The site is designated as a SPA for its breeding bird populations, specifically:

- 1.3% of the British breeding population of nightjar *Caprimulgus europaeus* (5 year mean, 1989-1993)
- 2.5% of the British breeding population of woodlark *Lullula arborea* (1997)
- 1% of the British breeding population of Dartford warbler *Sylvia undata* (5 year mean 1989-1993; 1994)

## 11.3 Historical Trends and Current Pressures

- 11.3.1 The heathland habitats of the Special Protection Area 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 of county-based Heathland Management Projects. The Special Protection Area 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.
- 11.3.2 In the most recent condition assessment process (2004-10), parts of the heathland were not in favourable condition. The most frequent concern was inappropriate vegetation species or structure, but in places other issues, such as invasive species in some of the dystrophic ponds, have been noted.

## 11.4 Key Environmental Conditions

- 11.4.1 The environmental requirements of the Wealden Heaths Phase 2 SPA are mainly:
- Maintenance of grazing and other traditional management practices.
  - Unfragmented habitat
  - Minimal recreational pressure and a low incidence of wildfires.

## 11.5 Potential Effects of the Plan

- 11.5.1 One potential impact of the Surrey Heath DPD upon the SPA has been identified:
- Recreational pressure
- 11.5.2 Ground-nesting birds are vulnerable to disturbance, particularly from walkers and dogs. Disturbance can have an adverse effect in various ways, with increased nest predation by natural predators as a result of adults being flushed from the nest and deterred from returning to it by the presence of people and dogs likely to be a particular problem. Several studies have demonstrated that site-specific information is required to understand the relationship between recreational use of a site and any disturbance effects.
- 11.5.3 The proposed increase in residential dwellings within Surrey Heath borough, in combination with development in adjacent authorities, is likely to place extra demand on recreational and open space facilities and capacity in the region. However, Wealden Heaths Phase II SPA lies, at its closest point, 16km from Surrey Heath, and given that equivalent habitat occurs within Surrey Heath itself, it is unlikely that significant numbers of visitors will make the effort to travel to this SPA from Surrey Heath.

- 11.5.4 Visitor surveys undertaken by UE Associates<sup>47</sup> indicate that the recreational catchment for the Wealden Heaths Phase 2 SPA is relatively restricted, with the mean distance travelled for all access points that were monitored being less than 7km (and for most access points 5km or less). Since Surrey Heath lies 16km from the closest part of the Wealden Heaths Phase 2 SPA, and has ample open access heathland of its own, it is considered that recreational impacts on this SPA can be screened out of consideration.

## 11.6 Conclusion

- 11.6.1 There is therefore no pathway of impact by which development in Surrey Heath will lead to likely significant effects on Wealden Heaths Phase II SPA, and therefore it is screened out of this HRA.

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<sup>47</sup> UE Associates. (2009) Visitor Access Patterns on European Sites Surrounding Whitehill-Bordon.

## 12 East Hampshire Hangers SAC

### 12.1 Introduction

12.1.1 The East Hampshire Hangers describe a series of woodlands on the western edge of the Weald. The SAC is made up of a number of SSSIs.

#### Upper Greensand Hangers: Empshott to Hawkley

12.1.2 A series of steep, rocky woodlands on calcareous soils. The dominant tree is ash *Fraxinus excelsior*, often with evidence of past coppicing. A variety of herb layer plants occurs, including ancient woodland indicators. 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

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

#### Coombe Wood and The Lythe

12.1.4 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. The hanger woods also possess a rich bryophyte flora, mostly epiphytic on the older trees.

#### Wick Wood and Worldham Hangers

12.1.5 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. 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.

#### Selborne Common

12.1.6 This SSSI is beech-dominated woodland on a steep east-facing chalk slope, grading to a more mixed plateau woodland with relict open acid grassland on clay-with-flints. The ground flora is well-developed. Selborne Common is one of the most important mollusc sites in Britain, and a number of notable beetles and butterflies also occur.

#### Noar Hill

12.1.7 Noar Hill exhibits a range of chalk vegetation seral stages from open short-sward chalk grassland overlying ancient quarries, through invasive mixed scrub to mature beech hanger woodland. Eleven species of orchid occur, and the site is of national importance for butterflies and grasshoppers.

## Wealden Edge Hangers

12.1.8 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 *Taxus baccata* (in some cases developed over former juniper scrub), yew/beechn and beech/ash. 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.

## 12.2 Features of European Interest

12.2.1 The site is designated as a SAC for its:

- Dry grasslands and scrublands on chalk or limestone, including important orchid sites;
- Beech forests on neutral to rich soils;
- Mixed woodland on base-rich soils associated with rocky slopes;
- Dry grasslands or scrublands on chalk or limestone (though not a primary reason for site selection);
- Yew-dominated woodland (though not a primary reason for site selection).

12.2.2 The site contains the Habitats Directive Annex II species early gentian *Gentianella anglica*, though this is not a primary reason for site selection.

## 12.3 Historical Trends and Current Pressures

12.3.1 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.

## 12.4 Key Environmental Conditions

12.4.1 The environmental requirements of the East Hampshire Hangers SAC are mainly:

- Low nutrient runoff from surrounding land - being steep and narrow, the Hanger woodlands are vulnerable to nutrient run-off leading to eutrophication
- Maintenance of grazing
- Controlled off-track recreational activity (i.e. trampling)
- Minimal air pollution – nitrogen deposition may cause reduction in diversity, sulphur deposition can cause acidification
- Absence of direct fertilisation
- Well-drained soils

## 12.5 Potential Effects of the Plan

12.5.1 One potential impact of the Surrey Heath DPD upon the SAC has been identified:

- Recreational pressure

12.5.2 The proposed increase in residential dwellings within Surrey Heath borough, in combination with development in adjacent authorities, is likely to place extra demand on recreational and open space facilities and capacity in the region. However, East Hampshire Hangers SAC lies, at its closest point, 17km from Surrey Heath, and given that this is the on the limit of the distance visitors are likely to travel to visit a woodland site, it is unlikely that significant numbers of visitors will make the effort to travel to this SAC from Surrey Heath.

12.5.3 Visitor surveys undertaken by UE Associates indicate that the East Hampshire Hangers SAC has a fairly large catchment with a median distance travelled of 10-12km. Since Surrey Heath lies 17km from the SAC at its closest, it is considered that recreational impacts on the SAC can be screened out.

## 12.6 Conclusion

12.6.1 There is therefore no pathway of impact by which development in Surrey Heath will lead to likely significant effects on East Hampshire Hangers SAC, and therefore it is screened out of this HRA.

## 13 Burnham Beeches SAC

### 13.1 Introduction

13.1.1 The SAC comprises an extensive area of the Burnham Plateau supporting mature and developing woodland, old coppice, scrub and heath. There are ancient oak and beech pollards of which the latter are a celebrated feature of international renown. Fragments of wet heath and bog occur, as well as an alder wood and a number of ponds coincide with springs and wet flushes, with a small stream which in places cuts down to the chalk producing swallowholes. This complex of habitats harbours numerous plants, birds and invertebrates of regional importance, as well as several nationally rare species.

