

# Habitat Regulations Assessment of the Wokingham Draft Local Plan Update

Wokingham Borough Council

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All AECOM Ecologists working on this project are members (at the appropriate level) of the Chartered Institute of Ecology and Environmental Management (CIEEM) and follow their code of professional conduct (CIEEM, 2017).

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# 1. Background

## 1.1 Introduction

AECOM was appointed by Wokingham Borough Council (hereafter referred to as 'WBC') to assist the Council in undertaking a Habitats Regulations Assessment (HRA) of its Local Plan Update. The objective of this assessment is to identify any aspects of the Plan that would potentially cause an adverse effect on the integrity of Natura 2000 sites, otherwise known as European sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs), candidate Special Areas of Conservation (cSACs), potential Special Protection Areas (pSPAs) and, as a matter of Government policy, Ramsar sites), either in isolation or in-combination with other plans and projects, and to advise on appropriate policy mechanisms for delivering mitigation where such effects were identified.

Wokingham Borough's Local Plan Update follows on from the adopted Core Strategy and the Managing Development Delivery (MDD) Local Plan, which contained the policies and allocations to guide development in the Borough up to 2026. The Local Plan Update covers the period between 2018 and 2036, replacing the Core Strategy as the main legal planning guidance document for the Borough. The draft Local Plan consultation (including the accompanying HRA process) is a key stage in the preparation of the Local Plan Update and follows on from the Reg.18 Issues and Options Document (2016) and the 'Homes for the Future' consultation (2018/19).

The Local Plan Update seeks to meet housing and employment needs within the Borough without compromising the built and natural environment. It identifies requirements for development and growth, including where and how much development in the Local Plan period (2018 – 2036) will be delivered. The Plan projects that at least 13,901 net new dwellings and new employment space will be delivered in the Borough to serve the growing population. It is to be noted that a large portion of the residential growth was allocated and assessed in the preceding Core Strategy and its HRA and deemed not to pose an adverse effect on European sites. Such allocations will not be reassessed here except as part of the overall 'in combination' assessment. The HRA focusses on the residential development that is proposed in addition to that original quantum of growth.

The UK is bound by the terms of the Habitats Directive (92/43/EEC). Under Article 6(3) of the Habitats Directive, an appropriate assessment is required, where a plan or project is likely to have a significant effect upon a European Site, either individually or 'in-combination' with other projects. The Directive is implemented in the UK by the Conservation of Habitats and Species Regulations 2017 (the "Habitats Regulations"), as amended.

An initial assessment showed that there are no European sites within the boundary of Wokingham Borough; however, there are several European sites in adjoining authorities that require consideration. The key European sites with linking impact pathways to the Wokingham Local Plan Update are the Thames Basin Heaths SPA, the Chilterns Beechwoods SAC, Windsor Forest & Great Park SAC and Thursley, Ash, Pirbright and Chobham SAC. This HRA considers the available evidence base at time of writing, including a 2012 / 2013 visitor survey (and its accompanying implications) undertaken in the Thames Basin Heaths SPA. This report provides a detailed analysis of the Likely Significant Effects (LSEs) on European sites likely arising from the draft Local Plan Update and, where appropriate, an Appropriate Assessment of these impact pathways.

***Note that the full evidence base for the HRA will include an Air Quality Impact Assessment (AQIA) undertaken in relation to the air quality sensitive European sites, but that report is not yet available. The HRA will therefore be updated once the outputs of the air quality modelling are available.***

## 1.2 Legislative Context

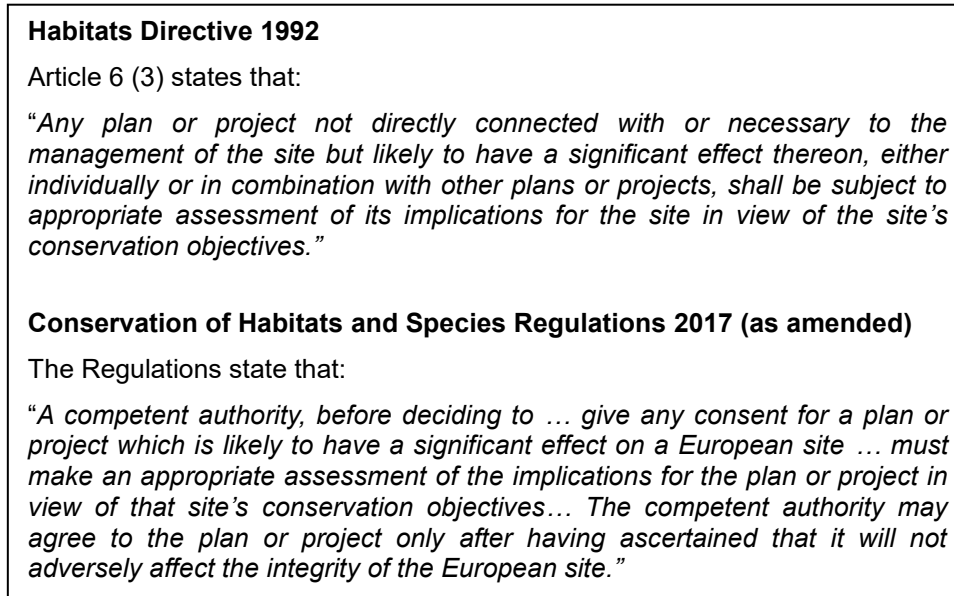
The need for an assessment of impacts on European sites is set out within Article 6 of the Habitats Directive and transposed into UK law by the Conservation of Habitats and Species Regulations 2017. The ultimate aim of the Habitats Directive is to "maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest" (Article 2(2)). This aim relates

to habitats and species, not the European Sites themselves, although the European Sites have a significant role in delivering favourable conservation status.

The Habitats Directive applies the precautionary principle<sup>1</sup> to European Sites. Consent should only be granted for plans and projects once the relevant competent authority has ascertained that there will either be no likelihood of significant effects, or no adverse effect on the integrity of the European Site(s) in question.

Where an Appropriate Assessment has been carried out and results in a negative impact, or if uncertainty remains over the significant effect, consent will only be granted if there are no alternative solutions and there are Imperative Reasons of Over-riding Public Interest (IROPI) for the development and compensatory measures have been secured.

To ascertain whether or not site integrity will be affected, an Appropriate Assessment should be undertaken of the plan or project in question. The competent authority is entitled to request the applicant to produce such information as the competent authority may reasonably require for the purposes of the assessment, or to enable it to determine whether an appropriate assessment is required. Figure 1 provides the legislative basis for an Appropriate Assessment.



**Figure 1. The legislative basis for Appropriate Assessment**

Over the years, 'Habitats Regulations Assessment' (HRA) has come into wide currency to describe the overall process set out in the Habitats Regulations, from screening through to identification of IROPI. This has arisen in order to distinguish the overall process from the individual stage of "Appropriate Assessment". Throughout this Report the term HRA is used for the overall process and restricts the use of Appropriate Assessment to the specific stage of that name.

### 1.3 Scope of the Project

There is no pre-defined guidance that dictates the physical scope of an HRA of a Plan document. Therefore, in considering the physical scope of the assessment, we were guided primarily by the identified impact pathways (called the source-pathway-receptor model) rather than by arbitrary 'zones'. Current guidance suggests that the following European sites be included in the scope of assessment:

- All sites within 10km of the Wokingham Borough boundary; and,

<sup>1</sup> The Precautionary Principle, which is referenced in Article 191 of the Treaty on the Functioning of the European Union, has been defined by the United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2005) as: "When human activities may lead to morally unacceptable harm [to the environment] that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm. The judgement of plausibility should be grounded in scientific analysis".

- 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 the implementation of a policy within a Local Plan document can lead to an effect upon a European designated site. An example of this would be new residential development resulting in an increased population and thus increased recreational pressure, which could then affect European sites by, for example, disturbance of wintering or breeding birds.

Guidance from the Ministry of Housing, Communities and Local Government (MHCLG) states that the HRA 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*' (MHCLG, 2006, p.6). More recently, the Court of Appeal<sup>2</sup> ruled that providing the Council (competent authority) was duly satisfied that proposed mitigation could be 'achieved in practice' to satisfy that the proposed development would have no adverse effect, then this would suffice. This ruling has since been applied to a planning permission (rather than a Core Strategy document)<sup>3</sup>. In this case the High Court ruled that for '*a multistage process, so long as there is sufficient information at any particular stage to enable the authority to be satisfied that the proposed mitigation can be achieved in practice it is not necessary for all matters concerning mitigation to be fully resolved before a decision maker is able to conclude that a development will satisfy the requirements of Reg 61 [now Regulation 63] of the Habitats Regulations*'.

In order to fully inform the HRA process, several recent studies have been consulted to determine Likely Significant Effects (LSEs) that could arise from the Local Plan Update. These include:

- Future development proposed (and, where available, HRAs) for Windsor and Maidenhead, Bracknell Forest, Surrey Heath, Hart, Basingstoke and Deane, West Berkshire, Reading, South Oxfordshire and Wycombe;
- Air Quality Impact Assessments for air quality-sensitive European sites (*note that these are not yet available*);
- Thames Basin Heaths Visitor Survey 2012 / 2013;
- The UK Air Pollution Information System ([www.apis.ac.uk](http://www.apis.ac.uk)); and
- The Multi Agency Geographic Information for the Countryside (MAGIC) and its links to the JNCC website ([www.magic.gov.uk](http://www.magic.gov.uk))

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<sup>2</sup> No Adastral New Town Ltd (NANT) v Suffolk Coastal District Council Court of Appeal, 17<sup>th</sup> February 2015

<sup>3</sup> High Court case of R (Devon Wildlife Trust) v Teignbridge District Council, 28 July 2015

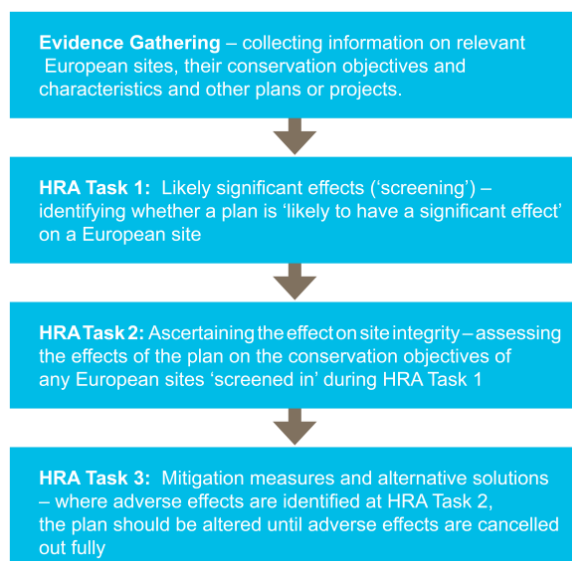


## 2. Methodology

### 2.1 Introduction

The HRA has been carried out with reference to the general EC guidance on HRA<sup>4</sup> and that produced in July 2019 by the UK government<sup>5</sup>; Natural England has produced its own internal guidance<sup>6</sup>. These have also been referred to in undertaking this HRA.

Figure 2 below outlines the stages of HRA according to EC guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations and any relevant changes to the plan until no significant adverse effects remain.



**Figure 2. Four Stage Approach to Habitats Regulations Assessment. Source EC, 2001<sup>1</sup>.**

### 2.2 Description of HRA Tasks

#### 2.2.1 HRA Task 1 – Likely Significant Effects (LSE)

Following evidence gathering, the first stage of any Habitats Regulations Assessment is a Likely Significant Effect (LSE) test - essentially a risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:

*"Is the project, 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. This stage is undertaken in Chapter 4 of this report and in Appendix A.

#### 2.2.2 HRA Task 2 – Appropriate Assessment (AA)

Where it is determined that a conclusion of 'no likely significant effect' cannot be drawn, the analysis has proceeded to the next stage of HRA known as Appropriate Assessment. Case law has clarified that 'appropriate assessment' is not a technical term. In other words, there are no particular technical

<sup>4</sup> European Commission (2001): Assessment of plans and projects significantly affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6(3) and 6(4) of the Habitats Directive.

<sup>5</sup> <https://www.gov.uk/guidance/appropriate-assessment>

<sup>6</sup> [http://www.ukmpas.org/pdf/practical\\_guidance/HRGN1.pdf](http://www.ukmpas.org/pdf/practical_guidance/HRGN1.pdf)

analyses, or level of technical analysis, that are classified by law as belonging to appropriate assessment rather than determination of likely significant effects.

By virtue of the fact that it follows the screening process, there is a clear implication that the analysis will be more detailed than undertaken at the LSEs stage. One of the key considerations during appropriate assessment is whether there is available mitigation that would entirely address the potential effect. In practice, the Appropriate Assessment would take any policies or allocations that could not be dismissed following the high-level Screening analysis and analyse the potential for an effect in more detail, with a view to concluding whether there would actually be an adverse effect on the integrity of European sites (in other words, disruption of the coherent structure and function of the European site(s) and interference with the sites ability to achieve its conservation objectives).

A decision by the European Court of Justice<sup>7</sup> in 2018 concluded that measures intended to avoid or reduce the harmful effects of a proposed project on a European site may not be taken into account by competent authorities at the Likely Significant Effects or 'screening' stage of HRA. That ruling has been taken into account in producing this HRA.

Also, in 2018 the Holohan ruling<sup>8</sup> was handed down by the European Court of Justice. Among other provisions paragraph 39 of the ruling states that '*As regards other habitat types or species, which are present on the site, but for which that site has not been listed, and with respect to habitat types and species located outside that site, ... typical habitats or species must be included in the appropriate assessment, if they are necessary to the conservation of the habitat types and species listed for the protected area*' [emphasis added]. This ruling has been taken into account in the HRA process, particularly regarding the qualifying bird species of the Thames Basin Heaths SPA (e.g. nightjar, Dartford warbler, woodlark), which may nest in heathland, acid grassland and rotationally-managed conifer plantation beyond the SPA boundary.

### 2.2.3 HRA Task 3 – Avoidance and Mitigation

Where necessary, measures are recommended for incorporation into the Plan in order to avoid or mitigate adverse effects on European sites. There is considerable precedent concerning the level of detail that a Local Plan document needs to contain regarding mitigation for recreational impacts on European sites. The implication of this precedent is that it is not necessary for all measures that will be deployed to be fully developed prior to adoption of the Plan, but the Plan must provide an adequate policy framework within which these measures can be delivered.

In evaluating significance, AECOM has relied on professional judgement as well as the results of previous stakeholder consultation regarding development impacts on the European sites considered within this assessment. When discussing 'mitigation' for a Local Plan document, one is concerned primarily with the policy framework to enable the delivery of such mitigation rather than the details of the mitigation measures themselves since the Local Plan document is a high-level policy document.

## 2.3 Physical Scope of the HRA

There are no standard criteria for determining the ultimate physical scope of an HRA. Rather, the source-pathway-receptor model should be used to determine whether there is any potential pathway connecting development to any European sites. In the case of Wokingham Borough, it was decided that this HRA would focus on the following European sites:

- Thames Basin Heaths SPA;
- Chilterns Beechwoods SAC;
- Thursley, Ash, Pirbright and Chobham SAC; and
- Windsor Forest & Great Park SAC.

An introduction to these sites, their qualifying features, their conservation objectives, and the current pressures and threats to site integrity are provided in chapter 3. Appendix 1 shows these European

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<sup>7</sup> People Over Wind and Sweetman v Coillte Teoranta (C-323/17)

<sup>8</sup> Case C-461/17

sites in relation to Wokingham Borough's boundary, and the site allocations provided for in the Local Plan Update.

These results were derived from a 10km search zone around the Borough's boundary, and the Local Plan's residential and employment site allocations. The sites were the subject of the initial screening exercise in relation to the identified impact pathways. However, it should be noted that the presence of a conceivable pathway linking the Borough to a European site does not mean that Likely Significant Effects will be present.

## 3. Relevant European Sites

### 3.1 Chilterns Beechwoods SAC

#### 3.1.1 Introduction

The Chilterns Beechwoods represent a very extensive tract of *Asperulo-Fagetum* beech forests in the centre of the habitat's UK range. The SAC comprises a number of semi-natural component woodlands in which beech is the most prominent and / or dominant canopy tree. The woodland components occur in a variety of settings, including a variety of soil types ranging from nutrient-poor, highly calcareous soils to clay-rich, poorly drained soils on the plateaus. One distinctive feature in the woodland flora is the occurrence of the rare coralroot *Cardamine bulbifera*.

As a result of the diverse location of the SAC parcels, their woodland character varies substantially and is also greatly influenced by the woodlands' past management history. Many of the component woodlands were formerly an important source of timber for furniture production. However, in recent times the Chilterns Beechwoods SAC has become a highly valued recreational resource, particularly for hiking and cycling. The closest component part of the Chilterns Beechwoods SAC, Pullingshill Wood, lies approx. 2.8km to the north-east of Wokingham Borough in Wycombe district.

#### 3.1.2 Qualifying Features<sup>9</sup>

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

Annex I habitats that are a primary reason for selection of this site:

- *Asperulo-Fagetum* beech forests

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:

- Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*; important orchid sites)

Annex II species present as a qualifying feature, but not a primary reason for selection of this site:

- Stag beetle *Lucanus cervus*

#### 3.1.3 Conservation Objectives<sup>10</sup>

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of qualifying natural habitats and habitats of qualifying species
- The structure and function (including typical species) of qualifying natural habitats
- The structure and function of the habitats of qualifying species
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- The populations of qualifying species, and,
- The distribution of qualifying species within the site.

<sup>9</sup> <https://sac.jncc.gov.uk/site/UK0012724> [Accessed on the 11/10/2019]

<sup>10</sup> <http://publications.naturalengland.org.uk/publication/4808896162037760> [Accessed on the 11/10/2019]

### 3.1.4 Threats & Pressures to Site Integrity<sup>11</sup>

The following threats and pressures to the site integrity of the Chilterns Beechwoods SAC have been identified in Natural England's Site Improvement Plan:

- Forestry and woodland management
- Deer
- Changes in species distributions
- Invasive species
- Disease
- Public access / disturbance
- Air pollution: Impact of atmospheric nitrogen deposition

## 3.2 Thames Basin Heaths SPA

### 3.2.1 Introduction

The Thames Basin Heaths Special Protection Area (SPA) consists of 8,274ha of lowland heathland spanning 11 authorities. It predominantly comprises dry and wet heath but also includes area of deciduous woodland, gorse scrub, acid grassland and mire, as well as associated conifer plantations. Historically, these habitats were almost continuous, but they are now fragmented by roads, housing and farmland. Most importantly from a conservation perspective, this heathland complex supports important breeding bird populations, such as the ground-nesting species nightjar and woodlark and the Dartford warbler, which nests close to the ground in heather or gorse.

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 location of the Thames Basin Heaths amidst a highly populated area has resulted in the site being subject to high recreational pressure. 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 was 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 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. The closest component parts of the Thames Basin Heaths SPA lie approx. 58m to the south of Wokingham borough (in Hart District) and approx. 158m to the south-east of Wokingham borough (in Bracknell Forest District).

### 3.2.2 Qualifying Features<sup>12</sup>

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

Annex I breeding species:

- European nightjar *Caprimulgus europaeus*: 7.8% of the GB population
- Dartford warbler *Sylvia undata*: 27.8% of the GB population
- Woodlark *Lullula arborea*: 9.9% of the GB population

<sup>11</sup> <http://publications.naturalengland.org.uk/publication/6228755680854016> [Accessed on the 11/10/2019]

<sup>12</sup> <http://publications.naturalengland.org.uk/publication/4952859267301376> [Accessed on the 11/10/2019].

### 3.2.3 Conservation Objectives<sup>13</sup>

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

### 3.2.4 Threats & Pressures to Site Integrity<sup>14</sup>

The following threats and pressures to the site integrity of the Thames Basin Heaths SPA have been identified in Natural England's Site Improvement Plan:

- Public access / disturbance
- Undergrazing
- Forestry and woodland management
- Hydrological changes
- Inappropriate scrub control
- Invasive species
- Wildfire / arson
- Air pollution: Impact of atmospheric nitrogen deposition
- Military
- Habitat fragmentation

## 3.3 Thursley, Ash, Pirbright and Chobham SAC

### 3.3.1 Introduction

The Thursley, Ash, Pirbright and Chobham SAC is located in south-east England and comprises various habitats, including heath and scrub (75%), bogs and marshes (10%), coniferous woodland (10%) and inland water bodies (5%). Most important from an HRA perspective is the complex of heaths, which includes both wet and dry heath, acid mire and bog pools. The underlying geology of the SAC allows little drainage, which gives rise to the mire systems. The complex supports an outstanding assemblage of valley mire systems with high diversity of wetland invertebrates, bryophytes and other scarce species. The SAC also provides important habitat to breeding birds such as curlew and snipe. Component heathlands of the SAC are managed as nature reserves with public access, while other parts have military training ranges and are off-limit to the public.

At Thursley Common the wet heath is NVC type M16 *Erica tetralix* – *Sphagnum compactum* and contains several rare plants, including great sundew *Drosera anglica*, bog hair-grass *Deschampsia setacea*, bog orchid *Hammarbya paludosa* and brown beak-sedge *Rhynchospora fusca*. Thursley

<sup>13</sup> <http://publications.naturalengland.org.uk/publication/4952859267301376> [Accessed on the 11/10/2019]

<sup>14</sup> <http://publications.naturalengland.org.uk/publication/6249258780983296> [Accessed on the 11/10/2019]

Common is particularly important for invertebrates, such as the nationally rare white-faced darter *Leucorrhinia dubia*.

The SAC also contains a series of large fragments of dry heathland, a key representative of NVC type H2 *Calluna vulgaris* – *Ulex minor*. The dry heathland components include transitions to wet heath, valley mire, scrub, woodland and acid grassland and harbour numerous rare invertebrate species. They also harbour European nightjar *Caprimulgus europaeus*, Dartford warbler *Sylvia undata*, sand lizard *Lacerta agilis* and smooth snake *Coronella austriaca*. The closest component part of the SAC lies approx. 6.9km to the south-east of Wokingham borough in the authority of Surrey Heath.

### 3.3.2 Qualifying Features<sup>15</sup>

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

- Northern Atlantic wet heaths with *Erica tetralix*
- European dry heaths
- Depressions on peat substrates of the *Rhynchosporion*

### 3.3.3 Conservation Objectives<sup>16</sup>

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of qualifying natural habitats
- The structure and function (including typical species) of qualifying natural habitats, and
- The supporting processes on which qualifying natural habitats rely.

### 3.3.4 Threats & Pressures to Site Integrity<sup>17</sup>

The following threats and pressures to the site integrity of the Thursley, Ash, Pirbright and Chobham SAC have been identified in Natural England's Site Improvement Plan:

- Public access / disturbance
- Undergrazing
- Forestry and woodland management
- Hydrological changes
- Inappropriate scrub control
- Invasive species
- Wildfire / arson
- Air pollution: Impact of atmospheric nitrogen deposition
- Military

<sup>15</sup> <http://archive.incc.gov.uk/default.aspx?page=2051> [Accessed on the 19/09/2019]

<sup>16</sup> <https://sac.incc.gov.uk/site/UK0012793> [Accessed on the 11/10/2019]

<sup>17</sup> <http://publications.naturalengland.org.uk/publication/6249258780983296> [Accessed on the 11/10/2019]

- Habitat fragmentation

## 3.4 Windsor Forest and Great Park SAC

### 3.4.1 Introduction

The Windsor Forest and Great Park SAC is internationally important for its landscape dominated by dry oaks, which supports internationally rare invertebrates, such as beetles and other species associated with ancient trees or dead wood. The SAC comprises damp, shady woodland, open parkland, grazed wood pasture, ponds / wetland, grassland and scrub. Most importantly, the site has one of the largest concentrations of ancient trees, especially oaks, in Europe. Special micro-habitats in ancient trees include rot cavities, sap runs, dead limbs, detached bark, pools and fungal fruiting bodies.

The SAC lies upon alluvial sediments which in turn rest on poorly-draining sandy and silty underlying soils. These soils can be moderately acidic, meaning that a portion of the vegetation is typical for acid grassland and heathland. While large parts of the site are highly modified in character (e.g. planted avenues of trees, broad vistas), some parts of the SAC have a highly characteristic oak – bracken – bramble vegetation, NVC type W10. Parts that are open to the public are very popular tourist destinations, especially for hikers, cyclists and horse riders. The closest part of the SAC lies approx. 8.5km to the east of Wokingham borough in the authority of Windsor and Maidenhead.

### 3.4.2 Qualifying Features<sup>18</sup>

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

Annex I habitats that are a primary reason for selection of this site

- Old acidophilous oak woods with *Quercus robur* on sandy plains

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

- Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrublayer

Annex II species that are a primary reason for selection of this site

- Violet click beetle *Limoniscus violaceus*

### 3.4.3 Conservation Objective<sup>19</sup>

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of qualifying natural habitats and habitats of qualifying species
- The structure and function (including typical species) of qualifying natural habitats
- The structure and function of the habitats of qualifying species
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- The populations of qualifying species, and,
- The distribution of qualifying species within the site.

<sup>18</sup> <https://sac.jncc.gov.uk/site/UK0012586> [Accessed on the 11/10/2019]

<sup>19</sup> <http://publications.naturalengland.org.uk/publication/5175000009015296> [Accessed on the 11/10/2019]



### 3.4.4 Threats & Pressures to Site Integrity<sup>20</sup>

Natural England's Site Improvement Plan does not highlight any current threats and pressures on the site integrity of the Windsor Forest & Great Park SAC.

- Forestry and woodland management
- Invasive species
- Disease
- Air pollution: Impact of atmospheric nitrogen deposition

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<sup>20</sup> <http://publications.naturalengland.org.uk/publication/6625232836100096> [Accessed on the 19/09/2019]

## 4. Impact Pathways

### 4.1 Impact Pathways Considered

The following impact pathways are considered relevant to the Wokingham Local Plan Update:

- Recreational pressure;
- Atmospheric pollution;
- Loss of functionally linked land; and
- Water quantity, level and flow.

### 4.2 Background to Recreational Pressure

#### 4.2.1 Disturbance to breeding birds

There is concern about the cumulative impacts of recreation on key nature conservation sites in the UK, as most sites must fulfill conservation objectives while also providing recreational opportunity. This applies to any habitat, but the key qualifying features in lowland heathland are particularly vulnerable to human disturbance. An English Nature (the predecessor of Natural England) Research Report summarizes the key urban effects on heathland as habitat fragmentation, human disturbance, disturbance by animals linked to human presence (i.e. dogs and cats), increased risk of fires and trampling damage<sup>21</sup>. Various research reports have provided compelling links between changes in housing and access levels and impacts on European protected sites<sup>22 23</sup>.

Particular concern applies to recreation effects on ground-nesting birds, with many studies concluding that more urban sites support lower densities of key species, such as stone curlew and nightjar<sup>24 25</sup>. This is a direct consequence from the fact that birds are expending energy avoiding the stressor and this is time that is not spent feeding or incubating the eggs<sup>26</sup>. Overall, disturbance is likely to increase energetic output while reducing energetic input, which can adversely affect the 'condition' and ultimately survival of the birds.

Evidence in the literature suggests that the magnitude of disturbance clearly differs between different types of recreational activities. For example, dog walking leads to a significantly higher reduction in bird diversity and abundance than hiking<sup>27</sup>. Scientific evidence also suggests that key disturbance parameters, such as areas of influence and flush distance, are significantly greater for dog walkers than hikers<sup>28</sup>. A UK meta-analysis suggests that important spatial (e.g. the area of a site potentially influenced) and temporal (e.g. how often or long an activity is carried out) parameters differ between recreational activities, suggesting that these are factors that should ideally be considered in ecological assessments<sup>29</sup>. In addition, displacement of birds from one feeding site to others can increase the feeding pressure on available resources, which need to sustain greater numbers of birds<sup>30</sup>. Importantly,

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<sup>21</sup> Underhill-Day, J. 2005. A literature review of urban effects on lowland heaths and their wildlife. English Nature Research Reports 623. 56pp.

<sup>22</sup> Liley D., Clarke R.T., Mallord J.W., Bullock J.M. 2006a. The effect of urban development and human disturbance on the distribution and abundance of nightjars on the Thames Basin and Dorset Heaths. Natural England / Footprint Ecology.

<sup>23</sup> Liley D., Clarke R.T., Underhill-Day J., Tyldesley D.T. 2006b. Evidence to support the appropriate Assessment of development plans and projects in south-east Dorset. Footprint Ecology / Dorset County Council.

<sup>24</sup> Clarke R.T., Liley D., Sharp J.M., Green R.E. 2013. Building development and roads: Implications for the distribution of stone curlews across the Brecks. PLOS ONE. doi:10.1371/journal.pone.0072984.

<sup>25</sup> Liley D., Clarke R.T. 2003. The impact of urban development and human disturbance on the numbers of nightjar *Caprimulgus europaeus* on heathlands in Dorset, England. Biological Conservation 114: 219-230.

<sup>26</sup> Riddington, R. et al. 1996. The impact of disturbance on the behaviour and energy budgets of Brent geese. *Bird Study* 43:269-279

<sup>27</sup> Banks P.B., Bryant J.Y. 2007. Four-legged friend or foe? Dog walking displaces native birds from natural areas. *Biology Letters* 3: 14pp.

<sup>28</sup> Miller S.G., Knight R.L., Miller C.K. 2001. Wildlife responses to pedestrians and dogs. 29: 124-132.

<sup>29</sup> Weitowitz D., Panter C., Hoskin R., Liley D. The spatio-temporal footprint of key recreation activities in European protected sites. Manuscript in preparation.

<sup>30</sup> Gill, J.A., Sutherland, W.J. & Norris, K. 1998. The consequences of human disturbance for estuarine birds. *RSPB Conservation Review* 12: 67-72

recreational disturbance is generally higher in summer than in winter (due to more people engaging in outdoor activities) and this is also when the qualifying bird features are breeding in the SPA.

Disturbance can also arise from a much wider urbanisation effect that presents itself as a much more direct threat to survival, such as in the case of predation by dogs and cats. Dogs are often exercised off-lead and roam out of sight of their owners and have been documented to kill ground-nesting birds. Cats tend to roam freely at night, potentially hunting prey many kilometres away from their home.

#### 4.2.2 Trampling damage, erosion and nutrient enrichment

Most terrestrial sites can be affected by trampling and other mechanical damage, which in turn causes soil compaction and / or erosion. Multiple research studies have experimentally shown the effects of trampling on plant community structure, often comparing several recreational activities:

- Wilson & Seney<sup>31</sup> examined the degree of track erosion caused by hikers, motorcycles, horses and cyclists from 108 plots along tracks in the Gallatin National Forest, Montana. Although the results proved difficult to interpret, it was concluded that horses and hikers disturbed more sediment on wet tracks, and therefore caused more erosion, than motorcycles and bicycles.
- Cole et al<sup>32</sup> conducted experimental off-track trampling in 18 closed forest, dwarf scrub and meadow & grassland communities (each tramped between 0 – 500 times) over five mountain regions in the US. Vegetation cover was assessed two weeks and one year after trampling, and an inverse relationship with trampling intensity was discovered, although this relationship was weaker after one year than two weeks indicating some recovery of the vegetation. Differences in plant morphological characteristics were found to explain more variation in response between different vegetation types than soil and topographic factors. Low-growing, mat-forming grasses regained their cover best after two weeks and were considered most resistant to trampling, while tall forbs (non-woody vascular plants other than grasses, sedges, rushes and ferns) were considered least resistant. The cover of hemicryptophytes and geophytes (plants with buds below the soil surface) was heavily reduced after two weeks but had recovered well after one year and as such these were considered most resilient to trampling. Chamaephytes (plants with buds above the soil surface) were least resilient to trampling. It was concluded that these would be the least tolerant of a regular cycle of disturbance.
- Cole<sup>33</sup> conducted a follow-up study (in 4 vegetation types) in which shoe type (trainers or walking boots) and trampler weight were varied. Although immediate damage was greater with walking boots, there was no significant difference after one year. Heavier trampers caused a greater reduction in vegetation height than lighter trampers, but there was no difference in the effect on cover.
- Cole & Spildie<sup>34</sup> experimentally compared the effects of off-track trampling by hiker and horse (at two intensities – 25 and 150 passes) in two woodland vegetation types (one with an erect forb understorey and one with a low shrub understorey). Horse trampling was found to cause the largest reduction in vegetation cover. The forb-dominated vegetation suffered greatest disturbance but recovered rapidly. Generally, it was shown that higher trampling intensities caused more disturbance.
- In heathland sites, trampling damage can also affect the value of a site to wildlife. For example, heavy use of sandy tracks loosens and continuously disturbs sand particles,

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<sup>31</sup> Wilson, J.P. & J.P. Seney. 1994. Erosional impact of hikers, horses, motorcycles and off road bicycles on mountain trails in Montana. *Mountain Research and Development* 14:77-88

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

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

<sup>33</sup> Cole, D.N. 1995c. Recreational trampling experiments: effects of trampler weight and shoe type. Research Note INT-RN-425. U.S. Forest Service, Intermountain Research Station, Utah.

<sup>34</sup> Cole, D.N., Spildie, D.R. 1998. Hiker, horse and llama trampling effects on native vegetation in Montana, USA. *Journal of Environmental Management* 53: 61-71

reducing the habitat's suitability for invertebrates<sup>35</sup>. Species that burrow into flat surfaces such as the centres of paths, are likely to be particularly vulnerable, as the loose sediment can no longer maintain their burrow. In some instances, nature conservation bodies and local authorities resort to hardening paths to prevent further erosion. However, this is concomitant with the loss of habitat used by wildlife, such as sand lizards and burrowing invertebrates.

Prolonged or repeated excessive trampling and the resulting erosion may, over time, lead to the exposure of tree roots. It has been demonstrated that recreational trails with high usage are subject to significantly more erosion and root exposure<sup>36</sup>. Due to their size such root systems might not immediately appear to be sensitive to trampling damage. Indeed, a research study in 2002 showed that recreational trampling led to significant damage in the vegetation layer, particularly the beech seedlings and their fine mycorrhizal roots, but that the roots of mature trees were resilient to trampling<sup>37</sup>. However, it has also been found that tree root exposure is associated with a higher risk of infection and rot. Furthermore, while trampling may not directly damage the tree roots, it does affect the soil structure around the root zones of mature and ancient trees, which in turn determines root growth, associations with mycorrhizal fungi and overall tree growth. Soil compaction leads to a loss of space for air and water molecules, both of which are integral to tree health<sup>38</sup>. Due to their enhanced ecological value, this can be a particular issue for ancient and veteran tree assemblages, such as those present in Windsor Forest & Great Park SAC. For Chilterns Beechwoods SAC the Site Improvement Plan specifically identifies a target to reduce visitor impact on dead wood, as removal of dead wood by the general public is an issue on some parts of the SAC. However, this is more a matter of individual behaviour, rather than an inevitable corollary of an increasing population.

A major concern for nutrient-poor habitats (e.g. heathlands, bogs and fens) is nutrient enrichment associated with dog fouling, which has been addressed in various reviews (e.g.<sup>39</sup>). It is estimated that dogs will defecate within 10 minutes of starting a walk and therefore most nutrient enrichment arising from dog faeces will occur within 400m of a site entrance. In contrast, dogs will urinate at frequent intervals during a walk, resulting in a more spread out distribution of urine. For example, in Burnham Beeches National Nature Reserve it is estimated that 30,000 litres of urine and 60 tonnes of dog faeces are deposited annually<sup>40</sup>. While there is little information on the chemical constituents of dog faeces, nitrogen is one of the main components<sup>41</sup>. Nutrient levels are the major determinant of plant community composition and the effect of dog defecation in sensitive habitats (e.g. heathland) is comparable to a high-level application of fertiliser, potentially resulting in the shift to plant communities that are more typical for improved grasslands.

