



*Woking
Borough
Council Draft
Development
Management
Policies DPD*

Habitats Regulations
Assessment

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Prepared for:
Woking Borough Council

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1 INTRODUCTION

1.1 Scope of the project

URS Infrastructure & Environment UK Ltd was appointed in 2014 by Woking Borough Council to assist the Council in undertaking a Habitats Regulations Assessment (HRA) of the Woking Borough Development Management Policies Development Plan Document (DPD). The objective of the assessment was to identify any aspects of the emerging DPD that would have the potential to cause a likely significant effect on 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 begin to identify appropriate mitigation strategies where such effects were identified. The Core Strategy for Woking was subject to HRA, and the HRA screening stage was able to conclude that no significant effects would occur as a result of the policies contained therein, or European protected sites. The Core Strategy was adopted in 2012 and covers spatial planning within the Borough from 2010-2027. The current HRA document considers the draft DPD.

1.2 Legislation

The need for Appropriate Assessment is set out within Article 6 of the EC Habitats Directive 1992, and interpreted into British law by the Conservation of Habitats & Species Regulations 2010. The ultimate aim of the Habitats 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. European sites (also called Natura 2000 sites) can be defined as actual or proposed/candidate Special Areas of Conservation (SAC) or Special Protection Areas (SPA). It is also Government policy for sites designated under the Convention on Wetlands of International Importance (Ramsar sites) to be treated as having equivalent status to Natura 2000 sites.

The Habitats Directive applies the precautionary principle to protected areas. Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. This is in contrast to the SEA Directive which does not prescribe how plan or programme proponents should respond to the findings of an environmental assessment; merely that the assessment findings (as documented in the ‘environmental report’) should be ‘taken into account’ during preparation of the plan or programme. In the case of the Habitats Directive, 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.

All the European sites mentioned in this document are shown in Figure 1. 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 & Species Regulations 2010 (as amended)

The Regulations state 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 sites 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”.

1.3 Woking Borough

There is no pre-defined guidance that dictates the physical scope of a HRA of a document such as 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 Woking Borough boundary; and
- Other sites shown to be linked to development within the Borough boundary through a known ‘pathway’ (discussed below).

Briefly defined, pathways are routes by which a change in activity within the Local Plan area can lead to an effect upon a European site. In terms of the second category of European site listed above, Department for Communities and Local Government (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).

There are two European sites which fall partially within Woking Borough - the Thames Basin Heaths (TBH) SPA and Thursley, Ash, Pirbright and Chobham SAC (which overlaps with the SPA).

During HRA of the Core Strategy it was possible to conclude, in consultation with Natural England, that no likely significant effects would occur on the Thames Basin Heaths SPA or other European sites under consideration. The HRA considered recreational pressure, proximity effects (urbanisation), effects on hydrology/ hydrogeology, invasive species introductions, reductions in air quality and trans-boundary/ cumulative effects in reaching this conclusion.

The HRA Screening exercise did make recommendations for further consideration of certain issues at the time of development of further Development Plan Documents as follows:

- *“It should be noted that whereas the potential...encroachment impacts on SPA, SAC and Ramsar sites in neighbouring Boroughs arising from Woking’s Draft Core Strategy are covered by this HRA Screening, there has not been a joint approach by the Boroughs (similar to the Thames Basin Heaths Joint Strategic Partnership Board) in respect of potential cross boundary other urban encroachment impacts on SPA/SAC and Ramsar sites.*
- *Where such other urban encroachment impacts are anticipated on SPA, SAC and Ramsar sites close to Borough boundaries, the combined effects of developments from all contiguous Allocations Plans will have to be considered at the more site specific level to ensure that they do not exceed a critical threshold in terms of significant effects on conservation features.*
- *Potential transboundary mechanisms for cumulative other urban encroachment impacts on SPA, SAC and Ramsar sites beyond Woking Borough arising from the anticipated major developments/infrastructure...will require a further joint approach by the Boroughs. This will have to address the potential cumulative other urban encroachment impacts of these major developments/infrastructure projects on SPA/SAC and Ramsar sites close to Borough boundaries.*
- *This requirement is likely to be addressed as the respective Local Development Frameworks of the Boroughs develop, and possibly within the scope of Allocations DPDs, when the locations of proposed development become more site specific.”*

1.4 This report

Chapter 2 of this report explains the process by which the HRA has been carried out. Chapter 3 explores the relevant pathways of impact. Chapter 4 considers the draft policies of the DPD and their potential to lead to adverse effects on the European sites considered within this HRA. Chapter 5 considers the European sites in more detail – designations, condition assessments and potential effects of any draft policies or site allocations screened in for further consideration from Chapter 4. The key findings are summarised in Chapter 6: Conclusions.

2 METHODOLOGY

2.1 Key Principles

This section sets out the basis of the methodology for the HRA. URS has adhered to several key principles in developing the methodology – see Table 1.

Table 1 - Key principles underpinning the methodology

Principle	Rationale
Use existing information	Make the best use of existing information to inform the assessment. This will include information gathered as part of the Sustainability Appraisal of the emerging Plan and information held by Natural England, the Environment Agency and others.
Consult with Natural England, the Environment Agency and other stakeholders	Ensure consultation with Natural England for the duration of the assessment. We will ensure that we utilise information held by them and others and take on board their comments on the assessment process and findings.
Ensure a proportionate assessment	Ensure that the level of detail addressed in the assessment reflects the level of detail in the Plan (i.e. that the assessment is proportionate). With this in mind, the assessment will focus on information and impacts considered appropriate to the local level.
Keep the process as simple as possible	Endeavour to keep the process as simple as possible while ensuring an objective and rigorous assessment in compliance with the Habitats Directive and emerging best practice.
Ensure a clear audit trail	Ensure that the HRA process and findings are clearly documented in order to ensure a clearly discernible audit trail.

2.2 Process

The HRA is being carried out in the absence of formal Government guidance. The Department of Communities and Local Government (CLG) released a consultation paper on Appropriate Assessment of Plans in 2006¹. As yet, no further formal guidance has emerged. However, Natural England and RSPB have produced their own informal internal guidance. Although there is no requirement for an HRA to follow either guidance (or other informal guidance), both have been referred to in producing this HRA.

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.

¹ CLG (2006) Planning for the Protection of European Sites, Consultation Paper

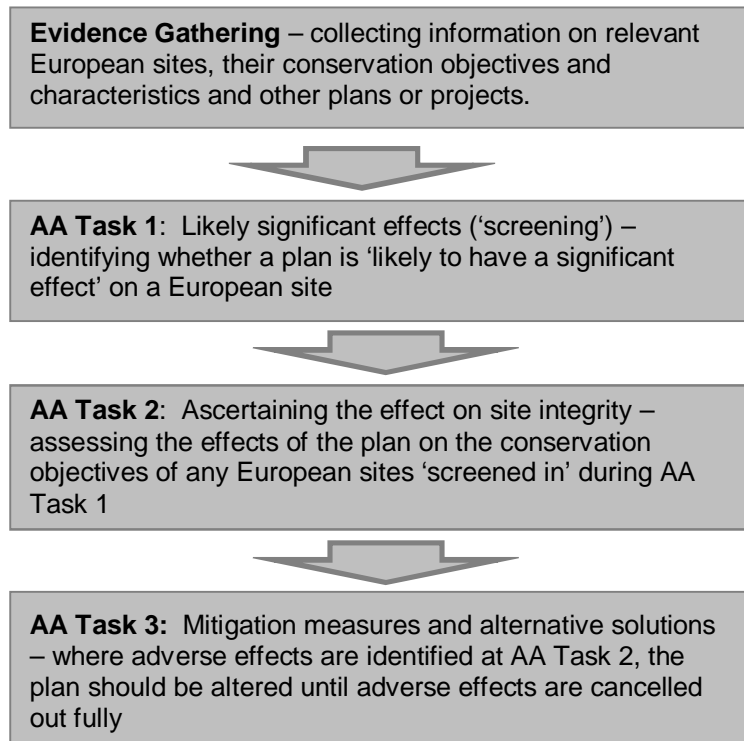


Figure 2 – Four-Stage Approach to Habitats Regulations Assessment (Source: CLG, 2006)

2.3 Likely Significant Effects (LSE)

The first stage of any Habitats Regulations Assessment (AA Task 1) 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:

"Is the Plan, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites?"

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.

The purpose of the current report is to undertake this exercise with regard to the draft Development Management Policies DPD.

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

It is clearly 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. In practice therefore, in combination assessment is of greatest relevance when the plan would otherwise be screened out because its individual contribution is inconsequential. 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 DPD. Spatial planning

policies for Local Authorities surrounding Woking borough are at various stages of production, and Table 2 below indicates the most up to date information on quantum of delivery to be expected during the lifetime of the Woking Core Strategy.

Table 2. Housing levels that were to be delivered in authorities surrounding the Thames Basin Heaths SPA under Local Plans and Core Strategies

Local Authority	Total housing to 2029 unless stated	Source of data
Basingstoke & Deane	13,464	Basingstoke and Deane Revised Pre-Submission (13 June 2014) Local Plan 2011 - 2029
Bracknell Forest	11,139 (to 2026)	Core Strategy Development Plan (adopted Feb 2008)
Elmbridge	3,375	Elmbridge Core Strategy (adopted Jul 2011)
Guildford	13,040 (to 2031)	Draft Local Plan (2014)
Hart	4,253	Hart Pre-Submission Core Strategy (2013)
Mole Valley	3,760 (to 2026)	Core Strategy (adopted 2009)
Runnymede	3,300 (to 2028)	Local Plan Core Strategy (Submitted 2014; currently being revised)
Rushmoor	6,350	Core Strategy (adopted Oct 2011)
Surrey Heath	3,240 (to 2028)	Core Strategy & Development Management Policies 2011- 2028 (adopted Feb 2012)
Windsor & Maidenhead	7,415	Borough Local Plan Preferred Options Consultation January 2014
Wokingham	13,230	Adopted Core Strategy Development Plan Document (adopted Jan 2010)

There are other plans and projects that are often relevant to the 'in combination' assessment, most notably Water Resource Management Plans and the Environment Agency's River Wey Catchment Abstraction Management Strategy (2012) and River Thames Catchment Abstraction Management Strategy (2014). These have all been taken into account in this assessment.