### 13.2 Features of European Interest

13.2.1 The site is designated as a SAC for its:

- Beech forests on acid soils

### 13.3 Historical Trends and Current Pressures

13.3.1 Most of Burnham Beeches is in sympathetic ownership and managed for the benefit of nature conservation. A large proportion of the site is designated as a National Nature Reserve and is managed to restore grazed pasture woodland and heathland. The National Trust also owns part of the site. The largest of two private landowners manage the woodland with the aid of Woodland Grant Scheme funding.

13.3.2 The trees within this woodland have been noted as showing signs of chlorosis (a yellowing of the leaves due to a lack of chlorophyll). The Natura 2000 data form for this site states that high levels of SO<sub>x</sub> and NO<sub>x</sub> have been found within this woodland. Higher levels of such chemicals may significantly harm the tree specimens in this habitat (Woodland and our changing environment – The Forestry Commission, 2004).

13.3.3 The City of London has developed a series of management plans for Burnham Beeches, with work underway on provision of the latest document that will cover management from 2010-2020.

13.3.4 In the latest Natural England condition assessment process 62% of the site was in favourable condition with the rest recovering from unfavourable status (2004-08).

### 13.4 Key Environmental Conditions

13.4.1 The environmental requirements of Burnham Beeches SAC are mainly:

- Minimal atmospheric pollution - may increase the susceptibility of beech trees to disease and alter epiphytic communities
- Restricted public access (extensive public access may compromise ability to retain falling timber associated with old trees).

## 13.5 Potential Effects of the Plan

13.5.1 Two potential impacts of the Surrey Heath DPD upon the SAC have been identified:

- Recreational pressure
- Air pollution

### Recreational Pressure

13.5.2 The proposed increase in residential dwellings within Surrey Heath borough, in combination with development in adjacent authorities, is likely to place extra demand on recreational and open space facilities and capacity in the region. However, Burnham Beeches SAC lies, at its closest point, 18km from Surrey Heath, and given that this is on the limit of the distance visitors are likely to travel to visit a woodland site, it is unlikely that significant numbers of visitors will make the effort to travel to this SAC from Surrey Heath.

13.5.3 Additionally there is no easy or direct access from Surrey Heath borough to Burnham Beeches SAC, and therefore recreational pressure is not considered to be likely to have a significant effect on the SAC.

### Air Quality

13.5.4 As there is no easy or direct access from Surrey Heath borough to Burnham Beeches SAC, traffic volumes from Surrey Heath are not expected to be significant, and therefore reduced air quality is not considered likely to have a significant effect on the SAC.

## 13.6 Conclusion

13.6.1 There is therefore no pathway of impact by which development in Surrey Heath will lead to likely significant effects on Burnham Beeches SAC, and therefore it is screened out of this HRA.

## 14 Overall Conclusions

14.1.1 As a result of this HRA it has been possible to conclude that no pathways of impact leading to adverse effects will occur on:

- East Hampshire Hangers SAC
- Mole Gap to Reigate Escarpment SAC
- Burnham Beeches SAC
- Thursley and Ockley Bog Ramsar site
- Wealden Heaths Phase II SPA

14.1.2 We have been able to conclude that future water resources required for the housing allocations within Surrey Heath can be met without an adverse effect on European sites, and that in combination with proposed water efficiency requirements for new development, no adverse effects will occur on:

- Thames Basin Heaths SPA
- Thursley, Ash, Pirbright and Chobham SAC

14.1.3 It has also been possible to conclude that no adverse recreational pressure effects will occur on:

- Thames Basin Heaths SPA
- Thursley, Ash, Pirbright & Chobham SAC
- Windsor Forest and Great Park SAC
- South West London Waterbodies SPA and Ramsar

14.1.4 This is due to either the existence of the avoidance and mitigation measures set out in the Thames Basin Heaths Delivery Framework and associated DPD policies, and, in the case of Windsor Forest and Great Park SAC and South West London Waterbodies SPA and Ramsar, to a combination of distances involved, and the fact that the management of the designated sites is sufficiently robust to avoid increased recreational pressures. This is however contingent on Surrey Heath Council meeting its necessary SANGs apportionment and ensuring that adequate developer contributions are sought to cover the Council contribution to access and site management which will be delivered in parallel to SANGs provision.

14.1.5 It has also been possible to conclude that an effective policy framework exists to enable the delivery of sustainable transport measures to mitigate the effects of development within the DPD (when considered 'in combination' with the other Thames Basin Heaths authorities rather than in itself) to an adverse air quality effect associated with increased traffic on the M3, A3095 and A322 as they traverse the Thames Basin Heaths SPA and Thursley, Ash, Pirbright & Chobham SAC, and (at a greater distance and making a relatively smaller contribution compared to traffic arising from adjacent authorities) trunk roads as they traverse Thursley, Hankley and Frensham Commons SPA.

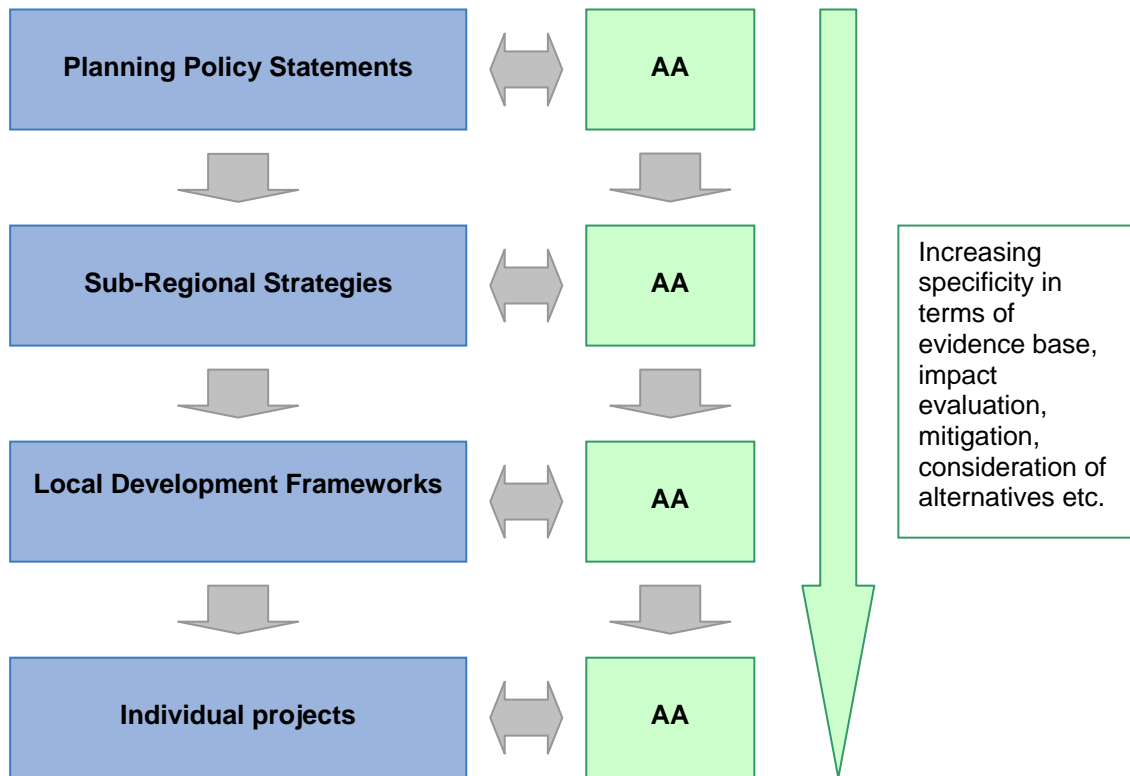
- 14.1.6 Given the uncertainties involved in local air quality issues as they relate to European sites, a framework to monitor air quality in conjunction with other relevant local authorities is necessary.