The available baseline information suggests that the Thames Basin Heaths SPA and the Thursley, Ash, Pirbright & Chobham SAC (which largely overlaps with the SPA) are the most vulnerable of the sites to recreational pressure. In the SPA the main risk of recreational pressure is a reduced breeding success of nightjar, Dartford warbler and woodlark, all of which nest on or close to the ground. In the SAC recreational disturbance might lead to trampling damage of heathland plants, track erosion and nutrient enrichment. Wokingham borough is only approx. 158m from the SPA and 6.9km from the SAC, and the spatial distribution of residential dwellings is likely to affect the contribution of growth in the borough to this impact pathway, with allocations in the northern part of Wokingham borough likely having a much lower recreational footprint in these European sites than allocations in the south.

The Thames Basin Heaths SPA is a 8,274ha site in south-eastern England, an area of the country which is highly populated and where housing growth will lead to a further increase in the population of

<sup>35</sup> Taylor K., Anderson P., Liley D. & Underhill-Day J.C. 2006. Promoting positive access management to sites of nature conservation value: A guide to good practice. English Nature / Countryside Agency, Peterborough and Cheltenham.

<sup>36</sup> Leung Y.-F. & Marion J. F. (2000). Recreation impacts and management in wilderness: A state-of-knowledge review. USDA Forest Service Proceedings 5: 23-48.

<sup>37</sup> Waltert B., Wiemken V., Rusterholz H.-P., Boller T. & Baur B. (2002). Disturbance of forest by trampling: Effects on mycorrhizal roots of seedlings and mature trees of *Fagus sylvatica*. Plant and Soil 243: 143-154.

<sup>38</sup> Natural England Site Conservation Objectives Supplementary Advice Note for the Windsor Forest & Great Park SAC. Available at: <http://publications.naturalengland.org.uk/publication/517500009015296> [Accessed on the 14/10/2019].

<sup>39</sup> Taylor K., Anderson P., Taylor R.P., Longden K. & Fisher P. 2005. Dogs, access and nature conservation. English Nature Research Report, Peterborough.

<sup>40</sup> Barnard A. 2003. Getting the facts – Dog walking and visitor number surveys at Burnham Beeches and their implications for the management process. Countryside Recreation 11:16-19.

<sup>41</sup> Taylor K., Anderson P., Liley D. & Underhill-Day J.C. 2006. Promoting positive access management to sites of nature conservation value: A guide to good practice. English Nature / Countryside Agency, Peterborough and Cheltenham.

Boroughs and Districts surrounding the SPA. Recognising this as a key issue, English Nature (the predecessor of Natural England) commissioned a visitor survey in 2005 to establish a baseline level of recreational use in the SPA<sup>42</sup>. This initial survey provided an estimate of approx. 5 million annual visits to the SPA, highlighting it as a recreational honeypot resource in the region. Due to the ongoing issue of housing growth in the region, and to monitor potential changes in recreational pressure within the SPA, Natural England commissioned a repeat visitor survey in 2012 / 2013, aiming as much as possible to repeat the methodology used in the 2005 survey<sup>43</sup>. Data from these studies will be used to assess the potential recreational impact of the Wokingham Local Plan Update on the Thames Basin Heaths SPA, but also the Thursley, Ash, Pirbright & Chobham SAC (which partly overlaps with the SPA).

Overall, the following European sites within 10km of Wokingham Borough are sensitive to recreational pressure:

- Thames Basin Heaths SPA (the closest parcel of the SPA lies only approx. 58m to the south of Wokingham Borough in the Hart District)
- Thursley, Ash, Pirbright & Chobham SAC (the closest parcel is located approx. 6.9km to the south-west of Wokingham Borough in the authority of Surrey Heath)
- Chilterns Beechwoods SAC (the closest parcel is located approx. 2.8km to the north-east of the authority's boundary)
- Windsor Forest and Great Park SAC (the closest parcel is located approx. 8.5km to the east of Wokingham Borough's boundary)

## 4.3 Background to Atmospheric Pollution

The following table (Table 1) sets out the main sources and effects of air pollutants on habitats and species.

**Table 1: Main sources and effects of air pollutants on habitats and species<sup>44</sup>**

Pollutant	Source	Effects on habitats and species
Sulphur Dioxide (SO <sub>2</sub> )	<p>The main sources of SO<sub>2</sub> are electricity generation, and industrial and domestic fuel combustion. However, total SO<sub>2</sub> emissions in the UK have decreased substantially since the 1980's.</p> <p>Another origin of sulphur dioxide is the shipping industry and high atmospheric concentrations of SO<sub>2</sub> have been documented in busy ports. In future years shipping is likely to become one of the most important contributors to SO<sub>2</sub> emissions in the UK.</p>	<p>Wet and dry deposition of SO<sub>2</sub> acidifies soils and freshwater and may alter the composition of plant and animal communities.</p> <p>The magnitude of effects depends on levels of deposition, the buffering capacity of soils and the sensitivity of impacted species.</p> <p>However, SO<sub>2</sub> background levels have fallen considerably since the 1970's and are now not regarded a threat to plant communities. For example, decreases in Sulphur dioxide concentrations have been linked to returning lichen species and improved tree health in London.</p>
Acid deposition	<p>Leads to acidification of soils and freshwater via atmospheric deposition of SO<sub>2</sub>, NO<sub>x</sub>, ammonia and hydrochloric acid. Acid deposition from rain has declined by 85% in the last 20 years, which most of this contributed by lower sulphate levels.</p>	<p>Gaseous precursors (e.g. SO<sub>2</sub>) can cause direct damage to sensitive vegetation, such as lichen, upon deposition.</p> <p>Can affect habitats and species through both wet (acid rain) and dry deposition. The effects of acidification include lowering of soil pH, leaf</p>

<sup>42</sup> Liley D., Jackson D.B. & Underhill-Day J.C. (2006). Visitor Access Patterns on the Thames Basin Heaths. English Nature Research Reports, N682, Peterborough.

<sup>43</sup> Fearnley H. & Liley D. (2013). Results of the 2012/13 visitor survey on the Thames Basin Heaths Special Protection Area (SPA). Natural England Commissioned Reports, No. 136. 107pp.

<sup>44</sup> Information summarised from the Air Pollution Information System (<http://www.apis.ac.uk/>)

Pollutant	Source	Effects on habitats and species
	<p>Although future trends in S emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, increased N emissions may cancel out any gains produced by reduced S levels.</p>	<p>chlorosis, reduced decomposition rates, and compromised reproduction in birds / plants.</p> <p>Not all sites are equally susceptible to acidification. This varies depending on soil type, bed rock geology, weathering rate and buffering capacity. For example, sites with an underlying geology of granite, gneiss and quartz rich rocks tend to be more susceptible.</p>
Ammonia (NH <sub>3</sub> )	<p>Ammonia is a reactive, soluble alkaline gas that is released following decomposition and volatilisation of animal wastes. It is a naturally occurring trace gas, but ammonia concentrations are directly related to the distribution of livestock.</p> <p>Ammonia reacts with acid pollutants such as the products of SO<sub>2</sub> and NO<sub>x</sub> emissions to produce fine ammonium (NH<sub>4</sub><sup>+</sup>) - containing aerosol. Due to its significantly longer lifetime, NH<sub>4</sub><sup>+</sup> may be transferred much longer distances (and can therefore be a significant trans-boundary issue).</p> <p>While ammonia deposition may be estimated from its atmospheric concentration, the deposition rates are strongly influenced by meteorology and ecosystem type.</p>	<p>The negative effect of NH<sub>4</sub><sup>+</sup> may occur via direct toxicity, when uptake exceeds detoxification capacity and via N accumulation.</p> <p>Its main adverse effect is eutrophication, leading to species assemblages that are dominated by fast-growing and tall species. For example, a shift in dominance from heath species (lichens, mosses) to grasses is often seen.</p> <p>As emissions mostly occur at ground level in the rural environment and NH<sub>3</sub> is rapidly deposited, some of the most acute problems of NH<sub>3</sub> deposition are for small relict nature reserves located in intensive agricultural landscapes.</p>
Nitrogen oxides (NO <sub>x</sub> )	<p>Nitrogen oxides are mostly produced in combustion processes. Half of NO<sub>x</sub> emissions in the UK derive from motor vehicles, one quarter from power stations and the rest from other industrial and domestic combustion processes.</p> <p>In contrast to the steep decline in Sulphur dioxide emissions, nitrogen oxides are falling slowly due to control strategies being offset by increasing numbers of vehicles.</p>	<p>Direct toxicity effects of gaseous nitrates are likely to be important in areas close to the source (e.g. roadside verges). A critical level of NO<sub>x</sub> for all vegetation types has been set to 30 ug/m<sup>3</sup>.</p> <p>Deposition of nitrogen compounds (nitrates (NO<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>) and nitric acid (HNO<sub>3</sub>)) contributes to the total nitrogen deposition and may lead to both soil and freshwater acidification.</p> <p>In addition, NO<sub>x</sub> contributes to the eutrophication of soils and water, altering the species composition of plant communities at the expense of sensitive species.</p>
Nitrogen deposition	<p>The pollutants that contribute to the total nitrogen deposition derive mainly from oxidized (e.g. NO<sub>x</sub>) or reduced (e.g. NH<sub>3</sub>) nitrogen emissions (described separately above). While oxidized nitrogen mainly originates from major conurbations or highways, reduced nitrogen mostly derives from farming practices.</p> <p>The N pollutants together are a large contributor to acidification (see above).</p>	<p>All plants require nitrogen compounds to grow, but too much overall N is regarded as the major driver of biodiversity change globally.</p> <p>Species-rich plant communities with high proportions of slow-growing perennial species and bryophytes are most at risk from N eutrophication. This is because many semi-natural plants cannot assimilate the surplus N as well as many graminoid (grass) species.</p> <p>N deposition can also increase the risk of damage from abiotic factors, e.g. drought and frost.</p>



Pollutant	Source	Effects on habitats and species
Ozone (O <sub>3</sub> )	<p>A secondary pollutant generated by photochemical reactions involving NO<sub>x</sub>, volatile organic compounds (VOCs) and sunlight. These precursors are mainly released by the combustion of fossil fuels (as discussed above).</p> <p>Increasing anthropogenic emissions of ozone precursors in the UK have led to an increased number of days when ozone levels rise above 40ppb ('episodes' or 'smog'). Reducing ozone pollution is believed to require action at international level to reduce levels of the precursors that form ozone.</p>	<p>Concentrations of O<sub>3</sub> above 40 ppb can be toxic to both humans and wildlife, and can affect buildings.</p> <p>High O<sub>3</sub> concentrations are widely documented to cause damage to vegetation, including visible leaf damage, reduction in floral biomass, reduction in crop yield (e.g. cereal grains, tomato, potato), reduction in the number of flowers, decrease in forest production and altered species composition in semi-natural plant communities.</p>

As highlighted in Table 1, the main pollutants of concern for European sites are oxides of nitrogen (NO<sub>x</sub>), ammonia (NH<sub>3</sub>) and sulphur dioxide (SO<sub>2</sub>). Ammonia can have a directly toxic effect upon vegetation even at low concentrations, particularly at close distances to the source such as near road verges<sup>45</sup>. NO<sub>x</sub> can also be toxic at high concentrations. Increased NO<sub>x</sub> and NH<sub>3</sub> is likely to increase the total N deposition to soils, potentially leading to deleterious knock-on effects in resident ecosystems. Increases in nitrogen deposition from the atmosphere can, if sufficiently great, enhance soil fertility and lead to eutrophication. This often has adverse effects on the community composition and quality of semi-natural, nitrogen-limited terrestrial and aquatic habitats<sup>46 47</sup>. In woodlands exceedance of the critical nitrogen load may lead to a nutrient imbalance, decrease in mycorrhiza, loss of epiphytic lichens and bryophytes, changes in ground vegetation and a change in soil fauna. In mires and fens increased nitrogen deposition may lead to increase in the abundance and percentage cover of sedges and vascular plants, and the reduction of bryophytes. In heathlands, the primary concern associated with eutrophication is a shift towards the dominance of more competitive graminoids, a decline in lichens, changes in the plant biochemistry and an increased sensitivity to abiotic stress.

Sulphur dioxide emissions overwhelmingly derive from power stations and industrial processes that require the combustion of coal and oil, as well as (particularly on a local scale) shipping<sup>48</sup>. Ammonia emissions originate particularly from agricultural practices<sup>49</sup>, but some chemical processes and certain vehicles also make notable contributions. NO<sub>x</sub> emissions are dominated by the output of vehicle exhausts (more than half of all emissions). A 'typical' housing development will contribute by far the largest portion to its overall NO<sub>x</sub> footprint (92%) through the associated road traffic. Other sources, although relevant, are of minor importance in comparison<sup>50</sup>. The total nitrogen deposition is a metric that represents the cumulative nitrogen addition from several sources and is perhaps most useful from an HRA perspective, because it allows a habitat-specific assessment of air quality impacts<sup>51</sup>. Given the origin of nitrogen-derived atmospheric pollutants, it is considered that the Wokingham Local Plan Update might be associated with an increase in such atmospheric pollutants.

Critical thresholds are now available for most atmospheric pollutants. For example, according to the World Health Organisation, the critical NO<sub>x</sub> concentration (critical threshold) for the protection of vegetation is 30 µg m<sup>-3</sup>; while the threshold for sulphur dioxide is 20 µg m<sup>-3</sup>. In addition, ecological studies have determined 'critical loads'<sup>52</sup> of atmospheric nitrogen deposition (that is, NO<sub>x</sub> combined with ammonia NH<sub>3</sub>).

<sup>45</sup> [http://www.apis.ac.uk/overview/pollutants/overview\\_NOx.htm](http://www.apis.ac.uk/overview/pollutants/overview_NOx.htm).

<sup>46</sup> Wolseley, P. A.; James, P. W.; Theobald, M. R.; Sutton, M. A. **2006**. Detecting changes in epiphytic lichen communities at sites affected by atmospheric ammonia from agricultural sources. *Lichenologist* 38: 161-176

<sup>47</sup> Dijk, N. **2011**. Dry deposition of ammonia gas drives species change faster than wet deposition of ammonium ions: evidence from a long-term field manipulation *Global Change Biology* 17: 3589-3607

<sup>48</sup> [http://www.apis.ac.uk/overview/pollutants/overview\\_SO2.htm](http://www.apis.ac.uk/overview/pollutants/overview_SO2.htm).

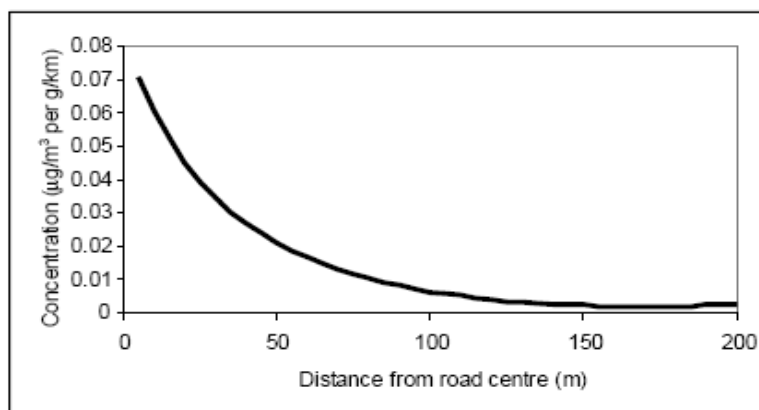
<sup>49</sup> Pain, B.F.; Weerden, T.J.; Chambers, B.J.; Phillips, V.R.; Jarvis, S.C. 1998. A new inventory for ammonia emissions from U.K. agriculture. *Atmospheric Environment* 32: 309-313

<sup>50</sup> Proportions calculated based upon data presented in Dore CJ et al. 2005. UK Emissions of Air Pollutants 1970 – 2003. UK National Atmospheric Emissions Inventory. <http://www.airquality.co.uk/archive/index.php>

<sup>51</sup> As opposed to the generic NO<sub>x</sub> limit set for all vegetation.

<sup>52</sup> The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur

The Department of Transport's Transport Analysis Guidance highlights that, beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is not significant<sup>53</sup> (Figure 3). The same 200m distance is utilised by Highways England in their road assessments<sup>54</sup> and is cited in recently published guidance from the Institute of Air Quality Management<sup>55</sup>. 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 outlined in a Plan document.



**Figure 3: Traffic contribution to concentrations of pollutants at different distances from a road (Source: DfT<sup>56</sup>)**

Exhaust emissions from vehicles are capable of adversely affecting both woodland and heathland habitats. Considering this, an increase in the net population and employment growth within the Wokingham Borough is likely to result in increased traffic flows past European sites that are sensitive to atmospheric pollution, which is particularly important where major roads lie within 200m of the protected site boundary. Atmospheric pollution is a particularly pertinent issue for Wokingham Borough, because it lies close to European sites that are designated for heathland and ancient trees. For example, heathland is particularly sensitive to nitrogen deposition, because its component plant species are adapted to very low nutrient conditions and are therefore at a competitive disadvantage to grasses and other plants, which grow much faster under increased nutrient concentrations.

The following European sites within 10km of Wokingham Borough are sensitive to atmospheric pollution resulting from an increase in the number of car-based commuter journeys and these may be affected by changes in vehicle numbers and commuter journeys in Wokingham Borough depending on the key journey to work routes out of the borough and the proximity of sensitive habitats to those routes:

- Chilterns Beechwoods SAC (located approx. 2.3km to the north-east of Wokingham Borough)
- Thames Basin Heaths SPA (located approx. 58m to the south of Wokingham Borough)
- Thursley, Ash, Pirbright and Chobham SAC (located approx. 6.9km to the south-east of Wokingham Borough)
- Windsor Forest & Great Park (located approx. 8.6km to the east of Wokingham Borough)

The Air Pollution Information System (APIS)<sup>57</sup> indicates that some of the qualifying features of the Chilterns Beechwoods SAC are sensitive to atmospheric pollutants. For example, the *Asperulo-Fagetum* beech forests have a critical nitrogen limit of 10-20 kg N/ha/yr. Equally, the semi-natural dry grasslands and scrubland facies on calcareous substrates (important orchid sites) are sensitive to atmospheric pollution, with an empirical critical nitrogen load of 15-25 kg N/ha/yr. In contrast, the stag beetles themselves would not be affected by nitrogen deposition according to APIS.

The Thames Basin Heaths SPA is designated for its breeding populations of specialist heathlands birds, including European nightjar, woodlark and Dartford warbler. APIS classifies the SPA as susceptible to

<sup>53</sup> <http://www.dft.gov.uk/webtag/documents/expert/unit3.3.3.php#013>; accessed 12/05/2016

<sup>54</sup> [http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/section3/LA 105 Air quality-web.pdf](http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/section3/LA%20105%20Air%20quality-web.pdf)

<sup>55</sup> <http://iaqm.co.uk/text/guidance/air-quality-impacts-on-nature-sites-2019.pdf>, paragraph 5.3.6

<sup>56</sup> <http://www.dft.gov.uk/ha/standards/dmr/vol11/section3/ha20707.pdf>

<sup>57</sup> <http://www.apis.ac.uk/src/select-a-feature?site=UK0012724&SiteType=SAC&submit=Next> [Accessed on the 14/10/2019]



atmospheric pollution, due to negative impacts on the habitats (particularly heathland and acid grassland) in which the qualifying birds' nest. Dwarf shrub heath has a critical load of 10-20 kg N/ha/yr. Nightjar and woodlark also nest within rotationally-managed conifer plantation<sup>58</sup> but it is likely that plantation management (the sequential process of ground preparation, tree planting, weed suppression, tree thinning and clear-felling) is the primary influence on the suitability of a plantation for nesting by either species.

Thursley, Ash, Pirbright and Chobham SAC is designated for its depressions on peat substrates of the *Rhynchosporion* and its European dry heaths, which are both sensitive to atmospheric pollution. APIS highlights that the peat substrate depressions have a critical nitrogen load of 10-15 kg N/ha/yr, whereas European dry heaths have a slightly broader range of 10-20 kg N/ha/yr<sup>59</sup>.

The large assemblage of veteran and / or ancient trees in the Windsor Forest & Great Park SAC is of particular concern regarding atmospheric pollution, due to its disproportionate ecological value. The old acidophilous oak woods within the site boundary have a relatively low critical nitrogen load of 10-15 kg N/ha/yr. The Atlantic acidophilous beech forests dominated by *Ilex* and *Taxus* have a slightly broader range of 10-20 kg N/ha/yr. Violet click beetle would not be affected by nitrogen deposition, according to APIS.

## 4.4 Background to Water Quantity, Level and Flow

In addition to water quality, both the water level and flow (and its natural diurnal and annual variation) are important determinants of the ecological status of European sites. Hydrological processes are critical in influencing habitat characteristics, including current velocity, water depth, dissolved oxygen levels and water temperature in rivers and / or lakes. In turn these habitat features determine the short- and long-term viability of plant and animal species, as well as overall ecosystem composition.

A widely cited review paper summarised the ecological effects of reduced flow in rivers<sup>60</sup>. Droughts (ranging in their magnitude from flow reduction to a complete loss of surface water) have both direct and indirect effects on stream communities. For example, a marked direct effect is the loss of water and habitat for aquatic organisms. Indirect effects include a deterioration in water quality, changes to the food resources and alterations in interspecific interactions. An increased stability of baseflow and a reduction in the natural flow variability of rivers has been linked to the excessive growth of macrophytes and a reduction in fish populations<sup>61</sup>.

Furthermore, the flow and water level in surface waterbodies, and the groundwater level affect the water supply to European sites within their respective hydrological catchments. Abstraction of freshwater for the potable water supply to new dwellings and employment space might result in an overall drop of groundwater and / or surface water levels. This in turn is likely to decrease the wetted area within European sites that depend on a natural hydrological regime. According to Natural England's Site Improvement Plans several European sites within 10km of Wokingham Borough depend on hydrological conditions (discussed further in the LSEs section). These SACs lie within resource zones supplied by Thames Water and South East Water. It is therefore important to consider the Water Resource Management Plans (WRMPs, and their HRAs) to determine whether the company's proposed abstraction regimes might result in changes to the flow regimes of waterbodies supplying these SACs.

The following European sites within 10km of Wokingham Borough are sensitive to changes in the water quantity, level, flow or overall hydrological regime:

- Thursley, Ash, Pirbright & Chobham SAC
- Windsor Forest & Great Park SAC
- Chilterns Beechwoods SAC

<sup>58</sup> Rotationally-managed conifer plantation is generally suitable for nesting woodlark during the first 5-6 years, and for nesting nightjar during the first c. 20 years, of a typical growth cycle. After that time the woody growth is too mature and dense to be suitable and the birds nest elsewhere until the trees are felled and the plantation cycle starts again.

<sup>59</sup> <http://www.apis.ac.uk/src/select-a-feature?site=UK0012793&SiteType=SAC&submit=Next> [Accessed on the 14/10/2019].

<sup>60</sup> Lake P.S. 2003. Ecological effects of perturbation by drought in flowing waters. *Freshwater Biology* 48: 1161-1172.

<sup>61</sup> Bunn S.E. & Arthington A.H. 2002. Basic principles and ecological consequences of altered flow regimes for aquatic biodiversity. *Environmental Management* 30: 492-507.

## 4.5 Background to Loss of Functionally Linked Land

While most European sites have been geographically defined to encompass the key features that are necessary for coherence of their structure and function, and the support of their qualifying features, this is not always the case. A diverse array of qualifying species including birds, bats and amphibians are not confined to the boundary of designated sites.

For example, the highly mobile nature of both wildfowl and heathland birds implies that areas of habitat of crucial importance to the maintenance of their populations are outside the physical limits of European sites. Despite not being designated, this area is still integral to the maintenance of the structure and function of the interest feature on the designated site and, therefore, land use plans that may affect such areas should be subject to further assessment.

The Thames Basin Heaths SPA is the only European site within 10km of Wokingham Borough's boundary that supports mobile species, namely nightjar, Dartford warbler and woodlark. Their main habitat requirements are the following:

- Nightjar show a preference for bare patches or areas of very short or sparse vegetation with widely scattered trees where they are able to see predators approaching. These patches may be on open heath, in patchy scrub and in the interface between heath and woodland, as well as in clearings in woodland or plantations. Nightjars are known to forage up to 6 kilometres away from their nesting territory.
- Woodlark are strongly associated with bare ground, especially where this is adjacent to structurally diverse vegetation and short heather. They utilise scattered trees and large bushes as song-posts. Woodlark use a variety of habitats adjacent to heathland for foraging, including short grassland, stubble fields or margins of arable fields, golf courses and bare areas in quarry sites.
- Dartford warbler favour large areas of open terrain, largely free of obstructions, in and around nesting, roosting and feeding areas in lowland heathland with gorse and heather. They benefit from availability of an unobstructed line of sight within nesting, feeding or roosting to enable birds to detect approaching predators, or to ensure visibility of displaying behaviour. However, they will utilise enclosed features such as clearings in conifer plantations.<sup>62</sup>

Most of these qualifying species forage in a range of different habitats, including common and widespread ones, and the focus of assessment is therefore on nesting habitat for which they have much more specific requirements.

Generally, the long-term substantial loss, degradation and fragmentation of lowland heathland habitats has been the major factor associated with the decline of nightjar and woodlark<sup>63</sup>. Whilst a large portion of woodland and heathland in the area is located within the Thames Basin Heaths SPA, there are various parcels of such habitats outside the designated site boundary, all of which could provide functionally linked supporting habitat to SPA species.

The most suitable habitats for nesting nightjar and woodlark are heathland, acid grassland and rotationally-managed plantation woodland (meaning any woodland that is cropped and replanted on a regular cycle, creating clearings in which the birds can nest). Woodland that is maintained as continuous-cover forestry is generally unsuitable for nesting nightjar and woodlark, unless they incorporate a sufficient number of large, sparsely vegetated, clearings. Development that would affect areas of rotationally-managed plantation woodland, heathland or acid grassland (irrespective of whether they are part of the European sites) could potentially affect nightjar and woodlark.

Research undertaken in Breckland Forest<sup>64</sup> has shown that nightjar are most likely to use conventionally managed plantation during the first 20 years of 60 year forestry cycles, including the initial 2 year 'felled unplanted' period. Population densities are highest during the restock phase (plantation age of 0-5

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<sup>63</sup> Research examples that support/explore this include: Rose, et al. 2000. Changes in heathland in Dorset, England between 1987 and 1996. *Biological Conservation*. 121: 93-105. & Langston et al. 2007. Nightjar *Carpodacus europaeus* and Woodlark *Lullula arborea* – recovering species in Britain? *Ibis*. 149: 250-260.

<sup>64</sup> Dolman PM & Morrison C, 2012. Temporal change in territory density and habitat quality for Breckland Forest SSSI woodlark and nightjar populations, Unpublished report for Forestry Commission and Natural England.

years), although significant densities can also be supported during the pre-thicket (6-10 years) and thicket (11 – 20 years) stages. Woodlark most likely use conventionally managed plantation during the first seven years (including the initial 2 year felled unplanted period), particularly the restock phase (plantation age of 0-5 years). It is very unlikely that sites with heathland or managed plantations will be allocated as part of the Wokingham Local Plan Update. However, if any such sites were considered, the loss of potential nesting habitat for SPA qualifying species would have to be assessed. Habitat mapping on MAGIC shows that there are small off-site fragments of heathland within Wokingham Borough, which might be used by nesting nightjar, Dartford warbler or woodlark.

The stag beetle population for which Chilterns Beechwoods SAC is designated may conceivably be found using habitat outside the SAC boundary. The adult stag beetle lives for just a few weeks and barely feeds at all, drinking from sap runs and fallen soft fruit. The species spends most of its life (up to seven years) in its larval stage, which is dependent on a plentiful supply of partially-buried decaying wood (its sole food source). Therefore, the key dependency to sustaining the stag beetle population of the SAC (whether within or beyond the SAC boundary) is to ensure a plentiful supply of large pieces of partially buried dead wood (such as fallen or standing rotting trunks) in a forest or parkland context.

The following European sites within 10km of Wokingham Borough are sensitive to the loss of functionally linked land due to the emerging Local Plan Update, because they are designated for mobile species:

- Thames Basin Heaths SPA (the closest parcel of the SPA lies only approx. 58m to the south of Wokingham Borough in the Hart District); and
- Chilterns Beechwoods SAC.

## 4.6 Summary

In summary, therefore, this HRA will focus upon recreational pressure on the Thames Basin Heaths SPA and atmospheric pollution impacts on the Thames Basin Heaths SPA, the Chilterns Beechwoods SAC, Thursley, Ash Pirbright & Chobham SAC and the Windsor Forest and Great Park SAC. The impact pathways water quantity, level and flow, and loss of functionally linked land are also considered.

## 5. Test of Likely Significant Effects (LSEs)

### 5.1 Overview of strategic policies providing for residential and employment growth

The following section provides an overview of the strategic policies that provide for residential and employment growth and detail the outcome of the Likely Significant Effects assessment. This identifies policies and site allocations that (prior to considering the role of mitigation) have a potential to result in LSEs upon European sites.

The full Likely Significant Effects assessment of strategic policies within the Wokingham Local Plan Update can be found in Appendix 3.

#### 5.1.1 Strategic policies

The following policies have been identified as providing for residential and employment growth within Wokingham Borough (see Appendix 3 for screening of strategic policies). These policies therefore present potential impact pathways through which Likely Significant Effects (LSEs) on European sites might arise, prior to the consideration of mitigation measures:

- Policy SS1 – Spatial Strategy: Provides for **13,901 net additional dwellings** and the **potential expansion of Core Employment Areas** between 2018 and 2036 in the forthcoming Grazeley garden town and the continued delivery of Strategic Development Locations at Arborfield Garrison, South of the M4, North Wokingham and South Wokingham
- Policy SS2 – Settlement Hierarchy: Identifies the **location of major developments** in Wokingham Borough
- Policy SS3 – Grazeley garden town: Provides for **3,750 net new dwellings within the Plan period** (and over 10,000 total dwellings in Wokingham Borough)
- Policy SS5 – South of the M4 Strategic Development Location: Provides for **5 net new dwellings** in addition to the 2,310 dwellings allocated in the Core Strategy (and assessed in its corresponding HRA); the policy also provides for **18,500m<sup>2</sup> of new employment space**
- Policy SS6 – North Wokingham Strategic Development Location: Provides for **250 net new dwellings** in addition to the 1,500 dwellings allocated in the Core Strategy (and assessed in its corresponding HRA)
- Policy SS7 – South Wokingham Strategic Development Location: Provides for **17 net new dwellings** in addition to the 2,500 dwellings allocated in the Core Strategy (and assessed in its corresponding HRA)
- Policy ER1 – Meeting Employment Needs – Provides for an **unspecified quantity of employment land** at Grazeley garden town
- Policy ER2 – Core Employment Areas – Provides for the possible **expansion of existing Core Employment Areas**
- Policy ER10 – Whiteknights Campus: Provides for an **unspecified quantity of additional student accommodation**
- Policy H1 – Housing Provision: Provides for a minimum of **13,901 net new dwellings** in the Plan period between 2018 and 2036
- Policy H2 – Sites allocated for residential / mixed use: Lists **20 allocated residential sites throughout Wokingham Borough, totalling 940 net new residential dwellings**
- Policy H11 – Gypsies and Travellers and Travelling Showpeople provision: Allocates a total of **24 net new gypsy and traveller pitches** in Wokingham Borough

## 5.1.2 Local plans to be considered 'in-combination'

It is obligatory to not only assess LSEs of a proposed plan alone, but also to investigate whether there might be 'in-combination' effects with plans proposing development in other authorities surrounding a European protected site. In practice, such an '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 HRA, several authorities adjacent to Wokingham Borough have been identified that have developed their own Local Plans, outlining residential and / or employment growth within their boundary. These include Bracknell Forest, Windsor and Maidenhead, Surrey Heath, Hart, Basingstoke and Deane, West Berkshire, Reading and Wycombe. Table 2 summarises the proposed residential and employment growth allocated within the respective Local Plans for these authorities.

For the purposes of traffic and air quality modelling undertaken with regard to the atmospheric pollution sensitive SPA and SACs, the prediction of changes in traffic flows on relevant links adjacent to European site boundaries will draw upon data for each surrounding local authority district. As such, growth in other authorities not listed below, is also included in the 'in combination' assessment of atmospheric pollution.

**Table 2: Overview of the extent of residential and employment development to be delivered in authorities adjacent to Wokingham Borough, according to adopted and emerging Core Strategies and Local Plans.**

Local Authority	Number of Dwellings	Total Employment Space (ha)
Wycombe (2013-2033) <sup>65</sup>	10,925	21
Windsor and Maidenhead (2013-2033) <sup>66</sup>	14,260	26.1
Bracknell Forest (2006-2026) <sup>67</sup>	11,139	48
Hart (2016-2032) <sup>68</sup>	6,208	Not specified
Basingstoke and Deane (2011-2029) <sup>69</sup>	15,300	At least 15.3ha
West Berkshire (2006-2026) <sup>70</sup>	10,500	At least 8ha
Reading (2013-2036) <sup>71</sup>	15,134	26.7
South Oxfordshire (2006-2026) <sup>72</sup>	8,791	Not specified
Wokingham (2018-2036) <sup>73</sup>	13,901	Not specified
<b>Total</b>	<b>106,158</b>	<b>At least 145.1</b>

<sup>65</sup> Wycombe District Local Plan. Adopted August 2019. Available at: <https://www.wycombe.gov.uk/uploads/public/documents/Planning/Adopted-Wycombe-local-plan/Wycombe-District-Local-Plan-Adopted-August-2019.pdf> [Accessed on the 14/10/2019].

<sup>66</sup> Windsor & Maidenhead Borough Local Plan. Submission version 2017. Available at: <https://www3.rbwm.gov.uk/info/201026/borough-local-plan/1348/regulation-19-publication-stage/1> [Accessed on the 11/10/2019].

<sup>67</sup> Adopted Bracknell Forest Local Plan. However, the authority is preparing an emerging Local Plan due for Reg.19 submission in the next few months. The authority also has an adopted Site Allocations Local Plan. Information on the emerging Local Plan is available at: <https://www.bracknell-forest.gov.uk/planning-and-building-control/planning/planning-policy/development-plan/draft-bracknell-forest-local-plan/draft-bracknell-forest-local-plan> [Accessed on the 27/01/2020]

<sup>68</sup> Proposed Submission Version of the Hart Local Plan. Available at [https://www.hart.gov.uk/sites/default/files/4\\_The\\_Council/Policies\\_and\\_published\\_documents/Planning\\_policy/Local\\_Plan/Habitats%20Regulations%20Assessment%202018.pdf](https://www.hart.gov.uk/sites/default/files/4_The_Council/Policies_and_published_documents/Planning_policy/Local_Plan/Habitats%20Regulations%20Assessment%202018.pdf) [Accessed on the 11/10/2019]

<sup>69</sup> Basingstoke and Deane Local Plan. Adopted May 2016. Available at: <https://www.basingstoke.gov.uk/content/doclib/1592.pdf> [Accessed on the 11/10/2019].

<sup>70</sup> West Berkshire Core Strategy Development Plan Document. Adopted July 2012. Available at: <https://info.westberks.gov.uk/CHttpHandler.ashx?id=36374&p=0> [Accessed on the 11/10/2019].

<sup>71</sup> Reading Borough draft Local Plan. May 2017. Available at: [http://www.reading.gov.uk/media/7154/DraftReadingBoroughLocalPlan0517/pdf/Draft\\_Reading\\_Borough\\_Local\\_Plan\\_0517.pdf](http://www.reading.gov.uk/media/7154/DraftReadingBoroughLocalPlan0517/pdf/Draft_Reading_Borough_Local_Plan_0517.pdf) [Accessed on the 11/10/2019]

<sup>72</sup> South Oxfordshire Local Plan. Adopted January 2006. Available at: <http://www.southoxon.gov.uk/sites/default/files/Local%20Plan%202011%20-%20Strikethrough%20version%20after%20adoption%20of%20Core%20Strategy%202012.pdf> [Accessed on the 05/12/2019]. It is to be noted that South Oxfordshire is currently developing a new Local Plan, which has been submitted to the Secretary of State.

<sup>73</sup> Wokingham Local Plan Update. Information is available at: <https://www.wokingham.gov.uk/planning-policy/planning-policy-information/local-plan-update/>.