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
Woking Borough Council (2012) Woking Core Strategy 2010-2027	<ul style="list-style-type: none"> Provides the context in which the DPD should be considered

Document		Relevant contents
Mayer Brown (2012)	HRA Screening of Woking's Draft Core Strategy	<ul style="list-style-type: none"> Provides the context in which the DPD HRA should be considered
Environment Agency (2012)	The Wey Catchment Abstraction Licencing Strategy	<ul style="list-style-type: none"> Sets out the Environment Agency's position regarding future abstraction within the Wey Catchment
Environment Agency (2014)	The Thames Catchment Abstraction Licencing Strategy	<ul style="list-style-type: none"> Sets out the Environment Agency's position regarding future abstraction within the Thames Catchment
Woking Borough Council (2010)	Thames Basin Heaths Avoidance Strategy	<ul style="list-style-type: none"> Woking's approach to development in consideration of the Thames Basin Heaths area.
Thames Basin Heaths Joint Strategic Partnership Board (2009)	Thames Basin Heaths SPA Delivery Framework	<ul style="list-style-type: none"> Sets out the agreed Framework regarding the Thames Basin Heaths SPA
Natural England (2006)	Thames Basin Heaths Special Protection Area: Mitigation Standards for Residential Development. 26 May 2006.	<ul style="list-style-type: none"> Avoidance and mitigation for recreational impacts on heathland SPA.
Environment Agency (various)	Stage 3 and 4 Appropriate Assessments: Review of Consents	<ul style="list-style-type: none"> Understanding of existing conditions at European sites
Environment Agency (2006a)	Water Resources in the South East report to latest South East Plan housing provision and distribution received from SEERA. May 2006, for commentary to SEERA	<ul style="list-style-type: none"> Water resources.
Affinity Water (June 2014)	Water Resources Management Plan	<ul style="list-style-type: none"> Sets out the proposed approach to providing water resources in the future
Environment Agency (2006b)	Creating a Better Place: Planning for Water Quality and Growth in the South East. Version 10.4	<ul style="list-style-type: none"> Sewage treatment capacity.
Surrey County Council (2011)	The Surrey Local Transport Plan, 2011 – 2026.	<ul style="list-style-type: none"> Transport schemes.
Core Strategies and Local Plans for neighbouring local authorities	Spatial development policies for Guildford, Elmbridge, Rushmoor, and Surrey Heath	<ul style="list-style-type: none"> Provides projected levels of housing for authorities surrounding Woking Borough

In preparing this HRA we have utilised data held on the following sources in order to inform on the current ecological status of relevant European sites:

- The UK Air Pollution Information System (www.apis.ac.uk); and

- Nature on the Map and its links to SSSI citations and the JNCC website (www.natureonthemap.org.uk)

3 PATHWAYS OF IMPACT

3.1 Introduction

In carrying out a 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

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 out². 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 period³. A large proportion of domestic cats are found in urban situations, and increasing urbanisation is likely to lead to increased cat predation.

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.

After extensive research, Natural England and its partners produced a 'Delivery Plan' which made recommendations for accommodating development while also protecting the interest features of the European site. This included the recommendation of implementing a series of zones within which varying constraints would be placed upon development. While the zones relating to recreational pressure expanded to 5km (as this was determined from visitor surveys to be the principal recreational catchment for this European site), that concerning other aspects of urbanisation (particularly predation of the chicks of ground-nesting birds by domestic cats, but also including recreational pressure, fly tipping, increased incidence of fires and general urbanisation) was determined at 400m from the SPA boundary. The delivery plan concluded that the adverse effects of any development located within 400m of the SPA boundary could not be mitigated, in part because 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 as such, no new housing should be located within this zone.

Woking Borough Council is a participatory organisation within the Thames Basin Heaths SPA Delivery Plan, including the prohibition on net new housing within 400m of the SPA.

² Gilbert, O. & Bevan, D. 1997. The effect of urbanisation on ancient woodlands. *British Wildlife* 8: 213-218.

³ Woods, M. et al. 2003. Predation of wildlife by domestic cats *Felis catus* in Great Britain. *Mammal Review* 33, 2 174-188

3.3 Recreational pressure

Consultation for the HRA of the South East Plan (now revoked, but with the exception of Policy NRM6 that seeks to protect the Thames Basin Heaths SPA) 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.

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.

The effects of recreation on heathland sites have been described in a series of English Nature Research Reports^{4 5 6 7 8 9}. 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. A literature review on the effects of human disturbance on bird breeding found that 36 out of 40 studies reported reduced breeding success as a consequence of disturbance¹⁰. 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 pressure¹¹.

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 (Underhill-Day, 2005). 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 faeces¹².

⁴ 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.

⁵ 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.

⁶ Land Use Consultants (2005) – Going, going, gone? The cumulative impact of land development on biodiversity in England. *English Nature Research Reports*, No. 626.

⁷ 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.

⁸ Tyldesley, D. and associates (2005) – Urban impacts on Dorset heaths: A review of authoritative planning and related decisions. *English Nature Research Reports*, No. 622.

⁹ Underhill-Day, J.C. (2005) – A literature review of urban effects on lowland heaths and their wildlife. *English Nature Research Reports*, No. 623.

¹⁰ 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.

¹¹ Van der Zande, A.N., J.C. Berkhuisen, H.C. van Letesteijn, 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.

¹² 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.

Underhill-Day (2005) 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%.

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 population¹³. A recent literature review undertaken for the RSPB¹⁴ 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.

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.

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 Plans (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 Council and restriction of access may contravene a range of Government policies on access to open space, and Government objectives for increasing exercise, improving health etc. However, active management of access is 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 Woking, opportunities for this are limited since, according to Natural England, the majority of Thames Basin Heath component SSSI units are in favourable or favourable recovering conditions.
- *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.

3.4 Atmospheric pollution

The main pollutants of concern for European sites are oxides of nitrogen (NO_x), ammonia (NH₃) and sulphur dioxide (SO₂). NO_x can have a directly toxic effect upon vegetation. In addition, greater NO_x 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

¹³ Gill et al. (2001) - Why behavioural responses may not reflect the population consequences of human disturbance. *Biological Conservation*, **97**, 265-268

¹⁴ Woodfield & Langston (2004) - Literature review on the impact on bird population of disturbance due to human access on foot. *RSPB research report* No. 9.

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 ₂ , NO _x 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 nitrogen emissions may cancel out any gains produced by reduced sulphur 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 ₃)	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 ₂ and NO _x emissions to produce fine ammonium (NH ₄ ⁺) 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 ₃ is rapidly deposited, some of the most acute problems of NH ₃ deposition are for small relict nature reserves located in intensive agricultural landscapes.
Nitrogen oxides NO _x	Nitrogen oxides are mostly produced in combustion processes. About one quarter of the UK's emissions are from power stations.	Deposition of nitrogen compounds (nitrates (NO ₃), nitrogen dioxide (NO ₂) and nitric acid (HNO ₃)) can lead to both soil and freshwater acidification. In addition, NO _x 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 _x and NH ₃ 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 ₃)	A secondary pollutant generated by photochemical reactions from NO _x 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	Concentrations of O ₃ 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

Pollutant	Source	Effects on habitats and species
	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.	semi-natural plant communities.
Sulphur Dioxide SO ₂	Main sources of SO ₂ emissions are electricity generation, industry and domestic fuel combustion. May also arise from shipping and increased atmospheric concentrations in busy ports. Total SO ₂ emissions have decreased substantially in the UK since the 1980s.	Wet and dry deposition of SO ₂ 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.

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 SO₂ or NH₃ emissions will be associated with Local Plans. NO_x emissions, however, are dominated by the output of vehicle exhausts. Within a 'typical' housing development, by far the largest contribution to NO_x (92%) will be made by the associated road traffic. Other sources, although relevant, are of minor importance (8%) in comparison¹⁵. Emissions of NO_x could therefore be reasonably expected to increase as a result of greater vehicle use as an indirect effect of the LDF.

According to the World Health Organisation, the critical NO_x concentration (critical threshold) for the protection of vegetation is 30 µgm⁻³; the threshold for sulphur dioxide is 20 µgm⁻³. In addition, ecological studies have determined 'critical loads'¹⁶ of atmospheric nitrogen deposition (that is, NO_x combined with ammonia NH₃) for key habitats within European sites.

Local air pollution

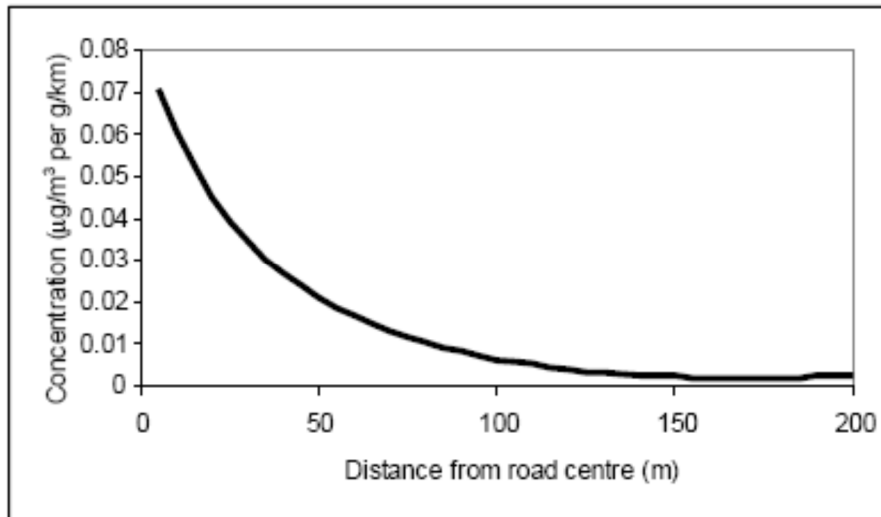
According to the Department of Transport's Transport Analysis Guidance, "Beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is not significant"¹⁷.