In order to support the policy framework, a separate framework to undertake air quality monitoring should be explored with other relevant local authorities (e.g. the other Thames Basin Heaths authorities and strategic highway authorities). This would include monitoring of the air quality in the Thames Basin Heaths SPA and Thursley, Ash, Pirbright & Chobham SAC before and for a number of years after introduction of sustainable transport measures, such that further measures can be devised if air quality does not improve. In making these assessments the critical load for the relevant habitat should be used as the target for assessment.

The Council should explore opportunities to contribute as required to any monitoring of the air quality in Thursley, Hankley & Frensham Commons SPA that Waverley Council or highways authorities embark upon to determine the effectiveness of air quality mitigation measures, such that further measures can be devised if the air quality does not improve. Surrey Heath Council cannot unilaterally take on this responsibility as it has no control over Thursley, Hankley & Frensham Commons SPA, which lie in Waverley district.

- 14.1.7 It is considered that the Core Strategy does contain an adequate policy framework to enable the delivery of necessary measures to mitigate adverse effects on European sites, provided that these measures are monitored adequately.

## Appendix 1: 'Tiering' in Habitat Regulations Assessment



## Appendix 2 : Screening tables for Surrey Heath Core Strategy and Development Management Policies

Policy Number/Name	Policy Summary	Screening Decision (prior to consideration of mitigating policy)
CP1 – Spatial Strategy	<p>New development will come forward largely through redevelopment of previously developed land in the western part of the Borough.</p> <p>Camberley will be a focus with redevelopment of existing employment sites largely focussed on the town centre and the nearby core employment areas.</p> <p>Frimley is identified as a sustainable location but with limited potential for housing growth.</p> <p>Frimley Green and Mytchett offer limited opportunities for housing and employment growth through redevelopment of existing sites.</p> <p>The larger villages of Bagshot and Lightwater will continue in their respective roles as district and local centres.</p> <p>At Deepcut, the land at Princess Royal Barracks, Deepcut represents a major redevelopment opportunity that will enlarge the village and provide a major new housing area as well as the opportunity to improve local services.</p> <p>The smaller villages of Bisley, West End and Windlesham (including Snows Ride) and are inset within the Green Belt. These villages have limited capacity to accommodate development.</p> <p>The settlement of Chobham is “washed over” by Green Belt. This village has limited capacity to accommodate any new development.</p> <p>Within the countryside the current extent of the Green Belt will be maintained. Any change to the boundaries of the Major Developed Sites will be considered through the site allocations DPD.</p> <p>Development in the Countryside beyond the Green Belt which results in the coalescence of settlements will not be permitted.</p>	<p>This policy is screened in as requiring further consideration since it defines the locations at which significant development will take place within Surrey Heath borough.</p> <p>Given that nowhere in Surrey Heath is greater than 3km from the Thames Basin Heaths SPA, then all new development requires consideration for potential impacts through recreational pressure. Development patterns within Surrey Heath could also have effects on designated sites outside the borough.</p> <p>The location of development also creates a need to assess impacts of reduced air quality on sites as well as consideration of potential for localised water quality issues.</p>

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<p>CP2 – Sustainable Development and Design</p>	<p>The Council will require development to:</p> <ul style="list-style-type: none"> <li>- contribute to CO2 reduction targets</li> <li>- contribute to decentralised energy</li> <li>- improve water efficiency</li> <li>- ensure land is used efficiently and enhances the environment</li> <li>- create sustainable communities</li> <li>- promote access to recreational facilities and green infrastructure</li> <li>- address climate change issues</li> <li>- promote smart economic growth</li> </ul>	<p>None of the requirements on new development here could have a detrimental effect on European designated sites.</p> <p>Many of the strands of this policy should provide mitigation for effects on designated sites through recreational pressure, water resources, water quality and a general respect for the environment.</p>
<p>CP3 – Scale and Distribution of New Housing*</p>	<p>Within the period 2010 – 2027 the Borough Council will make provision for up to 3,240 additional dwellings. This will be provided by:</p> <ul style="list-style-type: none"> <li>(i) Promoting the use of previously developed land in settlement areas and ensuring the most effective use of that land.</li> <li>(ii) Allocating the Princess Royal Barracks Deepcut for redevelopment for some 1200 new homes</li> <li>(iii) Exceptionally, small scale affordable housing schemes may be acceptable as rural exception sites outside of the settlement boundaries of the rural villages.</li> <li>(iv) Resisting any developments that involve a net loss of housing unless it can be demonstrated that the benefits outweigh the harm</li> </ul> <p>The bulk of the new settlement will be at Deepcut (1200 dwellings), Camberley (850-950), and Bagshot (200-300).</p>	<p>This policy is screened in as requiring further consideration since it defines the locations at which significant development will take place within Surrey Heath borough.</p> <p>Given that nowhere in Surrey Heath is greater than 3km from the Thames Basin Heaths SPA, then all new development requires consideration for potential impacts through recreational pressure. Development patterns within Surrey Heath could also have effects on designated sites outside the borough.</p> <p>The location of development also creates a need to assess impacts of reduced air quality on sites as well as consideration of potential for localised water quality issues.</p>
<p>CP4 - Deepcut</p>	<p>This site will provide some 1200 net new dwellings and is anticipated to deliver housing from 2016 onward.</p> <p>New development will be required to contribute toward delivery of the following:</p> <ul style="list-style-type: none"> <li>- a safe and high quality environment</li> <li>- 35% affordable housing</li> <li>- local employment opportunities</li> <li>- improved retail/class A provision to 6000 square metres</li> <li>- enhanced or new village centre</li> <li>- community infrastructure</li> <li>- climate change resistant physical infrastructure</li> <li>- CSH level 6 for CO2 and water</li> <li>- zero carbon and efficient resource use for commercial/industrial</li> <li>- traffic demand reduction, improved public transport, improved walking/cycling opportunities, and highway improvements</li> </ul>	<p>This policy is screened in as requiring further consideration since it defines a key location at which significant development will take place within Surrey Heath borough.</p> <p>Given that nowhere in Surrey Heath is greater than 3km from the Thames Basin Heaths SPA, then all new development requires consideration for potential impacts through recreational pressure. Development patterns within Surrey Heath could also have effects on designated sites outside the borough.</p> <p>The location of development also creates a need to assess impacts of reduced air quality on sites as well as consideration of potential for localised water quality issues.</p> <p>However, it is noted that the policy specifically states that new development will not harm European designated sites.</p>