## 5.2 Recreational Pressure

### 5.2.1 Thames Basin Heaths SPA

The allocation of 13,901 net new dwellings in the Wokingham Local Plan Update will be accompanied by an increase in the local population as well as the demand for recreational resources. Being a local and attractive destination, the Thames Basin Heaths SPA (a composite European site) is likely to receive some of this additional recreational pressure. The SPA harbours breeding bird populations of nightjar, woodlark and Dartford warbler. All these bird species are ground-nesting (or build their nests close to the ground in gorse) and are therefore highly susceptible to recreational disturbance, particularly from dog walkers. Natural England's Site Improvement Plan highlights that the SPA is already subject to high levels of recreational use, which is likely to affect the distribution and breeding success of its Annex I bird species.

The closest component parts of the SPA lie just outside of Wokingham Borough, but are within the travel distance that residents are expected to travel. Given that proximity to home determines the likelihood of people visiting European sites, it is likely that the component parcels of the SPA closer to Wokingham Borough are more likely to be visited by residents from the authority. As such, Bramshill Plantation, Yateley and Hawley Common, and Owlsmoor Bogs and Heaths (all to the south-east of Wokingham) are most likely to receive recreational pressure resulting from the LP. Due to this Likely Significant Effects cannot be excluded, and the site is screened in for Appropriate Assessment.

The following strategic policies and site allocations providing for residential growth in Wokingham Borough have been screened in for Appropriate Assessment, because they increase the local population and are likely to intensify recreational pressure in the Thames Basin Heaths SPA:

- Policy SS1 – Spatial Strategy: Provides for 13,901 net additional dwellings in Grazeley garden town and the Strategic Development Locations at Arborfield Garrison, South of the M4, North Wokingham and South Wokingham
- Policy SS2 – Settlement Hierarchy: Identifies the location of major development throughout Wokingham Borough
- Policy SS3 – Grazeley garden town: Provides for 3,750 net new dwellings in Wokingham Borough within the Plan period
- Policy SS5 – South of the M4 Strategic Development Location: Provides for 5 net new dwellings
- Policy SS6 – North Wokingham Strategic Development Location: Provides for 250 net new dwellings
- Policy SS7 – South Wokingham Strategic Development Location: Provides for 17 net new dwellings
- Policy ER10 – Whiteknights Campus: Provides for additional student accommodation
- Policy H1 – Housing Provision: Provides for a minimum of 13,901 net new dwellings in the Plan period between 2018 and 2036
- Policy H2 – Sites allocated for residential / mixed use: Lists 18 allocated residential sites, totalling 940 net new residential dwellings
- Policy H11 – Gypsies and Travellers and Travelling Showpeople provision: Provides for 24 net new gypsy and traveller pitches

### 5.2.2 Thursley, Ash, Pirbright & Chobham SAC

The Thursley, Ash, Pirbright & Chobham SAC is designated for its Northern Atlantic wet heaths with *Erica tetralix* and its European dry heaths. Importantly, these habitats also support the ground-nesting birds of the Thames Basin Heaths SPA, which largely overlaps with the SAC. An increase in the number of recreational visits to the SAC, and particularly off-track activities, are likely to lead to trampling damage to heathland plants as well as path widening. Furthermore, an increase in the number of dog walkers in the SAC will lead to nutrient enrichment of the soil and, ultimately, to a change in plant community composition. Heathland plants are adapted to depauperate nutrient conditions and dog



fouling might put them at a disadvantage with more competitive grass species. Notably, this could also affect the Thames Basin Heath's ground-nesting birds that critically depend on these plant species. The closest component parcel of the Thursley, Ash, Pirbright and Chobham SAC lies 6.9km to the south-east of Wokingham Borough, which lies beyond the typical core visitor catchment for heathland sites. However, as a precautionary measure, the SAC is screened in for Appropriate Assessment.

The following strategic policies and site allocations providing for residential growth in Wokingham Borough have been screened in for Appropriate Assessment, because they increase the local population and might intensify recreational pressure in the Thursley, Ash, Pirbright and Chobham SAC:

- Policy SS1 – Spatial Strategy: Provides for 13,901 net additional dwellings in Grazeley garden town and the Strategic Development Locations at Arborfield Garrison, South of the M4, North Wokingham and South Wokingham
- Policy SS2 – Settlement Hierarchy: Identifies the location of major development throughout Wokingham Borough
- Policy SS3 – Grazeley garden town: Provides for 3,750 net new dwellings in Wokingham Borough within the Plan period
- Policy SS5 – South of the M4 Strategic Development Location: Provides for 5 net new dwellings
- Policy SS6 – North Wokingham Strategic Development Location: Provides for 250 net new dwellings
- Policy SS7 – South Wokingham Strategic Development Location: Provides for 17 net new dwellings
- Policy ER10 – Whiteknights Campus: Provides for additional student accommodation
- Policy H1 – Housing Provision: Provides for a minimum of 13,901 net new dwellings in the Plan period between 2018 and 2036
- Policy H2 – Sites allocated for residential / mixed use: Lists 18 allocated residential sites, totalling 940 net new residential dwellings
- Policy H11 – Gypsies and Travellers and Travelling Showpeople provision: Provides for 24 net new gypsy and traveller pitches

### 5.2.3 Chilterns Beechwoods SAC

The Chilterns Beechwoods SAC is designated for its *Asperulo-Fagetum* beech forests, semi-natural dry grasslands and scrubland facies, and its stag beetle populations. The closest component part of the SAC, and therefore the most likely destination of residents from Wokingham Borough, is Bisham Woods 4.7km to the north-east of the authority, which is just within the typical core visitor catchment of most inland sites (approx. 5km). Natural England's Site Conservation Objectives Supplementary Advice Note states that the SAC has become an important recreational resource for hiking and cycling<sup>74</sup>. The Site Improvement Plan highlights recreational pressure as a particular threat to the site, specifically the impacts of visitors on dead wood<sup>75</sup>, a critical resource for the stag beetle. However, given the distance of the SAC to Wokingham Borough, and the observation in the pathways of impact section that collecting dead wood is a personal behaviour trait rather than an inevitable corollary of an increased population, it is considered that the Local Plan Update would only result in a relatively small change in recreational pressure in the SAC and only a small fraction of these new visitors would realistically affect the availability of dead wood (e.g. by taking pieces of wood). As such it is concluded that there will be no Likely Significant Effects and this site is therefore screened out from Appropriate Assessment.

### 5.2.4 Windsor Forest & Great Park SAC

Windsor Forest & Great Park SAC is designated for its oak woods with *Quercus robur* and its beech forests with *Ilex* and *Taxus* in the shrublayer. The closest part of the SAC lies approx. 8.4km to the east of the Wokingham Borough boundary, but the part that is most likely to be accessed (due to the existing

<sup>74</sup> <http://publications.naturalengland.org.uk/publication/4808896162037760> [Accessed on the 03/12/2019]

<sup>75</sup> <http://publications.naturalengland.org.uk/publication/6228755680854016> [Accessed on the 03/12/2019]

road infrastructure) lies over 10km from Wokingham Borough along the A332. The site contains a large number of ancient and / or veteran trees, which are sensitive to trampling damage. The compaction of the soil surrounding the tree can affect its root system, nutrient uptake rates and associations with mycorrhiza. However, Natural England's Site Improvement Plan<sup>76</sup> and Supplementary Advice on Conservation Objectives do not mention recreational pressure as a particular concern for the site notwithstanding the heavy recreational use. Furthermore, the focal points of recreational activity are on the existing paths and open parkland rather than concentrated beneath the canopies of the veteran trees. Finally, most parts of the SAC, especially the ones that are most likely to be accessed, lie beyond 10km. Therefore, Wokingham Borough is unlikely to contribute much to the recreational footprint in the SAC. As such, Likely Significant Effects can be excluded, and the site is screened out from Appropriate Assessment.

## 5.3 Atmospheric Pollution

### 5.3.1 Thames Basin Heaths SPA

Nightjar, woodlark and Dartford warbler, the qualifying species of the Thames Basin Heaths SPA, are not directly sensitive to atmospheric pollution. However, atmospheric nitrogen deposition has the potential to affect these species through indirect effects on these species' broad habitats, notably areas of heathland or acid grassland, if it is sufficiently extensive to materially change habitat structure, depending on management. APIS highlights that European dry heaths, which all these species depend on, have a critical nitrogen load of 10-20 kg N/ha/yr. Exceedance of this critical load would lead to a transition from heather to coarse grass dominance and therefore change how the qualifying birds are able to use the micro-habitats in heathland. The current background atmospheric nitrogen deposition rate for the heathland components of the SPA is a maximum of 16 kgN/ha/yr, thus exceeding the critical load. Multiple component parts of the SPA lie directly adjacent to major roads that are likely to constitute significant journey to work routes for residents of Wokingham Borough. For example, there are multiple parcels of lowland heathland within 200m of the A30 in Yateley Common Country Park to the south of Wokingham Borough in Hart District. Another parcel of heathland lies approx. 20m from the A3095 to the east of Wokingham Borough in the adjoining authority of Bracknell Forest. Given that this is a potential commuter route for Wokingham Borough residents, especially deriving from the southern part of the authority, the Thames Basin Heaths SPA is screened in for Appropriate Assessment.

### 5.3.2 Thursley, Ash, Pirbright & Chobham SAC

Thursley, Ash, Pirbright & Chobham SAC is designated for its depressions on peat substrates, Northern Atlantic wet heaths and European dry heaths. From an atmospheric pollution perspective, the lowland fens and mire habitats (depressions on peat substrates) are most sensitive (critical nitrogen load of 10-15 kg N/ha/yr). However, both the wet and dry heath habitats are also sensitive to atmospheric nitrogen deposition (both have critical nitrogen loads of 10-20 kg N/ha/yr).

Considerable parts of the SAC are located near major roads. For example, in the authority of Surrey Heath, the M3 runs directly past the Lightwater Country Park (which contains heathland elements of the SAC). Further along the M3 (and still within Surrey Heath), lowland fen and heathland habitats in Chobham Common also lie directly adjacent to the M3. Review of the Department for Transport's traffic statistics shows that at manual count point 46010, the M3 had an AADF of 96,243 cars, 17,282 light goods vehicles and 8,686 heavy goods vehicles<sup>77</sup>. However, the 2011 Census Data indicates that Surrey Heath is not a major destination for commuters from Wokingham Borough (it is not among the 10 most popular destinations). Furthermore, the Transport Assessment Report (2020) has further highlighted how a number of other destinations are more regularly used to commute to, or from Wokingham Borough. The M3 leads through the authorities of Runnymede, Spelthorne and Hounslow. None of these authorities are on the list of the most popular commuter destinations for residents from Wokingham Borough. Furthermore, only 2.3% (545 out of 23,329 people commuting by car) of the total inflow into Wokingham Borough comes from Surrey Heath. Moreover, the M3 at Lightwater Country Park is in a cutting, separated from the SAC by a high, 30m wide densely tree-covered embankment, while the area of SAC that lies within 30-100m of the M3 at Chobham Common is mown as a firebreak; this is also the zone that would be subject to the greatest increase in nitrogen deposition and regular

<sup>76</sup> <http://publications.naturalengland.org.uk/publication/6221375450644480> [Accessed on the 03/12/2019]

<sup>77</sup> <https://roadtraffic.dft.gov.uk/manualcountpoints/46010> [Accessed on the 02/12/2019]



mowing will have a much greater effect on botanical composition and habitat structure than nitrogen deposition. Given that there is no significant link between commuter traffic arising from the Wokingham Local Plan Update and the Thursley, Ash, Pirbright and Chobham SAC, this is screened out from Appropriate Assessment.

### 5.3.3 Chilterns Beechwoods SAC

The Chilterns Beechwoods SAC is designated for several habitat features that are sensitive to atmospheric pollution. The site's most sensitive habitat feature is *Asperulo-Fagetum* beech forest, which has a critical nitrogen load of 10-20 kg N/ha/yr. To a lesser extent its semi-natural dry grasslands and scrubland facies (important orchid sites) are also vulnerable to changes in air quality (critical nitrogen load of 15-25 kg N/ha/yr). The current background atmospheric nitrogen deposition rate for the *Asperulo-Fagetum* habitat (maximum of 33.5 kg N/ha/yr) far exceeds this critical load. A Local Plan is only likely to result in air quality changes in a European site if major roads are located within 200m of the site boundary and these will form significant journey to work routes. A review of the location of Wokingham Borough in relation to adjacent authorities and the road infrastructure highlights that a component part of the SAC lies immediately adjacent to the A404 to the north-east of Wokingham Borough's boundary. Given that this is a potential commuter route for residents from Wokingham Borough, especially from the northern part of the authority, the Chilterns Beechwoods SAC is screened in for Appropriate Assessment.

### 5.3.4 Windsor Forest & Great Park SAC

Several habitats in the Windsor Forest and Great Park SAC are sensitive to impacts from atmospheric nitrogen deposition, most notably the oak woods with *Quercus robur* (empirical critical nitrogen load of 10-15 kg N/ha/yr) and the Atlantic beech forests with *Ilex* and *Taxus* in the shrublayer (critical nitrogen load of 10-20 kg N/ha/yr). Exceedance effects in the oak woods would include a loss of mycorrhiza, epiphytic lichens and bryophytes. Notably the current deposition rates in the SAC far exceed the critical loads in both the oak woods and the beech forest, equating to a maximum of 28.7 kg N/ha/yr.

The SAC and woodland habitat therein lies directly adjacent to the B383 and the A332 in the adjoining authority of Windsor and Maidenhead. While Windsor and Maidenhead directly borders the northern part of Wokingham Borough, the SAC is screened out from Appropriate Assessment for the following reasons:

- Firstly, while the authority of Windsor & Maidenhead is among the top origins (1,467 people, 6.3%) and destinations (2,791 people, 8.6%) for commuters to and from Wokingham Borough, it is noted that most people are likely to work in or come from Maidenhead (the much larger settlement compared to Windsor, with a large concentration of employment opportunities). The journey between Maidenhead (in the northern part of the authority) and Wokingham Borough would not involve driving past the SAC.
- Secondly, the most likely route for anyone travelling to work between Windsor or Maidenhead and either Wokingham town or Arborfield Garrison is along the M4 and then off at junction 8/9 either north (to Maidenhead) or south (to Windsor). For Windsor the quickest route is a cross-country route (according to Google Maps) but it runs north of the SAC. There is a route through the SAC but according to Google Maps it is by far the longest in duration so unlikely to be chosen by many commuters, remembering that for air quality impact assessment purposes it is significant changes in average daily commuter traffic that is relevant.

It is considered that the A332 and the B383 within 200m of the SAC are unlikely to be significant routes for commuter traffic arising from the Wokingham Local Plan Update. As highlighted above, Likely Significant Effects can therefore be excluded, and the site is screened out from Appropriate Assessment.

Due to the in-combination nature of atmospheric pollution, its impacts will be determined by the cumulative effect of all new development that leads to an increase in the number of car commuter journeys. The following strategic policies are screened in for Appropriate Assessment in relation to the Thames Basin Heaths SPA and the Chilterns Beechwoods SAC:

- Policy SS1 – Spatial Strategy: Provides for 13,901 net additional dwellings in Grazeley garden town and the Strategic Development Locations at Arborfield Garrison, South of the M4, North Wokingham and South Wokingham
- Policy SS2 – Settlement Hierarchy: Identifies the location of major development throughout Wokingham Borough
- Policy SS3 – Grazeley garden town: Provides for 3,750 net new dwellings within the Plan period
- Policy SS5 – South of the M4 Strategic Development Location: Provides for 5 net new dwellings and 18,500m<sup>2</sup> of new employment space
- Policy SS6 – North Wokingham Strategic Development Location: Provides for 250 net new dwellings
- Policy SS7 – South Wokingham Strategic Development Location: Provides for 17 net new dwellings
- Policy ER10 – Whiteknights Campus: Provides for additional student accommodation
- Policy H1 – Housing Provision: Provides for a minimum of 13,901 net new dwellings in the Plan period between 2018 and 2036
- Policy H2 – Sites allocated for residential / mixed use: Lists 18 allocated residential sites, totalling 940 net new residential dwellings
- Policy H11 – Gypsies and Travellers and Travelling Showpeople provision: Provides for 24 net new gypsy and traveller pitches

## 5.4 Loss of Functionally Linked Land

### 5.4.1 Thames Basin Heaths SPA

The Thames Basin Heaths SPA is designated for its mobile breeding bird species, including nightjar, Dartford warbler and woodlark. These species routinely forage beyond the designated site boundary but can also nest in suitable locations (e.g. patches of heathland, acid grassland and plantation woodland) outside the SPA. The closest part of the SPA is only approx. 58m to the south of Wokingham Borough, and any of the qualifying species could use habitats in the southern part of the authority. Section 4.5 has established that neither nightjar nor woodlark has highly specialised prey requirements and as a result they include many common and widespread habitats in their foraging resource. In contrast, they do have highly specialised nesting requirements; suitable habitat for nesting is therefore sparse and the loss of such habitat, even outside the SPA, could affect the overall SPA population (depending on whether the land parcels are actually used for nesting). However, a review of the Wokingham Local Plan's allocated sites indicates that none of these comprise heathland, acid grassland and plantation woodland. Therefore, it is concluded that the Wokingham Local Plan Update will not result in Likely Significant Effects on the Thames Basin Heaths SPA regarding the impact pathway loss of functionally linked land. The site is screened out from Appropriate Assessment.

## 5.5 Water Quantity, Level and Flow

### 5.5.1 Thursley, Ash, Pirbright & Chobham SAC

The Thursley, Ash, Pirbright & Chobham SAC is partly designated for its Northern Atlantic wet heaths with *Erica tetralix* and depressions on peat substrates. Both these habitat features require a naturally fluctuating hydrological regime. Natural England's Site Conservation Objectives Supplementary Advice Note highlights that any changes in the source, depth, duration, frequency and magnitude of water supply may affect the site's characteristics assemblage of plant species<sup>78</sup>. However, the Site Improvement Plan highlights that the main concern regarding the SAC is the presence of drainage ditches that may change the water level within the site<sup>79</sup>. A review of the Phase 1 Scoping Water Cycle

<sup>78</sup> <http://publications.naturalengland.org.uk/publication/5141075941392384> [Accessed on the 03/12/2019]

<sup>79</sup> <http://publications.naturalengland.org.uk/publication/6249258780983296> [Accessed on the 03/12/2019]

Study (WCS) for Wokingham Borough<sup>80</sup> indicates that the closest part of the SAC to the Borough lies in the Loddon Management Catchment, which forms part of the South East Water Resource Zone. The WCS shows that there is sufficient water availability to accommodate the growing demand in this part of the authority. Moreover, Thames Water have prepared a Water Resource Management Plan (WRMP) setting out how they would meet the water needs of population growth across their supply area to 2050. This was subject to HRA that specifically considered potential effects on European sites which confirmed that no significant effects on any European sites would arise from its implementation<sup>81</sup>. The WRMP considered population growth across Thames Water's entire supply area (including Wokingham Borough) and the supply strategy runs well beyond the period covered by the Local Plan Update. Therefore, Likely Significant Effects arising from the Wokingham Local Plan Update can be excluded, and the site is screened out from Appropriate Assessment.

### 5.5.2 Chilterns Beechwoods SAC

The *Asperulo-Fagetum* beech forests in the Chilterns Beechwoods SAC are sensitive to changes in the water supply. As for the Windsor Forest and Great Park SAC, Natural England's Site Conservation Objectives Supplementary Advice Note highlights that maintaining the hydrological regime is a key step in meeting the site's conservation objectives<sup>82</sup>. The closest component part of the SAC lies 2.8km to the north-east of Wokingham Borough in the Lower Thames operational catchment<sup>83</sup>. As identified, the northern part of Wokingham Borough is supplied by Thames Water, which extracts water from the Lower Thames operational catchment. Thames Water undertook an HRA<sup>84</sup> of their draft Water Resources Management Plan in 2019, which determined that there would be no adverse effects on any European site. Given this evidence, Likely Significant Effects can be excluded, and the site is screened out from Appropriate Assessment.

### 5.5.3 Windsor Forest and Great Park SAC

The Windsor Forest and Great Park SAC, designated for its oak woods and its beech forests, lies approx. 8.8km to the east of Wokingham Borough. Natural England's Site Conservation Objectives Supplementary Advice Note states that maintaining an appropriate hydrological regime for the site is a key requirement for meeting the site's conservation objectives<sup>85</sup>. Specifically, any change to the source, depth, duration, frequency, magnitude and the timing of water supply can alter the assemblage of plant species found in the site. The northern part of Wokingham Borough is supplied by the Henley Water Resource Zone within the Thames Water supply boundary. Water abstractions for this supply zone derive from the Lower Thames operational catchment<sup>86</sup>, the geographic boundaries of which include Windsor Forest and Great Park SAC. However, Thames Water produced a Water Resource Management Plan (WRMP) setting out how they would meet the water needs of population growth across their supply area (including Wokingham Borough) to 2050. They undertook an HRA<sup>87</sup> of the WRMP in 2019, which determined that there would be no adverse effects on any European site. Given that population growth across their supply area (including Wokingham Borough) was factored into their WRMP and that their supply strategy runs well beyond the period covered by the Local Plan Update, Likely Significant Effects of the Wokingham Local Plan Update can be excluded, and the site is screened out from Appropriate Assessment.

<sup>80</sup> JBA Consulting. (2019). Wokingham Borough Council Water Cycle Study – Phase 1 Scoping Study. 144pp. Available at: <https://www.wokingham.gov.uk/EasySiteWeb/GatewayLink.aspx?allId=475412>

<sup>81</sup> <https://corporate.thameswater.co.uk/-/media/Site-Content/Your-water-future-2018/Appendices/dWRMP19-Appendix-C---HRA---Stage-1-screening-151217.pdf>

<sup>82</sup> <http://publications.naturalengland.org.uk/publication/4808896162037760> [Accessed on the 03/12/2019]

<sup>83</sup> <https://environment.data.gov.uk/catchment-planning/OperationalCatchment/3285> [Accessed on the 03/12/2019]

<sup>84</sup> Ricardo. Thames Water Revised Draft Water Resources Management Plan 2019 Habitat Regulations Assessment (2018). Available at: <https://corporate.thameswater.co.uk/-/media/Site-Content/Your-water-future2018/Appendices/dWRMP19-Appendix-C---HRA---Stage-1-screening-151217.pdf> [Accessed on the 03/12/2019]

<sup>85</sup> <http://publications.naturalengland.org.uk/publication/5175000009015296> [Accessed on the 03/12/2019]

<sup>86</sup> River catchments can be identified using the Environment Agency's Catchment Data Explorer. <https://environment.data.gov.uk/catchment-planning/OperationalCatchment/3285> [Accessed on the 03/12/2019]

<sup>87</sup> Ricardo. Thames Water Revised Draft Water Resources Management Plan 2019 Habitat Regulations Assessment (2018). Available at: <https://corporate.thameswater.co.uk/-/media/Site-Content/Your-water-future2018/Appendices/dWRMP19-Appendix-C---HRA---Stage-1-screening-151217.pdf> [Accessed on the 03/12/2019]

## 5.6 Summary

Overall, two of the impact pathways and linked European sites were screened in for Appropriate Assessment, because Likely Significant Effects could not be excluded. The impact pathway recreational pressure was taken forward to Appropriate Assessment in relation to the Thames Basin Heaths SPA and Thursley, Ash, Pirbright & Chobham SAC. The impact pathway atmospheric pollution was screened in regarding the Thames Basin Heaths SPA and the Chilterns Beechwoods SAC.

## 6. Appropriate Assessment

### 6.1 Recreational Pressure

#### 6.1.1 Thames Basin Heaths SPA

Natural England's Site Improvement Plan for the SPA highlights recreational disturbance as a threat to the qualifying birds for the site. This is particularly the case because the SPA's species nest on (or close to) the ground and are therefore highly susceptible to recreation, particularly the impacts of dog walkers. The main parcels of the SPA that are most likely to be accessed by new residents lie to the south and the south-east of the Wokingham Borough boundary.

Much of the available evidence base relating to the in-combination recreational pressure in the Thames Basin Heaths SPA, stems from two visitor surveys undertaken in 2005 and 2012 / 2013. The 2005 visitor survey was commissioned by English Nature (the predecessor of Natural England) to provide a baseline on recreational pressure in the SPA. Given the significant housing growth in south-east England, a further visitor survey was then undertaken on behalf of Natural England in 2012 / 2013<sup>88</sup>, replicating the original methodology where possible. The results of this visitor survey (as relevant to Wokingham Borough) are discussed in the following to assess whether the Wokingham Local Plan Update might affect the recreational footprint in the SPA.

##### 6.1.1.1 Overview of In-Combination Visitor Survey Results as Relevant to Wokingham Borough

The most relevant access points to the SPA for Wokingham Borough's residents that were covered by the visitor surveys are the following:

- Broadmoor to Bagshot Woods & Heaths SSSI, and Bracknell Forest (survey locations 3 and 30 respectively), which are easily accessible via the A322 and the B3430 (in Bracknell Forest)
- Wildmoor Heath near Sandhurst (covered by survey locations 19 and 20 respectively) (in Bracknell Forest)
- Bramshill Plantation and Warren Heath (survey locations 7 and 8 respectively) are two parcels of the SPA that lie immediately south of Wokingham Borough and are easily accessible via the A327 and Bramshill Road. (in Hart District)
- Castle Bottom to Yateley & Hawley Common (survey locations 9 and 10 respectively) are components of the SPA that lie along the A30 to the south of Wokingham Borough (in Hart District)

It is considered that these are the main access points that would be visited by residents from Wokingham Borough due to their relative proximity to the authority and because they are easily accessible via the main road links that lead out of the south-eastern part of Wokingham Borough.

The 2012 tally counts indicate that survey points 3 and 30, which provide access to the Broadmoor and Bagshot Woods & Heaths SSSI, are very popular for recreational users. Survey point 3 (The Lookout) was the second most popular of all sites surveyed in the Thames Basin Heaths SPA, totalling 541 adults and 153 dogs entering over a 32-hour survey period. Survey point 30 was slightly quieter with 188 adults and 201 dogs entering over a similar timeframe. The fact that more dogs than adults were counted as entering in this location, likely means that this location is used by professional dog walkers, who are often accompanied by multiple dogs. It is considered that these two locations are among the most likely to be visited by residents from Wokingham Borough, because they can be conveniently reached via the A322 that connects this part of Bracknell Forest with Wokingham Borough.

In contrast, on Warren Heath (survey point 8) just south of Wokingham Borough in Hart District, only 40 adults and 34 dogs were entering over a 32-hour period. No count data were available for the nearby Bramshill Plantation. This area of the SPA appears to be considerably less busy than the 'honeypot'

<sup>88</sup> Fearnley H. & Liley D. (2013). Results of the 2012/13 visitor survey on the Thames Basin Heaths Special Protection Area (SPA). Natural England Commissioned Reports, Number 135. 107pp.

component parcels in Bracknell Forest. Survey points 9 and 10, which are the main access points to Yateley Common Country Park, were slightly busier than the SPA sites around Bramshill. 76 people and 37 dogs were observed entering at survey point 9, whereas 140 people and 87 dogs entered at survey point 10 (both over 16-hour periods). These parts of the SPA are a short distance south of Wokingham Borough but can be relatively easily accessed via the A327 and the A30 road link. It is likely that most recreational use would arise from residents originating from Hart, but due to the proximity of these parts of the SPA to Wokingham Borough, some additional recreational usage might arise from the Wokingham Local Plan Update.

More generally, the data from the visitor surveys in May / June and August 2012 indicate that the majority of interviewees to the SPA visit daily (929 interviewees, 38%) or more than once a week (833 interviewees, 34%). Notably, most visitors undertake dog walking as their main activity (1,939 interviewees, 66%), followed by walking (614 interviewees, 21%) and cycling (124 interviewees, 4%). Furthermore, only 10% of interviewees have visited the site for less than a year, while 26% have been using the SPA between 1 and 5 years and a further 25% having visited between 5 and 10 years. 75% of interviewees visit the site by car and 22% travel on foot, the latter being local residents that are likely to live within walking distance of the SPA. These results are important because they demonstrate that the Thames Basin Heaths SPA is subject to high levels of repeat recreational pressure, most notably by dog walkers, which is the user group that is likely to have the highest disturbance impact in the SPA.

The 2012 visitor survey showed that of 2,316 interviewees giving a valid postcode, 2,177 (94%) lived within a 5km radius from the SPA. Only 6% of visitors travelled from beyond a 5km catchment zone. Interestingly, in comparison to an earlier visitor survey undertaken in 2005, the number of visitors from within the 5km zone increased from 88% to 93%. This is most likely due to an increase in the number of dwellings within 5km of the Thames Basin Heaths SPA in that 7-year timeframe. 75% of car-based visitors that were on a short visit from home, lived within 4.61km of the survey location. Importantly, the 2012 visitor survey also identified which districts interviewees lived in. Unsurprisingly, most visitors originate from districts that contain significant parts of the SPA, including Surrey Heath (540 interviewees, 23%), Woking (355 interviewees, 15%) and Hart Districts (341 interviewees, 15%). Wokingham Borough's contribution to the overall recreational footprint in the SPA was considerably lower, with only 112 interviewees (5%) coming from this authority. According to the map showing the distribution of visitor postcodes, most visitors from the Wokingham Borough come from the wider area of the market town of Wokingham. While this evidence indicates that Wokingham Borough is not one of the top five contributors to recreational pressure in the SPA, due consideration to this impact pathway must be given, particularly in-combination with the residential growth in other authorities surrounding the SPA.

#### 6.1.1.2 In-Combination Approach to Mitigation in the Thames Basin Heaths SPA

The evidence base from the aforementioned visitor surveys has fed into HRAs of numerous of the SPA's adjacent authorities and has culminated in the Thames Basin Heaths (TBH) Joint Strategic Partnership Board (JSPB), comprised of eleven local authorities and two County Councils.

Most importantly, visitor catchment data from the visitor surveys have informed several TBH SPA Avoidance Strategies (e.g. <sup>89</sup>, effectively Supplementary Planning Documents agreed upon by Natural England), which detail how authorities propose to avoid adverse effects on the site integrity of the SPA. Primarily, these strategies identify buffer zones around the SPA, which are associated with specific conditions and / or mitigation requirements. These zones are as follows:

- a 400m exclusion zone, where no additional development is permitted
- the SPA's primary visitor catchment zone between 400m and 5km, where additional residential development must be mitigated through a combination of Suitable Alternative Natural Greenspace (SANG) and Strategic Access Management and Monitoring (SAMM)
- the 5-7km zone where residential development over 50 dwellings must be mitigated as above, on a case-by-case basis

<sup>89</sup> Guildford Borough Council. (2017). Thames Basin Heaths Special Protection Area Avoidance Strategy 2017 – Supplementary Planning Document.



The Wokingham Local Plan Update allocates several residential sites in Wokingham Borough, most importantly the large residential allocation at Grazeley garden town providing for 10,000 residential dwellings. Grazeley lies in the south-western part of the Borough within 7km of the TBH SPA, in an area that has relatively little existing residential development. Therefore, it is considered that Grazeley in particular will need to provide adequate local green space and / or enhance the accessibility to existing greenspaces, to protect the Thames Basin Heaths SPA from an increase in recreational pressure.

### 6.1.1.3 Relevant Mitigation in the Wokingham Local Plan Update

Table 3 shows the site allocations providing for residential development within 7km of the Thames Basin Heaths SPA, the catchment zone that has been identified by Natural England as requiring mitigation for large sites. All allocations within 5km of the SPA and those within 5-7km providing for over 50 dwellings must be mitigated (marked in orange). Strategic Development Locations within 5km of the SPA that do not propose for additional growth to that allocated in the adopted Core Strategy do not require mitigation (marked in green). Allocations within the 5-7km zone with under 50 dwellings also do not require mitigation (also marked in green).

The bulk of this growth will be delivered through five Strategic Development Locations, most notably Grazeley which allocates 10,000 new residential dwellings in Wokingham Borough (however, only 3,750 of these will be delivered within the Plan period). All Strategic Development Locations are within 5km of the Thames Basin Heaths SPA. However, despite the fact that they allocate residential growth, it is considered that one allocation, Arborfield Garrison, does not need to be considered for mitigation. This is because this site was allocated in the Core Strategy (and assessed in its HRA) and the Local Plan Update does not provide for any additional dwellings in this allocation (see \* in Table 3 for cross-referencing). In contrast, three of the Strategic Development Locations (South Wokingham, North Wokingham, South of M4) propose dwellings in surplus to those allocated in the Core Strategy that require consideration. Finally, Grazeley is a new allocation of the Local Plan Update and also requires mitigation measures to be delivered. **Policy H2** (Sites allocated for residential / mixed uses) also allocates 18 smaller residential sites throughout Wokingham Borough, six of which are within Natural England's 7km mitigation zone (two proposed allocations are within the 5-7km zone but are larger than 50 dwellings). Overall, the Wokingham Local Plan Update proposes to deliver 4,465 net new residential dwellings within the wider 7km mitigation boundary, equating to 10,716 new residents<sup>90</sup>.

Using Natural England's SANG standards and the average occupancy rates in the UK, Table 4 shows the total amount of SANG that would be needed to mitigate the overall residential growth within 7km of the Thames Basin Heaths SPA. According to Natural England advice these allocations will also require mitigation in the form of Strategic Access Management and Monitoring (SAMM).

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<sup>90</sup> Note this assumes an average occupancy rate of 2.4 people per dwelling. This number is typically used in SANG capacity calculations.

**Table 3: Residential site allocations proposed in the Wokingham Local Plan Update within 7km of the Thames Basin Heaths SPA. Residential allocations that require mitigation are marked in orange, because they either fall within the 5km catchment zone, or they lie between 5-7km away and allocate over 50 dwellings. \*For an explanation of why this site is shaded green please see the main body of text.**

Site Type	Site Reference <sup>91</sup>	Site Address	Number of Dwellings	Shortest Distance (m) from the proposed allocation boundary to the Thames Basin Heaths SPA boundary
Strategic Development Allocations	NA	Arborfield Garrison	3,329*	817.91
	NA	South Wokingham	2,012 (of which only 17 are net new in the LPU)	2063.9
	NA	North Wokingham	1,487 (of which only 250 are net new in the LPU)	3502.4
	NA	South of M4	2,310 (of which only 5 are net new in the LPU)	3678.4
	NA	Grazeley	3,750 <sup>92</sup>	4725.5
Housing Allocations	5BA012	Reading Football Club Training Ground, Hogwood Park, Park Lane	140	2277.74
	5FI024	Jovike, Lower Wokingham Road	15	2676.27
	5FI015	Land to the rear of 166 Nine Mile Ride	4	3813.95
	5FI001	Tintagel Farm, Sandhurst Road	5	3985.06
	5BA013	Woodlands Farm, Wood Lane	15	4180.56
	5WK006	Land South of Gipsy Lane	17	4531.67

<sup>91</sup> The site boundaries of the proposed residential allocations are set out in the Draft Local Plan. As part of the plan making process, the proposed site allocation boundaries do not always match those of the land promoted.

<sup>92</sup> This allocation may deliver up to 10,000 dwellings, but only 3,750 of these will be delivered up to 2036, the timeframe covered by the Wokingham Local Plan Update.