¹⁵ 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>

¹⁶ The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur

¹⁷ 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)



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 draft DPD. Although the HRA of the Core Strategy was able to screen out effects of reduced air quality, given that the Thames Basin Heaths SPA and Thursley, Ash, Pirbright and Chobham SAC lie within 200m of numerous roads that may be regularly used by vehicle journeys arising from within Woking borough as a result of the increased population (M25, A320, A322, A324, A245 and A3046 within Woking), it was concluded that air quality should be included within the scope of this assessment. The location of these roads in relation to the SAC and SPA is shown in Figure 1.

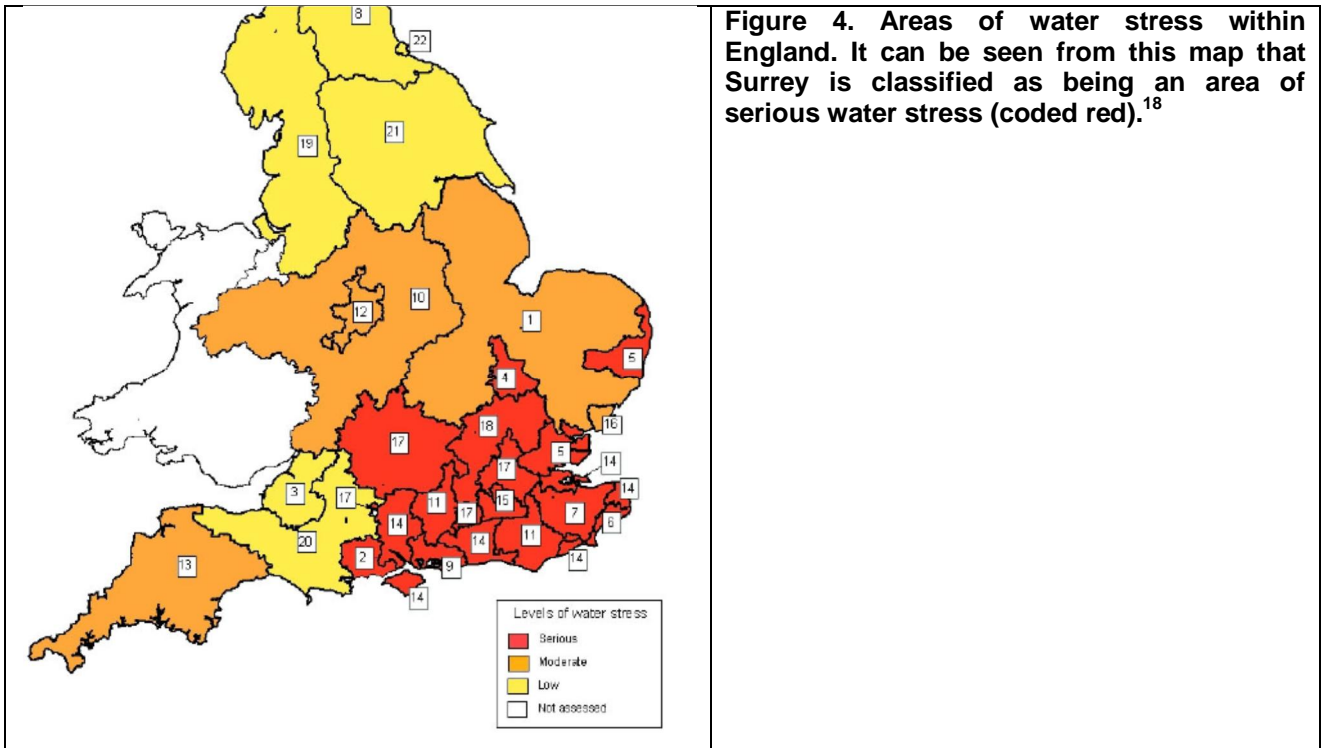
Diffuse air pollution

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.

In the light of this and our own knowledge and experience, it is considered reasonable to conclude that diffuse pan-authority air quality impacts are the responsibility of higher tier strategies or national government, both since they relate to the overall quantum of development within a region (over which individual districts have little control), and since this issue is best addressed at the highest pan-authority level. Diffuse air quality issues will not therefore be considered further within this HRA.

3.5 Water abstraction

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



Development within Woking Borough over the plan period will increase water demand.

According to the Wey Catchment Abstraction Management Strategy Woking Borough lies within the following Water Resource Management Units:

- Hoe Stream; and
- Weybridge

The assessment for water availability within these Wey catchment units is that there is water available for licensing, however, this is overridden by the wider Thames Catchment Abstraction Management Strategy to become no water available for licensing.

Woking borough lies within Affinity Water’s Wey Water Resource Zone. According to the Water Resource Management Plan (2014) this water resource zone is calculated to be in deficit within the plan period. However Affinity Water have also identified the need to employ measures to ensure sustainable supply. The determination of surplus or deficit does take account of environmental limits and the implication is that there should be no requirement for damaging levels of abstraction from any of the aquifers connected to these European sites.

Therefore this pathway of impact is not considered further in this report.

3.6 Water quality

Development within Woking Borough over the plan period will increase wastewater production. Wastewater from the District is treated by Thames Water and does not discharge into European sites.

¹⁸ Figure adapted from Environment Agency. 2007. Identifying Areas of Water Stress. <http://publications.environment-agency.gov.uk/pdf/GEHO0107BLUT-e-e.pdf>

Moreover, research carried out by the Environment Agency has indicated that future sewage treatment capacity at sewage treatment works serving Woking would be adequate to deal with projected growth, at least to 2026¹⁹ and will therefore not have an adverse effect upon receiving waters.

Therefore this pathway of impact is not considered further in this report.

¹⁹ Environment Agency. May 2006. Creating a Better Place: Planning for Water Quality and Growth in the South East.

4 HRA SCREENING OF WOKING DRAFT DEVELOPMENT MANAGEMENT POLICIES

The following table presents the screening assessments for each development management policy that has been put forward for consideration. Green shading in the final column indicates a policy that has been screened out of further consideration due to the absence of any mechanism for an adverse effect on European sites. Orange shading indicates that further Appropriate Assessment (or at least further screening in the presence of further information) is required since a pathway of impact exists that cannot be screened out at this stage.

Table 5. HRA Screening of Woking Draft Local Plan Strategies for Effects on Thames Basin Heaths SPA

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
DM1 – Green Infrastructure Opportunities	<p>Multifunctional Green Infrastructure Assets</p> <p>New green infrastructure assets will be expected to be designed and located to maximise the range of green infrastructure functions and benefits achieved, wherever practicable and viable.</p> <p>Where proposals include new or enhanced green infrastructure assets, the applicant will be required to provide a statement detailing:</p> <ul style="list-style-type: none"> • where new features will be located and, where relevant, how they may be accessed. For large applications , a map should be provided of the existing and proposed green infrastructure on site; and • the function of green infrastructure assets, what benefits they will bring (e.g. social, environmental, economic) and how proposals will contribute or integrate with the existing green infrastructure network as shown by the Green Infrastructure Strategy map. <p>Provided proposals are consistent with nature conservation objectives in other policies of the Development Plan for the area, the Council will support:</p>	<p>There are no likely significant effects on European protected sites arising from this policy.</p> <p>The policy is positive, in that it promotes opportunities for recreation away from European protected sites and also promotes increased access to non-motorised transport, which will help to improve air quality.</p>

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<ul style="list-style-type: none"> • the creation of footpaths and 'cycle greenways'; • the provision of new green infrastructure assets within the Green Belt, including open space proposals and low key sport and recreation which would improve public accessibility to open space and the countryside. <p>Strategic Green Infrastructure Network</p> <p>New or enhanced green infrastructure assets will be expected to take any reasonable opportunities to connect to, or enhance, the existing Strategic Green Infrastructure Network. Particular attention should be given to enhancing the green infrastructure opportunity areas and ecological network identified in the Green Infrastructure Strategy.</p> <p>Development proposals which would result in significant harm to the broader green infrastructure network will be refused planning permission unless:</p> <ul style="list-style-type: none"> • all reasonable alternative locations with less harmful impacts are demonstrated to be unsuitable; and • the proposal incorporates measures to avoid the harmful impacts arising, sufficiently mitigate their effects, or, as a last resort, compensate for them. <p>The Council will work with local communities where they may designate Local Green Space to ensure they are well integrated into the broader green infrastructure network. The management of development on designated Local Green Spaces should be consistent with Green Belt policy (as per paragraph 78 of the NPPF).</p>	
DM2 – Trees and	Trees, hedgerows and other vegetation of amenity and/or environmental significance must be considered holistically as part of the landscaping treatment of new	There are no likely significant effects on European

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
Landscaping	<p>development. When considering development proposals, the Council will:</p> <ul style="list-style-type: none"> • require landscape proposals in submissions for new development which retain existing trees and other important landscape features where practicable and include the planting of new trees and other planting; • not normally permit development proposals which would result in the loss of trees, or groups of trees, or other vegetation such as hedgerows, of significant amenity and/or environmental value. Any loss, damage or alterations to these landscape features, or adverse effects on their growing conditions, will only be permitted where there are over-riding planning benefits and must be agreed with the Council. Where trees, hedgerows or other landscape features are removed, appropriate replacement planting will be required where necessary; • require any trees which are to be retained to be adequately protected to avoid damage during construction; • require adequate space to be provided between any trees to be retained and the proposed development (including impervious surfaces); • refuse permission or consent for the removal of protected trees (TPO trees and trees within a Conservation Area) and for proposals that would have a detrimental impact on the health of protected trees, except in exceptional circumstances and where there are over-riding planning benefits. In such cases full compensation will be required, in the form of suitable replacements and/or additional planting; 	protected sites arising from this policy.