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	<ul style="list-style-type: none"> <li>- no impact on European designated sites</li> <li>- no impact on local biodiversity</li> <li>- maintain countryside gap to Frimley Green</li> <li>- formal and informal green infrastructure, including SANGS</li> <li>- enhanced links to Basingstoke Canal</li> </ul>	Policy does provide mitigation for the effects of recreational pressure, air quality, water quality and water resources.
CP5 – Affordable Housing	Over the lifetime of the Core Strategy, the Borough Council will seek a target of 35% of all net additional housing as affordable, split evenly between social rented and intermediate.	No likely significant effects on European designated sites as defines housing type only.
CP6 – Dwelling Size and Type	The Borough Council will promote a range of housing types and tenures which reflect the demand for market housing and need for affordable housing.	No likely significant effects on European designated sites as defines housing type only.
CP7 – Gypsies and Travellers and Travelling Showpeople	The Borough Council will seek to provide an additional 19 pitches for Gypsies and Travellers in the period up to 2027. Any additional requirements arising from further reviews of the evidence of need will be planned for in the period up to 2027. In respect of Travelling Showpeople no specific provision is identified.	<p>This policy is screened in as it does define a quantum of new development, although it is small.</p> <p>There is a need to consider potential effects of development in terms of infrastructure provision and location (e.g. local water quality effects).</p>
CP8 - Employment	<p>The Borough Council will seek to make provision for up to 7,500 new jobs in the period up to 2027. It will do this by ensuring a flexible supply of high quality employment floorspace utilising existing employment areas and promoting a more intensive use of these sites through the recycling, refurbishment and regeneration of existing older or vacant stock and promotion of flexible working practices.</p> <p>Core Employment Areas, will be retained for employment use and along with Camberley Town Centre will be the focus for economic regeneration and inward investment.</p>	<p>This policy is screened in as it defines the location and quantum of new development within Surrey Heath. Though these will mainly be on existing sites there could still be increased demands on water resources, and potential for reductions in water quality and air quality.</p>
CP9 – Hierarchy and Role of Centres	<p>The Town and Village centres will continue to have a multi functional role as centres for local services, local employment and in particular as retail centres in the period up to 2027. The hierarchy of centres will be as follows: -</p> <p>Town – Camberley District – Bagshot and Frimley Local – Chobham, Deepcut, Frimley Green, Lightwater and Windlesham</p>	<p>This policy is screened in as requiring further consideration since it defines the locations at which scales of development will take place within Surrey Heath borough.</p> <p>The location of development creates a need to assess impacts of reduced air quality on sites as well as consideration of requirements for water, and potential for localised water quality issues</p>

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	Neighbourhood – Bisley, West End and other neighbourhood parades	
CP10 – Camberley Town Centre	<p>The role of Camberley as a secondary regional town centre will be consolidated and enhanced through measures to improve shopping, business, leisure, cultural and community activities.</p> <p>It is anticipated that up to 200 new homes could be delivered alongside some 41,350 square metres of net new additional retail floorspace in the period up to 2027.</p> <p>New development should:</p> <ul style="list-style-type: none"> <li>- serve local retail needs</li> <li>- support town centre employment</li> <li>- enhance leisure and cultural activity</li> <li>- enhance public transport and highway improvements</li> <li>- provide a high quality built environment</li> <li>- meet housing needs</li> <li>- achieve CSH level 6 for CO2 and water efficiency</li> <li>- achieve zero carbon and efficient resource use for commercial/industrial</li> <li>- have no impact on European designated sites</li> <li>- protect and enhance public open space</li> </ul>	<p>This policy is screened in as requiring further consideration since it defines a key location at which significant development will take place within Surrey Heath borough.</p> <p>Given that nowhere in Surrey Heath is greater than 3km from the Thames Basin Heaths SPA, then all new development requires consideration for potential impacts through recreational pressure. Development patterns within Surrey Heath could also have effects on designated sites outside the borough.</p> <p>The location of development also creates a need to assess impacts of reduced air quality on sites as well as consideration of water resource needs, and potential for localised water quality issues.</p> <p>However, it is noted that the policy specifically states that new development will not harm European designated sites.</p>
CP11 - Movement	<p>The Council will support proposals to improve public transport in the Borough, particularly that serving Camberley Town centre and Deepcut, working with partners.</p> <p>The Council will work with the highway authority to seek improvements to and better integration of walking and cycling routes and facilities, the efficient and safe operation of the highway network while seeking to reduce the need to travel, encourage the use of sustainable modes of transport and reduce the impact of traffic on residential areas.</p> <p>New development that will generate a high number of trips will be directed toward previously developed land in sustainable locations or will be required to demonstrate that it can be made sustainable to reduce the need to travel and promote travel by sustainable modes of transport. All new development should be appropriately located in relation to public transport and the highway network.</p>	<p>This policy is screened out as it contains measures that can only have positive implications for air quality at European designated sites.</p>
CP12 – Infrastructure Delivery and	Working with partners, the Borough Council will ensure that sufficient	This policy is screened out as it contains measures that will have only

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<p>Implementation</p>	<p>physical, social and community infrastructure is provided to support development.</p> <p>The Borough Council's Infrastructure Delivery Plan will be used to identify the timing, type and number of infrastructure projects required to support the objectives and policies of the strategy as well as the main funding mechanisms and lead agencies responsible for their delivery.</p> <p>Where funding gaps for infrastructure projects have been identified, the Borough Council will require developers to make a contribution toward the shortfall in funding by way of either a financial or in-kind contribution.</p> <p>Where the delivery of development is dependant upon key infrastructure provision, that development will be phased to coincide with the release of additional infrastructure or service capacity as set out in the Infrastructure Delivery Plan.</p>	<p>positive effects on European designated sites in relation to air quality, water resources, water quality, and potentially recreational pressure.</p>
<p>CP13 – Green Infrastructure</p>	<p>The Borough Council, in partnership with other organisations, will plan for a network of accessible and integrated green infrastructure across the Borough of Surrey Heath and linked to neighbouring areas. The Council will seek to strengthen the role of the Green Infrastructure network.</p> <p>Development which results in the loss, fragmentation or isolation of green infrastructure will be resisted.</p> <p>Green infrastructure of strategic importance will include those areas designated as European sites and Suitable Accessible Natural Greenspace (SANGs) required to avoid and mitigate impacts to the European sites.</p>	<p>This policy is screened out as it does not contain any wording that could lead to adverse effects on European designated sites.</p> <p>The policy should provide a mechanism for ensuring that recreational pressure is reduced on such sites.</p>
<p>CP14 – Biodiversity and Nature Conservation</p>	<p>The Borough Council will seek to conserve and enhance biodiversity within Surrey Heath. Working with partners, new opportunities for habitat creation and protection will be explored in particular on biodiversity opportunity areas. Development that results in harm to or loss of features of interest for biodiversity will not be permitted.</p> <p>Outside of statutory designations, new development will where appropriate be required to contribute to the protection, management</p>	<p>This policy is screened out as it has no potential for adverse effects on European designated sites.</p> <p>The policy provides strong protection for such sites through the prohibition of residential development within 400m of them. There is also a requirement for non-residential development to meet HRA requirements.</p> <p>The requirement for development elsewhere to avoid harm to</p>