Site Type	Site Reference <sup>91</sup>	Site Address	Number of Dwellings	Shortest Distance (m) from the proposed allocation boundary to the Thames Basin Heaths SPA boundary
	5WK002	Ashridge Farm, Warren House Road	150	5442.88
	5WK029	Station Industrial Estate, Oxford Road	92	5649.89
	5BA024	Land North of The Shires	5	5641.85
	5WK012	54 - 58 Reading Road	9	5731.35
	5SH011	Lane End House, Shinfield Road	5	5742.91
	5SH031	Rustlings', 'The Spring' and land to the rear of 'Cushendall', Shinfield Road	10	6348.99
	5WI011	Wheatsheaf Close	25	6392.53
	5WI009	Land on the North West Side of Old Forest Road	35	7300.4
	5WI004	Winnersh Farms, Winnersh	250	7724.51
	5WI008	Winnersh Plant Hire	20	8065.48
	5HU030	Land North-West of Hogmoor Lane	12	9970.15
	5HU002	Land adjacent to Whistley Green Cottage,	3	10198.37

Site Type	Site Reference <sup>91</sup>	Site Address	Number of Dwellings	Shortest Distance (m) from the proposed allocation boundary to the Thames Basin Heaths SPA boundary
		Whistley Green		
	5SO001	Land at Sonning Farm	25	12034.21
	5CV002	Land West of Park Lane	75	12056.07
	5RU008	Land between 39-53 New Road, Ruscombe, RG10 9LQ	13	12155.96
	5RU007	Land to the rear of 9-17 Northbury Lane, Ruscombe, RG10 9LH	7	12165.78
	5TW010	Land at Bridge Farm	150	12590.87
	5CV001	Land East & West of Park View Drive North	85	13002.13
<b>All Residential Sites Requiring Mitigation</b>			<b>4,465</b>	

**Table 4: Calculation of the SANG size and capacity requirements to mitigate the residential growth allocated in the Wokingham Local Plan Update within the agreed mitigation zone for the Thames Basin Heaths SPA. This is based on average occupancy rate of residential housing and Natural England SANG standards.**

Mitigation Requirement	Natural England Requirement	SANG Requirement
Number of Dwellings: 4,465	8ha per 1000 new residents	Required Size: 85.7ha
Number of Residents*: 10,716  According to average occupancy of 2.4 residents / dwelling	0.008ha per every 1 new resident	

Recognition to SANG and SAMM is given in **Policy NE2** (Thames Basin Heaths Special Protection Area), which introduces the agreed mitigation zones around the SPA and details Natural England's SANG criteria. Specifically, the policy states that *'the Council has identified sufficient SANG provision as part of the avoidance and mitigation measures required for the Development Plan'*. Furthermore, the policy also specifies that *'Proposals will be required to make financial contributions towards avoidance and mitigation measures, including SANG and SAMM'*. Overall, this policy provides additional details about the mitigation measures to be delivered regarding the SPA.

The council has estimated future SANG requirements based on current information and capacities. As a result, future options and opportunities will be considered, and the council is confident that a solution to provide suitable mitigation can be found prior to submission of the Local Plan to the Secretary of State.

The Local Plan Update also acknowledges the need for both SANG and SAMM mitigation in the policies for the Strategic Development Locations, the allocations that propose the main residential growth in Wokingham. The necessity of SANG is referred to in **Policies SS3** (Grazeley garden town), **SS4** (Arborfield Garrison Strategic Development Site), **SS5** (South of the M4 Strategic Development Site), **SS6** (North Wokingham Strategic Development Site) and **SS7** (South Wokingham Strategic Development Site). This is most important with respect to Grazeley garden town, which allocates 10,000 net new residential dwellings within 7km of the Thames Basin Heaths SPA. **Policy SS3** stipulates that *'A comprehensive network of multi-functional green and blue infrastructure and walking and cycling routes will be provided within the garden community incorporating key elements of the existing green assets within the site, including Foudry Brook corridor. It will include Suitable Alternative Natural Greenspace (SANG) as part of mitigating impacts upon the Thames Basin Heaths Special Protection Area, community parks, allotments and a new country park'*. Including such SANG requirements into all strategic development policies ensures that the Wokingham Local Plan Update is compliant with the requirements under the Habitats Directive. Further work will be undertaken with stakeholders, including Natural England, to determine the SANG required at Grazeley.

The current iteration of the Local Plan does not include specifics on the amount and location of SANG that is to be delivered. Based on the allocated number of residential dwellings within the SPA's 7km mitigation zone, a total of 85.7ha of SANG would be required (see Table 4) to ensure that there is sufficient capacity to absorb the residential growth. It is acknowledged however that there are several SANGs within the borough, a number of which have remaining capacity to help mitigate recreational pressures. Further information from the council provides an update on current capacities. Furthermore, due regard should be given to the geographic siting of the SANG for it to represent a realistic alternative destination for local residents. For example, ideally a SANG should be situated closer to the proposed residential development than any component parcel of the SPA. This is because distance from home is negatively correlated with the likelihood of visiting and the SANG's lower appeal (compared to the TBH SPA, which is an iconic destination) is more likely to be compensated for. It is to be noted that SANGs can be created from existing open space with no prior access or a greenspace that is already in publicly

accessible. If a proposed SANG is already in public use a discounting exercise is required to establish the current level of use and to confirm the residual capacity of the SANG. Furthermore, SANGs would need to conform to the Natural England standards, including a circular walk of 2.3-2.5km, adequate parking (for SANGs over 4ha in size) and a well-maintained path network. It is to be noted that Grazeley will deliver 10,000 dwellings in Wokingham Borough by 2052 (and an additional 5,000 within the adjoining authority of West Berkshire). This residential growth will require further SANG mitigation but is not assessed here because it falls outside the period of the Local Plan Update.

Notwithstanding, despite the provision of appropriately sized and located SANG, a small proportion of new Wokingham Borough residents would still visit the Thames Basin Heaths SPA, because:

- Some of the residential site allocations (most notably Grazeley garden town) are located in the south of Wokingham Borough and lie within a relatively short driving distance from component parcels (e.g. Bramshill Plantation and Warren Heath) of the Thames Basin Heaths SPA
- The SPA has a unique draw (e.g. habitats, wildlife interest, feeling of openness) that is difficult to replicate in SANGs

The Wokingham Local Plan Update recognises that developers should provide financial contributions to SAMM delivery. SAMM is a programme of Strategic Access Management and Monitoring measures that was set up by the Thames Basin Heaths Joint Strategic Partnership Board (JSPB) in 2009. The Outline Business Plan for the project established a set of strategic avoidance measures, namely:

- A team of on-site full-time and voluntary wardens to mitigate the impacts of recreational pressure
- A long-term monitoring programme of visitor numbers in the component parcels of the SPA
- A long-term monitoring programme of the SPA's qualifying bird species to ensure that breeding bird numbers are not affected by the increasing visitor pressure

Previously, it was agreed that the SAMM delivery would be funded by developer contributions. A SAMM tariff of £630 per net new dwelling was set, and it was agreed upon that Local Authorities should seek to endorse and collect the contributions. However, Natural England is continually reviewing the appropriate per-dwelling tariff for SAMM contributions in line with emerging evidence.

Overall, the SANG and SAMM mitigation package was developed by Natural England to avoid adverse effects on the integrity of the Thames Basin Heaths SPA. Therefore, it is considered that given the adequate recognition of SANG and SAMM in the Wokingham Local Plan Update, the Plan would not have significant negative impacts on the SPA. Specifically, given the adequate provision of SANG, the residual number of new Wokingham Borough residents visiting the TBH SPA would result in only a small overall increase in the overall recreational activity within the site.

In addition to recognising the requirements for SANG and SAMM mitigation, the Wokingham Local Plan Update contains further policies that are likely to reduce recreational pressure in the Thames Basin Heaths SPA by enhancing connectivity in the borough, promoting physical activities and providing more recreational greenspace. For example, **Policy SS12** (Improvements to Transport Routes) identifies several schemes that provide for better connections and accessibility, including East – West pedestrian and cycle links to villages of Three Mile Cross and Spencers Wood, upgrades to the accessibility of Green Park, and general enhancements of the footpath and cycle networks. Importantly, **Policy C8** (Green and Blue Infrastructure and Public Rights of Way) identifies that development projects themselves should also contribute to projects enhancing the residents' ability to access and use greenspaces. The policy states that *'development proposals should improve or contribute towards: a) The establishment of a Loddon / Blackwater riverside footpath and bridleway... b) The establishment of a riverside footpath and cycleway to accommodate dual use for all users along the Emm brook... c) The establishment of a linear 'canal corridor' at Grazeley garden town to integrate the existing Foudry Brook with development to provide informal recreation'*.

**Policy HC3** (Open Space, Sports, Recreation and Play Facilities) stipulates that *'existing open space, sports and recreation and play facilities will be protected, maintained and where possible enhanced'*. Furthermore, *'Development proposals for new residential development, will be required to provide or contribute to the provision of open space, sport and recreation and play facilities'*, such as 1.1ha of parks and gardens, 2.84ha of natural / semi-natural greenspace, 1.66ha of outdoor sports facilities and

0.98ha of amenity greenspace per 1,000 population. Delivering public outdoor spaces close to new residential development engages people locally and maximises the capacity for the local absorption of recreational pressure. This might further aid in discouraging Wokingham Borough's residents from travelling outside the Borough to visit the SPA. Setting out the types of recreational spaces to be delivered per set amount of population increase, ensures that an appropriate amount of additional recreation space is delivered. Importantly, this play space is delivered **in addition** to any SANG delivered in Wokingham Borough, further increasing the amount of recreational pressure that can be absorbed. **Policy HC4 (Local Green Space)** protects areas designated as Local Green Space (e.g. Barkham Recreation Ground, Fox Hill, Joel Park and Holt Copse) from development, other than where such development is undertaken to enhance its functions, such as improvements to accessibility.

#### 6.1.1.4 Recommendations

It is advised that the Council develop a record of SANG availability, including the key characteristics of size and geographic location, that can be submitted to the Examination process as evidence for the deliverability of the anticipated residential development, to demonstrate that adequate mitigation of recreational pressure in the TBH SPA is provided and that Natural England guidelines are followed. It is to be noted that most Strategic Development Locations (except for Grazeley garden town) are existing commitments deriving from the Core Strategy and are under construction. Individual developers would have already undertaken significant groundwork with the Council and Natural England to devise appropriate SANG provision. Furthermore, if a bespoke SANG provided for Grazeley garden town was also to serve as a strategic SANG for other smaller residential developments, this would have to be agreed with the developer. Any developments that were to be addressed by a SANG could not become occupied until the SANG was functioning.

The specifics relating to the provision of SANG and SAMM, such as the amount and location of SANGs and the per-dwelling SAMM contribution, can be set out in a separate strategic Supplementary Planning Document (SPD), as has been developed for other authorities such as Surrey Heath.

Overall, it is concluded that, given the provision of adequate SANG and SAMM, there will be no adverse effects of the Wokingham Local Plan Update on the site integrity of the Thames Basin Heaths SPA regarding the impact pathway recreational pressure.

#### 6.1.2 Thursley, Ash, Pirbright & Chobham SAC

The screening for Likely Significant Effects highlighted that the Thursley, Ash, Pirbright & Chobham SAC is sensitive to recreational pressure. The habitats comprising the SAC, mainly the wet and dry heath habitat elements that also support qualifying breeding birds of the Thames Basin Heaths SPA, are vulnerable to trampling and nutrient enrichment that is associated with dog walking. Large parts of the SAC are overlapping with the Thames Basin Heaths SPA, including the Lightwater Country Park, Sandpit Hill and the Bagshot Heaths. Therefore, the 2012 / 2013 visitor survey undertaken in the Thames Basin Heaths SPA can be drawn upon for data regarding the in-combination recreational pressure in the SAC. Importantly, while the survey does not cover all component parcels of the SAC, it covers the above listed sites (e.g. the Lightwater Country Park) that are closest to the Borough of Wokingham and are therefore likely to be the most relevant destinations for the Borough's residents.

##### 6.1.2.1 Overview of In-Combination Visitor Survey Results as Relevant to Wokingham Borough

The most relevant access points to the SAC for Wokingham Borough's residents that were covered by the visitor surveys are the following:

- Lightwater Country Park, Ockham & Wisley Commons (survey location 14), which lies approx. 6.9km to the south-east of Wokingham Borough (in Surrey Heath)
- Sandpit Hill, Colony Bog & Bagshot Heaths (survey location 15), which lies approx. 7.4km to the south-east of Wokingham Borough (in Surrey Heath)

It is noted that these component sites of the SAC lie beyond typical core recreational catchments for European sites (approx. 5km), but the SAC is discussed here as a precautionary measure. This particularly applies to Sandpit Hill, which is a recreational hotspot in the area. It is considered that any

of the SAC's other parcels, which lie well beyond 7km from Wokingham Borough, are unlikely to be important destinations for residents from the authority. Given that the SAC covers some of the same areas and habitats than the Thames Basin Heaths SPA, there is no reason to expect that the SAC's core visitor catchment is significantly different to that of the SPA. The SAC parcels listed above (i.e. survey locations 14 and 15 in the visitor survey) are the only ones within approx. 7km of the Wokingham Borough boundary and are therefore considered further below.

The 2012 tally counts indicate that Lightwater Country Park (survey location 14) is moderately busy with 99 adults and 119 dogs entering over two survey days (one weekday and one weekend day). In contrast, Sandpit Hill (survey location 15) was much busier with 238 adults and 238 dogs entering over a similar timeframe. The high number of dogs counted at each of the survey locations was corroborated by the fact that the majority of interviewees gave dog walking as their undertaken activity (71% of interviewees in Lightwater Country Park and 85% at Sandpit Hill). Notably, a significant proportion of visitors to both survey points travel to the site by car (48% in Lightwater Country Park and 61% at Sandpit Hill). This is important because visitors coming by car are likely to travel further from home and could be originating from Wokingham Borough. Most importantly, the visitor survey also assessed the linear distance to home postcodes of visitors that travelled to Lightwater Country Park and Sandpit Hill by car. At Lightwater Country Park, the linear distance to home postcodes for 75% of car visitors was 3.5km. At Sandpit Hill the linear distance to home for 75% of car visitors was 3.8km, slightly further than for the Country Park. This is significant because the 75<sup>th</sup> percentile of visitor data is usually defined as the core recreational catchment for European sites. These data indicate that the allocated residential sites in Wokingham Borough lie relatively far beyond the core recreational catchments that have been identified for the component parcels of the SAC closest to the authority (and that are most likely to be visited).

#### 6.1.2.2 Implications & Conclusions

The geographic location of the Thursley, Ash, Pirbright & Chobham SAC in relation to the Borough of Wokingham also needs to be set into the context of the agreed mitigation zones surrounding the Thames Basin Heaths SPA. Given the overlap between these European sites and the similar nature of the habitat, it would be reasonable to assume a similar draw and mitigation requirement for the sites. The closest parcel of the SAC (Lightwater Country Park) lies 6.9km from Wokingham Borough and would therefore be beyond a 5km core mitigation zone. Only a very small proportion of Wokingham Borough would fall within the 5-7km extended mitigation zone (in which large residential developments over 50 dwellings require mitigation). The new residential sites allocated in the Local Plan Update, in addition to the sites already allocated in the Core Strategy and assessed in its accompanying HRA, are located in the north and south-west of Wokingham Borough. Grazeley garden town, the largest strategic housing development delivering 10,000 new dwellings, is in the south-west of the Borough and also located outside an extended mitigation zone of 5-7km.

Furthermore, the SANG and SAMM that will be delivered to mitigate the recreational pressure in the Thames Basin Heaths SPA would also help to address recreational pressure in the Thursley, Ash, Pirbright & Chobham SAC. While the overall contribution of Wokingham Borough to the recreational footprint in the SAC is demonstrably low (see above and previous section on the TBH SPA), these measures would also further reduce the number of recreational visits to and visitor impacts in the SAC. Due regard must also be given to the protective policy framework that is already contained within the Wokingham Local Plan Update. **Policy NE1** (Biodiversity and Nature Conservation) states that '*Sites designated as of importance for nature conservation at an international or national level... will be maintained, conserved and enhanced and inappropriate development will be resisted*'. This protective policy wording provides high-level protection for all European sites, including SPAs, SACs and Ramsars, including the Thursley, Ash, Pirbright & Chobham SAC. Furthermore, other policies already discussed in relation to the Thames Basin Heaths SPA would also work towards mitigating recreational pressure in the SAC. This includes **Policy HC3** (Open Space, Sports, Recreation and Play Facilities), which identifies open space and recreational facility standards for new residential development and **Policy HC4 (Local Green Space)**, which provides for the protection and enhancement of Local Green Spaces.

Overall, it is considered that the SAC is unlikely to be a major destination for recreational activities for Wokingham Borough's residents, mainly due to its relatively long distance from the Borough. The closest component parts of the SAC lie approx. 7km from the authority boundary, with most parcels lying beyond 10km. Several parcels of the Thames Basin Heaths SPA lie much closer to the Borough

boundary and are easily reachable through the available road network. The Thames Basin Heaths SPA comprises similar habitats, wildlife, sceneries and nature feel to the Thursley, Ash, Pirbright & Chobham SAC. Therefore, it is very unlikely that new residents will undertake the longer journeys to the SAC. It is concluded that Wokingham's Local Plan Update will not result in adverse effects on the integrity of the SAC, either alone or in-combination. Specific mitigation measures (in the form of additional policy wording) for the site are therefore not required.

## 6.2 Atmospheric Pollution

***Note that this section is preliminary and will be updated and expanded upon following completion of the Air Quality Impact Assessment being undertaken for the Local Plan Update and its HRA.***

The HRA has identified several policies in the Local Plan Update that provide for cumulative new residential and employment development within Wokingham Borough, which is likely to result in more car travel within the Borough. The following policies need to be considered in relation to the impact pathway atmospheric pollution:

- Policy SS1 – Spatial Strategy: Provides for 13,901 net additional dwellings in Grazeley garden town and the Strategic Development Locations at Arborfield Garrison, South of the M4, North Wokingham and South Wokingham
- Policy SS2 – Settlement Hierarchy: Identifies the location of major development throughout Wokingham Borough
- Policy SS3 – Grazeley garden town: Provides for 3,750 net new dwellings within the Plan period
- Policy SS5 – South of the M4 Strategic Development Location: Provides for 5 net new dwellings and 18,500m<sup>2</sup> of new employment space
- Policy SS6 – North Wokingham Strategic Development Location: Provides for 250 net new dwellings
- Policy SS7 – South Wokingham Strategic Development Location: Provides for 17 net new dwellings
- Policy ER10 – Whiteknights Campus: Provides for additional student accommodation
- Policy H1 – Housing Provision: Provides for a minimum of 13,901 net new dwellings in the Plan period between 2018 and 2036
- Policy H2 – Sites allocated for residential / mixed use: Lists 18 allocated residential sites, totalling 940 net new residential dwellings
- Policy H11 – Gypsies and Travellers and Travelling Showpeople provision: Provides for 24 net new gypsy and traveller pitches

### 6.2.1 Thames Basin Heaths SPA

As identified in the screening section of this HRA, the SPA is designated for several bird species that depend on heathland habitats, which are sensitive to atmospheric pollution (critical nitrogen load of 10-20 kg N/ha/yr). Given the development allocated within the Wokingham Local Plan Update (expecting an additional 13,901 net new dwellings and an unspecified amount of net new employment space) and the growth to be delivered by surrounding districts over this time scale, the Local Plan might have significant air quality impacts alone and 'in-combination' with other Local Plans. This is because all development allocations will increase the local population and accordingly the need for motorised travel within the Borough.

#### 6.2.1.1 General Setting of the SPA

When assessing the potential atmospheric pollution impact of a Plan on a designated site, an initial assessment of the location of the site in relation to the major traffic infrastructure should be undertaken. In relation to Wokingham Borough the most important component parcels of the Thames Basin Heaths SPA lie along the A327 and the A30 in the Hart District just south of Wokingham Borough. Both of these are major roads with relatively high traffic flow.



Review of detailed habitat mapping within these SPA parcels shows that there is heathland within 200m at various points along these roads. For example, on Warren Heath, heathland habitat lies within 140m of the A327 (near Wood Farm). Furthermore, there are multiple locations where heathland directly borders on to the A30, such as east of Blackbushe Airport and in Yateley Common Country Park. Another major parcel of the SPA that is potentially relevant to the Wokingham Local Plan Update lies to the south of Bracknell, immediately adjacent to the A322. However, a review of the heathland distribution within the SPA indicates that there is no sensitive heathland within 200m of the A322, the majority of heathland in this parcel occurring in the south-western part of this parcel. Therefore, it is considered that the SPA parcels to the south of Wokingham Borough (along the A327 and A30) are the only ones to be realistically impacted by traffic resulting from the Local Plan Update.

#### 6.2.1.2 Commuter traffic

It is to be noted that this analysis into the pattern of commuter traffic only reflects the current pattern of motorised travel of Wokingham Borough's residents and it is not necessarily the case that future residents will follow the same transport links. However, given that route choice is likely to be based on minimising journey time and that the prevailing road infrastructure is unlikely to change substantially, journey-to-work data is generally a useful starting point for assessing the potential impacts of Local Plans on the impact pathway atmospheric pollution.

According to Journey to Work data from the 2011 census<sup>93</sup>, five of the ten most common destinations for journeys to work arising from Wokingham Borough are Reading (12,616 people, 29.3%), Bracknell Forest (6,371 people, 14.8%), Windsor and Maidenhead (3,124 people, 7.3%), West Berkshire (2,659 people, 6.2%) and Slough (1,767 people, 4.1%). Of these destinations, only commuters travelling to Bracknell Forest are likely to use the A322 in significant numbers. However, given that there is no SPA heathland within 200m of this road (see previous section), an increase in traffic on this road arising from the Local Plan Update is unlikely to affect the ability of the SPA to meet its conservation objectives.

The 2011 census data indicate that the Hart District is among the top five authorities contributing to the inflow of commuter traffic into Wokingham Borough (1,235 of the total inflow of 30,855 people, 4%). The journey-to-work routes for Hart residents from the settlements of Fleet, Farnborough and Aldershot, might take commuters into Wokingham Borough along the A30 and A327 trajectory, bringing them within 200m of sensitive heathland habitat. The allocation of new employment development in Wokingham Borough might therefore lead to an increase in the number of car-based commuter journeys along this stretch of the SPA with potential air quality impacts on the adjacent heathland. However, a review of popular navigation systems indicates that local residents have a range of route choices with similar travel times. For example, depending on travel conditions, a journey from Fleet to Wokingham Borough via the A3095 might take a similar amount of time than using a combination of the A30 and A327, depending on travel conditions.

It is to be noted that these data do not include journeys to work that both start and end in Wokingham Borough and the commuter journeys that are carried out on foot, by bike or by public transport. Therefore, the actual proportion of regular commuter journeys that might involve passing within 200m of component sites of the Thames Basin Heaths SPA is likely to be lower than the relative proportions of car travel that are summarised here.

Regarding the impact pathway atmospheric pollution, the Local Plan Update already contains some broad protective policy wording. **Policy HC6 (Air Pollution and Air Quality)** addresses pollution levels by stating that '*Prevailing air quality and potential impacts upon air quality arising from airborne emissions, dust and odour associated with the construction and operation of a proposal (including vehicular traffic) will be considered when determining planning applications*'. The policy also states that an air quality assessment might become necessary for developments. Any further recommendations, such as the incorporation of additional policy wording and specific mitigation initiatives in relation to the Thames Basin Heaths SPA, will depend on the results of the AQIA and would be drawn up in collaboration with Wokingham Borough Council.

<sup>93</sup> Available at <https://www.nomisweb.co.uk/census/2011/wu03uk> [accessed 12/04/2019]

## 6.2.2 Chilterns Beechwoods SAC

As identified in the screening section of this HRA, the SAC is designated for *Asperulo-Fagetum* beech forest (critical nitrogen load of 10-20 kg N/ha/yr) and semi-natural dry grassland (critical nitrogen load of 15-25 kg N/ha/yr), both of which are sensitive to atmospheric pollution, and particularly nitrogen deposition. It was also noted that the current deposition rates by far exceed this critical load, indicating that any further increase could result in adverse effects on the SAC's site integrity. Given the development allocated within the Wokingham Local Plan Update and the growth to be delivered by surrounding districts over this time scale, the Local Plan might have significant air quality impacts alone and 'in-combination' with these other Local Plans. This is because all development allocations will increase the local population and accordingly the need for motorised travel within the Borough.

### 6.2.2.1 General Setting of the SAC

The Chilterns Beechwoods SAC is a composite with numerous parcels. The only parcel of the SAC that is likely to be relevant to development in Wokingham Borough is Bisham Woods, a component part approx. 4.7km to the north-east of Wokingham Borough along the A404 in the adjoining authority of Windsor and Maidenhead. Detailed mapping of the priority deciduous woodland habitat on MAGIC indicates that the qualifying woodland is distributed across the entire SAC parcel. Therefore, it is considered that the entirety of Bisham Woods is sensitive to atmospheric pollution and could be impacted by an increase in traffic along this section of the A404.

### 6.2.2.2 Commuter traffic

According to Journey to Work data for Wokingham Borough from the 2011 census<sup>94</sup>, Windsor and Maidenhead (the authority in which Bisham Woods lies) is a major contributor to and recipient of commuter traffic into and out of Wokingham Borough. For example, of the 23,329 people that commute into Wokingham Borough on a daily basis, 1,467 people (6.3%) come from Windsor and Maidenhead. Of 32,417 outward commuters from Wokingham Borough, 2,791 people (8.6%) travel to Windsor and Maidenhead. However, the SAC parcel is in the very north of the authority, such that commuters that end their journey in Windsor and Maidenhead, are unlikely to drive within 200m of Bisham Woods. The A404 runs directly on into Wycombe and it is therefore considered that commuter traffic between Wokingham Borough and Wycombe is most likely to affect this part of the SAC.

Census 2011 data highlights that some of Wokingham Borough's residents commute to Wycombe, although this is relatively small proportion of the overall commuter traffic. 574 (2.5%) of all commuters travelling into Wokingham Borough come from Wycombe. Conversely, 971 (3%) of all out-commuters travel into Wycombe. It is to be noted that in comparison to Reading (which accounts for 18.6% of the inflow and 24.8% of the outflow of commuters), this is an exceedingly small proportion. Notwithstanding this, the potential for adverse effects on the air quality within this SAC component requires assessment, particularly in-combination with the growth in the aforementioned Windsor and Maidenhead, and Wycombe (and other nearby authorities).

While Wycombe directly borders the north of the Wokingham Borough, there are no obvious road links between the authorities in this area. It is considered that travelling via Windsor and Maidenhead and using the A404 is the only commuter route between these authorities. This is supported by a review of the road suggestions on Google Maps. Even residents from Wargrave, which is the northernmost large settlement in Wokingham Borough and very close to the authority of Wycombe, travelling to Marlow (the southernmost large settlement in Wycombe) are most likely to commute via the A404, as this is given as the fastest route.

It is to be noted that the data presented here do not include journeys to work that both start and end in Wokingham Borough or commuter journeys that are carried out on foot, by bike or by public transport. Therefore, the actual proportion of regular commuter journeys that might involve passing within 200m of Bisham Woods (component part of the Chilterns Beechwoods SAC) is likely to be lower than the relative proportions of car travel that are summarised here.

Regarding the impact pathway atmospheric pollution, the Local Plan Update already contains some broad protective policy wording. Policy HC6 (Air Pollution and Air Quality) addresses pollution levels by

<sup>94</sup> Available at <https://www.nomisweb.co.uk/census/2011/wu03uk> [accessed 12/04/2019]

stating that '*Prevailing air quality and potential impacts upon air quality arising from airborne emissions, dust and odour associated with the construction and operation of a proposal (including vehicular traffic) will be considered when determining planning applications*'. The policy also states that an air quality assessment might become necessary for developments. Any further recommendations, such as the incorporation of additional policy wording and specific mitigation initiatives in relation to the Chilterns Beechwoods SAC, will depend on the results of the AQIA and would be drawn up in collaboration with Wokingham Borough Council.

## 7. Conclusions and Recommendations

This HRA assessed the potential impacts of residential and employment growth allocated in the Wokingham Local Plan Update on the following European sites:

- Thames Basin Heaths SPA;
- Thursley, Ash, Pirbright and Chobham SAC;
- Chilterns Beechwoods SAC; and
- Windsor Forest & Great Park SAC

The impact pathways that were considered, included recreational pressure, atmospheric pollution, loss of functionally linked land, and water quantity, level and flow. It was considered that Likely Significant Effects of the Local Plan Update could not be excluded regarding recreational pressure and atmospheric pollution. The following key conclusions and recommendations derive from the Appropriate Assessment.

### 7.1 Impact pathway: Recreational pressure

The Local Plan Update allocates 4,465 net new dwellings in the 5km and 5-7km mitigation zones surrounding the Thames Basin Heaths SPA, which would require the delivery of appropriate mitigation measures in the form of Suitable Alternative Greenspace (SANG) and Strategic Access Management & Monitoring (SAMM). An assessment of the Plan's policies showed that the document gives appropriate regard to the provision of SANG and SAMM.

However, given the relatively large amount of SANG required (85.7ha were identified in the Appropriate Assessment), it is advised that the Council develop a record of SANG availability, including the key characteristics of size and geographic location, that can be submitted to the Examination process as evidence for the deliverability of the anticipated residential development. This is to demonstrate that adequate mitigation of recreational pressure in the TBH SPA is provided and that Natural England guidelines are followed. It is to be noted that most Strategic Development Locations (except for Grazeley garden town) are existing commitments deriving from the Core Strategy and are under construction. Individual developers would have already done significant groundwork with the Council and Natural England to devise appropriate SANG provision. Furthermore, if a bespoke SANG provided for Grazeley garden town was also to serve as a strategic SANG for other smaller residential developments, this would have to be agreed with the developer. Any developments that were to be addressed by a SANG could not become occupied until the SANG was functioning. The specifics relating to the provision of SANG and SAMM, such as the amount and location of SANGs and the per-dwelling SAMM contribution, should be set out in a separate strategic Supplementary Planning Document (SPD), as has been developed for other authorities such as Surrey Heath.

Overall, it is concluded that, given the provision of adequate SANG and SAMM there will be no adverse effects of the Wokingham Local Plan Update on the site integrity of the Thames Basin Heaths SPA regarding the impact pathway recreational pressure.

### 7.2 Impact pathway: Atmospheric pollution

The Wokingham Local Plan Update provides for 13,901 dwellings and an unspecified amount of employment space, which is likely to increase the number of car-based commuter journeys adjacent to European sites that are sensitive to atmospheric pollution. The Appropriate Assessment highlighted that two European sites within 10km from Wokingham Borough are sensitive to atmospheric pollution and lie within 200m of key commuter routes identified as relevant to the Local Plan Update, namely the Thames Basin Heaths SPA and the Chilterns Beechwoods SAC.

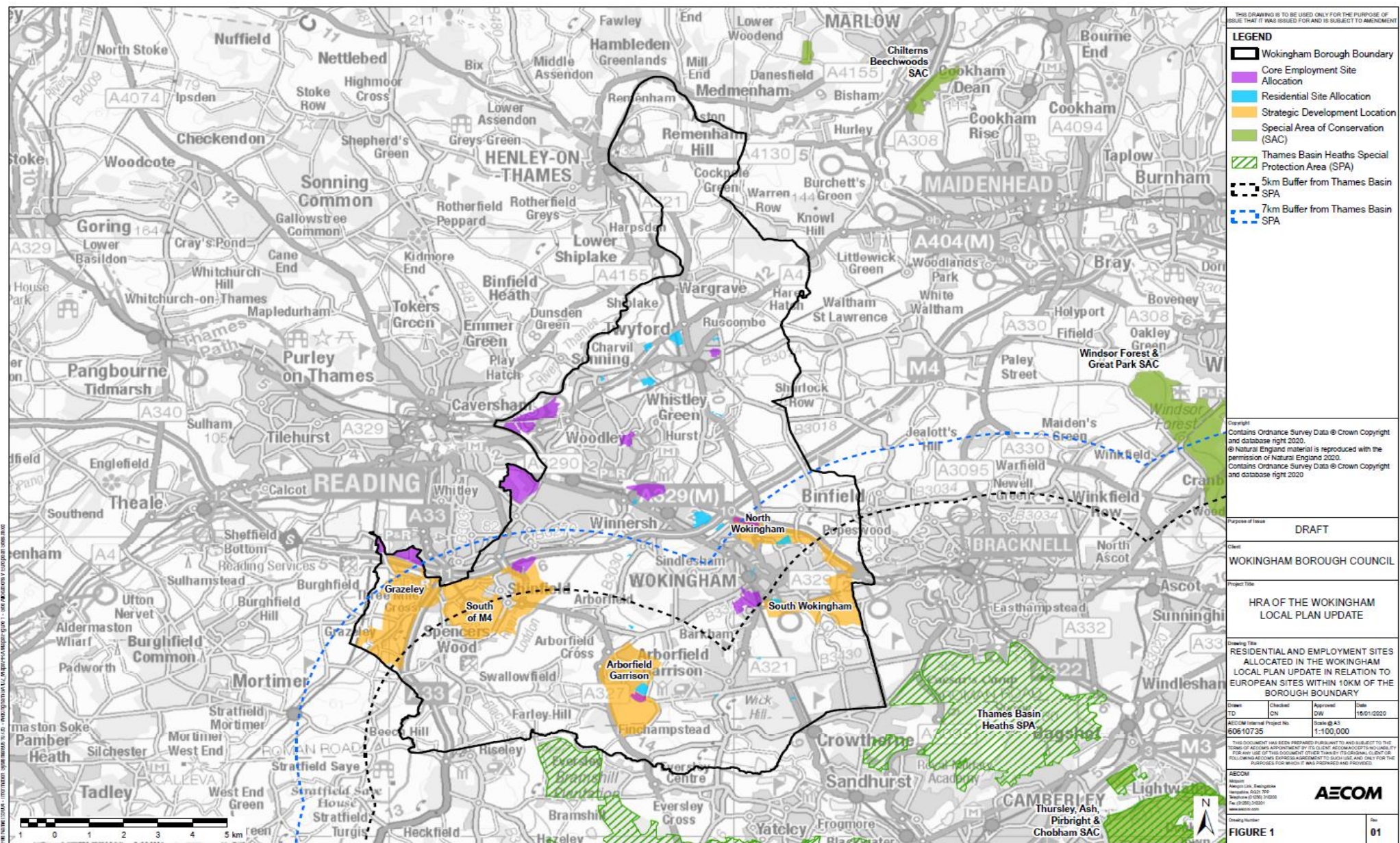
The in-combination atmospheric pollution effects of a Plan document are addressed through Air Quality Impact Assessments (AQIAs), which model the predicted air quality effects of the growth projected in several adjacent authorities. An AQIA in relation to these two European sites has been commissioned but has not yet been completed. However, a firm conclusion regarding potential adverse effects of the

Local Plan Update on the two sites cannot be reached, until the air quality data is available. Therefore, this HRA will be updated (both in terms of results and potential recommendations) once the AQIAs are available.