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<ul style="list-style-type: none"> • support the incorporation of green walls and roofs in proposals where appropriate in design terms, particularly within the urban environment; • require the design, size, species and placement of trees and other landscape features to take practicable opportunities to realise their multifunctional green infrastructure benefits, including: <ul style="list-style-type: none"> (i) connecting the development site to the surrounding green infrastructure network and wildlife habitats; and (ii) assist in providing shade and shelter to address urban cooling; and (iii) assist in reducing or mitigating run-off and flood risk on the development site; and (iv) create a strong framework of street trees to enclose or mitigate the visual impact of a development. <p>The Council will consider making Tree Preservation Orders and/or attach suitable Conditions or seek Legal Agreements to secure the proper future maintenance and management of existing trees and new planting.</p>	
DM3 – Outdoor Recreation and Sports Facilities	<p>General Principals</p> <p>Proposals for the provision of outdoor sport and recreational facilities or extensions to, or intensification of use of, existing facilities will be permitted subject to other Development Plan policies and provided that they meet the following criteria:</p> <ul style="list-style-type: none"> • the development is of an appropriate design, scale and layout relative to its 	<p>There are no likely significant effects on European protected sites arising from this policy.</p> <p>This policy specifically seeks to protect sites of nature conservation from inappropriate development.</p>

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>intended use and surrounding area;</p> <ul style="list-style-type: none"> • the development will not have an adverse visual impact; • the development will not result in the loss of the best and most versatile agricultural land (Grades 1, 2 and 3); • the development will not cause harm to a site of nature conservation or historic value that cannot be sufficiently mitigated; • the re-use of any existing buildings is prioritised and, in the case of a new facility, is satisfactorily integrated with existing buildings where present; • the development will not generate unacceptable activity or give rise to loss of amenity by virtue of noise, smell, light pollution, overlooking, traffic or other general disturbance; and • opportunities are taken to connect to the surrounding Green Infrastructure Network. <p>Equestrian Facilities</p> <p>In addition to the criteria under 'General Principals' above, proposals for the development of equestrian facilities (including extensions) will be permitted provided that the following criteria are met:</p> <ul style="list-style-type: none"> • the development is designed to minimise the potential detrimental impact on the quality of the pasture (by reason of overgrazing or otherwise); • proposals for equestrian establishments whether for private use or commercial livery have demonstrated that there is adequate land within the curtilage of the site to allow for the proper care of horses, including stabling, grazing and exercise, in accordance with the Equine Industry Welfare Guidelines and British Horse Society Standards (or any future equivalent); and • the development is in close proximity to the bridleway network, and will not 	

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>result in the over-use or deterioration of bridleways, conflicts between equestrians, or any adverse effects on the road or highway safety of the area.</p> <p>Golf Facilities</p> <p>In addition to the criteria under 'General Principals' above, proposals for the development of new golf courses and extensions to existing golf courses will be permitted provided that the following criteria are met:</p> <ul style="list-style-type: none"> • the development preserves and respects important natural features and topography of the landscape including trees and water features; and • proposals only include buildings which are genuinely ancillary and which are sited so as to avoid damage to the open character of the area and minimise noise and disturbance to residents. 	
<p>DM4 – Development in the Vicinity of Basingstoke Canal</p>	<p>Development proposals which would adversely affect the landscape, architectural or ecological character, setting or enjoyment of the Basingstoke Canal or which would result in the loss of important views in the vicinity of the Canal will not be permitted.</p> <p>Recreational, navigational and ancillary facilities will be permitted along the Canal where the Council is satisfied that the proposal would conserve the historic and ecological character of the waterway and its setting.</p> <p>Development on land adjoining the Canal will not be permitted where it would result in un-attenuated surface water or highway drainage into the Canal.</p>	<p>There are no likely significant effects on European protected sites arising from this policy.</p>
<p>DM5 – Environmental Pollution</p>	<p>General Principles</p> <p>When assessed individually or cumulatively, development proposals should ensure that there will be no unacceptable impacts on</p> <ul style="list-style-type: none"> • Air quality 	<p>There are no likely significant effects on European protected sites arising from this policy.</p> <p>The policy is positive in that it seeks to protect air quality within Woking Borough.</p>

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<ul style="list-style-type: none"> • Surface and ground water quality • Land quality and condition • Health and safety of the public <p>Development which has the potential, either individually or cumulatively, for an unacceptable impact on environmental amenity, biodiversity or water quality by reason of pollution but is considered desirable for reasons of economic or wider social need will be expected to provide an appropriate scheme of mitigation.</p> <p>In assessing a scheme of mitigation, account will be taken of:</p> <ul style="list-style-type: none"> (i) The location, design and layout of the proposed development; and (ii) Measures to bring levels of emission to an acceptable level; and (iii) Measures to control run-off and other diffuse pollution; and (iv) Hours of operation; and (v) Measures that reduce existing levels of pollution. <p>Development will not be permitted if mitigation cannot be provided to an appropriate standard with an acceptable design, particularly in proximity to sensitive existing uses or sites.</p> <p>New sensitive development is unlikely to be permitted in the vicinity of known sources of pollution or hazard.</p>	

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
DM6 – Air and Water Quality	<p>Development that has the potential, either individually or cumulatively, for significant emissions to the detriment of air quality, particularly in designated Air Quality Management Areas (declared under the Environment Act 1995), should include an appropriate scheme of mitigation.</p> <p>Development in designated Air Quality Management Areas should take account of existing air pollution and include measures to mitigate its impact on future occupiers where possible and consistent with other policies of the development plan such as those on climate change and design.</p> <p>Proposals should avoid damage to Groundwater Source Protection Zones, having regard to the Environment Agency’s ‘Goundwater Protection: Policy and Practice’ guidance or successor documents.</p> <p>Development adjacent to, or likely to affect underground or surface water bodies covered by the Water Framework Directive and Thames River Basin Management Plan should, where possible, contribute towards those water bodies maintaining or achieving Good Ecological Status. This may take the form of on-site measures or a financial contribution to off-site measures.</p> <p>Development proposals that are likely to affect nationally and internationally designated wildlife sites such as Thames Basin Heaths Special Protection Areas (SPA) or Thursley, Ash, Pirbright and Chobham Special Area of Conservation (SAC) through deteriorating air or water quality will be required to carry out an assessment of the impacts, followed by avoidance and mitigation measures if necessary.</p>	<p>There are no likely significant effects on European protected sites arising from this policy.</p> <p>The policy is positive in that it seeks to protect air quality within Woking Borough.</p>
DM7 – Noise and Light Pollution	<p>Noise</p> <p>The Council will require noise generating forms of development or proposals that</p>	<p>There are no likely significant effects on European protected sites arising from this policy.</p>

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>would affect noise-sensitive development to be accompanied by a statement detailing potential noise generation levels and any mitigation measures proposed to ensure that all noise is reduced to an acceptable level (see supportive text).</p> <p>Development will not be permitted if mitigation cannot be provided to an appropriate standard with an acceptable design.</p> <p>For proposals involving residential and other noise-sensitive development that would be sited close to commercial/industrial noise sources, the Council will consider applications against the current version of BS4142 in order to assess the likelihood of complaints from future occupiers and therefore the acceptability of the proposed development.</p> <p>Proposals should respect the landscape character of the area and seek to protect tranquil and quiet areas which are valued for their amenity and recreational value.</p> <p>Lighting and Illumination</p> <p>Proposals for external lighting as part of a new or existing development in locations outside of the Green Belt will be permitted provided the applicant demonstrates that:</p> <ul style="list-style-type: none"> • the lighting scheme proposed is the minimum required for security, safety, working or recreational purposes; or • the lighting scheme proposed enhances the quality, character and appearance of the public realm through appropriate siting and design; and • light intrusion and potential glare is minimised, particularly where schemes are 	

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>close to open countryside or intrinsically dark landscapes, close to residential property or close to important wildlife sites; and</p> <ul style="list-style-type: none"> there will be no nuisance to neighbours or adverse effect on the character of the surrounding area or landscape. <p>Proposals for or including floodlighting will be permitted provided there is no significant harm to the character of the area, to the amenities of the occupiers of residential property or to important wildlife sites.</p> <p>Within the Green Belt, proposals for both external lighting as part of new or existing development, and floodlighting to illuminate sport and recreation facilities will be assessed against the criteria above and that of Core Strategy policy CS6.</p>	
DM8 – Land Contamination and Hazards	<p>Proposals for new development, including change of use, should demonstrate that:</p> <p>(i) any existing contamination of the land will be addressed by appropriate mitigation measures to ensure that the site is suitable for the proposed use and that there is no unacceptable risk of pollution within the site or in the surrounding area; and</p> <p>(ii) the proposed development will not cause the land to become contaminated, to the detriment of future use or restoration of the site or so that it would cause unacceptable risk of pollution in the surrounding area.</p> <p>Hazards</p> <p>Proposals for development close to hazardous installations will be supported provided the number of people at risk is not significantly increased. The Council will take into account the views of the Health and Safety Executive when considering proposals for</p>	There are no likely significant effects on European protected sites arising from this policy.