	<p>and enhancement of biodiversity. On locally designated sites this will include those habitats and species listed in the Surrey Biodiversity Action Plan (BAP).</p> <p>Within locally designated sites development will not be permitted unless it is necessary for appropriate on site management measures and can demonstrate no adverse impact to the integrity of the nature conservation interest.</p> <p>No new residential development will be permitted within 400m of the SPA or SAC. Non-residential development within 400m of the SPA or SAC will be required to demonstrate that it will not have a significant effect either alone or in combination with other plans or projects.</p> <p>Proposals for residential development elsewhere in the Borough will be required to provide appropriate measures to avoid adverse effects upon the European sites in accordance with the Borough Councils adopted Avoidance Strategy( or as subsequently amended) which will identify a suite of Suitable Alternative Natural Green Spaces.</p> <p>The Council will work in partnership to restore and enhance Biodiversity Opportunity Areas in particular those also designated as European sites which are of strategic importance.</p>	<p>European sites is also important and positive.</p>
<p>DM1 – The Rural Economy</p>	<p>Within the countryside, including the Green Belt, the Borough Council will support farm diversification proposals and the reuse, adaptation or conversion of buildings for economic purposes, as long as certain criteria are met.</p> <p>Where justified, replacement buildings for farm diversification or economic purposes in the countryside beyond the Green Belt will be supported, as long as certain criteria are met.</p> <p>The conversion or re-use of buildings for residential purposes will be considered against criteria after having established that use for economic purposes is not feasible or appropriate.</p>	<p>This policy is screened in as it does define new development, although the scale may be small.</p> <p>There is a need to consider potential effects of development in terms of infrastructure provision and location (e.g. local air quality or water quality effects).</p>
<p>DM2 – Development Within Chobham</p>	<p>Development within the settlement of Chobham will be limited to appropriate Green Belt uses and small scale development.</p>	<p>This policy is screened in as it does define new development, although the scale may be small.</p>

		<p>There is a need to consider potential effects of development in terms of infrastructure provision and location (e.g. local air quality or water quality effects). The location could also create a need to assess potential for recreational pressure on designated sites.</p>
DM3 – Equestrian Related Development	Equestrian related development in the countryside and Green Belt will be supported under certain criteria that include the need for it to be small in scale, and to not harm the character of the countryside.	<p>This policy is screened in as it does define new development, although the scale may be small.</p> <p>There is a need to consider potential effects of development in terms of infrastructure provision and location (e.g. local air quality effects). Dependent on location there could also be a need to assess potential for recreational pressure on designated sites.</p>
DM4 - Replacement, Extension or Alteration of Existing Residential Dwellings in the Countryside Beyond the Green Belt	Replacement, extension of or alterations to residential dwellings in the countryside beyond the Green Belt will be supported under certain criteria.	<p>This policy is screened in as it does define new development, although the scale may be small.</p> <p>There is a need to consider potential effects of development in terms of infrastructure provision and location (e.g. local air quality effects). Dependent on location there could also be a need to assess potential for recreational pressure on designated sites.</p>
DM5 – Rural Exception Sites	Development consisting of 100% affordable housing within the countryside or Green Belt will be permitted under certain criteria.	<p>This policy is screened in as it does define new development, although the scale may be small.</p> <p>There is a need to consider potential effects of development in terms of infrastructure provision and location (e.g. local air quality effects). Dependent on location there could also be a need to assess potential for recreational pressure on designated sites.</p>
DM6 - Gypsy & Traveller and Travelling Showpeople Accommodation	In assessing applications and site allocations for Gypsies and Travellers and Travelling Showpeople accommodation the Borough Council will have regard to the need to locate these in defined settlements as a first priority; and to ensure they are accessible by public transport, cycling or pedestrian networks and have facilities capable of meeting day to day needs	<p>This policy is screened out as there is no mechanism by which adverse effects on European designated sites could result.</p> <p>The policy appears to contain mitigation for the need to avoid effects on designated sites through the recognition of the need to provide facilities to pitches on sites.</p>
DM7- Facilitating Zero Carbon Development	<p>Until carbon dioxide emission improvements are introduced through the Building Regulations, all non-residential development will be expected to achieve a BREEAM 'very good' emissions rating.</p> <p>In the longer term and in order to support and facilitate the highest</p>	<p>There is no mechanism by which this policy could have adverse effects on European designated sites.</p>

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	<p>standards of carbon dioxide emission reductions and zero carbon development, the Borough Council will, in the first instance, seek reductions through carbon compliance which go beyond minimum standards including through the use of imported heat/cooling from existing decentralised sources.</p> <p>Where this is not possible, practical or viable the Borough Council will require development to implement allowable solutions.</p>	
DM8 - Stand Alone Decentralised, Renewable and Low Carbon Energy Schemes	<p>Proposals for stand alone decentralised, renewable and low carbon schemes will be supported unless the social, economic and environmental benefits are outweighed by adverse impacts to the immediate and wider environment.</p> <p>Small scale community led initiatives will be actively encouraged.</p>	<p>This policy is screened out as although renewable technologies can have potential adverse effects on European designated sites, the scale involved in such decentralised projects is likely to be very small, and the policy also seeks to safeguard the environment (which would include European designated sites).</p>
DM9 – Design Principles	<p>Development will be acceptable where it achieves design principles including:</p> <ul style="list-style-type: none"> <li>- high quality design with layouts that maximise opportunities for linkages to the surrounding area and local services</li> <li>- respects and enhances the local, natural or historic character of the environment</li> <li>- provides sufficient private and public amenity space</li> <li>- protects trees and other vegetation worthy of retention</li> <li>- reduces the potential for crime and fear of crime</li> <li>- incorporates measures for the storage of waste</li> <li>- is accessible to all</li> <li>- facilitates provision of IT and other communications technology which allow flexible working practices</li> <li>- reduces potable water consumption in residential development to water efficiency standards equivalent to Code for Sustainable Homes level 3-4 between 2011 and 2015, and code level 5-6 from 2016 onwards</li> </ul>	<p>This policy has no mechanism for adverse effects on European designated sites.</p> <p>There is provision for mitigation against the effects of recreational pressure and demands for water.</p>
DM10 – Development and Flood Risk	<p>Development within flood risk zones 2 &amp; 3 or on sites of 1ha or greater in zone 1 and sites at medium or high risk from other sources of flooding as identified by the Borough Council's SFRA, will not be supported unless the risk and/or consequences can be made acceptable.</p> <p>The Borough Council will expect development to reduce the level and rate of surface water run-off through the incorporation of appropriately</p>	<p>This policy has no mechanism for adverse effects on European designated sites.</p> <p>There is provision for mitigation against the effects of recreational pressure and, in particular, reduced water quality.</p>