## 8. Appendices

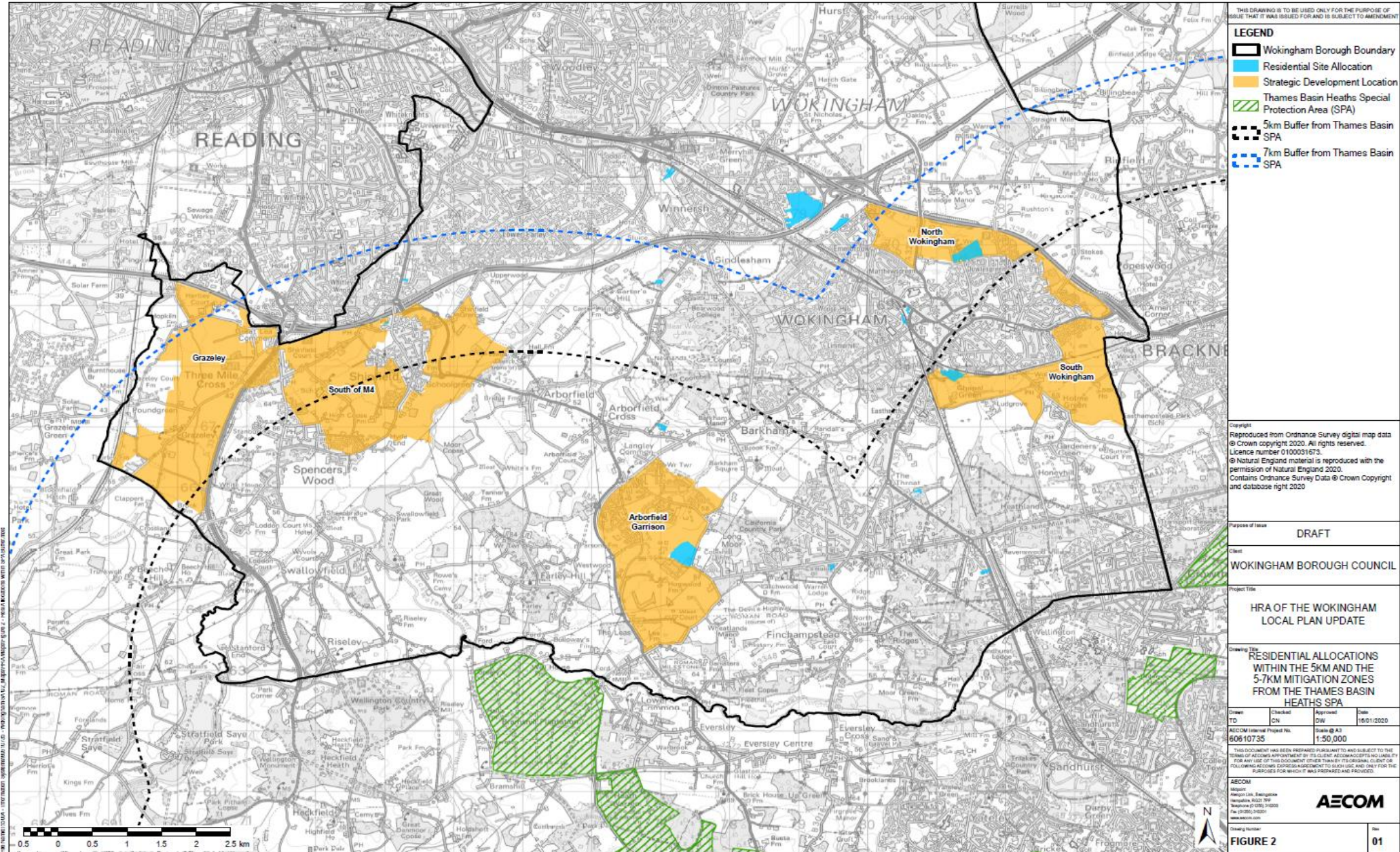
**Appendix 1: Map of the European sites in relation to the boundary of Wokingham Borough, and the residential and employment site allocations provided for in the Local Plan Update. The map also shows the 5km and 7km mitigation zones defined for recreational pressure around the Thames Basin Heaths SPA.**







**Appendix 2: Zoomed in map of the Thames Basin Heaths SPA in relation to nearby residential and employment site allocations provided for in the Local Plan Update.**





### Appendix 3: Screening of Plan Policies

Appendix 3 presents an HRA screening assessment of all the policies within the draft Local Plan, alone and 'in-combination' with other plans. Where policies have been coloured green in the 'Likely Significant Effect' columns, this indicates that the policy does not contain potential impact pathways linking to European designated sites and has been screened out from further consideration. Where policies have been coloured orange in the 'Likely Significant Effect' columns, this indicates that the policy provides for potential impact pathways linking to European designated sites and has been screened in for further consideration in this report.

Policy number/ name	Policy detail	Test of Likely Significant Effects (LSEs)
<b>Chapter 4 – Spatial Strategy</b>		
Policy SS1: Spatial Strategy	<p>New growth will be balanced by ensuring that Wokingham Borough's identified development needs can be met with adequate provision of infrastructure, in a manner that enables improvements to quality of life, reduces the need to travel, adapts to and mitigates against the impacts of climate change to achieve a 'carbon neutral' future, and maintains and strengthens the sense of place, including the role and separate identity of settlements.</p> <p>The following actions will help to achieve this:</p> <ul style="list-style-type: none"> <li>a) Manage development so that it is consistent with the character, accessibility and provision of infrastructure and services within that settlement.</li> <li>b) Ensure sufficient supporting infrastructure is delivered to facilitate the growth in new homes and jobs.</li> <li>c) Deliver a minimum of 13,901 dwellings over the plan period 2018-2036, of which development proposals for 5 or more units (net) should provide up to 50% as affordable housing.</li> <li>d) Support town centres and high streets to evolve and adapt as social and economic hubs.</li> <li>e) Promote quality and innovation in the design of buildings and public spaces, ensuring they are attractive, accessible, welcoming and meet needs of all groups in the community.</li> <li>f) Prioritise sustainable travel and embrace innovative technologies.</li> <li>g) Protect and enhance the borough's heritage assets and townscape value.</li> <li>h) Secure enhancements to the natural environment (including achieving a minimum 10% net gain in biodiversity) and public realm.</li> <li>i) Promote healthy lifestyles and wellbeing.</li> </ul>	<p>Likely Significant Effects on European sites cannot be excluded.</p> <p>Policy SS1 is a development management policy that sets out the spatial strategy for Wokingham Borough, in order to deliver the development needs of the Borough within the Plan period of 2018-2036. Among other features it provides for 13,901 net new dwellings, the protection of existing employment locations and the promotion of sustainable travel modes.</p> <p>The policy also sets out where housing, employment and retail development will be delivered, most notably in a new self-contained garden town at Grazeley.</p> <p>The policy therefore sets out both a quantum and the location of development, which are both important factors in determining the magnitude of potential impact pathways.</p>

	<p>j) Enable a ‘carbon neutral’ future, by ensuring that new development minimises carbon and other emissions, and champions initiatives and solutions to improve energy efficiency in existing buildings and new developments.</p> <p>k) Support the efficient use of land and buildings.</p> <p>l) Limit development on area of best and most versatile agricultural land.</p> <p>m) Limit development on sites that would unacceptably reduce the perceived physical and visual separation of settlements.</p> <p>The primary focus of growth will be delivered through the creation of a new self-contained garden town at Grazeley, located on the boundary with Wokingham Borough Council, West Berkshire District Council and Reading Borough Council. The new garden town will be strategic in scale and will be planned and developed drawing on garden city/town principles, with essential infrastructure and facilities provided, and designed to a high quality to achieve successful place-making.</p> <p>Growth will also be delivered elsewhere as follows:</p> <p>Housing development:</p> <ul style="list-style-type: none"> <li>• Continued delivery and completion of the four existing Strategic Development Locations: <ol style="list-style-type: none"> <li>1. Arborfield Garrison</li> <li>2. South of the M4</li> <li>3. North Wokingham</li> <li>4. South Wokingham</li> </ol> </li> <li>• The delivery and completion of non-strategic site allocations across the borough consistent with the character, accessibility and provision of infrastructure and services within that settlement.</li> <li>• Development within towns and villages consistent with the character and the accessibility of the location.</li> </ul> <p>Employment development:</p>	<p><b>Potential impact pathways are present:</b></p> <ul style="list-style-type: none"> <li>• <b>Recreational pressure</b></li> <li>• <b>Atmospheric pollution</b></li> <li>• <b>Loss of functionally linked land</b></li> </ul> <p>Due to these potential linking impact pathways the policy is screened in for Appropriate Assessment.</p>
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	<ul style="list-style-type: none"> <li>Continued evolution and intensification of businesses and premises, in particular Core Employment Areas and town centres.</li> <li>Small scale development within the countryside consistent with the character and the accessibility of its location.</li> </ul> <p>Retail development:</p> <ul style="list-style-type: none"> <li>Continued protection, and evolution of town, district and local centres.</li> </ul>	
Policy SS2: Settlement Hierarchy and scale and location of development proposals	<p>The scale of development proposals must reflect the existing or proposed level of facilities and services at or in the location, together with their accessibility. Development proposals within development limits will be acceptable in:</p> <p>The major development locations at Tier 1 settlements: Arborfield Garrison, Earley, Grazeley Garden Town, Green Park, Shinfield (north of M4), Twyford, Winnersh, Wokingham and Woodley.</p> <p>The modest development locations at Tier 2 settlements: Pinewood (Crowthorne), Finchampstead North, Ruscombe, Shinfield (south of M4, Three Mile Cross and Spencers Wood) and Wargrave.</p> <p>The limited development locations at Tier 3 settlements: Arborfield Cross, Barkham Hill, Charvil, Finchampstead, Hurst, Riseley, Sindlesham, Sonning and Swallowfield.</p> <p>Major economic activity will be accepted within the boundary of the Thames Valley Science Park where consistent with Policy ER2 (Core Employment Areas).</p>	<p>Likely Significant Effects on European sites cannot be excluded.</p> <p>Policy SS2 is a development management policy that sets out the settlement hierarchy for Wokingham Borough, defining the major development locations within the Borough.</p> <p>The policy therefore sets out the location of development, which is important in determining the magnitude of impact pathways. The distance of new housing is particularly important in the context of recreational pressure in the Thames Basin Heaths SPA.</p> <p><b>Potential impact pathways are present:</b></p> <ul style="list-style-type: none"> <li>Recreational pressure</li> <li>Atmospheric pollution</li> <li>Loss of functionally linked land</li> </ul>

		Due to these potential linking impact pathways the policy is screened in for Appropriate Assessment.
Policy SS3: Grazeley garden town	<p>A new garden town that delivers a minimum of 15,000 dwellings (a minimum of 10,000 dwellings within Wokingham Borough and 5,000 dwellings within West Berkshire District) is allocated on the border of Wokingham Borough Council, West Berkshire District Council and Reading Borough, at Grazeley. The delivery of Grazeley garden town is subject to the support of timely and early delivery of commensurate levels of essential infrastructure, identified in the Housing Infrastructure Fund (HIF) Bid (Table 1 below) to accelerate delivery. The opportunity for this forward funding will continue to be jointly monitored and pursued by the councils.</p> <p>The garden town will be a holistically and comprehensively planned, self-contained new community with a distinct identity and character within its context. Development will secure high quality and innovative sustainable design and construction that promotes sustainable, attractive places to live for its new residents and champions climate resilience and adaptation to achieve a 'carbon neutral' garden town. The garden town will be of a sufficient scale to incorporate a proportionately sized town centre with proportionate retail and service components, a range of homes, employment, education and community facilities, civic and green spaces and other uses to enable residents to meet the majority of their day-to-day needs, reducing the need for outward travel and commuting.</p> <p>The new garden town is not located within the Detailed Emergency Planning Zone (DEPZ) for AWE Burghfield. In the event this changes the council will work with partners to ensure that emergency planning is kept up to date and that an adequate off site emergency plan is in place.</p> <p>A Masterplan and Infrastructure Delivery Plan SPD will be prepared and coordinated jointly between the councils, working in collaboration with key stakeholders and infrastructure / service providers.</p> <p><u>Development Principles:</u></p>	<p>Likely Significant Effects on European sites cannot be excluded.</p> <p>Policy SS3 is a strategic development management policy that identifies the scale and location of a new garden town at Grazeley, which will be supported by a Masterplan and an Infrastructure Delivery Plan SPD. The new garden town will deliver a minimum of 15,000 net new dwellings (10,000 to be delivered in Wokingham Borough and 5,000 in the adjoining West Berkshire District), of which 3,750 will be delivered in the Plan period.</p> <p>Furthermore, Policy SS3 provides detailed design guidance on the forthcoming garden village. Most importantly from an HRA perspective, the town will follow a landscape-led approach comprising a network of multi-functional green and blue infrastructure, and cycling / walking routes. The policy provides for the explicit mitigation of recreational pressure effects on the Thames Basin Heaths SPA through the provision of Suitable Alternative Greenspace (SANG), most importantly through the provision of a new country park.</p>

	<p>The SPD will provide the framework for the subsequent development of more detailed masterplans and other design and planning guidance for the Grazeley garden town and will ensure any new development is considered in the context of a comprehensive, strategic and holistic approach including:</p> <p>i. Plan the new community around a step change in integrated and sustainable transport systems for Grazeley / edge of Reading area. Walking, cycling, rail and rapid public transit networks and connections will be at the heart of growth in the area by establishing a highly legible, attractive and accessible movement network to encourage and incentivise more sustainable active travel patterns both within the development and to the surrounding area, particularly Reading. The garden town will also identify measures to mitigate the transport impacts (including longer term) of the proposed development on the strategic and local road network.</p> <p>ii. Structure the new community to create sociable, vibrant and walkable neighbourhoods around a vibrant town centre, and district and local centres. This includes access for all to a range of local employment opportunities and community services and facilities, including health/wellbeing, education, retail, culture, civic spaces, multi-functional open space, sports and leisure facilities that are well integrated and connected to public transport to support well-being and social cohesion.</p> <p>iii. Provide and promote appropriate opportunities for local and small-scale employment for new and existing residents, both within and outside the new garden community, to support and enhance the overall economic viability of Grazeley garden town.</p> <p>iv. Enhance the natural environment, through a comprehensive strategic landscape, drainage and connectivity strategy and comprehensive network of multi-functional green and blue infrastructure by creating ecological networks and habitats to support a minimum 10% net gain in biodiversity, including high levels of connectivity to existing local and long-distance corridors and networks and supporting opportunities for formal / informal recreation.</p> <p>v. Secure a comprehensively planned smart and sustainable approach that champions climate resilience and adaptation through design and construction methods that secure 'carbon neutral' homes. Grazeley garden town will deliver high standards of energy</p>	<p>The policy also provides other essential detail about the development of the town, including the use of Sustainable Drainage Systems (SuDS) and the promotion of active travel modes.</p> <p><b>Potential impact pathways are present:</b></p> <ul style="list-style-type: none"> <li>• <b>Recreational pressure</b></li> <li>• <b>Atmospheric pollution</b></li> <li>• <b>Loss of functionally linked land</b></li> </ul> <p>Due to these potential linking impact pathways the policy is screened in for Appropriate Assessment.</p>
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	<p>efficiency and water efficiency (with the aim of being water neutral in areas of serious water stress), sustainable waste and mineral management and innovations in technology to ensure the new garden community is resilient to climate change and champions 'carbon neutral' development.</p> <p>vi. Consider any potential on-site mineral resources through the submission of a Minerals Resource Assessment to the Minerals Planning Authority.</p> <p><u>Place-shaping Principles</u></p> <p>The SPD and any future planning applications will address the following principles and requirements in the design of the new garden town:</p> <p>A. Place-making and design quality</p> <p>A.1 The development of a new garden community to high standards of design, championing Town and Country Planning Association (TCPA) garden city principles which draw on its context and the considerable assets within its boundaries such as hedgerows, trees, woodland, water and changes in topography. The development should encourage pioneering and innovative architecture, the careful design of continuous civic spaces and high-quality public realm to create a new garden town that is distinctive, innovative, contemporary and technologically enabled, set within a strong green and blue infrastructure framework with a new 'destination' town centre and local centres at its heart. Streets will be designed with a high proportion of active frontages to ensure a consistent design language, a sense of place and activity. It will be designed and developed to have its own identity and be as self-sustaining as possible, recognising its location close to the edge of Reading. It will be sympathetically integrated with the existing settlement of Grazeley and the surrounding area through the provision of suitable walking and cycling links, rapid public transport systems and connections to enable convenient access to town centre services and facilities at the new garden community, as well as Reading Town Centre. Grazeley garden town will establish a distinct and unique identity and gravity as a town centre destination, by incorporating measures to protect and retain the permanent physical and visual sense of separation between settlements, including Shinfield, Spencer's Wood and Three Mile Cross to maintain their existing identity and setting in the longer-term</p>	
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	<p>A.2 Detailed and comprehensive SPD masterplans and design guidance will be put in place to inform and guide development proposals and planning applications. Planning applications for the garden community will be expected to be consistent with the SPD and subsequent masterplans and design and planning guidance.</p> <p>B. Housing</p> <p>B.1 A mix of housing sizes, types and tenures to ensure balanced, inclusive and accessible communities, including the provision of self-and custom-build, specialist accommodation, starter homes, key worker housing, and Gypsy and Travelers on the site to assist the councils in meeting its evidenced housing needs within the plan period. A minimum of 35% affordable housing should be provided on site and be phased through the development.</p> <p>B.2 Higher storey heights and development densities will be expected around the town centre, district centres and local centres, public transport interchanges and key routes. Residential development in these areas should achieve typical average densities ranging from 80 dwellings per hectare to 100 dwellings or more per hectare. Elsewhere a typical average of 60 dwellings per hectare will be encouraged and considered in the context of place-making aspirations for the garden town's vision and concept and the needs of a diverse community.</p> <p>C. Vibrant town centre and neighbourhoods</p> <p>C.1 The town centre should be of an appropriate scale, providing for a mix of community services, facilities and employment opportunities at the heart of the garden settlement. The town centre shall be planned where it is easily legible and accessible by walking, cycling and public transport and located within an area of higher density housing to increase its vitality and viability. Higher density mixed-use development with several storeys of residential use above commercial premises will be appropriate in the town centre.</p> <p>C.2 Food shopping (convenience and comparison retail) shall be phased to grow with the settlement and be provided and/or reserved within the town centre to allow choice and variety as well as reducing the need to travel for day-to-day needs. A retail impact assessment shall be undertaken to demonstrate that there would be no unacceptable detrimental impacts on the vitality and viability of nearby town centres or village centres</p>	
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	<p>including Reading Town Centre and existing Strategic Development Location South of the M4, by the scale and/or phasing of town centre development.</p> <p>C.3 The town centre shall be closely integrated with walkable village neighbourhoods, championing garden town principles, providing high quality walking and cycling links between neighbourhoods and to the town centre.</p> <p>C.4 Neighbourhoods and the town centre shall be connected by a high quality, legible and integrated network of streets, footways, cycle ways and open spaces.</p> <p>C.5 Each neighbourhood should be designed to be consistent with the vision of Grazeley overall but also have its own distinct identity and special character.</p> <p>D. Employment and Jobs</p> <p>D.1 A wide range of job, skills and training opportunities will be created in the garden town, associated with town, district and local centre uses, subject to their alignment to the design and wider garden settlement principles of self-containment. The settlement's location near the gateway to the Thames Valley Corridor provides an opportunity to deliver employment uses associated with the Central Thames Valley Growth Hub and other employment in the area around Junction 11 of the M4. This should include proportionately scaled and designed B1 and/or non B class employment generating uses.</p> <p>D.2 All residential, business, community and town centre buildings and public spaces shall be enabled for high speed and reliable broadband and 5G coverage (and their technological successors). Homes will also be designed to include specific and adaptable spaces suitable for home-working.</p> <p>E. Transportation</p> <p>E.1 A comprehensive package of measures will be introduced to facilitate and enable smarter transport choices to meet the needs of the new community and maximise opportunities for sustainable travel. Grazeley garden town will be a highly sustainable, self-contained, new settlement supported by a comprehensive and integrated transport system</p>	
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	<p>including: the provision of an appropriately lit network of footpaths, cycleways and bridleways to enhance permeability within the site to connect to the borough's existing Greenways network and/or National Cycle Network routes and to access essential community services and facilities at the new garden community, as well as neighbouring settlements in the area; a new railway station on site; the extension and integration of a high-quality rapid public transit and public transport network to facilitate an attractive and accessible link to Reading and railway stations at Mortimer and Green Park; Park and Ride facilities; upgrades to the A33 and Junction 11, and other effective integrated measures to mitigate the transport impacts of the proposed development on the strategic and local road network.</p> <p>E.2 Comprehensively planned, designed and legible foot and cycle ways shall be provided throughout the development, integrating with the Greenways network and connecting with the surrounding areas and countryside, including seamlessly linking key development areas including Green Park, Shinfield, Three Mile Cross, Spencer's Wood, Swallowfield, Grazeley Green, Mortimer and Reading Town Centre.</p> <p>E.3 Support and not prejudice the provision of a new railway station to facilitate longer-term growth at the new garden community. The councils will continue to support a railway station at Grazeley garden town and will work with Network Rail, railway operators and other partners to develop and implement a strategy for its future delivery and ensure opportunities to do so are fully explored and maximised.</p> <p>E.4 Other specific transport-related infrastructure requirements identified through the Masterplanning SPD and masterplans for this garden community will be delivered in a phased manner.</p> <p>F. Community Infrastructure</p> <p>F.1 Town, district and local centres of an appropriate scale will be provided to serve the proposed development. The town centre shall accommodate a mix of uses including comparison and convenience retail, employment and community uses. The centres will be located where they will be easily legible and accessible by walking, cycling and public transport to most residents in the garden community.</p>	
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	<p>F.2 High quality public realm and civic spaces will be provided within the town, district and local centres.</p> <p>F.3 Healthcare hub facility will be provided to serve the new community.</p> <p>F.4 Two secondary schools and seven primary schools will be provided to serve the new community.</p> <p>F.5. Indoor leisure and sports facilities will be provided within the new community, or contributions made, where appropriate, to the improvement of nearby off-site leisure facilities to serve the new development.</p> <p>G. A landscape-led approach</p> <p>G.1 A comprehensive network of multi-functional green and blue infrastructure and walking and cycling routes will be provided within the garden community incorporating key elements of the existing green assets within the site, including Foudry Brook corridor. It will include Suitable Alternative Natural Greenspace (SANG) as part of mitigating impacts upon the Thames Basin Heaths Special Protection Area, community parks, allotments and a new country park (easily accessible from the town centre and beyond). Sustainable drainage methods will be required throughout the site, in accordance with the SuDS Strategy, to mitigate flood risk and provide biodiversity enhancements to achieve an overall minimum net gain of 10%.</p> <p>G.2 The delivery of permanent and protected multi-functional open spaces, green spaces and routes should make for distinct areas of separation between the new development and the urban edge of Reading, Grazeley garden town and existing settlements, including Shinfield, Spencers Wood and Three Mile Cross.</p> <p>G.3 Sports provision and play areas with associated facilities, informal open spaces, allotments and community parks located to maximise use and meet the leisure and recreational needs of the new garden community, informed by the council's local standards for open space, sport, recreation and play facilities.</p>	
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	<p>H. Defence and Security</p> <p>H.1 Development proposals for the new garden town are not currently located within the Detailed Emergency Planning Zone (DEPZ) for AWE Burghfield,. Under the Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPPPIR), the local authority responsible for emergency planning (West Berkshire District Council) is required to put in place detailed off-site emergency planning arrangements to minimise and mitigate any health consequences of from radiation that may be released as a result of a future incident at the nuclear site. The council is aware that the DEPZ is being reviewed by AWE and the Office of Nuclear Regulation (ONR), which may affect the development proposals and emergency planning for this site in the future. Development proposals within the DEPZ will therefore need to be consistent with any future off-site emergency plan prepared by West Berkshire District Council as the Emergency Planning Authority to demonstrate that development will not impact on its function and operation.</p> <p>H.2 The ONR specify detailed and outline emergency planning zones to reduce the potential impact on the public from any accidents arising as a result of site operations. Any development proposals located within, or in proximity to, the Detailed Emergency Planning Zone (DEPZ) will require consultation with the ONR in accordance with Policy HC10 (Development in the vicinity of Atomic Weapons Establishment (AWE), Burghfield).</p> <p><u>Delivery and Implementation Principles</u></p> <p>The design, delivery and implementation of the new garden community will conform with the following principles:</p> <ul style="list-style-type: none"> <li>i. Community and stakeholder empowerment in the design and delivery of the garden town from the outset and a long-term community engagement strategy.</li> <li>ii. The public sector will take a lead working pro-actively and collaboratively with the private sector to design, and bring forward the garden town, using an appropriate delivery model, sharing risk and reward and ensuring the cost of achieving the following is borne by landowners and those promoting the developments:</li> </ul>	
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	<p>(a) securing a high-quality of place-making,</p> <p>(b) ensuring the early delivery of both on and off-site infrastructure required to address the impact of the new community, and</p> <p>(c) establish at an early stage in the development of the garden town, appropriate, asset backed and sustainable long-term governance and stewardship arrangements for community assets including green space, sustainable drainage systems, community buildings, sports and leisure facilities, public realm and community development and cohesion and other relevant facilities. These arrangements should be funded by development and include community representation to ensure residents have a stake in the long-term development, stewardship and management of their community</p> <p>iii. Given the scale of and time period for development of the new garden town, the appropriate model of delivery will secure a comprehensive approach to the delivery of the new community in order to achieve the outcomes outlined above, avoid a piecemeal approach to development, provide the funding and phasing of both development and infrastructure, and be sustainable and accountable in the long term.</p> <p>iv. Exemplar planning, design and management of the built and natural environment will ensure Grazeley garden town is a destination of gravity, characterised as a distinctive place that capitalises on local assets and establishes an environment that promotes health and well-being. This will involve developing detailed design guidance including concept frameworks, detailed masterplans and design codes and other guidance to inform and guide development proposals and planning applications. Planning applications and any local development orders or other consenting mechanisms for the garden town will be expected to be consistent, and clearly demonstrate their compliance with all guidance and demonstrate that each proposal/phase pays its own fair share of infrastructure and enables and does not block delivery of the whole town.</p> <p>v. Sequencing of development and infrastructure provision (both on-site and off-site) to ensure infrastructure is available for use ahead of, or in tandem with, the development it supports, to address the impacts of the new garden town, meet the needs of residents and establishes sustainable travel patterns.</p>	
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	<p>vi. Ensure that the costs and benefits of developing the new garden town clearly evidenced, shared by all landowners / developers, with appropriate and transparent measures put in place to equalise the costs and land contributions.</p> <p>The new garden town will conform to the SPD which will set out the nature, form and boundary of the new community and will be informed by a landscape led approach to master planning of the Grazeley garden town. The SPD will be produced in consultation with stakeholders and be supported by a phasing and implementation strategy, which sets out how the rate of development will be linked to the provision of the necessary social, physical and environmental infrastructure to ensure that the respective phases of the development come forward with the necessary infrastructure in place.</p> <p><b>Table 1: Essential Early Enabling Infrastructure Projects included in the Housing Infrastructure Fund (HIF) Bid</b></p> <table><tr><th>Infrastructure type</th><th>HIF scheme / project</th></tr><tr><td rowspan="10">Highways and Transportation</td><td>Upgrades to access to Green Park and Mortimer railway stations</td></tr><tr><td>New railway bridges</td></tr><tr><td>M4 works</td></tr><tr><td>Park and Rides</td></tr><tr><td>Fast Track Routes</td></tr><tr><td>New Bus Services</td></tr><tr><td>Key roads and pedestrian/cycle infrastructure</td></tr><tr><td>Travel planning</td></tr><tr><td>Car Park</td></tr><tr><td>A33 Works</td></tr><tr><td rowspan="2">Facilities</td><td>Primary schools</td></tr><tr><td>Phase one of the health hub</td></tr><tr><td>Utilities</td><td>Utilities (to be managed with suppliers)</td></tr></table>	Infrastructure type	HIF scheme / project	Highways and Transportation	Upgrades to access to Green Park and Mortimer railway stations	New railway bridges	M4 works	Park and Rides	Fast Track Routes	New Bus Services	Key roads and pedestrian/cycle infrastructure	Travel planning	Car Park	A33 Works	Facilities	Primary schools	Phase one of the health hub	Utilities	Utilities (to be managed with suppliers)	
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	A33 Works																			
Facilities	Primary schools																			
	Phase one of the health hub																			
Utilities	Utilities (to be managed with suppliers)																			
Policy SS4: Arborfield Garrison Strategic Development Location	As included in the Core Strategy (adopted 2010), land at Arborfield Garrison, as shown on the Policies Map, is allocated for a sustainable, well designed mixed-use development with associated housing, employment and social and physical infrastructure, to be delivered in	Likely Significant Effects on European sites cannot be excluded.																		

	<p>accordance with the requirements set out below and the key principles contained in Appendix 1.</p> <ol style="list-style-type: none"> <li>1) Phased delivery of 3,329* dwellings, including affordable homes, in accordance with Policy H5;</li> <li>2) New employment floor space adjacent to Hogwood Industrial Estate for up to 12,000 sqm;</li> <li>3) Subject to viability, provide a new district centre comprising a foodstore and a mix of retail, leisure, residential and service components;</li> <li>4) Social and physical infrastructure (including provision of an additional form of entry within the planned Arborfield Green Primary School to meet the demand of new residents),</li> <li>5) Measures to maintain separation from Arborfield Cross, Barkham Hill and Finchampstead North;</li> <li>6) Necessary measures to avoid and mitigate the impact of development upon the Thames Basin Heaths Special Protection Area in line with Policy NE2 to meet the requirements of the Habitats Regulations and in accordance with Natural England's latest standards. This will include sufficient Suitable Alternative Natural Greenspace (subject to monitoring of the quality and quantity standards);</li> <li>7) Improvements to transport capacity along Barkham Road, Commonfield Lane and Barkham Bridge the A327 (to both the M3 and Reading) and routes towards Bracknell and Wokingham (including the extension of Nine Mile Ride to the A327); and completion of the Nine Mile Ride Extension connecting the Arborfield Garrison development to the Nine Mile Ride and the Arborfield Cross Relief Road.</li> <li>8) Measures to further improve accessibility by non-car transport modes, including: improvements to the quality and frequency of public transport services along the network, such as A327, B3030, B3349 and B3430 corridor routes to Bracknell, Reading, Winnersh and Wokingham; prioritisation of cycle and pedestrian movements through the site, supported by an internal network of Greenways to connect to existing and new communities at Arborfield Garrison SDL, at Finchampstead North and Crowthorne and local employment opportunities; prioritisation of cycle and pedestrian movements through the SDL to maximise connectivity and accessibility to Bohunt School and the new district centre to be located at</li> </ol>	<p>Policy SS4 is a strategic development management policy that identifies the development in the Arborfield Garrison Strategic Development Location. It details that 3,329 net new dwellings and at least 12,000m<sup>2</sup> of employment space will be delivered on the site.</p> <p>The policy recognizes the need for mitigating Likely Significant Effects on the Thames Basin Heaths SPA and stipulates that sufficient SANG will be delivered on-site to absorb some of the recreational pressure.</p> <p><b>Potential impact pathways are present:</b></p> <ul style="list-style-type: none"> <li>• <b>Recreational pressure</b></li> <li>• <b>Atmospheric pollution</b></li> <li>• <b>Loss of functionally linked land</b></li> </ul> <p>However, a larger amount of housing (3,500 dwellings) was already allocated in the preceding Core Strategy. This net housing increase would have been assessed through its own HRA and is not reassessed here. For this reason, the policy is screened out from Appropriate Assessment.</p>
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	<p>the SDL; and prioritisation of pedestrian movements to maximise connectivity to the Hazebrook Meadows Suitable Alternative Natural Green Space (SANG).</p> <p>The development will be guided by the Arborfield Garrison Supplementary Planning Document produced as part of the Core Strategy (2010) (and any subsequent revisions) and any extant planning permissions within the SDL pursuant to the Core Strategy.</p> <p>A co-ordinated approach to development of the Strategic Development Location will be required to deliver the necessary additional infrastructure, facilities and services to meet the needs of the expanded community.</p> <p>* The Core Strategy allocation for the Arborfield Garrison SDL in Policy CP18 was for around 3,500 dwellings. However, this figure is updated in the Local Plan Update to reflect recent completions as at April 2018.</p>	
Policy SS5: South of the M4 Strategic Development Site	<p>As included in the Core Strategy (adopted 2010), land South of the M4 motorway as shown on the Policies Map, is allocated for a sustainable, well designed mixed use development, with associated housing, employment and social and physical infrastructure, to be delivered in accordance with the requirements set out below and the key principles contained in Appendix 2</p> <ol style="list-style-type: none"> <li>1) Phased delivery of around 2,310* dwellings including affordable homes in accordance with Policy H5;</li> <li>2) Appropriate employment, including the expansion of Thames Valley Science Park for approximately 18,500 sqm of floorspace;</li> <li>3) Appropriate retail facilities (including a convenience food store);</li> <li>4) Social and physical infrastructure (including provision for two new primary schools** and the likely expansion of existing primary provision together with existing community centre);</li> <li>5) Measures to maintain separation of these settlements from each other, the new garden settlement at Grazeley, Green Park Business Park (Reading) and settlements within the administrative Borough of Reading, Shinfield (North of M4) and Swallowfield;</li> </ol>	<p>Likely Significant Effects on European sites cannot be excluded.</p> <p>Policy SS5 is a strategic development management policy that identifies the development strategy for the South of the M4 Strategic Development Location. It details that 2,310 net new dwellings will be delivered on the site.</p> <p>The policy recognizes the need for mitigating Likely Significant Effects on the Thames Basin Heaths SPA and stipulates that sufficient SANG will be delivered on-site to absorb some of the recreational pressure.</p> <p><b>Potential impact pathways are present:</b></p>

	<p>6) Necessary measures to avoid and mitigate the impact of development upon the Thames Basin Heaths Special Protection Area in line with Policy NE2 to meet the requirements of the Habitats Regulations and in accordance with Natural England's latest standards. This will include sufficient Suitable Alternative Natural Greenspace (subject to monitoring of the quality and quantity standards);</p> <p>7) Improvements to highway capacity along the A327 (on routes to Reading and the M3), the A33 (route to Reading) and any other necessary improvements identified through a Transport Assessment and/or Transport Statement; and</p> <p>8) Measures to improve accessibility by non-car transport modes along the A327 and A33 corridors and routes to the stations at Green Park and Winnersh Triangle.</p> <p>The development will be guided by the South of M4 Supplementary Planning Document produced as part of the Core Strategy (2010) (and any subsequent revisions), and any extant planning permissions granted within the SDL pursuant to the Core Strategy.</p> <p>A co-ordinated approach to the development of the Strategic Development Location will be required to deliver the necessary infrastructure, facilities and services to meet the needs of the expanded community.</p> <p>* The Core Strategy allocation for the South of the M4 SDL in Policy CP19 was for around 2,500 dwellings. However, this figure is updated in the Local Plan Update to reflect the proposed allocation of Lane End House for 5 dwellings extant planning permissions and completions on the South of the M4 SDL as at April 2018.</p> <p>** A new 2-Form Entry primary school (Shinfield Meadows Primary School) has been delivered on the site</p>	<ul style="list-style-type: none"> <li>• <b>Recreational pressure</b></li> <li>• <b>Atmospheric pollution</b></li> <li>• <b>Loss of functionally linked land</b></li> </ul> <p>The Core Strategy allocated 2,500 dwellings in this site, which would have been assessed through their own HRA and are not reassessed here. However, one new residential site allocation (Lane End House, 5 dwellings) has been included in this Strategic Development Allocation. The policy also details the provision of 18,500m<sup>2</sup> of employment floorspace.</p> <p>Due to the additional housing allocation and the employment floorspace proposed, the policy is screened in for Appropriate Assessment.</p>
<p>Policy SS6: North Wokingham Strategic Development Location</p>	<p>As included in the Core Strategy (adopted 2010), North Wokingham as shown on the Policies Map is allocated for a sustainable, well designed mixed-use development, with associated housing, employment and social and physical infrastructure to be delivered in accordance with the requirements set out below and the key principles contained in Appendix 3:</p> <p>1) Phased delivery of around 1,487* dwellings including affordable homes in accordance with Policy H5;</p>	<p>Likely Significant Effects on European sites cannot be excluded.</p> <p>Policy SS6 is a strategic development management policy that identifies the development strategy for the North Wokingham Strategic Development</p>