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	new notifiable installations and the risks it might pose to the surrounding population.	
DM9 –Flats Above Shops and Ancillary Accommodation	<p>Housing Standards</p> <p>Proposals for new residential accommodation, including from conversion and change of use, will be expected to take into account design principles as detailed in the Design SPD and Outlook, Amenity, Privacy and Daylight SPD.</p> <p>Proposals for new residential development (including from change of use) should meet the Nationally Described Space Standard – criteria where this applies tbc.</p> <p>Proposals for new specialist accommodation for older people and vulnerable groups should meet the optional requirements for accessible and adaptable homes, and wheelchair accessibility – to set out criteria where these apply.</p> <p>Flats Above Shops</p> <p>Where proposals fall outside the remit of permitted development rights, the change of use of vacant or under-used accommodation above shops to residential purposes will be permitted in accordance with other policies in the Local Plan, and provided:</p> <ul style="list-style-type: none"> • it meets the criteria under ‘Living Standards’ above; • it would not result in a shortage of small business premises in the immediate area; • the property can be occupied as a self-contained dwelling unit; and • the appropriate car parking standards for such developments can be met; and • there is suitable access to amenity space as per general principles in the 	<p>There are no likely significant effects on European protected sites arising from this policy.</p>

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>Outlook, Amenity, Privacy and Daylight SPD.</p> <p>Ancillary Accommodation</p> <p>Ancillary residential extensions, including ‘granny annexes’ and staff accommodation, designed in accordance with Core Strategy policy CS21 and the Council’s Design SPD, will be permitted provided they share a common access with the main dwelling and are physically incorporated within it, and are designed in such a way that renders them incapable of being occupied separately from the main dwelling. Freestanding units that can demonstrate they are genuinely ancillary to the occupation of the main house will be considered in light of the character and amenities of the area and may be subject to conditions restricting their occupancy. Separate, freestanding, independent accommodation will be treated in the same way as a proposal for a new dwelling.</p>	
DM10 – Development on Garden Land	<p>Housing development on garden land and/or that to the rear or side of an existing property will be supported provided that it meets other relevant Local Plan policies and that:</p> <ul style="list-style-type: none"> • the scheme is appropriate to the surrounding area in terms of land use, size and scale; • it maintains, or where possible, enhances the character and appearance of the area, reflecting the variety of local dwelling types; • it does not involve the inappropriate sub-division of existing curtilages to a size below that prevailing in the area, taking account of the need to retain and enhance mature landscapes; • it presents a frontage in keeping with the existing street scene or the prevailing layout of streets in the area, including frontage width, building orientation, visual separation between buildings and distance from the road; 	There are no likely significant effects on European protected sites arising from this policy.

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<ul style="list-style-type: none"> • the relationship between buildings within and outside the site ensures that privacy and amenity of existing and future residents are preserved; • the means of access is appropriate in size and design to accommodate vehicles and pedestrians safely and prevent harm to the amenities of adjoining residents; and • suitable soft landscape is provided for the amenity of each dwelling appropriate in size to both the type of accommodation and the characteristic of the locality. <p>Development involving front gardens should ensure that the character of the street is not harmed and that appropriate boundary treatments and planting are retained.</p>	
DM11 – Sub-divisions, Specialist Housing, Conversions and Loss of Housing	<p>General Criteria</p> <p>Proposals for:</p> <ul style="list-style-type: none"> • the sub-division of existing dwellings of an appropriate size to two or more dwellings, including flats; • the conversion of existing dwellings or construction of new buildings to be used as houses in multiple occupation; • the intensification of existing houses in multiple occupation; • other forms of shared housing, including residential institutions; • overnight accommodation; and • the conversion of existing dwellings of an appropriate size to be used as community facilities; <p>will be permitted provided the following criteria are met:</p>	There are no likely significant effects on European protected sites arising from this policy.

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<ul style="list-style-type: none"> • the proposal does not harm the residential amenity or character of the area; • there would be no detrimental impact on the visual appearance of the area or that of the building itself; • any proposed alterations, extensions or additional areas of hard surfacing required to enable the conversion of the dwelling are appropriate in scale, form and extent to the site and its surroundings; • maximum tree cover, mature planting, boundary treatment to the street frontage of the property and an adequate area of amenity space is retained or provided; • there is adequate enclosed storage space for recycling/refuse; • access is acceptable and parking (including for cycles) is provided on site in accordance with the Council's standards [new Parking SPD?]. Car parking (including drop-off points if relevant) will not be permitted in rear gardens or in locations which might cause a nuisance to adjoining residential properties; • the traffic impacts of the proposal are considered acceptable; • the internal layout of the rooms within the proposed conversion will not cause undue disturbance to adjoining residential properties in the building. <p>Where development is permitted it must provide a good standard of accommodation by meeting relevant requirements and standards set out in other Development Plan policies.</p> <p>Where relevant, the Council will attach a condition to restrict occupancy to certain categories of people.</p>	

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>Dwelling sub-divisions</p> <p>In addition to the 'General Criteria' above, the conversion of dwellings of an appropriate size to two or more dwellings will only be permitted where:</p> <ul style="list-style-type: none"> • the proposal would not result in an overall loss of a family home; and • each proposed dwelling has access to a suitable area of private amenity space. <p>Conversion to mixed-use developments</p> <p>In addition to the 'General Criteria' above, the conversion of existing dwellings into mixed-use developments, including overnight accommodation and community facilities, will be permitted where:</p> <ul style="list-style-type: none"> • the proposal accords with other relevant Development Plan policies, including the protection of amenity of the people who will occupy the dwellings and those living nearby; • the proposal is on a small scale, appropriate to its location; and • an element of self-contained residential use is retained within the development. <p>Loss of housing</p> <p>Development which would lead to the net loss of dwellings (including affordable housing), in particular, of a family home, will be resisted unless:</p> <ul style="list-style-type: none"> • the proposal is granted under permitted development rights (subject to any 	

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>prior approval requirements);</p> <ul style="list-style-type: none"> • the proposal involves combining separate flats within an original house to create a family sized house or family-sized flat of at least two bedrooms with access to private amenity space; • the proposal involves the change of use of residential accommodation above a non-residential use to other appropriate town centre use within the Town, District or Local Centres of the Borough; • the applicant can demonstrate to the satisfaction of the Council that the dwelling to be lost is in an unsustainable location and/or the benefits of the proposed use to the objectives of the Core Strategy will far outweigh the use of the building as a dwelling. <p>All proposals must meet the requirements of policy CS21 and other relevant policies of the Development Plan, and have regard to the criteria in both the Woking Design SPD and Outlook, Amenity, Privacy and Daylight SPD.</p>	
DM12 – Custom Build Dwellings	<p>The Council will support in principle the development of custom build dwellings and custom build projects in suitable locations, where they support the delivery of the Core Strategy and meet all other requirements of the Development Plan for the area. The level of need will be continuously monitored and will be informed by future reviews of the Strategic Housing Market Assessment.</p> <p>The Council particularly encourages applications from community-based custom build projects and will use its existing evidence base such as the Strategic Housing Land Availability Assessment to help applicants to identify suitable sites.</p>	There are no likely significant effects on European protected sites arising from this policy. The policy offers in-principle support only for development, and must meet the requirements of all other policies in the Development Plan.
DM13 – Buildings Within and	Unless very special circumstances can be clearly demonstrated, the Council will regard the construction of new buildings as inappropriate in the Green Belt. However,	There are no likely significant effects on European

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
Adjoining the Green Belt	<p>subject to other Development Plan policies, exceptions to this are detailed in policy CS6 of the Core Strategy and as follows:</p> <p>New buildings and facilities</p> <p>A. The construction of new non-residential buildings directly related to agriculture and forestry, or new residential dwellings for agricultural workers in accordance with policy DM14.</p> <p>B. The provision of appropriate facilities for outdoor sport and recreation and for cemeteries, as long as it preserves the openness of the Green Belt and does not conflict with the purposes of including land within it.</p> <p>C. Limited infill development within Mayford Village in accordance with Core Strategy policy CS6.</p> <p>D. Limited infill development and redevelopment within the Major Developed Sites in accordance with Core Strategy policy CS6 criteria, and where the development would not exceed the height of the existing buildings and where:</p> <ul style="list-style-type: none"> o such infilling would not lead to a major increase in the developed proportion of the site; or o such redevelopment would not occupy a larger area of the site than the existing buildings (unless this would achieve a reduction in height which would benefit visual amenity). <p>Extension and Alteration</p> <p>E. The extension and alteration of buildings within the Green Belt where the proposal does not result in disproportionate additions over and above the size of the original building as it existed at 1 July 1948 or if it was constructed after the relevant</p>	<p>protected sites arising from this policy.</p> <p>The policy states a presumption against allowing construction of new buildings within the green belt, with the exception of specific locations detailed in policy DM14 (none of which create likely significant effects on European protected sites), and exceptions outlined in Core Strategy policy CS6. Policy CS6 specifically commits to avoidance of harm to European protected sites through any such development on Green Belt land.</p>

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>date, as it was first built.</p> <p>Replacement</p> <p>F. The replacement of buildings within the Green Belt (outside Mayford Village), where the proposed new building:</p> <ul style="list-style-type: none"> o is in the same use as the building it is replacing; o is not materially larger than the building it is replacing; and o is sited on or close to the position of the building it is replacing, except where an alternative siting within the curtilage demonstrably improves the openness of the Green Belt. <p>Re-use</p> <p>G. The re-use of buildings within the Green Belt (outside Mayford Village or the Major Developed Sites) for industrial, commercial, community or residential purposes where:</p> <ul style="list-style-type: none"> o The proposal preserves the openness of the Green Belt and does not conflict with the purposes of including land within it; o The buildings are of permanent and substantial construction, are structurally sound and capable of re-use without major alterations, adaptations or reconstruction; o The proposed use can be wholly or substantially contained within the building identified for re-use; and o The proposed use can be wholly or substantially contained within the building identified for re-use; and 	