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	<p>designed Sustainable Drainage Systems (SuDS) at a level appropriate to the scale and type of development.</p> <p>Development which seeks to restore areas of functional floodplain will be encouraged, especially where this would provide opportunities for recreation, habitat restoration/enhancement and green infrastructure opportunities.</p>	
DM11 – Traffic Management and Highway Safety	<p>Development which would adversely impact the safe and efficient flow of traffic movement on the highway network will not be permitted unless it can be demonstrated that measures to reduce and mitigate such impacts to acceptable levels can be implemented.</p> <p>The Borough Council will expect development to protect existing footways, cycleways and bridleways and facilitate improvements to existing or provide new connections to these routes.</p>	<p>This policy has no mechanism for adverse effects on European designated sites.</p> <p>There is some mitigation for the potential effects of reduced air quality on designated sites.</p>
DM12 - District and Local Centres and Neighbourhood Parades	<p>The Borough Council will encourage development that offers environmental improvements and which supports and enhances the viability, vitality and retail function of District and Local centres and Neighbourhood Parades.</p>	<p>This policy has no mechanism for adverse effects on European designated sites.</p>
DM13 - Employment Development Outside Core Employment Areas & Camberley Town Centre	<p>Outside Core Employment Areas and Camberley Town Centre development for B class uses will generally be restricted.</p> <p>The loss of employment sites outside of Core Employment Areas and Camberley Town Centre may be permitted or allocated for other uses in a Site Allocations DPD.</p>	<p>This policy has no mechanism for adverse effects on European designated sites.</p>
DM14 – Community and Cultural Facilities	<p>Working in partnership, the Borough Council will seek to identify opportunities to enhance and improve community and cultural facilities within the Borough, whether through the provision of co-located or new facilities.</p> <p>Where demand for facilities arising from new development occurs, the Borough Council will, in the first instance, explore opportunities to provide additional community and cultural facilities through enhancement of existing or co-located facilities. Where this is not achievable or feasible new community and cultural facilities will be required.</p> <p>The loss of existing community and cultural facilities will be resisted.</p>	<p>This policy has no mechanism for adverse effects on European designated sites.</p>

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<p>DM15 - Protection of Green Spaces and Recreational Facilities</p>	<p>Green spaces in settlement areas will be protected by restricting development to appropriate informal recreation uses or recreation facilities that are of a scale commensurate with the size of the space.</p> <p>The Borough Council will resist the loss or fragmentation of small open amenity areas where this would result in adverse impacts on the attractiveness and quality of the built environment.</p> <p>Existing formal recreation facilities will be protected unless it can be demonstrated that such facilities are to be co-located in dual use facilities or surplus to requirements and there is no demand for any other recreational purpose.</p>	<p>This policy has no mechanism for adverse effects on European designated sites.</p> <p>There is a certain level of mitigation for effects of recreational pressure, though the policy is concerned more with protection of existing assets than with creation of new assets.</p>
<p>DM16 - Provision of Open Space and Recreation Facilities</p>	<p>Working with partners, the Borough Council will encourage new and enhanced opportunities for formal and informal recreation including promotion of dual use facilities or through the provision of new green infrastructure.</p> <p>New residential development will be expected to provide or contribute towards open space, equipped playspaces including teen facilities and outdoor sports facilities to the following standards: -          Open Space – 9sqm per person (urban) and 5sqm per person (rural); and          Equipped Playspaces – 0.8sqm per person; and          Outdoor Sports Facilities – 27.5sqm per person</p> <p>The Borough Council will consider applying different standards at the strategic locations for development or other allocated sites as set out in a Site Allocations DPD, in line with identified needs.</p>	<p>This policy has no mechanism for adverse effects on European designated sites.</p> <p>There is mitigation for effects of recreational pressure, though it is assumed that this is not inclusive of SANGS commitments.</p>
<p>DM17 - Heritage</p>	<p>Development which affects any Heritage Asset should first establish and take into account its individual significance, and seek to promote the conservation and enhancement of the Asset and its setting. In determining proposals for development affecting Heritage Assets or their setting, regard will be had as to whether the Asset is a Designated Heritage Asset or a local Heritage Asset in determining whether the impact of any proposed development is acceptable.</p> <p>Within Areas of High Archaeological Potential, or outside of these areas on any major development site of 0.4ha or greater, applicants</p>	<p>This policy has no mechanism for adverse effects on European designated sites.</p>

**Surrey Heath Borough Council**

Core Strategy and Development Management Policies DPD incorporating amendments made post-suspension

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are required to undertake prior archaeological assessment, which may lead to the need for archaeological evaluation in order to inform the determination of the application.



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\* Figures still to be formally approved by Full Council

## Appendix 3: Consideration of alternative housing options on Thames Basin Heaths

The policy background to the housing targets and thus land supply has changed markedly during the production of the Core Strategy document with the revocation of the South East Plan in July 2010 followed by its reinstatement in November 2010. Following revocation of the South East Plan the Borough Council decided not to continue with the housing targets in the South East Plan but adopt a target based on what it considered could be more realistically delivered given constraints within the Borough. Thus the housing target as submitted for examination was 2,502, 2010-2027.

The Core Strategy & Development Management Policies DPD was submitted to the Secretary of State in October 2010 with Examination of the DPD held in February 2011. During this time the South East Plan was reinstated.

At the end of the Examination of the Core Strategy & Development Management Policies DPD the Inspector appointed by the Secretary of State expressed concerns regarding the overall housing target set out in proposed policy CP3 and the overall distribution of housing therein.

URS Scott Wilson has been asked by Surrey Heath Council to undertake an additional Habitat Regulations Assessment exercise to assess not only their amended preferred option (i.e. 3,240 dwellings, the residual South East Plan figure) but also two further housing options that were not preferred.

The two non-preferred options for housing targets are either to make provision for a higher target based on the SHLAA of up to 3,755 (rounded up from 3,753) or to provide the SHMA shortfall of 12,830 (rounded down from 12,831).

- SHLAA Based Target – 3,755 dwellings 2011-2028
- SHMA Shortfall Target – 12,830 dwellings 2011-2028

### **SANGS Capacity in the Borough**

Analysis of the SHLAA shows that of the 741 deliverable dwellings in Core Strategy years 1-5, 467 have already been assigned to strategic SANGS or have their own bespoke SANGS solution. There is currently capacity for a further 2,200 dwellings in the Borough based on confirmed SANGS. In addition, Defence Estates indicated at EiP that there additional capacity for SANGS appropriate to an additional 521 dwellings at Princess Royal Barracks.