	<p>2) Appropriate retail facilities (including a convenience food store);</p> <p>3) Appropriate employment located west of Twyford Road and north of Matthewsgreen Farm and retention of employment at Toutley Industrial Estate;</p> <p>4) Social and physical infrastructure**;</p> <p>5) Measures to maintain separation from Binfield/Bracknell and Winnersh;</p> <p>6) Necessary measures to avoid and mitigate the impact of development upon the Thames Basin Heaths Special Protection Area in line with Policy NE2 to meet the requirements of the Habitats Regulations and in accordance with Natural England's latest standards. This will include sufficient Suitable Alternative Natural Greenspace (subject to monitoring of the quality and quantity standards);</p> <p>7) Improvements to transport capacity along the A321 and A329 including the provision of a Northern Distributor Road (NDR) from the A329 (near the M4 over-bridge) to the Coppid Beech roundabout;</p> <p>8) Measures to improve accessibility by non-car transport modes along the A321 and A329 corridors; and</p> <p>9) Measures to improve access by non-car modes to Wokingham town centre (including the station interchange). Cycle and pedestrian movements should be prioritised through the site and supported by an internal network of Greenways to connect to Wokingham town centre, existing and new communities (e.g. SDLs) and local employment opportunities such as Toutley Industrial Estate.</p> <p>The development will be guided by the North Wokingham Supplementary Planning Document produced as part of the Core Strategy (2010) (and any subsequent revisions), and any extant planning permissions granted within the SDL pursuant to the Core Strategy.</p> <p>A co-ordinated approach to the development of the Strategic Development Location will be required to deliver the necessary infrastructure, facilities and services to meet the needs of the expanded community.</p> <p>*The Core Strategy allocation for the North Wokingham SDL in Policy CP20 was for around 1,500 dwellings. However, this figure is updated in the Local Plan Update to reflect the</p>	<p>Location. It details that 1,487 net new dwellings will be delivered on the site.</p> <p>The policy recognizes the need for mitigating Likely Significant Effects on the Thames Basin Heaths SPA and stipulates that sufficient SANG will be delivered on-site to absorb some of the recreational pressure.</p> <p><b>Potential impact pathways are present:</b></p> <ul style="list-style-type: none"> <li>• <b>Recreational pressure</b></li> <li>• <b>Atmospheric pollution</b></li> <li>• <b>Loss of functionally linked land</b></li> </ul> <p>The Core Strategy allocated 1,500 dwellings in this site, which would have been assessed through their own HRA and are not reassessed here. However, two new residential site allocations (Land east of Toutley Industrial Estate, 100 dwellings; Ashridge Farm, 150 dwellings) have been included in this Strategic Development Allocation. Due to this additional housing allocation, the policy is screened in for Appropriate Assessment.</p>
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	<p>proposed allocations to the east of Toutley Industrial Estate for 100 dwellings and at Ashridge Farm for 150 dwellings, and any extant planning permissions and completions on the North Wokingham SDL as at April 2018</p> <p>** A reserved matters application (172331) was approved by the Council on 14 February 2018 for a new 1 Form Entry primary school (with the potential to expand to a 2 Form Entry primary school), nursery provision and associated playing pitch provision and play space on site at Matthewsgreen Road, Wokingham.</p>	
<p>Policy SS7: South Wokingham Strategic Development Location</p>	<p>As included in the Core Strategy (adopted 2010), South Wokingham as shown on the Policies Map is allocated for a sustainable, well designed mixed-use development, with associated housing, employment and social and physical infrastructure, to be delivered in accordance with the requirements set out below and the key principles contained in Appendix 4:</p> <ol style="list-style-type: none"> <li>1) Phased delivery of around 2,012* dwellings including affordable in accordance with Policy H5;</li> <li>2) Appropriate retail facilities;</li> <li>3) Social and physical infrastructure (including the provision for two new primary schools on site** and two neighbourhood centres.*** to the new neighbourhood centre should incorporate a mix of retail and community uses</li> <li>4) Measures to maintain separation from Binfield/Bracknell, Crowthorne/Pinewood (Crowthorne) and Finchampstead North;</li> <li>5) Measures to protect and enhance pedestrian (including using mobility aids) access to the countryside from Wokingham town centre in accordance with Policy C8 and taking into account the Council's Greenways Strategy;</li> <li>6) Necessary measures to avoid and mitigate the impact of development upon the Thames Basin Heaths Special Protection Area in line with Policy NE2 to meet the requirements of the Habitats Regulations and in accordance with Natural England's latest standards. This will include sufficient Suitable Alternative Natural Greenspace (subject to monitoring of the quality and quantity standards);</li> </ol>	<p>Likely Significant Effects on European sites cannot be excluded.</p> <p>Policy SS7 is a strategic development management policy that identifies the development strategy for the South Wokingham Strategic Development Location. It details that 2,012 net new dwellings will be delivered on the site.</p> <p>The policy recognizes the need for mitigating Likely Significant Effects on the Thames Basin Heaths SPA and stipulates that sufficient SANG will be delivered on-site to absorb some of the recreational pressure.</p> <p><b>Potential impact pathways are present:</b></p> <ul style="list-style-type: none"> <li>• <b>Recreational pressure</b></li> <li>• <b>Atmospheric pollution</b></li> <li>• <b>Loss of functionally linked land</b></li> </ul> <p>The Core Strategy allocated 2,500 dwellings in this site, which would have</p>

	<p>7) Continued improvements to transport capacity along the A321 and A329 including the provision of the Southern Distributor Road;</p> <p>8) Measures to continue to improve accessibility by non-car transport modes along the A321 and A329 corridors; and</p> <p>9) Measures to continue to improve access by non-car modes to Wokingham town centre.</p> <p>The development will be guided by the South Wokingham SDL Supplementary Planning Document produced as part of the Core Strategy (2010) (and any subsequent revisions), and any extant planning permissions granted within the SDL pursuant to the Core Strategy.</p> <p>A co-ordinated approach to further development of the Strategic Development Location will be required to deliver the necessary infrastructure, facilities and services to meet the needs of the expanded community.</p> <p>* The Core Strategy allocation for the South Wokingham SDL in Policy CP21 was for around 2,500 dwellings. However, this figure is updated in the Local Plan Update to reflect extant planning permissions and completions on the South Wokingham SDL as at April 2018, and the proposed allocation of 17 dwellings at land south of Gipsy Lane</p> <p>** One new 2-Form Entry Primary School (Floreat Montague Park Primary School) has been delivered on site following a Reserved Matters approval (RM/2014/0979) on 26 June 2014.</p> <p>***** One new neighbourhood centre is under construction on site at Montague Park.</p>	<p>been assessed through their own HRA and are not reassessed here. However, one new residential site allocations (south of Gipsy Lane, 17 dwellings) has been included in this Strategic Development Allocation. Due to this additional housing allocation, the policy is screened in for Appropriate Assessment.</p>
<p>Policy Change</p> <p>SS8: Climate</p>	<p>The challenge of mitigating and adapting to climate change will be responded to through the following actions:</p> <p>a) Implementing a spatial strategy which secures a pattern of development which allows more people to live and work where journeys can be undertaken by walking, cycling and public transport.</p> <p>b) Support the provision of local learning and employment, and services and facilities which reduces the need to travel and the distance.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy addressing measures to tackle Wokingham Borough's contribution to climate change, including a spatial strategy that allows people to live close to where they work,</p>



	<p>c) Encourage the use of walking, cycling and public transport through ensuring that options are central to the design and layout of new development.</p> <p>d) Supporting a network of attractive, convenient and safe walking and cycling routes.</p> <p>e) Facilitate and encourage the use of electric vehicles through the provision of charging infrastructure.</p> <p>f) Support retrofitting existing buildings with measures to improve their energy efficiency and generate onsite renewable energy.</p> <p>g) Encourage the use of passive design and innovation to reduce the energy efficiency of new buildings.</p> <p>h) Champion low carbon and renewable energy generation both as part of residential and non-residential development proposals, and as standalone energy generation schemes.</p> <p>i) Requiring all new major residential developments to be carbon neutral.</p> <p>j) Maximising carbon capture through effective habitat management, promoting new appropriate green infrastructure, and encouraging tree planting and landscaping as key components of well-designed development.</p> <p>k) Establishing a Carbon Offset Fund to support a range of projects and schemes across the borough to improve energy efficiency and reduce carbon emissions.</p> <p>l) Locating and designing development to reduce the risk of flooding, minimise water consumption, and minimise urban heat island effect.</p> <p>m) Regular monitoring and reporting on performance against the Climate Change Act.</p>	<p>promoting safe cycling routes and developing low-carbon energy.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy SS9: Adaptation to Climate Change	<p>1. Development proposals will be supported where they have been designed to incorporate the following measures to adapt to climate change:</p> <p>a) Wherever possible, new buildings should be orientated to maximise the opportunities for both natural heating and ventilation and reducing exposure to wind and other elements;</p> <p>b) Proposals involving both new and existing buildings should demonstrate how they have been designed to maximise resistance and resilience to climate change, for example by including measures such as solar shading, thermal mass, heating and ventilation of the</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy outlining Wokingham Borough's adaptation to climate change. For example, development proposals will have to</p>

	<p>building and appropriately coloured materials in areas exposed to direct sunlight, green and brown roofs, green walls, etc;</p> <p>c) Use of trees and other planting, where appropriate as part of a landscape scheme, to provide shading of amenity areas, buildings and streets and to help to connect habitat, designed with native plants that are carefully selected, managed and adaptable to meet the predicted change in climatic conditions; and</p> <p>d) All development proposals should minimise the impact of surface water runoff from the development in the design of the drainage system, and where possible incorporate mitigation and resilience measures for any increases in river flooding levels as a result of climate change.</p>	<p>maximise opportunities for natural heating and ventilation, and tree planting.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy SS10: Supporting Infrastructure	<p>1. Development proposals will not be supported unless infrastructure, services, resources and amenities or other assets lost or impacted on as a result of development or made necessary by the development will be improved or provided through direct provision or financial contributions at an appropriate time.</p> <p>2. Arrangements for improvement to, or the provision of infrastructure to the required standard, and their ongoing maintenance, will be secured by planning obligations or condition if appropriate.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy stipulating that development proposals will only be supported where the required infrastructure serving the development is in place at an appropriate time.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>

<p>Policy SS11: Safeguarded Routes</p>	<p>1. Land is safeguarded to support the delivery of strategic transport infrastructure as listed below and shown on the Policies Map. Proposals for development which would prejudice the delivery of these schemes or their effective operation will not be supported.</p> <p>a) Provision of a Park and Ride near the Coppid Beech roundabout on the A329 in Wokingham</p> <p>b) Winnersh relief road</p> <p>c) High quality express bus services or dedicated public transport route along the A4 and A329 corridors. This project is dependent on Reading Borough Council's 'Cross-town Link'</p> <p>d) Improvements listed in Policies SS4, SS5, SS6 and SS7:</p> <p>i. Improvements to highway capacity along A327 (including Eversley Bypass, subject to review by Hampshire County Council as lead authority)</p> <p>ii. Arborfield Cross Relief Road</p> <p>iii. Extension of Nine Mile Ride to the A327</p> <p>iv. Improvements to highway capacity along the A33</p> <p>v. South Wokingham Distributor Road (junctions at both Finchampstead Road and London Road) and associated improvements to the railway bridges on the A321 Finchampstead Road, Wokingham</p> <p>vi. Northern Distributor Road</p> <p>e) Third Thames Crossing from Thames Valley Park Drive/A3290 to South Oxfordshire.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that safeguards land for the provision of strategic transport infrastructure, such as improvements in road capacity and public transport routes.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
<p>Policy SS12: Improvements to Transport Routes</p>	<p>1. The council will work with appropriate partners, stakeholders, and bodies to deliver the following schemes where suitable and viable:</p> <p>a) Improvements at Grazeley listed in Policy SS3</p> <p>i. Park and Rides (including Mere oak expansion)</p> <p>ii. East – West pedestrian and cycle links to villages of Three Mile Cross and Spencers Wood</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a transport management policy that identifies the delivery of improvement schemes to key transport routes in Wokingham Borough, such as the provision of new park-and-ride systems,</p>

	<ul style="list-style-type: none"> <li>iii. New train station</li> <li>iv. M4 works</li> <li>v. Upgrades to access to Green Park and Mortimer railway stations</li> <li>vi. New Railway bridges</li> <li>vii. Fast Track Routes</li> <li>viii. New bus services</li> <li>ix. Key roads and pedestrian/cycle infrastructure</li> <li>x. A33 works</li> <li>b) Delivery of Greenways to link the Strategic Development Locations to the existing settlements and points of interest</li> <li>c) Pedestrian and cycle linkages between Arborfield Cross Relief Road and Eastern Relief Road</li> <li>d) Longer term improvements to the A33 corridor</li> <li>e) Twyford Eastern Relief Road</li> <li>f) High quality express bus services between Green Park and Twyford stations via the Park &amp; Rides in the vicinity of M4, J11 and Loddon Bridge and Winnersh Triangle railway station</li> <li>g) Great Western Mainline improvements</li> <li>h) Measures to maintain the operation of the road and rail network during times of flooding</li> <li>i) Improvements to the quality and frequency of public transport services along any part of the network</li> <li>j) Improvements to increase the use of bicycles, including cycle paths</li> <li>k) Enhancements to footpath and cycle networks to improve access to services and facilities</li> </ul>	<p>upgrades to bus routes and enhancement to active travel networks.</p> <p>Depending on where such schemes are delivered, they might reduce the number of car commuter journeys along European sites that are sensitive to atmospheric pollution (e.g. the Thames Basin Heaths SPA).</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
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	<ul style="list-style-type: none"> <li>l) Improvements to M4 Junction 10</li> <li>m) Support for western rail access to Heathrow.</li> <li>n) Extension to southern distributor road</li> <li>o) Capacity improvements to roundabout at Reading Road, B3270, and A3290 (Winnersh)</li> <li>p) Improvements to Thames Path cycle route</li> <li>q) Improved pedestrian access from Wokingham town centre to south of the railway</li> <li>r) Potential for widening of A329M and A3290</li> <li>s) A33 bus crossing</li> <li>t) Lower Earley Way capacity improvements</li> <li>u) Park and Ride(s) at Twyford</li> </ul>	
Policy SS13: Development in the Countryside	<p>1. The countryside, as defined on the policies map, will continue to be recognised for its intrinsic character and beauty in accordance with national policy.</p> <p>2. Development proposals will generally not be permitted except for the types of development set out below:</p> <ul style="list-style-type: none"> <li>a) Rural exception housing in accordance with Policy H6; or</li> <li>b) Development in accordance with a made Neighbourhood Plan; or</li> <li>c) Accommodation for Gypsies and Travellers or Travelling Showpeople accommodation in accordance with Policy H12; or</li> <li>d) Rural workers' accommodation in accordance with Policy H7; or</li> <li>e) Small scale development which contributes to a diverse and sustainable rural economy in accordance with Policy ER4; or</li> </ul>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that identifies the protection of the countryside from development, except for specific circumstances, such as development identified in Neighbourhood Plans or for outdoor sports / recreation.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be</p>

	<p>f) Low carbon and renewable energy generation schemes in accordance with Policy DH10; or</p> <p>g) Residential extensions which do not lead to inappropriate increases in the scale, form or footprint of the original building; or</p> <p>h) Replacement buildings which would bring about environmental improvement and would not lead to inappropriate increases in the scale, form or foot print of the original building; or</p> <p>i) Development for agriculture and forestry; or</p> <p>j) Development for outdoor sports and recreation; or</p> <p>k) The provision of essential community facilities which cannot be located within settlement limits; or</p> <p>l) The redevelopment of brownfield land provided this respects the rural character of the surroundings and would not lead to a proliferation of development into the countryside; or</p> <p>m) Essential utilities including development for transport infrastructure, waste and cemeteries; or</p> <p>n) Minerals development in accordance with relevant policies in the Minerals and Waste Plan; or</p> <p>o) Waste development in accordance with relevant policies in the Minerals and Waste Plan.</p> <p>3. All development proposals within the countryside will be required to:</p> <p>a) Recognise and respect the intrinsic character and beauty of the countryside; and</p> <p>b) Not lead to the physical, visual or perceived coalescence of existing settlements; and</p> <p>c) Not lead to isolated development of dwellings; and</p> <p>d) Maximise any opportunities to make the location more sustainable; and</p> <p>e) Have no unacceptable adverse impacts on highway safety; and</p>	<p>screened out from Appropriate Assessment.</p>
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	<p>f) Maximise opportunities to improve public access to the countryside; and</p> <p>g) Achieve net biodiversity gains (through providing new habitats where possible) in accordance with Policy NE1, where appropriate.</p>	
Policy SS14: Development in the Green Belt	<p>The Metropolitan Green Belt, as defined on the Policies Map, will continue to be protected against inappropriate development in accordance with national policy.</p> <p>Development proposals will only be permitted for the limited types of appropriate development set out below, unless very special circumstances can be demonstrated*.</p> <p>1. The construction of new buildings in the Green Belt are considered appropriate development where they relate to:</p> <p>a. buildings for agriculture and forestry;</p> <p>b. the provision of appropriate facilities (in connection with the existing use of land or a change of use) for outdoor sport, outdoor recreation, cemeteries and burial grounds and allotments; as long as the facilities preserve the openness of the Green Belt and do not conflict with the purposes of including land within it;</p> <p>c. the extension or alteration of a building provided that it does not result in disproportionate additions over and above the size of the original building;</p> <p>d. the replacement of a building, provided the new building is in the same use and not materially larger than the one it replaces;</p> <p>e. limited infilling in villages;</p> <p>f. limited affordable housing for local community needs;</p> <p>g. limited infilling or the partial or complete redevelopment of previously developed land, whether redundant or in continuing use (excluding temporary buildings), which would:</p> <p>i. – not have a greater impact on the openness of the Green Belt than the existing development; or</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that identifies the protection of the Green Belt from development, in line with the National Planning Policy Framework. The policy identifies the types of development proposals that would be deemed acceptable, including building replacements and appropriate facilities (e.g. sports grounds).</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>

	<p>ii. – not cause substantial harm to the openness of the Green Belt, where the development would re-use previously developed land and contribute to meeting an identified affordable housing need within the area of the local planning authority.</p> <p>2. The following other forms of development are also considered not inappropriate in the Green Belt provided they preserve its openness and do not conflict with the purposes of including land within it:</p> <ul style="list-style-type: none"> <li>a. mineral extraction;</li> <li>b. engineering operations;</li> <li>c. local transport infrastructure which can demonstrate a requirement for a Green Belt location;</li> <li>d. the re-use or conversion of buildings provided that the buildings are of permanent and substantial construction;</li> <li>e. material changes in the use of land (such as changes of use for outdoor sport or recreation, or for cemeteries and burial grounds); and</li> <li>f. development brought forward under a Community Right to Build Order or Neighbourhood Development Order.</li> </ul> <p>All development proposals should be carefully managed to minimise visual impact and openness of the Green Belt and, where relevant, also meet the following criteria:</p> <p>Agriculture and forestry dwellings:</p> <ul style="list-style-type: none"> <li>a. There is a demonstrable essential and permanent need for the new dwelling based on the functional requirements of the enterprise it is intended to serve that cannot be met elsewhere</li> <li>b. The dwelling is commensurate in scale and size to the needs of the enterprise it is intended to serve</li> </ul> <p>Replacement buildings:</p>	
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	<p>a. The replacement building would be sited on or close to the position of the existing building, except where an alternative siting within the curtilage does not adversely affect the character of the area and demonstrably improves the openness of the Green Belt</p> <p>Extensions and alterations to existing buildings:</p> <p>a. The existing building is of permanent and substantial construction and would not require extensive reconstruction</p> <p>b. The scale, form and footprint of the proposed use would not have an adverse impact on the character of the area or openness of the Green Belt</p> <p>Re-use of buildings:</p> <p>a. The existing building is of permanent and substantial construction and its form is in keeping with its surroundings and would not require extensive reconstruction or a material change in size or scale</p> <p>b. The proposal would not result in the need to construct additional agricultural or other buildings, unless it can be demonstrated that the building to be re-used is no longer suitable for use</p> <p>c. The proposed use is low employment or low traffic generating activity, suitable to its location and level of accessibility</p> <p>Development proposals outside the Green Belt, but conspicuous when viewed from it, should minimise any detrimental impacts to the visual amenity and openness of the Green Belt.</p> <p>* 'Very special circumstances' will not exist unless the potential harm is clearly outweighed by other considerations (NPPF, paragraph 144)</p>	
<b>Chapter 5 – Connections</b>		
Policy C1: Active and Sustainable Transport and Accessibility	<p>1. The use of active and sustainable transport modes is promoted. Development proposals should contribute to the delivery of an integrated transport system that is safe and accessible to all by implementing the following measures:</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that promotes active and sustainable</p>

	<p>a) Locating the majority of development to places where people of all ages are able, or will be able, to access a wider range of local services and facilities;</p> <p>b) Include measures to make walking and cycling the mode of choice for shorter journeys, both within and through the site, including links to facilities, services, bus stops and train stations;</p> <p>c) Include measures to reduce reliance on single occupancy car trips and to prioritise and increase the use of sustainable transport modes;</p> <p>d) Positively contribute towards the achievement of a legible and permeable environment for all ages and the improvement and delivery of walking and cycling routes that serve the site and wider area;</p> <p>e) Optimise accessibility and connectivity both within development and in the surrounding area;</p> <p>f) Maximise opportunities to provide improved self-sustaining public and community transport services and routes, including through active engagement with public transport service providers as appropriate;</p> <p>g) Maximise integration of and interchange between transport modes;</p> <p>h) Facilitate transport innovations and solutions which reduce greenhouse gases and improve air quality.</p> <p>2. Proposals for new development should show how they have met the above listed criteria, where appropriate, and demonstrate how they support the objectives and policies of the most up to date Local Transport Plan (and its supporting documents) or any successor strategy.</p>	<p>transport modes by locating housing developments near essential services, optimizing accessibility and reducing the reliance on single occupancy car trips.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy C2: Mitigation of Transport Impacts and Highways Safety and Design	<p>1. Development proposals must fully assess the transport impacts of the development and provide for appropriate mitigation to minimise the adverse effects. Specifically, development proposals are required to:</p> <p>a) Ensure that any material adverse impacts on existing and forecast traffic conditions are mitigated;</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a transport management policy, stipulating that development proposals must mitigate their transport impacts</p>

	<p>b) Provide, or make reasonable contributions towards providing, the transport infrastructure necessary to address the needs arising from the proposal, including the cumulative impacts of development, secured either as a requirement of planning conditions or by the payment of financial contributions through planning obligations, and/or the Community Infrastructure Levy;</p> <p>c) Prepare and submit Transport Assessments and Statements alongside development proposals in accordance with the council's Local Validation requirements.</p> <p>d) Implement measures to promote and improve sustainable travel through agreed travel plans or through making an appropriate contribution to the borough wide My Journey initiative or any successor scheme. Travel plans should include appropriate monitoring to ensure targets are met.</p> <p>2. With regards to highways safety and design, all development proposals must:</p> <p>a) Achieve safe and suitable access to the site for all users;</p> <p>b) Contribute towards a high quality public realm designed in accordance with Living Streets (or any successor document), user access hierarchy and demonstrate how the principles of Healthy Streets have been incorporated;</p> <p>c) Prioritise pedestrian, cycling and sustainable transport in accordance with Policy C1;</p> <p>d) Design roads to optimise traffic flows to avoid adverse environmental impacts;</p> <p>e) Provide effective, convenient and safe delivery, collection, servicing and refuse and recycling collection arrangements;</p> <p>f) Ensure that utilities are thoughtfully planned and designed into developments from the outset to minimise disruption when upgrades/repairs are required, for example by running in off-carriageway service corridors located in footways or verges and minimising the crossing of the roads;</p>	<p>through the provision of required transport infrastructure, preparation of a transport assessment and implementation of sustainable travel plans.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
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	g) Proposals for new roads which will accommodate bus routes should be tracked for larger vehicles and accommodate bus stop infrastructure to an agreed standard with the local highways authority.	
Policy C3: Cycling and Walking	<p>Development proposals must promote sustainable transport by prioritising walking and cycling.</p> <p><u>Walking</u></p> <p>Development proposals should:</p> <p>a) Prioritise and improve the pedestrian environment and contribute towards achieving a high-quality public realm, including the provision of facilities for pedestrians to rest and relax (including seating) and high-quality and safe road environments and crossings, where needed.</p> <p>b) Contribute towards improved legibility and wayfinding including signage to key infrastructure, transport nodes, green spaces.</p> <p>c) Be permeable, easy and safe to walk through, and enhance existing routes which are adequately lit, create step-free legible access and entrance points whilst providing direct links to other pedestrian movement corridors and desire lines.</p> <p>d) Make an appropriate contribution towards improved wayfinding, including signposted links to key infrastructure, public transport hubs, green spaces and Green Routes and Greenways networks, where appropriate.</p> <p><u>Cycling</u></p> <p>Development proposals should:</p> <p>e) Contribute to improvements to deliver a high quality public realm which supports cycling by improvements and provision of signage, provision of access and facilities that do not conflict with the needs of pedestrians or compromise safety and addresses risks posed to cyclists from other transport modes.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a policy aimed specifically at promoting sustainable transport modes, such as walking and cycling. The policy stipulates that walking and cycling routes should be safe and easy to navigate. Importantly, increasing commuter journeys via sustainable means might reduce atmospheric pollution impacts in European sites sensitive to this impact pathway.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>



	<p>f) Maintain and enhance cycle routes identified in the most up-to-date cycling strategy, adding to or extending these where appropriate including the provision of connecting routes, and/or cycling facilities.</p> <p>g) Provide supporting facilities including wayfinding, pick-up points, secure cycle parking (for both occupiers and visitors), electric bike charging facilities, and shower and changing facilities as appropriate.</p> <p>h) Make appropriate contributions towards improved wayfinding, including signposted links to key infrastructure, public transport hubs, green spaces and Green Routes and Greenways networks, where appropriate.</p>	
Policy C4: Vehicle and Cycle Parking	<p>1. Development should provide vehicle parking (including motorcycles) and cycle parking that is appropriate to the accessibility of the location.</p> <p>2. Development proposals must:</p> <p>a) Provide and retain appropriate levels of vehicle parking (including parking for people with disabilities, visitors, and electric charging facilities) in accordance with adopted standards; and</p> <p>b) Provide and retain appropriate levels of secure and covered cycle storage / cycle parking facilities for the occupants of, and visitors to, the development.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that identifies Wokingham Borough's approach to car and cycle parking.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy C5: Technology and innovation in transport	<p>1. Technology and innovation in transport which is designed to improve mobility, reduce congestion and improve emissions and air quality will be supported providing it does not compromise highway safety and other amenity and environmental concerns.</p> <p>Electric vehicle charging</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy specifying the use of technology and innovation in transport. It sets standards for</p>

		<p>a) New developments must provide and retain electric vehicle charging facilities in accordance with adopted standards.</p> <p>b) Proposals to retrofit charging points into existing areas will be encouraged providing this would not result in any adverse impact on highway or pedestrian safety.</p> <p>c) Major development proposals will be required to submit an Electric Vehicle Charging Strategy to demonstrate that the provision of electric vehicle charging facilities in developments are in a safe, convenient and accessible location.</p> <p>Refuelling</p> <p>a) Refuelling stations should be protected, unless it can be demonstrated that they are operationally unviable. Opportunities to incorporate new technologies into existing refuelling stations, (such as hydrogen refuelling, electric vehicle charging facilities) are encouraged and should be fully explored before a change to an alternative use is considered for the site.</p> <p>b) New or replacement refuelling facilities will be directed to accessible locations on the highway network and should incorporate the latest technologies from the outset. The layout and design of new or replacement facilities should be as flexible as possible to allow incorporation of, and adaptation to, future technological innovations.</p>	<p>the provision of electric vehicle charging points and refueling stations throughout Wokingham Borough.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy C6: infrastructure communications technology	Digital and	<p>1. Development proposals for digital infrastructure or communications technology will be supported provided that:</p> <p>a) It is not detrimental to local character, amenity, heritage assets, or the quality of the public realm;</p> <p>b) It will be sited and designed to minimise its visual impact, including the use of innovative design solutions such as lamp column swap-out or concealment/camouflage options;</p> <p>c) Proposals for new telecommunications apparatus should demonstrate that opportunities to share existing facilities have been exhausted. Proposals on the highway should also demonstrate that it is not feasible to locate on existing buildings or other structures;</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy supporting development proposals for digital infrastructure under certain provisions.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p>

	<p>d) Alternative sites and site-sharing options have been fully investigated and it has been demonstrated that no preferable alternative sites are potentially available which would result in a development that would be less visually intrusive.</p> <p>2. Major new developments and infrastructure projects should be designed to enable the installation of the most up-to-date standards of digital connectivity and communications technology to ensure easy maintenance and future upgrading as technologies and standards improve.</p> <p>3. Major commercial developments should provide a communal chamber on-site for digital infrastructure and telecommunications equipment, or make an appropriate contribution to the cost of providing one nearby.</p>	<p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy C7: Utilities	<p>1. Development proposals should ensure that there is adequate water supply, and wastewater collection and treatment infrastructure to serve all new development.</p> <p>2. Developers are encouraged to contact the relevant water supply/waste water company as early as possible in the planning process to assist with identifying any potential water and wastewater network reinforcement requirements.</p> <p>3. Where there is an identified constraint on the existing capacity of the network, the Council will expect the developer to submit a strategy detailing the works to be provided or, where appropriate, apply a phasing condition to any approved planning permission to ensure that any necessary upgrades are coordinated with new development and are delivered ahead of their occupation.</p> <p>4. Planning permission for development which results in the need for off-site upgrades to the existing network should ensure the occupation of the development is aligned with the delivery of the necessary infrastructure. The Council will apply planning conditions to ensure this is achieved.</p> <p>5. Development proposals should be carefully designed and located to ensure that existing utilities infrastructure is planned from the outset, and will be supported provided that:</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy stipulating that the necessary utilities (e.g. water supply, wastewater treatment infrastructure) is present to support the development. It recommends early consultation of the relevant water supply / waste water company and, if necessary, identifies that development will have to be delivered in phases.</p> <p>This is an important policy as it will ensure that adequate mechanisms are in place to protect European sites that are sensitive to changes in water quantity and / or quality.</p> <p>The policy does not specify any quantum or location of housing and / or employment</p>

	<p>a) disruption to existing residents and properties in the surrounding area is minimised, and</p> <p>b) where upgrades and/or repairs are necessary, they seek to maximise the flow of traffic by avoiding the crossing of roads and by locating the infrastructure away from the main carriageway.</p>	<p>development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy C8: Green and Blue Infrastructure and Public Rights of Way	<p>1. The existing areas of green and blue infrastructure of Wokingham Borough will be protected and enhanced for the biodiversity, recreational, amenity, health and townscape and landscape value, and contribution towards mitigating and adapting to climate change. Development proposals should contribute to enhancing the network of habitats, open spaces and waterscapes.</p> <p>2. The provision and enhancement of a network of publicly accessible green and blue infrastructure should be considered by developers from the outset and form an integral component of the planning and design of development proposals.</p> <p>3. Development proposals should:</p> <p>a) Avoid the loss, fragmentation, isolation or other adverse impacts on existing green and blue infrastructure (including green routes and long distance riverside paths as shown on the Policies Map), unless replacement provision can be provided which will improve the green and blue infrastructure network in terms of its quantity, quality and accessibility.</p> <p>b) Provide opportunities for, or contribute towards, improvements and enhancements to the quality and quantity of the wider multi-functional green and blue infrastructure network and other open spaces (for example extending spaces and connections and/or better management), in particular by integrating existing green infrastructure assets into development through high-quality design.</p> <p>c) Promote accessibility, linkages and permeability between and within existing green corridors (including river corridors), for people and wildlife by strengthening ecological networks and connecting settlements to the countryside via a network of Greenways, green</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy providing for the protection and enhancement of the biodiversity, recreational and landscape value of Wokingham Borough. It also states that development proposals should provide for a network of publicly accessible green infrastructure.</p> <p>This is an important policy, because it also establishes example projects that developments could contribute to, such as the establishment of a riverside footpath along the Emm Brook. Such projects could form part of the mitigation provided for the Thames Basin Heaths SPA.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p>

	<p>routes, public open spaces, footpaths, riverside paths, bridleways and cycle routes. This includes connections to local services and facilities, public transport and green spaces.</p> <p>d) Provide clear arrangements for the long-term maintenance and management and/or enhancement of the green and blue infrastructure assets.</p> <p>4. Development proposals that include, or are adjacent to, an existing Public Right of Way should not have an adverse impact on the Public Rights of Way network and must avoid creating routes that result in dead ends or are extinguished without suitable alternative provision.</p> <p>5. New Public Rights of Way will be supported where consistent with the prioritised routes identified in the council's Rights of Way Improvement Plan (ROWIP).</p> <p>6. Development proposals should improve or contribute towards:</p> <p>a) The establishment of a Loddon/ Blackwater riverside footpath and bridleway, as defined on the Policies Map, to accommodate dual use for all users</p> <p>b) The establishment of a riverside footpath and cycleway to accommodate dual use for all users along the Emm Brook</p> <p>c) The establishment of a linear 'canal corridor' at Grazeley garden town to integrate the existing Foudry Brook with development to provide informal recreation for all users and to facilitate access to Reading and Green Park</p> <p>d) Opportunities for improvements for green infrastructure to minimise flood risk and urban heat island effect.</p>	<p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
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	7. Development proposals for new, extended or enhanced green routes will be supported. The location of green routes are set out on the Policies Map.	
<b>Chapter 6 – Economy: Jobs &amp; Retail</b>		
Policy ER1: Meeting employment needs	<p>Employment needs in the borough will be supported and met by:</p> <ol style="list-style-type: none"> <li>1. Safeguarding the Core Employment Areas shown on the policies map and listed below, and encouraging and facilitating their ongoing regeneration and evolution in accordance with economic needs: <ol style="list-style-type: none"> <li>a. Green Park Business Park, Reading;</li> <li>b. Headley Road East Industrial Estate, Woodley;</li> <li>c. Hogwood Industrial Estate, Finchampstead;</li> <li>d. Molly Millars Industrial Estate, Wokingham;</li> <li>e. Ruscombe Business Park, Ruscombe;</li> <li>f. Sutton's Industrial Estate, Earley;</li> <li>g. Thames Valley Business Park, Earley;</li> <li>h. Thames Valley Science and Innovation Park, Shinfield;</li> <li>i. Toutley Industrial Estate, Wokingham; and</li> <li>j. Winnersh Triangle Business Park, Winnersh.</li> </ol> </li> <li>2. Supporting new employment uses within town centres, at an appropriate scale to those centres.</li> <li>3. Facilitating rural enterprise and diversification in accordance with Policy ER4.</li> <li>4. Allocating new employment land as part of a sustainable development at Grazeley Garden Town.</li> </ol>	<p>Likely Significant Effects on European sites cannot be excluded.</p> <p>Policy ER1 is an employment development policy that safeguards the Core Employment Areas in Wokingham Borough. Furthermore, it provides for new employment land in the Grazeley Garden Town and an expansion to the Thames Valley Science and Innovation Centre.</p> <p>As such, the policy provides for the location but not quantum of development. The location of employment land might influence the number of car commuter journeys adjacent to European sites that are sensitive to atmospheric pollution.</p> <p><b>Potential impact pathways are present:</b></p> <ul style="list-style-type: none"> <li>• <b>Atmospheric pollution</b></li> <li>• <b>Loss of functionally linked land</b></li> </ul> <p>Due to these impact pathways the policy is screened in for Appropriate Assessment.</p>



		5. The expansion of Thames Valley Science and Innovation Park for approximately 18,500 sqm of floorspace.	
Policy ER2: Employment Areas	Core	<p>1. Within the Core Employment Areas, the overall level of employment land should be maintained.</p> <p>2. Expansion and intensification of employment uses will be supported where:</p> <p>a. It is appropriate to the character of the area; and</p> <p>b. It does not have an unacceptable impact on nearby residential uses, other employment uses and other uses, including impacts caused by traffic movements, noise, emissions, hours of operation and lighting.</p> <p>3. Development proposals involving the loss of land to non-employment uses will only be acceptable in the following exceptional circumstances:</p> <p>a. Non-employment uses that would support the character and economic function of the Core Employment Area and not lead to a significant reduction in employment land;</p> <p>b. It is evidenced that there is no market interest in the site for employment purposes following genuine, active and effective marketing; and</p> <p>c. The replacement use does not undermine the continued economic function of the wider Core Employment Area.</p> <p>4. Core Employment Areas should include a range of type and size of units, including flexible business space to meet current and future employment needs. Development proposals will be supported where they provide a range of types and sizes of units, allow buildings to be easily adaptable for changing needs and encourage start-ups and grow-on space.</p>	<p>Likely Significant Effects on European sites cannot be excluded.</p> <p>Policy ER2 expands on policy ER1 by specifying that the overall level of employment in the Core Employment Areas should be maintained. It also provides for the potential expansion of employment uses in these areas.</p> <p>As such, the policy provides for a currently unspecified of additional employment development. This could in turn increase the number of car commuter journeys adjacent to European sites that are sensitive to atmospheric pollution.</p> <p><b>Potential impact pathways are present:</b></p> <ul style="list-style-type: none"> <li>• <b>Atmospheric pollution</b></li> <li>• <b>Loss of functionally linked land</b></li> </ul> <p>As a precautionary measure and due to the above impact pathways, the policy is screened in for Appropriate Assessment.</p>