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>o The proposal is not likely to result in the need to construct additional agricultural buildings, unless it can be demonstrated that the building to be re-used is no longer suitable for an agricultural use.</p> <p>H. Any other form of development as listed under paragraph 90 of the NPPF.</p>	
DM14 – Rural Worker's Dwellings	<p>The Core Strategy seeks to concentrate most residential development in the main urban centres of the Borough. Proposals for a dwelling for the accommodation by a person engaged in an agricultural operation or any other forms of activity that can only be reasonably located outside the urban area, including within the Green Belt, will be permitted where the applicant is able to demonstrate an essential, clearly established functional need for a new dwelling to house a full-time worker, and that this need cannot be fulfilled by another existing dwelling on the farm or other holdings or any other suitable available accommodation in the vicinity of the area.</p> <p>Temporary Dwellings</p> <p>For temporary dwellings an applicant must demonstrate:</p> <ul style="list-style-type: none"> • the new dwelling is essential to support a new agricultural activity, whether on an already established or newly-created farm holding; • their intention to develop the enterprise based on a sound financial plan; and • the proposal satisfies all other relevant Development Plan policies. <p>A temporary rural worker's dwelling should take the form of a caravan or mobile home and should be permitted for no more than three years. Permission will not be granted for the erection of a temporary rural worker's dwelling in a location where a permanent</p>	There are no likely significant effects on European protected sites arising from this policy, which deals with small scale development.

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>dwelling would not be permitted.</p> <p>Permanent Dwellings</p> <p>For permanent dwellings an applicant must demonstrate:</p> <ul style="list-style-type: none"> • the holding have been established for a minimum of three years (at least one of which has been profitable) and is demonstrably financially sound, both at present and for the prospective future; • the proposed dwelling is of a size and type appropriate to the needs of the holding; and • the proposal satisfies all other relevant development Plan policies. <p>The Council will impose occupancy conditions on all new workers' dwellings and conditions which restrict permitted development rights. Where an additional dwelling on a farm holding is permitted, an occupancy condition may, in appropriate circumstances, be applied to the original farmhouse. Further extensions to rural workers' dwellings will be considered on their functional need.</p> <p>The Council may require an agreement under Section 106 of the Town and Country Planning Act 1990 preventing the sale of the dwelling or parts of the land separately from the land forming the holding.</p> <p>Removal of Conditions</p> <p>Applications for the removal of occupancy conditions will only be permitted where it</p>	

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>can be demonstrated that:</p> <ul style="list-style-type: none"> • there is no longer a need for accommodation on the holding/business or in the local area; and • the property has been marketed for a reasonable period (at least 1 year) and at a price which reflects the existence of the occupancy condition; and • the dwelling has been made available to a minimum of three Registered Social Landlords operating locally on terms which would prioritise its occupation by a rural worker as an affordable dwelling – and that option has been refused. 	
DM15 – Shops Outside Designated Centres	<p>Change of Use of Isolated Shops</p> <p>Where proposals fall outside the remit of permitted development rights, the change of use of isolated shops to residential will be permitted provided that:</p> <ul style="list-style-type: none"> • a designated District, Local or Neighbourhood Centre is within 400 metres; or • it is shown the premises have been unsuccessfully marketed for A1 or A2 purposes for a period of at least 12 months. <p>Other uses may be permitted provided there is no adverse effect on the amenity of the area and the proposal complies with other relevant policies of the Development Plan.</p> <p>Farm Shops</p> <p>Proposals outside the Town Centre, District and Local Centres, for farm shops and/or retail nurseries will be permitted where the goods retailed are predominantly grown on site, and:</p> <ul style="list-style-type: none"> • they comply with the Council’s policies for protecting the Green Belt; 	There are no likely significant effects on European protected sites arising from this policy.

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<ul style="list-style-type: none"> • there would be no adverse effect on the viability of any nearby shop or shops; and • adequate access and parking can be provided. 	
DM16 – Servicing Development	<p>The Council will require servicing facilities to be well designed, built to accommodate the demands of new development and sensitively integrated into the development and the surrounding townscape and streetscape. In particular, servicing activities should not give rise to traffic congestion, conflict with pedestrians or be detrimental to residential amenity.</p> <p>To deliver this the Council will:</p> <ul style="list-style-type: none"> • require sufficient on-site servicing space to accommodate the number and type of vehicles likely to be generated and to ensure that this can take place without manoeuvring on the highway; • require a Servicing Management Plan for all sites with on-site servicing space that will control the hours of servicing, including detail on how vehicles will be managed, and controls on the types and sizes of vehicles to ensure they are appropriate to the local area and are environmentally acceptable; • require, where developments cannot provide onsite servicing space, that it is demonstrated that the proposal can function satisfactorily without giving rise to adverse effects on traffic congestion, pedestrian safety, residential amenity or impact on bus routes. A Servicing Management Plan will be required in these instances; • require on-site servicing space and entrances to be sensitive to the character and appearance of the building and wider townscape and streetscape. 	There are no likely significant effects on European protected sites arising from this policy.
DM17 – Public Realm	Development should create or contribute to a safe, attractive, high quality, inclusive and legible public realm that contributes positively to local character and identity and encourages appropriate levels of activity and social interaction. Development will be	There are no likely significant effects on European protected sites arising from this policy.

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>expected to pay regard to the principles set out in the Woking Design SPD, and to:</p> <ul style="list-style-type: none"> • provide for or contribute towards an appropriate range of activity within the public realm, including spill-out spaces for trade, events, relaxation and recreation; and • ensure that any car parking and provision for servicing are appropriate to the context and sensitively integrated so as not to dominate the public realm; and • incorporate appropriate street furniture, clear signs, lighting and surface and landscape materials and planting of high quality, environmental performance and durability that enhance the quality, character and appearance of the public realm through their siting and design. <p>In appropriate cases the Council will encourage the provision of works of art as part of a site development which contribute positively to the amenity of the area, paying regard to the Borough’s Public Art Strategy 2007 and provisions in the Design SPD.</p>	
DM18 – Advertising and Signs	<p>Proposals for outdoor advertising will be considered having regard to its effect on the:</p> <ul style="list-style-type: none"> • appearance of the building or on the visual amenity in the immediate neighbourhood where it is displayed; and • safe use and operation of any form of traffic or transport on land (such as pedestrians), on or over water, or in the air. <p>In Conservation Areas, proposals will only be permitted if it will conserve or enhance</p>	There are no likely significant effects on European protected sites arising from this policy.

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>particular features of architectural or historic interest.</p> <p>Advertisement proposals on Listed Buildings or Scheduled Ancient Monuments will constitute an alteration of the building or the monument’s site and therefore will require Listed Building Consent. Any proposals on or close to a Listed Building or Scheduled Monument should not detract from the integrity of the building’s design, historic character or structure and should not spoil or compromise its setting.</p> <p>Poster advertising in the open countryside will not be supported except in exceptional circumstances such as agricultural shows or similar events. In these circumstances, the duration of the display will be limited to a suitable period leading to and the duration of the event.</p> <p>In villages, the scale of poster advertising will depend on the character of the village and the position of the display in relation to surrounding buildings and features.</p> <p>Proposals for advertisements where lighting is involved will be required to have regard to the Institute of Lighting Professionals Technical Report No.5 (third edition) (or future equivalent) and guidance in the Woking Good Practice Guide on Light Pollution. Proposals will only be permitted where they are in proportion to the rest of the shopfront and the whole building so as not to be the dominant feature.</p> <p>Where it is considered necessary, the Council will use its discretionary powers to serve a discontinuance notice requiring an advertisement display or the use of an advertisement site to stop.</p>	

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>Where necessary, the Council may impose conditions on a planning permission to regulate the display of the advertisement to which the consent relates, or regulate the use for the display of advertisements on the site to which the application relates or any adjacent land under the control of the applicant, or requiring the carrying out of works on any such land.</p> <p>Conditions may also be imposed requiring the removal of any advertisement or the discontinuance of any use of land authorised by the consent, at the end of a specified period, and the carrying out of any works then required for the reinstatement of the land.</p>	
DM19 – Shopfronts	<p>Proposals for new and replacement shopfronts will be permitted where they pay regard to the principles set out in Section 12 of the Woking Design SPD on Shopfronts in terms of character, proportion, materiality, lighting and security; and:</p> <ul style="list-style-type: none"> • they do not adversely affect pedestrian or highway safety; • they would preserve or enhance heritage assets having regard to design and materials of the building and adjoining shops, including any traditional or original features that should be retained; • they are designed to allow equal access for all users; and • they do not detrimentally affect the amenity of neighbouring occupiers. 	There are no likely significant effects on European protected sites arising from this policy.
DM20 – Heritage Assets	<p>A proposal affecting the character or setting or heritage assets will be required to show:</p> <ul style="list-style-type: none"> • that the works are in harmony with and, where appropriate, enhance the heritage asset and/or its setting in terms of quality of design and layout (scale, form, bulk, height, character, street pattern and features), materials (colour and texture) and 	There are no likely significant effects on European protected sites arising from this policy.