The Core Strategy also sets out an intention to acquire a site for SANGS at Lake Road/St Catherine's Road in Frimley Green. This is a 30ha site, part of which is covered by an SSCI which already has public access. A site of this size would be likely to deliver capacity for 1,562 dwellings in the Camberley, Frimley, Frimley Green, Mytchett and Deepcut areas of the Borough. However, as part of the site is already publicly accessible, discounting would apply, which if applied at 50% yields a capacity of 781. Further, acquisition of the site is not a straightforward process under Compulsory Purchase (CPO) as the Borough Council would have to demonstrate that the SANGS is required i.e. there are no other SANGS solutions available. If these two sites could be achieved then Surrey Heath's probable SANGS capacity would be sufficient to support approximately 3, 502 dwellings.

## SHLAA-Based Target

This Option would require delivery of sufficient SANGS to accommodate 3,755 dwellings (16% more than the residual South East Plan allocation). Since 467 dwellings have already been assigned to SANGS or have their own bespoke SANGS solution, sufficient SANGS (at a rate of 8/1000 population) to accommodate a further 3,288 dwellings would be required. Current confirmed additional SANGS capacity in the borough is 2,200. There would therefore be a shortfall of 1,088 new dwellings or 29% of the total housing required.

The housing to be delivered under Option 2 is only moderately (16%) greater than the South East Plan allocation. As such, it is considered that the Delivery Framework approach and the 8ha/1000 population standard of provision could still be used. However, the significant shortfall in confirmed SANGS would be required to be met before this Option could come forward with certainty.

The potential SANGS at Lake Road/St Catherine's Road in Frimley Green would result in accommodation for up to 781 dwellings on current estimates. Coupled with the additional SANGS available at Princess Royal Barracks this would result in available SANGS exceeding housing to be delivered under this option by 6.5% if the full capacity of the two SANG sites could be realised which would allow leeway for a circumstance in which the full capacity could not in fact be realised.

Moreover, the reworded Policy CP14B provides a fundamental safeguard in that it states clearly that all net new residential development shall provide or contribute to SANGS at a rate of at least 8ha/1000 population. The obvious corollary of this is that net new dwellings that cannot provide or contribute to SANGS at a rate of at least 8ha/1000 population would fail to comply with Council policy and could not therefore be permitted.

However, the fact that this option would involve reliance on unconfirmed SANGS for over a quarter of the housing to be delivered (as opposed to less than a fifth for the residual South East Plan allocation) may pose an unacceptable risk to housing deliverability. This option would also result in greater conflict with the 'suggested change' the Council have made to paragraph 5.120 which stipulates that one of the key issue around the provision of SANGS is *'that there is sufficient certainty of SANGS availability over the lifetime of the LDF to suggest that overall the district housing allocation can be achieved.'*

## SHMA Shortfall Target

This Option would involve delivery of sufficient SANGS to accommodate 12,830 dwellings (296% more than the residual South East Plan allocation). Since 467 dwellings have already been assigned to SANGS or have their own bespoke SANGS solution sufficient SANGS (at a rate of 8/1000 population) to accommodate a further 12,363 dwellings would be required. Current confirmed additional SANGS capacity in the borough is 2,200. There would therefore be a shortfall of 10,163 dwellings without currently confirmed SANGS or 79% of the total housing required. In practice there would be such a high risk associated with this level of uncertainty over SANGS delivery that there could be no certainty that the Core Strategy could deliver anything other than a small proportion of the proposed level of housing.

The housing to be delivered under this option is far in excess (296%) of the South East Plan allocation. As such, it considerably exceeds the scale of development that was envisaged when the Delivery Framework and the South East Plan Appropriate Assessment were undertaken and that were tested as part of the South East Plan process. It cannot be assumed that the Delivery Framework approach can be extended indefinitely to address extremely large amounts of additional housing for the following reasons:

- The rate of housing delivery would be so rapid that SANGS could not be delivered at a sufficient pace to cope (an average of 754 new dwellings or 1,810 new residents per year

would require an average of over 14ha of SANGS to be delivered per annum) or to meet the requirement set out in the Councils 'suggested change' to paragraph 5.120 *'that a sufficient supply of SANGS must be readily available to maintain a five year supply and minimise risks to developers of refusal on SPA grounds'*; and

- Access management measures cannot be improved indefinitely. It is very unlikely that access management of the SPA could be improved to such an extent that a 3-fold increase in visitors from Surrey Heath (when compared to South East Plan levels) by 2028 could be managed.





Moreover, these housing levels would represent a 413% increase over the housing levels assessed in the Submission HRA (3,240). Assuming that this led to an associated increase in private vehicle movements on the major roads through the Thames Basin Heaths SPA, substantial air quality impacts may result.

As such, it is considered that there is no manner in which the volume of housing envisaged in this option could be accommodated without an adverse effect on the integrity of the Thames Basin Heaths SPA. To adopt this option without contravening the Conservation of Habitats & Species Regulations 2010 would therefore require the Council to demonstrate that there were 'no alternatives' and Imperative Reasons of Over-riding Public Interest as to why this level of housing was required before the Core Strategy could be adopted. It would also be necessary for sufficient compensatory provision for the adverse effect on the integrity of the Natura 2000 network to be agreed with the European Commission before adoption of the Core Strategy, and it is very unlikely that adequate compensatory provision could be made within Surrey Heath borough.

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NOTES

-  Surrey Heath Borough
-  Ramsar
-  Special Protection Area
-  Special Area of Conservation

1. Burnham Beeches SAC
2. East Hampshire Hangers SAC
3. Mole Gap to Reigate Escarpment SAC
4. South West London Waterbodies SPA and Ramsar
5. Thames Basin Heaths SPA
6. Thursley, Hankley and Frensham Commons SPA
7. Thursley and Ockley Bogs Ramsar
8. Thursley, Ash, Pirbright and Chobham SAC
9. Wealden Heaths Phase II SPA
10. Windsor Forest and Great Park SAC

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Revision Details	By	Date	Suffix
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Drawing Status: **DRAFT**