<p>Policy ER3: Employment Uses Outside Core Employment Areas</p>	<ol style="list-style-type: none"> <li>1. Development proposals involving the loss of employment land outside of Core Employment Areas will only be acceptable where: <ol style="list-style-type: none"> <li>a. It is beneficial to the local economy and community; and</li> <li>b. It is appropriate to the character of the area; and</li> <li>c. It does not have unacceptable impact on nearby uses; and</li> <li>d. There is strong evidence that there is no market interest for employment purposes, following genuine, active and effective marketing; and</li> <li>e. It would not lead to an unacceptable piecemeal change.</li> </ol> </li> <li>2. Development proposals for small employment uses or a mix of uses within development limits but outside Core Employment Areas will be supported provided: <ol style="list-style-type: none"> <li>a. It is appropriate to the character of the area; and</li> <li>b. It does not have an unacceptable impact on nearby residential uses, other employment uses and other uses, including impacts caused by traffic movements, noise, emissions, hours of operation and lighting.</li> </ol> </li> <li>3. Major development proposals within development limits but outside Core Employment Areas, will also be required to demonstrate: <ol style="list-style-type: none"> <li>a. Compliance with a sequential approach to location;</li> <li>b. How it is appropriate in nature and scale to its location;</li> <li>c. The transport implications of the proposal and how they will be mitigated;</li> <li>d. The number and type of jobs likely to be created, including how they are to be sourced; and</li> <li>e. How any unacceptable adverse impacts will be mitigated.</li> </ol> </li> </ol>	<p>There are no LSEs of this policy on European sites.</p> <p>This is an employment management policy protecting employment outside the Core Employment Areas.</p> <p>However, the policy does not specify an additional quantum of employment development. There are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
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<p>Policy ER4: Supporting the rural economy</p>	<p>1. The rural economy will be supported by small scale development within the countryside, where it is demonstrated that the proposal:</p> <ul style="list-style-type: none"> <li>a. Is genuinely required to support an existing or new rural business or enterprise; or</li> <li>b. Enables suitable diversification of an agricultural or other land based rural business; or</li> <li>c. Encourages rural leisure and tourism which builds on the unique assets and character of the borough's countryside; or</li> <li>d. Promotes the retention and development of local services and community facilities in villages, which meet the day to day needs of rural communities; or</li> <li>e. Facilitates the introduction of, or improvement to, electronic communications networks and digital infrastructure to help support local businesses, including the expansion of high-speed broadband.</li> </ul> <p>2. All development must be contained within appropriately converted existing buildings or in well-designed new buildings which are proportionate to the use and respect the character of the rural setting. Proposals for live-work units within the countryside will be supported where they allow buildings to be appropriately converted and where they would not result in isolated dwellings.</p> <p>3. Small scale retail development associated with farm shops and horticultural nurseries will be supported where proposals are ancillary to the main use of the farm/nursery and do not cause significant harm to the vitality and viability of local centres.</p> <p>4. Proposals for farm diversification must be accompanied by a comprehensive whole farm diversification plan, which establishes how the proposed changes will assist in retaining the viability of a farm and its agricultural enterprise.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is an employment management policy that provides support for the rural economy, including farm shops, horticultural nurseries and farm diversification.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
<p>Policy ER5: Employment and Skills Plan</p>	<p>1. Major development will contribute to employment, education and skills initiatives.</p>	<p>There are no LSEs of this policy on European sites.</p>

	<p>2. Development proposals for 10 or more dwellings or 1,000m<sup>2</sup> of non-residential floorspace will be accompanied by an Employment and Skills Plan to show how the proposal provides opportunities for training, apprenticeships or other vocational initiatives to develop local employability skills required by developers, contractors or end users of the proposal.</p> <p>3. Where it is demonstrated that an Employment and Skills Plan either cannot be implemented, or is inappropriate for the proposal, an in lieu financial contribution will be sought in place of delivering an Employment and Skills Plan. This will be used to fund relevant employment, skills and training initiatives.</p>	<p>This is an employment management policy that sets a requirement for an Employment and Skills Plan for development proposals of a certain size.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy ER6: The hierarchy of centres	<p>1. All retail centres will be supported and strengthened to ensure they continue to be the focus of local communities. Development proposals that protect and enhance their role and function will be supported.</p> <p>2. The hierarchy of centres in the borough is defined as follows:</p> <p>a. Major town centre: Wokingham</p> <p>b. Small town and district centres:</p> <ul style="list-style-type: none"> <li>o Arborfield Garrison district centre (being delivered through the SDL),</li> <li>o Lower Earley district centre,</li> <li>o Grazeley Garden Town (several)</li> <li>o Shinfield Road district centre,</li> <li>o Twyford village centre,</li> </ul>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that identifies the hierarchy of centres within Wokingham Borough.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>

	<ul style="list-style-type: none"> <li>o Winnersh centre,</li> <li>o Woodley</li> </ul> <p>c. Local Centres:</p> <ul style="list-style-type: none"> <li>o Crowthorne Station, Dukes Ride, Crowthorne (Pinewood)</li> <li>o Grazeley Garden Town (several)</li> <li>o Greenwood Road, Crowthorne (Pinewood)</li> <li>o Maiden Place, Earley</li> <li>o Silverdale Road, Earley</li> <li>o Shepherd's Hill, Earley and Woodley</li> <li>o California Crossroads, Finchampstead North</li> <li>o Basingstoke Road near the junction for Beech Hill Road, Spencers Wood</li> <li>o School Green, Shinfield (to be extended into the SDL),</li> <li>o Three Mile Cross</li> <li>o Wargrave High Street, Wargrave</li> <li>o Ashridge Road, Wokingham</li> <li>o Clifton Road / Emmbrook Road (to be extended into the SDL), Wokingham</li> <li>o Bean Oak Road, Wokingham</li> <li>o Rances Lanes, Wokingham</li> <li>o Woosehill Centre, Woosehill</li> <li>o Woosehill Lane, Woosehill</li> <li>o Brecon Road, Woodley</li> </ul>	
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	<ul style="list-style-type: none"> <li>o Coppice Road, Woodley</li> <li>o Loddon Vale, Woodley</li> </ul> <p>3. Primary Shopping Areas are designated in Wokingham, Woodley, Lower Earley, Winnersh and Twyford.</p> <p>4. Town centre boundaries and primary shopping areas are defined on the Policies Map.</p> <p>5. Development proposals for main town centre uses will be supported in accordance with the hierarchy, where they are suitable in terms of scale and design.</p>	
Policy ER7: Town, district & local centres and shopping parades	<p>1. Development proposals in town, district and local centres, and shopping parades must:</p> <ul style="list-style-type: none"> <li>a. Maintain or enhance the vitality and viability of the centres as places to shop, work and spend leisure time; and</li> <li>b. Be of a scale, type and format that reflects and enhances the character of the centre including its role and function within the hierarchy; and</li> <li>c. Enhance the provision of day-to-day shopping facilities; and</li> <li>d. Maximise opportunities to improve accessibility for all users.</li> </ul> <p>2. Development proposals for the following uses will be supported:</p> <ul style="list-style-type: none"> <li>a. Retail uses, particularly in primary shopping areas;</li> <li>b. Non retail uses and services, providing they support the overall function of the centre;</li> <li>c. Office and residential development on the upper floors of units located within existing centres.</li> </ul>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that specifies the requirements for developments in town, district and local centres.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>

	<p>3. Development proposals in all centres for the change of use of an A1 retail unit must:</p> <ul style="list-style-type: none"> <li>a. Provide an alternative use that enhances the vitality and viability of the centre;</li> <li>b. Maintain an active frontage;</li> <li>c. Not result in, or further contribute towards a high proportion of non-A1 uses in a frontage;</li> <li>d. Provide evidence that there is no reasonable prospect of its continued use for A1 purposes.</li> </ul> <p>4. The loss of day-to-day shopping facilities in local centres will only be permitted where:</p> <ul style="list-style-type: none"> <li>a. Alternative day-to-day shopping facilities are available within reasonable walking distance from the existing retail use; or</li> <li>b. The existing retail use is demonstrated to be no longer be viable through evidence that genuine sustained efforts to promote, improve and market the facility at a reasonable value have been undertaken.</li> </ul> <p>5. Where a change of use outside a centre is proposed, an assessment will be made of its value to the local community.</p> <p>6. Development proposals for community function of shops and parades outside centres defined in the hierarchy will be supported.</p>	
Policy ER8: Strengthening the role of centres	<p>1. Town centre uses must be located within the centres defined in the hierarchy where sites are suitable, available and viable.</p> <p>2. Development proposals must assess in-centre sites in the order of preference of the hierarchy of centres, unless a development proposal is intended to meet a particular local need in a specific area.</p>	There are no LSEs of this policy on European sites.



	<p>3. Development proposals for 500m<sup>2</sup> (gross) or above of town centre uses on sites located outside of the designated centres or allocated future centres are required to pass the sequential test set out in the National Planning Policy Framework (NPPF).</p> <p>4. Development proposals for 500m<sup>2</sup> (gross) or more of town centre uses on site located outside of the designated centres or allocated future centres must submit a Retail Impact Assessment.</p>	<p>This is a development management policy that intends to strengthen the role of centres.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy ER9: Wokingham Town Centre	<p>1. The Wokingham town centre boundary and primary shopping area are defined on the Policies Map.</p> <p>2. Development proposals within or in nearby Wokingham town centre should promote and enhance its role, vitality and viability. Development proposals should retain and enhance the historic market town character of Wokingham Town Centre and support its role as a retail centre by:</p> <ul style="list-style-type: none"> <li>a. Protecting, enhancing or diversifying retail activity, and retaining prominent shopfronts within the primary shopping area;</li> <li>b. Ensuring development provides and maintains complementary town centre uses (including offices and residential) within the defined town centre boundary;</li> <li>c. Supporting development which expands the food, entertainment and leisure, and cultural offer within the Wokingham town centre boundary;</li> <li>d. Supporting the regeneration of sites for main town centre uses;</li> <li>e. Supporting the appropriate development of upper floors within the town centre, where possible access should be on the street frontage;</li> </ul>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that defines the criteria for employment development proposals in Wokingham town centre. For example, the policy stipulates that higher density development will be supported in the town where appropriate.</p> <p>The policy does not specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be</p>

	<p>f. Supporting higher density development where appropriate;</p> <p>g. Conserving and enhancing historic quality and interest;</p> <p>h. Improving the attractiveness and usability of the existing public realm;</p> <p>i. Providing an environment that encourages people to easily move around by walking and cycling;</p> <p>j. Ensuring appropriate car parking to facilitate a viable and sustainable town centre;</p> <p>k. Maintaining and enhancing important identified local green spaces in the town centre (as stated in Policy HC4);</p> <p>l. Ensuring quality spaces for outdoor events.</p> <p>3. Development proposals will be supported where they are appropriate to the character of the centre, including the conservation area, and its role in the hierarchy of retail centres.</p> <p>4. All proposals within Wokingham Town Centre shall be consistent with the Wokingham Town Centre Masterplan SPD or any successor document.</p>	<p>screened out from Appropriate Assessment.</p>
Policy ER10: Whiteknights Campus	<p>The University of Reading is a national and international educational establishment of strategic importance, which will continue to adapt and expand over the plan period. The Whiteknights Campus as shown on the Policies Map will continue to be a focus for development associated with the University of Reading. Such development may include additional student, staff, teaching, research and enterprise accommodation, infrastructure and services, and sports and leisure facilities, among other uses. Access to and within the site will be improved where necessary.</p> <p>Wokingham Borough Council will continue to work proactively with the University of Reading and Reading Borough Council to support the continued development of Whiteknights Campus as a focus for the University of Reading, to meet the University's longer-term business needs for educational and academic uses as set out in their Whiteknights Campus Development Plan, Accommodation Strategy and Campus Capacity Study.</p>	<p>Likely Significant Effects on European sites cannot be excluded.</p> <p>This is a development management policy that provides for the continued development of the Whiteknights Campus, part of the University of Reading. For example, this might include the provision of new student accommodation, which would increase Wokingham Borough's local population.</p>

	<p>Provision of new student accommodation on the Whiteknights Campus, or as a reconfiguration or extension of nearby dedicated accommodation, will therefore be acceptable subject to other policies in the Plan.</p> <p>Development proposals will accord with the following criteria:</p> <p>a) The historic landscape, open areas and listed buildings and their settings and the character of the area are respected, taking into account their location, scale and height</p> <p>b) Areas of wildlife significance (including Local Wildlife Sites) and current or potential green infrastructure networks will be retained and enhanced, and will not be detrimentally affected by development, including through light effects</p> <p>c) The safety of those using the campus (including pedestrian and highway safety issues and designing out crime) will be maintained or enhanced</p> <p>d) No significant detrimental impacts on the amenity of neighbouring residential properties from the development, including from noise or parking; and</p> <p>e) The loss of undeveloped areas on the site will be weighed against the benefits of development to the wider community.</p>	<p>Positively, the policy explicitly protects areas of wildlife significance (e.g. Local Wildlife Sites) and the green infrastructure network.</p> <p><b>Potential impact pathways are present:</b></p> <ul style="list-style-type: none"> <li>• <b>Recreational pressure</b></li> <li>• <b>Atmospheric pollution</b></li> <li>• <b>Loss of functionally linked land</b></li> </ul> <p>Overall, due to these impact pathways the policy is screened in for Appropriate Assessment.</p>
<b>Chapter 7 – Housing</b>		
Policy H1: Housing provision	<p>Provision will be made for a minimum of 13,901 net additional dwellings, and associated infrastructure, in the period 1 April 2018 to 31 March 2036.</p>	<p>Likely Significant Effects on European sites cannot be excluded.</p> <p>Policy H1 is a housing policy that provides for 13,901 net additional dwellings (and associated infrastructure) in Wokingham Borough within the Plan period of 2018-2036.</p> <p>Along with this population increase will come an increased need for recreational greenspaces and motorized travel. Most notably this could have an effect on the</p>

		<p>Thames Basin Heaths SPA, which is sensitive to recreational pressure and atmospheric pollution.</p> <p><b>Potential impact pathways are present:</b></p> <ul style="list-style-type: none"><li>• <b>Recreational pressure</b></li><li>• <b>Atmospheric pollution</b></li><li>• <b>Loss of functionally linked land</b></li></ul> <p>Due to these potential linking impact pathways the policy is screened in for Appropriate Assessment.</p>																														
Policy H2: Sites allocated for residential / mixed use	<p>The sites listed below, and defined on the policies map, are allocated for residential development:</p> <table><tr><th>Address</th><th>Number of Dwellings</th></tr><tr><td>Reading FC Training Ground, Hogwood Park, Barkham</td><td>140</td></tr><tr><td>Land East of Park View Drive North, Charvil</td><td>85</td></tr><tr><td>Land West of Park Lane, Charvil</td><td>75</td></tr><tr><td>Jovike, Lower Wokingham Road, Finchampstead</td><td>15</td></tr><tr><td>Land adjacent to Whistley Green Cottage, Whistley Green, Hurst</td><td>3</td></tr><tr><td>Land north-west of Hogmoor Lane, Hurst</td><td>12</td></tr><tr><td>Land to the rear of 9-17 Northbury Lane, Ruscombe</td><td>7</td></tr><tr><td>Land between 39-53 New Road, Ruscombe</td><td>13</td></tr><tr><td>Rustlings, The Spring and Land to rear of Cushendall, Shinfield Road, Shinfield</td><td>10</td></tr><tr><td>Land at Bridge Farm, Twyford</td><td>150</td></tr><tr><td>Winnersh Plant Hire, Reading Road, Winnersh</td><td>20</td></tr><tr><td>Winnersh Farms, Winnersh</td><td>250</td></tr><tr><td>Land on North West Side of Old Forest Road, Winnersh</td><td>35</td></tr><tr><td>Station Industrial Estate, Oxford Road, Wokingham</td><td>92</td></tr></table>	Address	Number of Dwellings	Reading FC Training Ground, Hogwood Park, Barkham	140	Land East of Park View Drive North, Charvil	85	Land West of Park Lane, Charvil	75	Jovike, Lower Wokingham Road, Finchampstead	15	Land adjacent to Whistley Green Cottage, Whistley Green, Hurst	3	Land north-west of Hogmoor Lane, Hurst	12	Land to the rear of 9-17 Northbury Lane, Ruscombe	7	Land between 39-53 New Road, Ruscombe	13	Rustlings, The Spring and Land to rear of Cushendall, Shinfield Road, Shinfield	10	Land at Bridge Farm, Twyford	150	Winnersh Plant Hire, Reading Road, Winnersh	20	Winnersh Farms, Winnersh	250	Land on North West Side of Old Forest Road, Winnersh	35	Station Industrial Estate, Oxford Road, Wokingham	92	<p>Likely Significant Effects on European sites cannot be excluded.</p> <p>Policy H2 is a housing policy that allocates 18 residential sites in Wokingham Borough within the Plan period, totaling 940 net new residential dwellings. Therefore, the policy allocates both a quantum and the location of residential development. These are both important in determining the magnitude of potential impact pathways.</p> <p><b>Potential impact pathways are present:</b></p> <ul style="list-style-type: none"><li>• <b>Recreational pressure</b></li><li>• <b>Atmospheric pollution</b></li><li>• <b>Loss of functionally linked land</b></li></ul>
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Policy H3: Housing mix, density and standards	<p>Housing Mix &amp; Density</p> <p>1. Development proposals should seek to create sustainable, inclusive and mixed communities through providing a mix of house types and sizes at an appropriate density for the area.</p> <p>2. The mix of housing provided should reflect and respond to the identified housing needs and demands of the borough's households as set out in the most up to date evidence contained within the Local Housing Needs Assessment, or successor documents.</p> <p>3. The final mix of dwelling types and sizes will be subject to negotiation with the applicant. Applicants will be required to provide sufficient evidence to support their proposals.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a housing management policy setting design standards for housing developments, such as the required housing density.</p> <p>However, the policy does not in itself specify any quantum or location of housing and / or employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p>																						

<sup>95</sup> Allocation is for Gypsy and Traveller pitches. See [Policy H11](#)

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	<p>4. New housing should optimise density whilst consistently achieving good design, in line with the character and amenity of the location and site constraints.</p> <p>5. Development within the defined town centres and in urban locations with a good standard of accessibility to public transport will be expected to achieve higher densities as appropriate.</p> <p>Accessibility</p> <p>6. All new housing will be accessible and adaptable in line with M4(2) of the Building Regulations, unless it is built in line with M4(3) (see below).</p> <p>7. On developments of 20 or more new build dwellings, at least 6% of all new housing will be wheelchair accessible and adaptable in line with M4(3) of the Building Regulations.</p> <p>8. Specialist housing will be accessible and adaptable in line with the threshold and criteria as set out in Policy H9.</p> <p>Internal Space Standards</p> <p>Housing development proposals will be required to meet the up to date nationally prescribed space standard for minimum internal space.</p>	<p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy H4: Presumption against the loss of residential (development)	<p>1. Development proposals that would result in the net loss of residential units will be supported where one or more of the following criteria are met:</p> <p>a) The retention of the residential unit would be undesirable due to proven environmental considerations;</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a housing management policy that protects against the loss of existing</p>

	<p>b) The development proposed would enable the enlargement of sub-standard units to meet residential space standards;</p> <p>c) The development proposed would facilitate the provision of a provide a social, community or cultural facility or service which cannot be located within an alternative existing non-residential use;</p> <p>d) The loss of residential units would be linked to a wider comprehensive scheme of development which would not lead to an overall net loss of residential units.</p> <p>2. Development proposals that would result in the partial loss of an existing residential unit to non-residential use will only be supported provided all the following criteria are met:</p> <p>a) The nature of the non-residential use would provide satisfactory levels of residential amenity for future occupiers of the retained residential use, and would not unacceptably impact on the amenity of the occupiers of nearby properties and land uses; and</p> <p>b) The retained residential accommodation would provide acceptable standards of accommodation including adequate living space, appropriate layout of rooms, appropriate noise insulation, suitable space for drying of clothes, and quality internal and external environment including usable outdoor amenity space.</p>	<p>residential development (unless certain criteria are met).</p> <p>However, the policy does not provide for an additional quantum of housing development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>								
Policy H5: Affordable Housing	<p>1. Planning permission will be supported for residential development providing a mix and balance of densities, dwelling types, tenures and sizes. Affordable housing must reflect the sizes and types that meet the proven needs of people who are not able to compete in the general housing market.</p> <p>2. All residential proposals of at least 5 units of accommodation (net) or covering a net site area of at least 0.16 ha will provide up to 50% of the net additional units of accommodation proposed as affordable units, where viable. The Council will negotiate the tenure, size and type of affordable units on a site by site basis having regard to housing needs, site specifics and other factors.</p> <p>3. Subject to viability, the minimum percentages of affordable housing sought on site by land type and location are:</p> <table><tr><th>Land types</th><th>Location</th><th>Size trigger</th><th>%</th></tr><tr><td></td><td></td><td></td><td></td></tr></table>	Land types	Location	Size trigger	%					<p>There are no LSEs of this policy on European sites.</p> <p>This is a housing management policy that sets the targets for affordable housing as a percentage of the total housing delivered within a site.</p> <p>The policy does not provide for a specific quantum or location of housing development. Furthermore, there are no other mechanisms through which European sites might be affected.</p>
Land types	Location	Size trigger	%							



Previously developed land	Within Development Limits	5 to 14 units of accommodation (net) or between 0.16ha and 0.49ha (net)	20
Previously developed land	Within Major Development Location	15 units of accommodation or more (net) or 0.5ha (net) and larger	30
Previously developed land	Within Modest or Limited Development Location	15 units of accommodation or more (net) or 0.5ha (net) and larger	40
Greenfield	Within Major Development Location	5 units of accommodation (net) or more or 0.16 ha (net) and larger	35
Greenfield	Within Modest or Limited Development Location	5 units of accommodation (net) or more or 0.16 ha (net) and larger	40
Any	Outside development location	5 units of accommodation (net) or more or 0.16 ha (net) and larger	40
Any	Grazeley Garden Town and Strategic Development Location	5 units of accommodation (net) or more or 0.16 ha (net) or larger	35

4. The delivery of affordable housing will be provided in accordance with the following order of priority:

a) on-site as part of the development. On strategic developments affordable housing should be distributed across the development to create a mixed and balanced community,

b) on an alternative site, only if:

i. provision would result in a more effective use of available resources, or

Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.

	<p>ii. it would meet an identified housing need, such as providing a better social mix and wider housing choice, or</p> <p>iii. site specific considerations mean it is more feasible to provide an offsite contribution.</p> <p>5. Planning obligations will be used to ensure that affordable housing will remain at an affordable price for future eligible households, or for the subsidy to be recycled to alternative affordable housing provision.</p>	
Policy H6: Rural Exception Sites	<p>1. Development proposals for Rural Exception Sites that provide limited affordable housing to meet local needs will be permitted provided that:</p> <p>a) Dwellings are designed to meet an established local affordable housing need as evidenced through a Local Housing Need survey of the town/parish, the Council's Housing Register or any specific local surveys using a methodology agreed by the Council</p> <p>b) The number, size, type and tenure of dwellings proposed are suitable to meet the identified need and will usually be limited to small scale sites of below 10 dwellings unless it can be demonstrated that a larger development will not have an adverse impact on the other criteria</p> <p>c) Affordable homes are secured in perpetuity for those with a local connection to the town/parish within which the scheme is located</p> <p>d) The site is situated outside the existing settlement boundary but adjoins, or is well related to, the existing settlement pattern, is in keeping with the surrounding character, and within safe and reasonable walking distance of a settlement.</p> <p>2. A limited number of market dwellings for the sole purpose of making the scheme financially viable will be supported, subject to site specific viability testing, and be limited to up to 20% of the gross number of total dwellings. Any market housing included within a scheme should demonstrate how it will be integrated with the rural exception development and take into account the local character of the area.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a housing management policy that provides for rural exception sites, which can deliver lower targets of affordable housing.</p> <p>The policy does not provide for a specific quantum or location of housing development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>

<p>Policy H7: Rural Workers' Dwellings</p>	<p>1. Development proposals in the countryside of a permanent rural worker dwelling which serves an existing agricultural, forestry or other business requiring a countryside location, will be permitted where it can be demonstrated that:</p> <p>a) The rural enterprise has been demonstrated to be economically sustainable, has been established for at least 3 years and is likely to remain financially viable for the foreseeable future;</p> <p>b) There is an essential need for one or more permanent full time worker(s) to be accommodated at all times on the site of a rural enterprise in order for the enterprise to operate;</p> <p>c) The functional need cannot be accommodated in another existing building on the site which is suitable for conversion, or by suitable existing accommodation available within a reasonable distance of the rural enterprise;</p> <p>d) The size and scale of the dwelling is commensurate with the functional requirement of the rural enterprise;</p> <p>e) The dwelling is sited close to existing buildings as far as is practicable and is appropriately designed and landscaped to avoid harmful impact on the countryside character.</p> <p>2. If a rural worker dwelling is essential to support a new rural enterprise it should be provided temporarily by a caravan, a wooden structure which can easily be dismantled, or other temporary accommodation for the first three years and will be subject to the functional and financial tests set out above in criteria.</p> <p>3. Permission for all rural workers dwellings will be subject to a condition which restricts occupation of the dwelling to a person directly employed on a permanent full time basis in rural enterprise, or to their surviving partner or dependents.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a housing management policy that supports the provision of rural workers' dwellings (e.g. for agriculture and forestry) under specific circumstances.</p> <p>However, the policy does not provide for a specific quantum or location of housing development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
<p>Policy H8: Self-build and custom housebuilding</p>	<p>1. Development proposals for 100 dwellings or more will provide at least 5% of dwellings as serviced plots for self and custom build.</p> <p>2. The delivery of self build and custom build housing will:</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a housing management policy that provides for serviced plots for self and</p>

	<p>a) be provided as serviced plots; and</p> <p>b) be developed in accordance with an agreed design code; and</p> <p>c) be required to be completed within 3 years of a self/custom builder purchasing a plot; and</p> <p>d) have been made available and marketed appropriately at a reasonable value, for at least 12 months and, where they have not sold, the plot(s) will be expected to remain on the open market as self-build or custom build before being built out by the developer.</p> <p>3. Sites that appear to have been deliberately subdivided or phased to avoid the 100 dwelling threshold, or that feature as part of a cluster of adjoining development sites, will be considered cumulatively and in accordance with the 5% of dwellings required in this policy.</p> <p>4. Delivery of market serviced self-build plots will be in addition to, and not in lieu of, an affordable housing provision requirement (in Policy H5).</p> <p>5. Development proposals for individual self-build or custom housebuilding below the 100 dwelling threshold will be assessed on their individual merits in the light of the prevailing policies of this plan and any other material considerations.</p> <p>6. Development proposals that provide self-build and/or custom build homes within the settlement limits will be supported in principle.</p>	<p>custom build within development proposals over 100 dwellings.</p> <p>However, the policy does not provide for a specific quantum or location of housing development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy H9: Accommodation for Older People and Vulnerable Communities	<p>1. The council will work positively and collaboratively with statutory and voluntary agencies to support the needs of current and future households in the context of vulnerable people and an ageing population, by encouraging self-reliance and independent living and by providing the right type of homes for residential, nursing and dementia care to enable these communities to live successfully in the Borough.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a housing management policy that delivers accommodation for older people and vulnerable communities.</p>

	<p>2. Specialist accommodation for older people and vulnerable people will be delivered primarily at a strategic scale through the existing Strategic Development Locations (Policies SS4, SS5, SS6 and SS7) and at a new garden town at Grazeley (Policy SS3).</p> <p>3. Elsewhere, development proposals for purpose built or specialist accommodation for vulnerable people and/or older people will be supported, provided the following criteria are met:</p> <ul style="list-style-type: none"> <li>a) Local commissioning priorities, or a demonstrable local community need has been established</li> <li>b) The accommodation is well located, close to an identified town, district or local centre with access to a good range of services and facilities, including existing public transport routes, or incorporates essential community facilities and services, such as healthcare services or day care for older people;</li> <li>c) Adequate provision for service arrangements, including the provision of ambulance access; and</li> <li>d) Incorporate areas of green space, which are particularly important for many groups of vulnerable and older people.</li> </ul> <p>4. Development proposals that would lead to the reduction in the number of residential, nursing or dementia care premises will only be supported provided it can be demonstrated that a replacement facility can be provided elsewhere, or that such a use is not considered to be viable or no longer fit for purpose.</p> <p>5. All new residential proposals providing a form of specialist accommodation (including extra care housing) for older people should meet the optional technical standards requirements set out in the Building Regulations Approved Document M Part 2, except where it can be demonstrated that they would be unviable. This will be a matter for negotiation but the council will expect the following requirements to be met:</p> <ul style="list-style-type: none"> <li>a) as a minimum, 25% of dwellings to be constructed to Category M4(3) standard; and</li> <li>b) all dwellings to be constructed to Category M4(2) standard.</li> </ul>	<p>However, the policy does not provide for a specific quantum or location of housing development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
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	6. Development proposals involving other forms of purpose built and/or specialist accommodation with care for older people will be supported, in principle, in accessible and sustainable locations subject to other relevant policies in the Development Plan.	
Policy H10: Conversion and sub-division of buildings	<p>Development proposals for the conversion or sub-division of buildings into self-contained flats or houses of multiple occupation within development limits, will be supported provided that all the following criteria are met:</p> <p>a) The character and appearance of the original building are respected in terms of materials, design, arrangement of openings, and other principal architectural features, and the character and appearance of the area in which the building sits is respected;</p> <p>b) The proposal would provide satisfactory levels of residential amenity for future occupiers of the development, and would not unacceptably impact on the amenity of the occupiers of nearby properties and land uses;</p> <p>c) The proposal would provide an acceptable standard of accommodation, including adequate living space, appropriate layout of rooms between units of accommodation, appropriate noise insulation, suitable space for the drying of clothes, and a high quality internal and external environment including usable outdoor amenity space;</p> <p>d) The proposal provides acceptable access to the highway, vehicle parking and secure cycle storage/parking. Vehicle parking should generally be on-site. Off-site provision will only be considered suitable where there is no opportunity for on-site provision and where a parking survey demonstrates to the satisfaction of the local planning authority that acceptable parking space is available in the wider area;</p> <p>e) The proposal provides adequate on-site space for refuse and recycling storage facilities which should be contained within a covered storage area where practicable and conveniently located for collection;</p> <p>f) The proposal would not, either individually or cumulatively, unduly dilute or harm an existing mixed and sustainable community through the significant loss of single family housing and overconcentration of HMOs.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a housing management policy that pertains the conversion of buildings (including houses) in multiple occupation.</p> <p>However, the policy does not provide for a specific quantum or location of housing development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy H11: Gypsies and Travellers and Travelling Showpeople provision	1. Accommodation needs of Gypsies and Travellers, and Travelling Showpeople will be supported and met by:	Likely Significant Effects on European sites cannot be excluded.