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>historic street pattern of the area;</p> <ul style="list-style-type: none"> • how the features and elements that contribute to the heritage asset's significance and character will be conserved and/or reinstated if they have been lost, such as chimneys, windows and doors, boundary treatments, original roof coverings, as well as internal features such as fireplaces, plaster cornices, doors, architraves, panelling and any walls in Listed Buildings; • where appropriate, that external elements such as street furniture, lighting and paving are sympathetically designed; • that it would not have an adverse impact on views of or from the heritage asset or of the open spaces, trees or street scene which contributes positively to any asset and its setting; and • that the use of the heritage asset is compatible with the conservation of its significance (i.e. uses that are not compatible with or damaging to the significance of the asset should be avoided). In appropriate cases the relaxation of policies controlling change of use may be considered to secure the retention of the building. <p>The Council will not normally permit the demolition of heritage assets, but where partial or total demolition of a heritage asset is exceptionally permitted, a high standard of design will be required in any replacement building. Where possible, special elements of the building should be salvaged and re-used in the development scheme. The applicant will also be required to:</p> <ul style="list-style-type: none"> • instigate a programme of recording of the lost asset; and • ensure the publication of that record in an appropriate form. 	
DM21 – Education Facilities	Proposals for new or replacement schools and other educational facilities, expansion of education facilities on existing sites and changes of use for school or other educational and training purposes will be permitted where the following criteria are	There are no likely significant effects on European protected sites arising from this policy.

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<p>met:</p> <ul style="list-style-type: none"> • the development meets the provisions for sustainable transport and accessibility set out in policy CS18 of the Core Strategy, and any significant increase in traffic can be mitigated; • a School Travel Plan is provided with the proposal; • adequate provision is made for stopping and parking on site in accordance with Woking's Parking Standards SPD; • the use of the site would be compatible with the surrounding land uses; • the development would not give rise to significant adverse impacts on the environment; • adequate provision is made or retained for outdoor recreational and amenity space (where appropriate); • there would not be a significant adverse impact upon local residents; • proposals meet other Development Plan policy criteria, paying particular attention to policy CS19 of the Core Strategy. 	<p>The policy contains measures that would help to deflect recreational pressure from European protected sites, and avoid reductions in air quality. It also provides a statement that the policy will avoid adverse impacts on the environment.</p>
DM22 – Communications Infrastructure	<p>Proposals for new or upgraded telecommunications equipment and installations will be permitted provided that:</p> <ul style="list-style-type: none"> • the telecommunications equipment and installation is sited and designed so as to minimise impact on the visual amenity, character and appearance of the surrounding area; • if on a building, apparatus and associated structures are sited and designed in order to minimise impact to the external appearance of the host building; • opportunities to share masts or sites with other providers have been explored and rejected for good reason; 	<p>There are no likely significant effects on European protected sites arising from this policy.</p>

Policy number	Policy text	HRA screening (green = screened out, amber = screened in for Appropriate Assessment)
	<ul style="list-style-type: none"> • where a new mast is proposed, there is no reasonable possibility of combining the proposal with an existing installation, or of erecting the apparatus on an existing building or structure; and • the proposal conforms to the International Commission on Non-Ionising Radiation Protection (ICNIRP) guidelines, taking account where appropriate of the cumulative impact of all operators equipment located on the mast / site. <p>Proposals for domestic satellite receiving antennae will be permitted only where they do not have an adverse effect on the visual appearance of the building and the surrounding area and on the amenity of neighbouring properties. The shared use of antennae in blocks of flats and similar buildings will be encouraged.</p> <p>Development proposals, including for homes, employment and main town centre uses, will be expected to support and help implement the aims and objectives of the 'Superfast Surrey' broadband initiative. On-site infrastructure should be provided, including open access ducting to industry standards, to enable all premises and homes to be directly served by the latest broadband technology, including fibre optic broadband technology. Exceptions will only be considered where it can be demonstrated by evidence that making such provision would render the development unviable.</p>	



5 THURSLEY, ASH, PIRBRIGHT AND CHOBHAM SAC AND THAMES BASIN HEATHS SPA

5.1 Introduction

Thursley, Ash, Pirbright and Chobham SAC and the Thames Basin Heath Special Protection Area consist of a number of fragments of lowland heathland. The predominant habitats are dry and wet heath but the designations also include areas 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 component SSSIs of the SPA, Horsell Common SSSI, and Ash to Brookwood Heaths SSSI lie within or partly within Woking Borough, whilst Whitmoor Common SSSI, Colony Bog and Bagshot Heaths SSSI and Ockham and Wisley Commons SSSI lie adjacent to it. Ash to Brookwood Heaths SSSI and Colony Bog and Bagshot Heaths SSSI also form part of the SAC designation.

The location of the Thames Basin Heaths SPA means that levels of development in surrounding authorities has led to potential for recreational pressure and disturbance. 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.

In addition Woking Borough Council has produced a Thames Basin Heaths Avoidance Strategy (2009-2014), which has identified that between 400m and 5km of the SPA boundary, development will only be possible if it can demonstrate adequate avoidance or mitigation of significant adverse effects through recreational pressure.

5.2 Features of European interest²⁰

Thursley, Ash, Pirbright and Chobham qualifies as a SAC for its habitats. The site contains the Habitats Directive Annex I habitats of:

- Wet heathland with cross-leaved heath
- Dry heaths: This site contains a series of large fragments of once-continuous heathland
- Depressions on peat substrates

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:

²⁰ Features of European Interest are the features for which a European site 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.

- 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).

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

5.3 Conservation objectives

The Conservation Objectives for the European interests on the SAC are, subject to natural changes:

- to maintain*, in favourable condition, the wet heathland with cross-leaved heath, dry heaths and depressions on peat substrates.

The Conservation Objectives for the European interests on the SPA are, subject to natural changes:

- to maintain*, in favourable condition, the habitats for the populations of Annex 1 bird species+ of European importance, with particular reference to: lowland heathland and rotationally managed plantation.

* maintenance implies restoration if the feature is not currently in favourable condition.

+ Nightjar, woodlark and Dartford warbler.

5.4 Key environmental conditions

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.
- Maintenance of water quality.

5.5 Potential effects of the plan

Two potential impacts of the LDF Core Strategy upon the SAC and SPA have been identified:

- Recreational disturbance.
- Air pollution.

Recreational disturbance

Previous HRA exercises carried out on behalf of local authorities surrounding Woking has determined that 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.

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 5km²¹. 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.

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 Heaths²². Such an increased use could have a cumulative impact upon the SPA.

Effects of the plan could occur due to housing development leading to increased recreational pressure. However, this would effectively be mitigated by implementation of the strategically agreed Thames Basin Heaths Delivery Framework in Woking with the provision of 8ha/1000 population of Suitable Accessible Natural Greenspace (SANG) and contributions to the Strategic Access Management and Monitoring (SAMM) programme.

Given the proximity of the majority of Woking Borough to the Thames Basin Heaths SPA, the broad distribution scenario is not key to assessment through HRA, since all development would occur within 5km of the SPA.

The Thames Basin Heaths SPA Avoidance Strategy (2009-2014) developed by Woking Borough in accordance with the Thames Basin Heaths Delivery Framework has identified that between 400m and 5km of the SPA boundary, development will only be possible if it can demonstrate adequate avoidance or mitigation of significant adverse effects due to recreational pressure.

In the aforementioned Avoidance Strategy, there have been three approaches identified that can lead to avoidance or mitigation of adverse effects:

- The provision of SANGS to attract people away from the SPA and hence reduce pressure on it;
- Access management measures on, and monitoring of, the SPA to reduce the impact of people who visit the SPA (SAMM); and
- Habitat management of the SPA, which will improve the habitat for the ground nesting birds.

²¹ Liley, D. et al. 2005. Visitor access patterns on the Thames Basin Heaths. *English Nature Research Report*, English Nature, Peterborough

²² Submission of Wokingham Borough Council (7265) to the Thames Basin Heaths Technical Sessions for the Examination in Public of The South East Plan

New development can provide, or make a contribution toward the provision of SANGS and SAMM, and in so doing contribute toward meeting the requirements of HRA.

The Woking BC Core Strategy has a specific policy regarding the Thames Basin Heaths (policy CS8). This includes that:

“New residential development beyond 400m threshold but within 5 kilometres of the SPA boundary (in a straight line) will be required to make an appropriate contribution towards the provision of Suitable Alternative Natural Greenspace (SANG) and the Strategic Access Management and Monitoring (SAMM). Details of how the contribution will apply are set out in the Council’s Thames Basin Heaths Special Protection Area Avoidance Strategy 2010 – 2015.

An applicant may wish to provide SANG as part of development. Where that is the case, all relevant standards including standards recommended by Natural England should be met and a contribution will have to be made towards SAMM.

A minimum of 8 hectares of SANG land (after discounting to account for current access and capacity) should be provided per 1,000 new occupants.”

The Thames Basin Heaths Special Protection Area Delivery Framework identifies that new development between 400m and 5km from the SPA will need to develop or contribute to SANGS capacity.

Natural England’s guidance is as follows:

- No development will be possible within 400m of the SPA.
- SANGS of 12ha or less can supply a development within a catchment area of 400m-2km;
- SANGS of 12-20ha are sufficient to supply a 4km radius;
- SANGS of 20+ha can supply 5km;

SANGS are usually not required for development beyond 5km of the SPA. However, major development at distances of 5-7km from the SPA boundary would be assessed on a case-by-case basis.

All of the proposed development within Woking lies within 400m-5km of the Thames Basin Heaths Special Protection Area, and therefore all new development requires sufficient SANG. Woking have identified sufficient SANG to cover the quantum of development committed to in their Core Strategy.

Woking Borough Council has confirmed via a Green Belt review that existing and proposed SANG within Woking equates to 153.7ha. That is sufficient SANG capacity to meet the delivery of 4,964 new dwellings over the lifetime of the Core Strategy as 153.7ha could supply SANG for 19,213 new residents at 8ha/1000 population. This allows for over 4 persons per new dwelling, well above the current occupancy rate of 2.49 persons per dwelling²³.