Job Title: **SURREY HEATH BOROUGH**

Drawing Title: **DESIGNATED SITES**

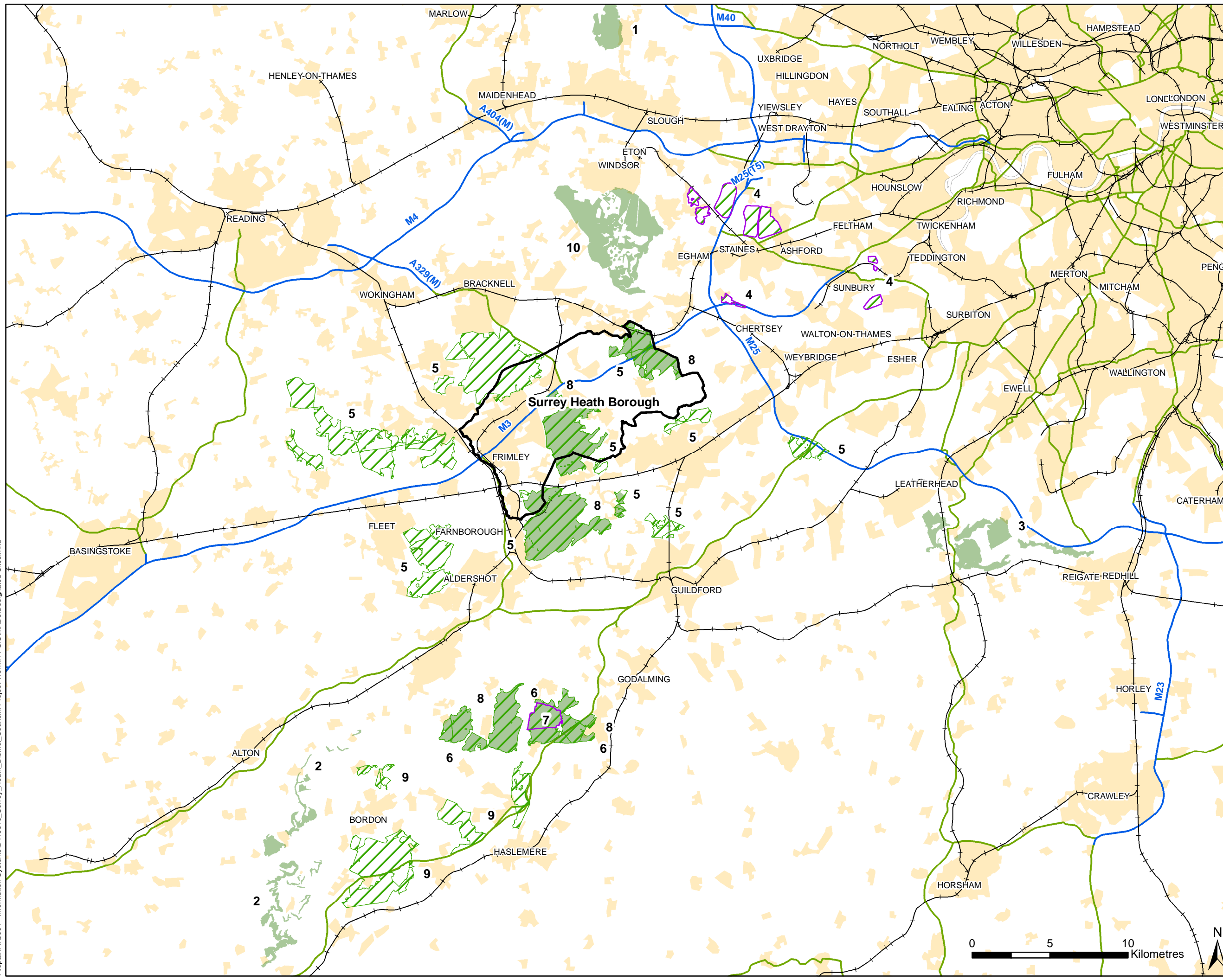
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Drawn: JM	Approved: GD
Stage 1 check	Stage 2 check
Originated	Date

Scott Wilson  
 Scott House  
 Alençon Link, Basingstoke  
 Hampshire, RG21 7PP  
 Telephone (01256) 310200  
 Fax (01256) 310201  
 www.scottwilson.com



Drawing Number: **FIGURE 1A**







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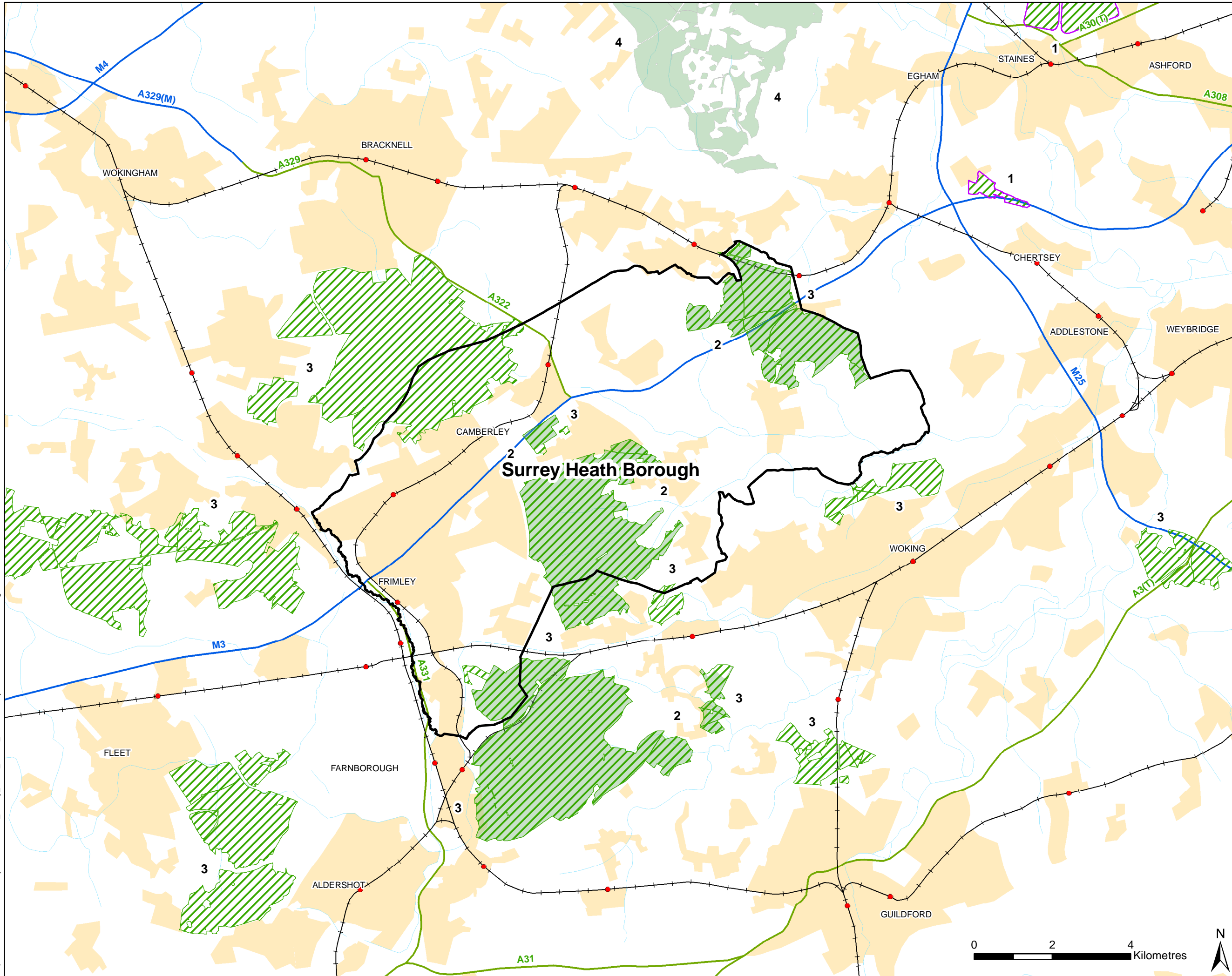
Drawn: **JM** Approved: **GD**

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Scott Wilson  
 Scott House  
 Alençon Link, Basingstoke  
 Hampshire, RG21 7PP  
 Telephone (01256) 310200  
 Fax (01256) 310201  
 www.scottwilson.com



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