Confirmation of sufficient SANG hectareage, capacity and catchments will be provided once the site allocations are confirmed. Natural England have stated in early consultation on this HRA that before the plan is submitted to the Secretary of State it will be necessary for each housing site to be explicitly allocated to a particular SANG, or for it to be able to confirm that it can provide a bespoke SANG. At this stage that apportionment exercise remains to be undertaken once the preferred site list is fixed but it can be confirmed that Woking have sufficient SANG capacity for their housing requirements. A HRA screening report of a Site Allocations document will be undertaken in early 2015.

²³ Thomas, R. (2013). Demographic Profile of Woking Borough Based on 2011 Census

It is possible at this stage to confirm that there will be no LSE overall as a result of Woking meeting their housing requirements but it is not possible to confirm which development sites are allocated to which SANG. The availability of SANG is recognised as a fundamental constraint and therefore any site which cannot be apportioned to a particular SANG, or provide a bespoke SANG, will not ultimately be allocated.

Thursley, Ash, Pirbright and Chobham SAC is also vulnerable to recreational pressure through pathways such as trampling of vegetation and erosion. However, the measures taken to protect the Thames Basin Heaths SPA from recreational pressure shall also apply mitigation for the SAC, since the designations overlap where the SAC occurs (the SPA is more extensive in Woking Borough).

The provision of sufficient SANG to supply the recreational needs associated with occupation of new development within Woking will serve to protect both the SPA and SAC from excessive recreational pressure. Therefore pending analysis of the Site Allocations, no further mitigation measures are likely to be required, since the Core Strategy and the DPD will allow for such provision.

Air Pollution

Modelling of transport movements and associated air quality undertaken in support of the production of the Woking Core Strategy identified that no significant effects would occur on European protected sites.

HRA undertaken for the Woking Core Strategy in 2012 identified that the Thames Basin Heaths SPA was sensitive to air quality reduction within 200m of the A245, A320 and A322 within the Borough. However, the HRA was able to conclude no likely significant effects would arise on the Thames Basin Heaths SPA through reduced air quality as a result of development proposed within Woking.

The study identified that at a critical load of $10\text{kg ha}^{-1}\text{ yr}^{-1}$ (appropriate for heathland habitats according to UK Air Pollution Information System guidelines), the Predicted Environmental Contribution (background + development contribution) was more than 70% of the critical load at 5m from the centre line of the A322. Subsequent analysis indicated that this became insignificant at 50m from the roadside for Ash to Brookwood Heaths SSSI component of the SPA. Since the designated SPA, at its closest point, lies 70m from the roadside a conclusion of no likely significant effect was reached. Colony Bog and Bagshot Heath SSSI also lies within 200m of the A322 – a significant effect on air quality reduction was identified at up to 25m from the centre of the A322, accounting for effects on 500m^2 of the SPA. The critical load for nitrogen deposition for the SPA was exceeded at 35-55m from the centre of the A320.

The air quality modelling was undertaken for a quantum of housing that has not changed since the Core Strategy was adopted.

Therefore, it is concluded that the DPD policies will not lead to likely significant effects on European protected sites within the Borough boundary. A HRA screening report of a Site Allocations document will be undertaken in early 2015.

Nonetheless, as discussed in the following section and in line with the approach being taken by other Thames Basin Heaths authorities, recommendations are made for Woking to participate in a collaborative monitoring and response partnership relating to traffic related air quality at Thames Basin Heaths SPA.

In Combination Effects

The HRA of the Woking Core Strategy identified several developments outside of Woking that could act 'in combination' with Woking's policies to lead to likely significant effects on

European sites. The HRA primarily considered the effect on European sites beyond Woking Borough, but we would consider that it is also important to account for ‘in combination’ effects from development in surrounding Local Authorities on European sites that also lie within Woking Borough.

It was noted that the Borough members of the Thames Basin Heaths Joint Strategic Partnership Board have Avoidance Strategies to protect the SPA from excess recreational pressure, and this remains the case. All partners have identified SANGS or the requirement for SANGS at levels in alignment with those required by the Avoidance Strategies, and therefore with this in place it is possible to conclude no likely significant effects from Woking’s DPD in combination with other plans and projects through recreational pressure.

Hydrological effects have been considered, but given the fact that the heathland SAC and SPA are relatively insensitive to water flows and levels; that the relevant water companies for Woking identify that sufficient measures are in place in order to supply the Borough; and that the EA CAMS for the region will protect against damaging levels of abstraction, then ‘in combination’ effects due to reduced water availability on the SAC and SPA are screened out.

The major mechanism by which ‘in combination’ effects could arise from the Woking DPD is through reduced air quality as a result of traffic increases on major roads that run through surrounding local authorities and within 200m of European protected sites.

Transport and air quality modelling has been undertaken for surrounding authorities as part of their spatial planning. Of greatest relevance to developments in combination with those in Woking are Guildford and Surrey Heath since major roads within Woking then pass within 200m of the Thames Basin Heaths SPA and Thursley, Ash, Pirbright and Chobham SAC within these other two local authorities.

Transport and air quality modelling has been undertaken on behalf of Guildford Borough as part of their Local Strategies and Sites planning and has been able to conclude that traffic along the A320 as a result of their Preferred housing approach would not lead to likely significant effects on European sites. The modelling scenario for the A322 and A324 indicated that significant reductions in air quality on the Thames Basin Heaths SPA would occur only immediately adjacent to the roadside. No modelling was undertaken for the M25.

The HRA of the Surrey Heath Core Strategy (2011)²⁴ was able 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.*”

Therefore the conclusions relating to effects of development within Woking, ‘in combination’ with development outside of Woking, on the Thames Basin Heaths SPA, remain as those from Woking alone. The DPD policies will not lead to likely significant effects on European protected sites beyond the Borough boundary, ‘in combination’ with other development.

5.6 Avoidance and Mitigation

Air Quality

²⁴ URS/ Scott Wilson (2011). Surrey Heath Core Strategy and Development Management Policies
Habitat Regulations Assessment of the Proposed Submission DPD incorporating amendments made post-suspension

In consultation on Local Plans and Core Strategies for surrounding local authorities, Natural England has referred to the following mitigation measures that could be included in Local Plan Strategies:

- Behavioural measures and modal shift - reducing the amount of traffic overall;
- Traffic management - modifying traffic behaviour to control where emissions are generated;
- Emissions reduction at source - reducing the emissions level per vehicle; and
- Roadside barriers - reducing the impact on the public of emissions.

For those sustainable transport measures which are available at the strategic planning level, it is not possible to predict in advance the precise quantum of improvement that can be delivered by a given mitigation measure due to both the novel nature of the mitigation tools available and the limitations of the science. Vegetative changes that theory identifies as being likely to result from changes (either negative or positive) in atmospheric nitrogen deposition can fail to appear in practice since they are relatively subtle and can be dwarfed by changes in management regime. Moreover, it is rarely possible to separate the effects of atmospheric nitrogen deposition and other causes and the effects of atmospheric nitrogen deposition arising from vehicle exhausts from those arising from other sources (e.g. agriculture). For example, a policy to 'require developers to produce travel plans indicating that they have maximised opportunities for sustainable transport' may prove effective in practice, but cannot be predictively linked to a specific scale of improvement of air quality.

It is therefore important that where air quality problems are identified there is also a mechanism established to monitor the effectiveness of the measures adopted (using the critical load/level as a monitoring target against which the success or failure of mitigation measures can be evaluated) and amend them as required.

This is in line with the precautionary principle as set out in EC Guidance²⁵ on its use:

'If a preliminary scientific evaluation shows that there are reasonable grounds for concern that a particular activity might lead to damaging effects on the environment, or on human, animal or plant health, which would be inconsistent with the protection normally afforded to these within the European Community, the Precautionary Principle is triggered.

Decision-makers then have to determine what action to take. They should take account of the potential consequences of taking no action, the uncertainties inherent in the scientific evaluation, and they should consult interested parties on the possible ways of managing the risk. Measures should be proportionate to the level of risk, and to the desired level of protection. They should be provisional in nature pending the availability of more reliable scientific data.

Action is then undertaken to obtain further information enabling a more objective assessment of the risk. The measures taken to manage the risk should be maintained so long as the scientific information remains inconclusive and the risk unacceptable'.

The Council therefore should commit to working with other local authorities, land managers, and strategic highway authorities to develop a framework by which air quality measures can be linked to monitoring of the air quality in the European site before and for a number of years after introduction of the measures, such that further measures²⁶ 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. In its adopted Core Strategy, the Council does

²⁵ European Commission (2000): Communication from the Commission on the use of the Precautionary Principle.

commit to ‘proactively work in partnership to deliver projects of cross-boundary significance such as the strategic monitoring and mitigation of Thames Basin Heaths Special Protection Areas...’

While not mitigation in itself, monitoring is an essential factor when dealing with an issue such as air quality which has a high degree of uncertainty, since it will enable the effectiveness of air quality improvement measures to be evaluated and amended over the Core Strategy period.

The Development Management Policies DPD does already contain measures that should aim to maintain good air quality associated with new development. Policy DM6 states that appropriate schemes of mitigation must be provided for new developments that, individually or cumulatively, would have potential to result in reductions in air quality. The Council will require impact assessments on the Thames Basin Heaths SPA to consider air quality reductions, followed if necessary by appropriate avoidance or mitigation for any new developments. These should include measures to encourage modal shift and behaviour to reduce the need for vehicle journeys, including integration of new development with local facilities and opportunities, although, unless tied to employment opportunities, increased journeys around the M25 orbital would remain likely.

6 CONCLUSIONS

The Woking draft DPD policies have been screened out as having no likelihood of leading to significant adverse effects on European sites either alone or in combination with other plans or projects.

A HRA screening report of a Site Allocations document will be undertaken as a separate document in accordance with the Council’s timetable for preparing this document.