	<p>a) Protecting existing Gypsy and Traveller and Travelling Showpeople sites from redevelopment or change of use to other uses;</p> <p>b) Allocating the sites listed below for Gypsy and Traveller use;</p> <p>c) Requiring all strategic scale development to make an appropriate contribution of Gypsy and Traveller pitches as part of a mixed community, where appropriate;</p> <p>d) Approving applications for pitches which accord with Policy H12.</p> <p>2. The sites listed below, and defined on the policies map, are allocated for residential caravan site use to be occupied by Gypsy and Travellers and should be used only for this purpose.</p> <p>a) Land to the rear of 166 Nine Mile Ride, Finchampstead – around 4 pitches</p> <p>b) Tintagel Farm, Sandhurst Road, Finchampstead – around 5 pitches</p> <p>c) Woodlands Farm, Wood Lane, Barkham – around 15 pitches</p>	<p>Policy H11 is a housing policy that provides for the needs of gypsies, travelers and travelling showpeople, including the establishment of 24 net new pitches.</p> <p>This population increase will come with an increased demand for recreational greenspaces and motorized travel. Most notably this could have an effect on the Thames Basin Heaths SPA, which is sensitive to recreational pressure and atmospheric pollution.</p> <p><b>Potential impact pathways are present:</b></p> <ul style="list-style-type: none"> <li>• <b>Recreational pressure</b></li> <li>• <b>Atmospheric pollution</b></li> <li>• <b>Loss of functionally linked land</b></li> </ul> <p>Due to these potential linking impact pathways the policy is screened in for Appropriate Assessment.</p>
Policy H12: Traveller sites	<p>1. Development will be permitted for new Gypsy and Traveller pitches, Travelling Showpeople plots, or extensions to existing sites in these uses that are in suitable locations which are outside the Green Belt, subject to satisfying the criteria below:</p> <p>a) The site is located in, or relates well to, an existing settlement either within or adjacent to the borough which has good access to services and is not isolated in the countryside by reason of distance or other barriers;</p> <p>b) The proposal is of a scale which does not dominate the scale of the nearest settlement whether singly or cumulatively with any existing sites in the area;</p>	<p>There are no LSEs of this policy on European sites.</p> <p>Policy H12 expands on policy H11 by providing the criteria under which new gypsy and traveller pitches will be permitted.</p> <p>However, the policy does not provide for a specific quantum or location of such pitches. Furthermore, there are no other</p>



	<p>c) Safe and suitable access to the highway network for vehicles, caravans and pedestrians can be provided and there is adequate space for parking and manoeuvring within the site;</p> <p>d) Development accords with national policy for flood risk and there are no other significant barriers to development in terms of drainage, ground stability or proximity to other hazardous land or installations;</p> <p>e) The scheme is sensitively and appropriately designed so that there is no unacceptable impact on the character and appearance of the surrounding landscape. Any permanent structures should be essential for the use of the site, such as a day room;</p> <p>f) Appropriate landscaping is provided that protects, and where possible enhances, the character of the environment and which does not unduly exclude or isolate the occupiers from the rest of the settled community. Landscaping should, as far as practicable, incorporate native plant species which respect the area's character;</p> <p>g) The site is capable of being connected to suitable utilities or on-site services for the benefit of residents and to avoid adverse impacts on the natural environment;</p> <p>h) There will be no unacceptable loss of amenity for neighbouring land uses;</p> <p>2. Proposals for sites of mixed-use residential and business use will only be considered if appropriate to the locality and such uses will not result in an unacceptable loss of amenity.</p> <p>3. Proposals for Travelling Showperson sites will be required to satisfy the above criteria and additionally demonstrate that the site is appropriately designed to accommodate the storage and maintenance of show equipment and associated vehicles.</p> <p>4. Development which results in the loss of existing pitches or sites will be refused unless it is clearly demonstrated that:</p> <p>a) The site is no longer suitable for such use; and that alternative provision on a site that is of equal or better quality is provided; or</p>	<p>mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
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	<p>b) It is clearly demonstrated that there is no need for GRT pitches in the borough.</p> <p>5. Appropriate, detailed and robust evidence will be required to evidence whether requirements 4a) and 4b are satisfied.</p>	
Policy H13: Houseboat moorings	<p>1. Development proposals for new residential moorings will be supported provided that:</p> <p>a) There would be no unacceptable impact on the operational requirements of the watercourse;</p> <p>b) There would be no unacceptable impact on navigation of the watercourse or navigational safety;</p> <p>c) Adequate access for emergency services to the mooring(s) exists or can be provided as part of the development to ensure safety;</p> <p>d) There is good access to services and facilities by walking, cycling and public transport;</p> <p>e) The site is connected or is capable of being connected to suitable utilities and on site services including water supply, electricity and disposal facilities for sewage and waste, as far as is practicable;</p> <p>f) There is no obstruction to the use of adjacent tow paths and no impediment to the safety of their use;</p> <p>g) There would be no unacceptable impact on biodiversity of the water, its margins and nearby areas of nature conservation;</p> <p>h) There would be no unacceptable visual or amenity impacts to the watercourse and nearby land uses;</p> <p>i) There would be restriction on the desire for increased access and opportunities to enjoy enhanced water related infrastructure facilities for all residents and visitors.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that supports the development of new houseboat moorings, providing certain conditions are met. For example, this includes that new moorings will not have unacceptable impacts on the biodiversity in the water.</p> <p>However, the policy does not provide for a specific quantum or location of such pitches. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>

	<p>2. Development proposals for transit moorings will be supported provided they satisfy criteria 1a) – 1d) and 1f) – 1i) set out above for permanent residential moorings, and:</p> <p>a) Make appropriate provision for refuse and sewage disposal facilities which should be sited so as not cause adverse visual or amenity impact;</p> <p>3. Permission for all temporary visitor moorings will be subject to a temporary occupancy condition which restricts usage to a maximum period of 14 days.</p>	
Policy H14: Development of Private Residential Gardens	<p>1. Development proposals for new residential development that includes land within the curtilage, or the former curtilage, of private residential gardens will only be supported where:</p> <p>a) The proposal makes a positive contribution to the character of the area in terms of:</p> <p>i. The relationship of the existing built form and spaces around buildings within the surrounding area;</p> <p>ii. A layout which integrates with existing landscape features and the surrounding area, with regard to the built up coverage of each plot, building line(s), rhythm of plot frontages, parking areas;</p> <p>iii. Existing pattern of openings and boundary treatments on the site frontage</p> <p>iv. Providing appropriate hard and soft landscaping, particularly at site boundaries. This includes features such as the variety of trees, hedges and hardstanding/lawn etc.;</p> <p>v. Compatibility with the general building height within the surrounding area</p> <p>vi. The materials and elevational detail are of high quality, and where appropriate distinctive and/ or complementary; and</p> <p>vii. The arrangement of doors, windows and other principal architectural features and their rhythm between buildings.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy relating to the development of private residential gardens.</p> <p>The policy does not provide for a specific quantum or location of such pitches. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>

	<p>b) The application site provides a site of adequate size and dimensions to accommodate the development proposed in terms of the setting and spacing around buildings, amenity space, landscaping and space for access roads and parking;</p> <p>c) The proposal includes access, which meets appropriate highway standards;</p> <p>d) The proposal does not lead to unacceptable tandem development;</p> <p>e) The design and layout minimises exposure of existing private boundaries to public areas and avoids the need for additional physical security measures;</p> <p>f) The development provides biodiversity net gain, and would not have an adverse impact on biodiversity through the fragmentation of blocks of gardens, which together, or in association with adjacent green space are deemed to make an important contribution to biodiversity and the wider green infrastructure network; and</p> <p>g) The proposal does not prejudice the satisfactory development of the wider area.</p> <p>2. Planning permission will be refused where a development proposal fails to demonstrate that any of criteria (a) to (g) have been fully met.</p>	
<b>Chapter 8 – Design, Heritage &amp; The Built Environment</b>		
Policy DH1: Place Making and Quality Design	<p>1. All development will contribute to a strong sense of place through high quality design which should endure over the lifetime of the development. Development is required to:</p> <p>a) Be resilient to climate change in accordance with Policy SS9: Adaptation to Climate Change, and minimise energy demand and maximise energy efficiency in accordance with Policy DH7: Energy;</p> <p>b) Reinforce or create a positive sense of place and local distinctiveness through design that respects the local natural and historic character of the area, paying particular attention to urban grain, layout, rhythm, density, scale, bulk, massing, proportions, detailing and trees;</p> <p>c) Incorporate appropriate innovation in design to improve the quality of an area and the way it functions;</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that stipulates design criteria for development in Wokingham Borough, including resilience to climate change, attractive layouts and sufficient levels of amenity space.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore,</p>

	<p>d) Deliver safe, easy access and movement for pedestrians, cyclists, cars and service vehicles and maximise the opportunities for and prioritisation of walking, cycling and other sustainable modes of transport;</p> <p>e) Have a layout that provides attractive, permeable and legible environments that encourage people to easily move around by walking and cycling;</p> <p>f) Ensure that streets and public spaces are attractive, particularly at the pedestrian level, incorporating features of visual interest wherever possible, and are functional, inclusive and able to be managed for the long term;</p> <p>g) Create places that foster active healthy lifestyles in accordance with policy HC1: Healthy and safe communities;</p> <p>h) Provide sufficient levels of high quality, usable private and public amenity space which is clearly delineated through the incorporation of high quality soft and hard boundary treatments as appropriate;</p> <p>i) Provide acceptable standards of amenity, privacy and daylight for occupiers, and not unacceptably affect the amenity of the locality or surrounding properties in accordance with policy DH2: Safeguarding Amenity;</p> <p>j) Include an appropriate mix of uses to the scale and location of the development;</p> <p>k) Make most efficient use of land and make best use of existing buildings while also designing in the adaptability of use into new buildings wherever possible to allow for flexibility in their usage over time;</p> <p>l) Not prejudice by way of design and layout the comprehensive development of a wider area;</p> <p>m) Retain and protect existing trees, hedgerows and other vegetation worthy of retention;</p> <p>n) , Integrate appropriate new landscaping and green infrastructure as an integral part of the scheme, which is consistent with achieving net biodiversity gain in accordance with NE1: Biodiversity and Nature Conservation;</p> <p>o) Create safe environments that are designed to discourage crime and disorder through appropriate levels of natural surveillance and spaces that promote positive social interaction;</p>	<p>there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
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	<p>p) Be accessible to all, including people of all ages and with disabilities, through carefully designed access features and be capable of adaptation to meet future needs;</p> <p>q) Minimise the visual impact of parking arrangements;</p> <p>r) Provide adequate on-site space for refuse and recycling storage facilities conveniently located for collection and design in a manner that is integrated into the scheme to reduce visual impact;</p> <p>s) Ensure that service access to commercial uses is arranged so there is no unacceptable impact on highway safety, amenity, and visual impact;</p> <p>t) Optimise the density of all developments, with higher densities provided in town centres and other locations well served by public transport, as appropriate;</p> <p>u) Maximise opportunities to remediate despoiled, degraded, derelict, contaminated or unstable land.</p> <p>2. All development proposals must demonstrate that they are in general conformity with the design principles set out in supporting guidance and Neighbourhood Plans where applicable.</p> <p>3. Masterplans and Design Codes will be required for larger and more complex developments to agree an overall vision and strategy for a development as a whole, which demonstrates a comprehensive and inclusive approach to design.</p>	
Policy DH2: Safeguarding amenity	<p>1. Development proposals should not cause by themselves, or cumulatively with other existing or proposed development, a detrimental impact on the amenity of existing properties or unacceptable living conditions for new occupiers in terms of:</p> <p>a) Privacy and overlooking;</p> <p>b) Access to daylight and sunlight;</p> <p>c) Visual dominance, outlook and overbearing effects of development;</p> <p>d) Noise and disturbance;</p> <p>e) Artificial lighting;</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that safeguards amenity by avoiding, among others, disturbance from noise, artificial lighting, dust and fumes.</p>

	<p>f) Vibration; g) Dust and fumes; h) Odour; or i) Potential for crime or perception of unsafe environments.</p> <p>2. As well as immediate impacts, other aspects to which this policy applies will include matters such as hours of operation of businesses, and effects of traffic movements, particularly of heavy goods vehicles (HGVs). Development proposals that would generate regular movements of HGVs and commercial traffic in residential areas should demonstrate that the impacts on the amenity of the local residents, by reason of noise and disturbance are minimised</p> <p>3. Where an otherwise acceptable development could change its character to a use that would have a greater impact on amenity without needing planning permission, conditions will be applied to restrict such changes.</p>	<p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy DH3: Shopfronts	<p>Development proposals for new shopfronts or alterations to existing shopfronts will be supported provided they:</p> <p>a) Create or maintain an active frontage; b) Respect the character, materials, design, scale and proportions of the building; c) Retain, do not conceal, and where possible restore, the building's important architectural or historic features; d) Include security measures, such as shutter or alarm boxes, that are well designed and integrated into the shopfront; and e) Respect the street scene and character of the area.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that sets the conditions for the development of shopfronts in Wokingham Borough.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>



<p>Policy Advertisements and signage</p>	<p>DH4:</p> <p>Development proposals for advertisements and signage will be supported provided they:</p> <ul style="list-style-type: none"> <li>a) Respect the building or structure on which they are located and/or their surroundings and setting in terms of size, location, design, materials, colour, noise, lettering, amount and type of text, illumination and luminance,</li> <li>b) Will not have a harmful impact on the amenity of adjoining uses,</li> <li>c) Will not have a detrimental effect on public safety, and</li> <li>d) Respect the street scene and character of the area.</li> </ul> <p>The cumulative impact of advertisements and signage will be taken into account, and a proliferation that detrimentally affects visual or aural amenity, or public safety will not be acceptable. All advertisements and signage shall comply with the following criteria:</p> <ul style="list-style-type: none"> <li>a) Advertisements and signage will not obstruct windows any other sign already located on the building, or cut across significant architectural features such as historic fascias, windows, pilasters, cornices or scrolls;</li> <li>b) Where a shop or business occupies more than one adjacent unit, the advertisement or signage will not run between the shopfronts;</li> <li>c) Advertisements or signage on listed buildings or in Conservation Areas will respect or enhance the building or area, and will respect the key features of the special historic interest;</li> <li>d) Advertisements or signage will not reduce visibility for users of the highway or accesses onto the highway;</li> <li>e) Illumination should not detract from the amenity of the area or pose a safety hazard to users of the highway; and</li> <li>f) Advertisements or signage should not obscure the sight lines or cause an obstruction to movement.</li> </ul>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that relates to the provision of advertisements and signage in Wokingham Borough.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
<p>Policy DH5: The Historic Environment</p>	<p>1. Development proposals should conserve and seek to enhance, wherever possible, the archaeological, architectural, artistic or historic interest of all heritage assets, including the contribution to this interest made by their setting. This will be achieved through:</p> <ul style="list-style-type: none"> <li>a) ensuring that development proposals identify and understand the heritage interest(s) that may be affected by the proposed works, at an early stage in the design process;</li> <li>b) supporting works that secure the sensitive use, enjoyment, conservation and/or enhancement of heritage assets and their settings, particularly in relation to designated assets identified as being at risk; and</li> </ul>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that conserves Wokingham Borough's historic environment. However, such historical assets are not relevant to the HRA process, which is concerned with European sites.</p>

	<p>c) securing the sensitive design of development which impacts on heritage assets and their settings, retaining or incorporating existing features or details of historic or architectural interest and/or design quality into the scheme.</p> <p>2. Heritage assets are an irreplaceable resource. Where development proposals have the potential to affect heritage assets, a heritage assessment should be prepared and submitted alongside the development proposal describing the significance of any heritage assets affected, including the contribution to their setting. Where there is harm, information must be provided on whether the harm is assessed as being less than substantial or substantial.</p> <p>3. Development proposals which would cause harm to the heritage interest of a heritage asset, or to its setting (whether statutorily designated or locally important), will not be permitted without a clear and convincing justification in the form of the public benefits of the proposal that cannot otherwise be achieved and which demonstrably outweigh any harm to the interest of the heritage asset in question, irrespective of the level of harm.</p> <p>4. Development proposals that would cause substantial harm to, or total loss of significance of a designated heritage asset, will not be permitted unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or all the particular circumstances to:</p> <ul style="list-style-type: none"> <li>a) the nature of the heritage asset prevents all reasonable uses of the site; and</li> <li>b) no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and</li> <li>c) conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and</li> <li>d) the harm or loss is outweighed by the benefit of bringing the site back into use.</li> </ul>	<p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy DH6: Archaeology	<p>1. Development proposals that would affect the significance of a scheduled monument, are within areas defined as Areas of High Archaeological Potential, or locations where archaeological remains are known or suspected, will need to be accompanied with a detailed assessment of the impact of the development upon archaeological remains and their significance. This should be in the form of an appropriate desk-based assessment using suitable references such as the Historic Environment Record and, where necessary, a field evaluation.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that protects areas with archaeological remains (or where these are suspected) from development.</p>

	<p>2. Development proposal should take appropriate measures to protect any archaeological remains by preservation in situ. Where assessment of archaeological potential demonstrates this is not justified or proportionate, applicants shall provide for the excavation, recording and archiving of remains.</p>	<p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy DH7: Energy	<p><u>Energy generation in new development</u></p> <p>To minimise energy use development proposals will be supported where they:</p> <ul style="list-style-type: none"> <li>a) Implement the Energy Hierarchy within the design of new buildings by prioritising a 'fabric first' approach and passive design and landscaping measures to minimise energy demand for heating, lighting and cooling;</li> <li>b) Demonstrate a reduction in on-site energy demand and maximise the use of low carbon energy sources across the scheme to minimise the effects of climate change;</li> <li>c) Maximise opportunities to link into and/or expand existing renewable and low carbon energy networks wherever it is feasible and viable to do so;</li> <li>d) Embrace innovative sustainable design solutions for energy efficiency and low carbon energy generation and use, over and above the National Housing Standards Building Regulations;</li> <li>e) Appropriately integrate solar gain, natural ventilation or ventilation with heat recovery, fabric performance and passive principles into the layout and design.</li> </ul> <p><u>Energy efficiency in existing developments</u></p> <p>Development proposals which would result in considerable improvements to the energy efficiency, carbon emissions and/or general suitability, condition and longevity of existing buildings will be supported, with significant weight attributed to those benefits.</p> <p>The sensitive retrofitting of energy efficiency measures and the appropriate use of micro-renewables in historic buildings, including listed buildings and buildings within conservation</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that guides requirements for energy generation in new developments and increased energy efficiency in existing developments.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>

	areas will be encouraged, providing the special characteristics of the heritage assets are protected.	
Policy DH8: Environmental standards for non-residential development	<p>Development proposals for non-residential development will be supported provided they meet the following environmental standards.</p> <ul style="list-style-type: none"> <li>a) Meet or exceed water conservation measures so that predicted per capita consumption does not exceed the appropriate levels set out in the applicable BREEAM standard;</li> <li>b) Incorporate greywater recycling and rainwater harvesting where possible; and</li> <li>c) Incorporate suitable waste management facilities, including on site recycling.</li> </ul> <p><u>Major development</u></p> <p>d) Major non-residential developments or conversions to non-residential will additionally be required to meet the most up-to-date BREEAM 'Excellent' standards, or any future equivalent.</p> <p><u>Minor development</u></p> <p>e) Minor non-residential developments or conversions to non-residential will additionally be required to meet the most up-to-date BREEAM 'Very Good' standard as a minimum;</p> <p><u>Extensions to existing non-residential premises</u></p> <p>f) All extensions to existing non-residential premises of 500 sqm floorspace or more are encouraged to achieve 'Very Good' in BREEAM.</p> <p>The standards within this policy should be achieved as a minimum unless it can be demonstrated that exceptional circumstances exist. Where on-site achievement is not viable or practical, a pro-rata contribution to the carbon offset fund should be provided.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that sets the environmental standards for non-residential development, including water conservation measures, rainwater harvesting and waste management.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy DH9: Environmental standards for residential development	Development proposals for residential development will be supported provided they meet the following environmental standards.	There are no LSEs of this policy on European sites.

	<p>a) Meet the higher water efficiency standard in Regulation 36 of the Building Regulations.</p> <p><u>Minor developments</u></p> <p>b) Minor residential developments will additionally be expected to achieve at least a 19% improvement in the dwelling emission rate over the target emission rate, as defined within Building Regulations Approved Document Part L 2013, or satisfy any higher standard that is required under new national planning policy or Building Regulations.</p> <p><u>Major developments</u></p> <p>c) Major residential development will additionally be expected to be designed to achieve carbon neutral homes.</p> <p><u>Conversions to residential and extensions to existing dwellings</u></p> <p>d) All conversions to residential and extensions to existing dwellings of 500 sqm of residential floorspace or more are encouraged to achieve 'excellent' in BREEAM domestic refurbishment.</p> <p><u>Measures to reduce energy use of existing dwellings</u></p> <p>e) Measures which facilitate a reduction of carbon emissions in existing dwellings will be supported provided they do not give rise to unacceptable impacts on landscape, biodiversity, heritage assets, character of the area, and amenity</p> <p>The standards within this policy should be achieved as a minimum unless it can be demonstrated that exceptional circumstances exist. Where on-site achievement is not viable or practical, a pro-rata contribution to the carbon offset fund should be provided.</p>	<p>This is a development management policy that sets the environmental standards for residential development, including water efficiency and carbon neutrality.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy DH10: Low carbon and renewable energy generation	<p>1. Development proposals for new standalone low carbon and renewable energy generation schemes and associated infrastructure, or extensions to existing schemes, will be supported provided they are of an appropriate scale and do not give rise to unacceptable impacts on landscape, biodiversity, heritage assets, character of the area, and amenity.</p>	<p>There are no LSEs of this policy on European sites.</p>

	<p>2. Where clear evidence can be demonstrated of local support for the provision of new, or extension of existing, low carbon or renewable energy generation schemes, this will be given significant weight in decision taking.</p> <p>3. Neighbourhood plans are encouraged to identify and allocate sites for renewable energy generation within their neighbourhood area.</p>	<p>This is a development management policy that relates to low carbon and renewable energy provision in Wokingham Borough.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
<b>Chapter 8 – Healthy &amp; Safe Communities</b>		
Policy HC1: Promoting Healthy Communities	<p>1. Strong, vibrant and healthy communities will be promoted through a high quality environment with local services to support health, social and cultural wellbeing and reduce inequalities.</p> <p>2. Development proposals should include measures to contribute to healthier communities and reduce health inequalities. This includes making a positive contribution to creating high quality, active, safe and accessible places.</p> <p>3. Development proposals will be supported which:</p> <ol style="list-style-type: none"> <li>Contribute to the priorities of the Health and Wellbeing Board and partners to help reduce health inequalities;</li> <li>Support the provision of new or improved health facilities, in consultation with Berkshire West Clinical Commissioning Group and NHS England;</li> <li>Protect existing health facilities in line with Policy HC2: Community Facilities.</li> </ol> <p>4. Proposals for all major development schemes will be required to include a Health Impact Assessment (HIA).</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This policy promotes healthy communities in Wokingham Borough through the provision of appropriate community health services. It is not related to a subject area that is relevant to the HRA process.</p> <p>In particular the policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be</p>

		screened out from Appropriate Assessment.
Policy HC2: Community Infrastructure	<p>New Facilities</p> <ol style="list-style-type: none"> <li>1. Development proposals for the provision of new or extended community facilities will be supported, particularly where there is an identified present or future need, and should be: <ol style="list-style-type: none"> <li>a. Of a suitable nature and scale to meet identified needs, be compatible with the character of the area and be sufficiently flexible to meet changing needs over time;</li> <li>b. Designed to accommodate a range of community uses. The co-location of facilities, including access for appropriate organisations and the local community will be strong encouraged;</li> <li>c. Accessible by all members of the community and promote social inclusion;</li> <li>d. Provided as part of a large residential schemes where development increases demand beyond current capacity, or generates a newly arising need.</li> </ol> </li> <li>2. New facilities should not adversely impact on the existing facilities in the local area.</li> </ol> <p>Existing Facilities</p> <ol style="list-style-type: none"> <li>3. Existing community facilities should be retained, improved and enhanced.</li> <li>4. Proposals that result in the loss of an essential community facility or service will only be permitted where: <ol style="list-style-type: none"> <li>a. It would lead to the significant improvement of an existing facility or the replacement of an existing facility, of equal accessibility and convenience for the local community, with equivalent or improved facilities; or</li> <li>b. It has been determined that the facility no longer meets the needs of the local community; or</li> <li>c. It would provide sufficient community benefit to outweigh the loss of the existing facility; or</li> <li>d. It is no longer economically viable.</li> </ol> </li> <li>5. Appropriate, detailed and robust evidence will be required to satisfy the above criteria.</li> </ol>	<p>There are no LSEs of this policy on European sites.</p> <p>This policy provides for an appropriate community infrastructure in Wokingham Borough. As this is likely to include features such as Suitable Alternative Greenspace (SANG), this could aid in reducing recreational pressure in European sites that are sensitive to recreational pressure, such as the Thames Basin Heaths SPA.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>



**Policy HC3: Open Space, Sports, Recreation and Play Facilities**

**Existing Facilities**

1. Existing open space, sports and recreation and play facilities will be protected, maintained and where possible enhanced.
2. Development proposals resulting in the loss of open space, sports and recreation and play facilities will only be permitted where:
  - a. An assessment has been undertaken which clearly shows the open space, facilities or land are surplus to requirements and alternative facilities are available within a reasonable distance; or
  - b. It can be demonstrated that alternative facilities of equivalent or superior quality and quantity will be provided in an accessible and suitable location;
  - c. The development is for alternative sport and recreational provision, the needs and benefits of which outweigh the loss of the current or former use.

**New Facilities and Residential Development**

3. Development proposals for open space, sport and recreation and play facilities will be encouraged and supported, in line with other policies in the Plan and Sport England guidance. New open space, sports, recreation and play facilities should be well related to the communities they serve and, where possible, be co-located with other community uses.
4. Development proposals for new residential development, involving a net increase in the number of dwellings will be required to provide or contribute to the provision of open space, sport and recreation and play facilities and must demonstrate how they meet the standards in the table below.

Type	Borough standard (ha per 1,000 population)
Parks and public gardens	1.1
Natural/ semi natural greenspace (excluding country parks)	2.84

There are no LSEs of this policy on European sites.

This policy sets the standards (in ha per 1,000 population) that new development must achieve in relation to open space, sports, recreation and play facilities. This includes facilities such as parks and public gardens, natural greenspace, outdoor sports facilities and amenity greenspace. Such facilities are likely to absorb some of the additional recreational demand resulting from the Plan's population increase. This could help mitigating recreational pressure in the Thames Basin Heaths SPA.

The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.

Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.

	Amenity greenspace	0.98	
	Provision for children and young people (Neighbourhood Equipped Areas of Play; Local Equipped Areas of Play; Local Areas of Play)	0.25	
	Civic Space	0.01	
	Outdoor sports facilities	1.66	
	Cemeteries/ Burial grounds*	14.4 grave plots per 1,000 population	
	Allotments	0.52	
	<b>Type (indoor sports)</b>	<b>Borough standard (m<sup>2</sup> per 1,000 population)</b>	
	Sports hall (4-bad court) including indoor bowls (2 rinks) and Health & Fitness gyms (20 stations)	65.43	
	Swimming pool	8.26	
	Activity halls	41.31	
	*Assumes a grave plot can accommodate 2.5 burials on average.		
	5. Open space, sports, recreation and play facilities should be provided on-site. Where this is not possible or achievable, a financial contribution will be sought towards off-site provision.		
6. Provision for the long term maintenance and management will be sought and must be agreed as part of the planning application process.			
Policy HC4: Local Green Space	The following areas are designated Local Green Spaces as shown on the policies map:  a) Elms Field, Wellington Road b) Howard Palmer Gardens, Cockpit Path		There are no LSEs of this policy on European sites.

	<p>c) Barkham Recreation Ground, Latimer Road d) Langborough Recreation Ground, Gipsy Lane e) King George V Playing Field, Goodchild Road f) Land south of Reading Road, Bulmershe, Earley g) Fox Hill, Woosehill h) Joel Park and Holt Copse, Wokingham</p> <p>Within the Local Green Space, development will be restricted to those limited types of development which are deemed appropriate, unless very special circumstances can be demonstrated.* Development proposals will be deemed appropriate where it is compatible with the reasons for which the land was designated.</p> <p>All development proposals should be carefully designed and managed to minimise visual impact, respect the reasons for which the site was designated, and ensure the continued integrity of the site.</p> <p>Development proposals outside the Local Green Space Belt, but conspicuous when viewed from it, should minimise any detrimental impacts to the visual amenity and respect reasons for which the site was designated.</p> <p>Development proposals which improve accessibility to, or enhance the use of Local Green Space will be supported.</p> <p>* 'Very special circumstances' will not exist unless the potential harm, is clearly outweighed by other considerations.</p>	<p>This policy identifies Local Green Spaces in Wokingham Borough, which will be protected from development. This is positive, because these Local Green Spaces provide recreational opportunity for local residents, thereby absorbing some of the recreational pressure that would otherwise affect European sites.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy HC5: Environmental Protection	<p>1. Development proposals will only be supported where it can be demonstrated that individually, or cumulatively in combination with other schemes, they do not have an unacceptable impact, either during the construction phase, or when completed, on:</p> <ol style="list-style-type: none"> <li>Human health, wellbeing or safety,</li> <li>Residential amenity</li> <li>Environmental quality or landscapes,</li> <li>Other sensitive receptors.</li> </ol>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a positive policy that stipulates that development proposals will only be permitted where they will not have an unacceptable impact on environmental quality or other sensitive receptors.</p>

	<p>2. Development proposals should demonstrate how an assessment of all reasonable environmental risks has been undertaken.</p>	<p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy HC6: Air Pollution and Air Quality	<p>1. Prevailing air quality and potential impacts upon air quality arising from airborne emissions, dust and odour associated with the construction and operation of a proposal (including vehicular traffic) will be considered when determining planning applications.</p> <p>2. Air Quality Assessments can demonstrate how prevailing air quality and potential impacts upon air quality have been considered and how air quality will be maintained at an acceptable standard through avoidance and mitigation measures. Development proposals are likely to require an Air Quality Assessment where:</p> <ul style="list-style-type: none"> <li>a. The site is located within an Air Quality Management Area (AQMA); or</li> <li>b. The site is within proximity to a source of air pollution which could present a significant risk to human health; or</li> <li>c. The type of development would mean its occupiers would be particularly sensitive to air pollution, such as schools, health care establishments or housing for older people.</li> </ul>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a positive policy that provides for the protection of air quality. Specifically, any potential impacts on air quality of a development proposal will be considered through an Air Quality Assessment.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy HC7: Light Pollution	<p>1. Development proposals which include external lighting schemes will be granted permission where it is demonstrated that:</p> <ul style="list-style-type: none"> <li>a) The proposed lighting scheme is at a level equal to the minimum illuminance required by the development for its purpose;</li> </ul>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that manages the level of light pollution</p>

		<p>b) Light spillage and glare has been minimised to the lowest feasible level, where still allowing the lighting scheme to be fit for purpose;</p> <p>c) Where the lighting is located as part of a larger scheme, the proposed lighting is both well integrated and appropriate to the wider setting;</p> <p>d) Where not part of a greater development scheme, the lighting has no adverse impact on existing neighbouring, local properties, businesses or amenity areas and the scheme is appropriate to the wider setting in terms of its local context;</p> <p>e) Consideration has been given to the tranquillity of the borough, with a clear distinction between what is suitable within rural and urban environments;</p> <p>f) Any potential impacts on sensitive receptors can be avoided or comprehensively mitigated where avoidances is not possible.</p>	<p>throughout Wokingham Borough. This will be achieved by minimizing illuminance, light spillage and maximizing integration of the light sources into the wider development.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy Pollution	HC8: Noise	<p>1. Development proposals must demonstrate how they have addressed noise impacts to protect noise sensitive receptors (both existing and proposed) from noise impacts.</p> <p>2. The noise impact of the development must be assessed. Where there is no adverse impact (No Observed Effect Level) then noise will not be a material consideration.</p> <p>3. Where there is an adverse effect (Lowest Observed Adverse Effect Level to Significant Observed Adverse Effect Level), then;</p> <p>a. The development layout must be reviewed. Where this results in there no longer being an adverse impact then design and mitigation measures should be incorporated accordingly.</p> <p>b. Where there is still an adverse impact then internal layout must be reviewed. Where this results in there no longer being an adverse impact then design and measures should be incorporated accordingly.</p> <p>c. Where there is still an adverse impact then physical mitigation measures such as barriers/mechanical ventilation must be reviewed. Where this results in there no longer being an adverse impact then design and mitigation measures should be incorporated accordingly.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that addresses the level of noise pollution arising from new development. For example, development proposals must demonstrate that they address noise impacts and protect noise sensitive receptors.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be</p>

	d. Where there is still an adverse impact and the development falls within the significant observed adverse effect level then planning permission will normally be refused.	screened out from Appropriate Assessment.
Policy HC9: Contaminated Land and Water	<p>1. Development proposals on or near sites which are known, or suspected to be potentially contaminated, or proposals for sensitive land uses will be supported where it can be demonstrated that the following receptors will not be exposed to levels of potential contamination which would give rise to unacceptable risks or harm to health, or other adverse impacts:</p> <ul style="list-style-type: none"> <li>a. People</li> <li>b. Natural environment</li> <li>c. Property</li> <li>d. Water bodies</li> <li>e. Other receptors</li> </ul> <p>2. A preliminary assessment should be undertaken, which includes:</p> <ul style="list-style-type: none"> <li>a. Details of any historic contamination,</li> <li>b. The extent, scale and nature of the potential contamination,</li> <li>c. An assessment of the potential risks to human health, property, nature conservation, water quality or other receptors, and</li> <li>d. Any preventative, mitigation or remedial measures and supporting assessments.</li> </ul> <p>Development proposals must demonstrate how any pollution arising from previous land uses or as a result of the proposed development can be sufficiently mitigated.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a policy that regulates the development of contaminated land and water. The policy protects the natural environment and water bodies from associated contamination risks.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy HC10: Development in the vicinity of Atomic Weapons Establishment (AWE), Burghfield	<p>1. Development proposals in the land use planning consultation zones surrounding AWE Burghfield will be managed in the interests of public safety, emergency response, defence and security.</p> <p>2. All development proposals located within, or in proximity to, the Detailed Emergency Planning Zone (DEPZ) will require consultation with the Office for Nuclear Regulation (ONR).</p> <p>3. Development proposals will be assessed in relation to the impact it may have on the West Berkshire Council's AWE Off-Site Emergency Plan arrangements as detailed in the</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that restricts new development proposals in the Atomic Weapons Establishment Zone. However, this is a subject area that is not relevant to the HRA process.</p>

	<p>Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPIR), national policy and guidance, or any equivalent replacement/updated guidance.</p> <p>4. Development proposals should have particular regard to the following:</p> <ul style="list-style-type: none"> <li>a) the proposed use</li> <li>b) the scale of development proposed</li> <li>c) the location of the development, and</li> <li>d) the impact of the development on the function and operation of the emergency plan through appropriate consultation with the agencies who have responsibilities in the West Berkshire Council's AWE Off-Site Emergency Plan.</li> </ul> <p>5. The applicant will need to provide this information where the development proposal exceeds the scale of development for the consultation zone .</p> <p>6. Development will only be permitted where it is demonstrated that the increase in the number of people living, working, shopping and/or visiting the proposal (including at different times of the day) can be safely accommodated having regard to the needs of the responding agencies detailed in the West Berkshire Council's AWE Off-Site Emergency Plan for the Atomic Weapons Establishment sites.</p>	<p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
<b>Chapter 10 – Natural Environment &amp; Flooding</b>		
Policy NE1: Biodiversity and Nature Conservation	<p>1. Sites designated as of importance for nature conservation at an international or national level, as identified on the Policies Map, in addition to Local Wildlife Sites and Local Geological Sites, will be maintained, conserved and enhanced and inappropriate development will be resisted. The degree of protection given will be proportionate to the status of the site in terms of its international or national importance.</p> <p>2. Development proposals which may harm habitats, or species of principle importance for nature conservation in England, ancient or veteran trees or features of the landscape that are of major importance for wild flora and fauna, will only be permitted if it has been clearly demonstrated that the wholly exceptional need for the proposal outweighs the need to safeguard the nature conservation or geological importance of the site, and no alternative site is available that would result in less or no harm. Where this test is met, every effort must be made to reduce the harm to the site through avoidance and mitigation measures.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>Policy NE1 specifically relates to biodiversity and nature conservation. It stipulates that any development proposals negatively affecting nature conservation sites at the international and national level, will be resisted. Furthermore, the policy specifically protects veteran trees, which are qualifying features of several European sites that are relevant to the Wokingham Local Plan.</p>



	<p>3. Development proposals across sites of all sizes should achieve a minimum 10% net gain for biodiversity, either within the site boundary or as part of on-site compensation, or where necessary, off-site compensation towards a larger strategic habitat restoration network.</p> <p>4. Development will only be permitted where it can be demonstrated that proposals:</p> <ul style="list-style-type: none"> <li>a) Incorporate new biodiversity features and enhance existing features of value through design, layout and landscaping.</li> <li>b) Provide or retain appropriate buffer zones between development proposals and designated sites, as well as habitats and species of principal importance for nature conservation;</li> <li>c) Provide coherent ecological permeability that is integrated and linked to the wider green infrastructure and any nature recovery network identified as relevant to the location;</li> <li>d) Are compatible with any Biodiversity Action Plan or strategic conservation management plans for a species or habitat that has been formally adopted by the local authority.</li> </ul> <p>5. Development located within, or neighbouring, a Biodiversity Opportunity Area (BOA), Living Landscape, Nature Recovery Network or similar opportunity should support the objectives of each initiative.</p>	<p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy NE2: Thames Basin Heaths Special Protection Area	<p>1. Development, which following a Habitat Regulations Assessment, either alone or in combination with other plans or projects, is considered to have likely significant effects on the ecological integrity of the Thames Basin Heaths Special Protection Area will be required to demonstrate that adequate measures to avoid and mitigate any potential adverse effects are delivered.</p> <p><u>Residential development</u></p> <p>2. Proposals for a net increase in residential development<sup>1</sup>:</p> <ul style="list-style-type: none"> <li>a. Within the 400 metres exclusion zone of the Thames Basin Heaths SPA will be resisted because the impacts of such development on the SPA cannot be fully mitigated.</li> <li>b. Between the 400 metres threshold but within five kilometres linear distance of the SPA boundary (the SPA zone of influence) will be required to deliver avoidance and mitigation measures prior to occupation of new dwellings and in perpetuity. Measures must be in</li> </ul>	<p>There are no LSEs of this policy on European sites.</p> <p>Policy NE2 specifically protects the Thames Basin Heaths Special Protection Area from adverse effects of residential development. The policy recognizes the relevant mitigation zones (400m, 5km, 5-7km) that have been agreed upon with Natural England. Furthermore, the policy establishes that residential development proposals will need to contribute to SANG and SAMM as mitigation measures. It is considered that the policy aligns the</p>

	<p>accordance with the Thames Basin Heaths Special Protection Area Avoidance and Mitigation Strategy or any successor document.</p> <p>c. Between five and seven kilometres from the SPA boundary (the SPA zone of influence) proposals for a net increase of more than 50 dwellings may be required to provide mitigation measures based on a combination of SAMM and the provision of SANG to a lower standard than within the 400m to five kilometre zone. This will be assessed on a case-by-case basis in consultation with Natural England and, where appropriate, a Habitats Regulations Assessment may be required to ascertain whether the proposal could have an adverse effect on the SPA.</p> <p><u>SANG Provision</u></p> <p>3. Within the five kilometre zone, a minimum of eight hectares of SANG land (after discounting to account for current access and capacity) should be provided per 1,000 new occupants. SANG must be secured or provided, in addition to being maintained in perpetuity, in accordance with the quality and quantity standards advocated by Natural England. SANG capacity should be based on an average occupancy of 2.4 persons per dwelling. The quantity and capacity of SANG to be provided for development proposals outside the five kilometre zone will be assessed individually on a case-by-case basis in consultation with Natural England.</p> <p>4. The council has identified sufficient SANG provision as part of the avoidance and mitigation measures required for the Development Plan.</p> <p>5. There is a presumption against the development of SANG sites for uses other than SANG, unless the applicant can demonstrate that sufficient alternative avoidance measures for all relevant submitted and/or approved plans and projects within the borough taking account of Natural England's advice on SANGs. Development proposals must fall within the catchment of a specified SANG, except developments of less than a net increase of 10 residential dwellings.</p> <p>6. Applications for non-residential development will be assessed on a case by case basis.</p>	<p>emerging Wokingham Local Plan with the relevant legislation.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
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Policy NE3: Trees, woodland and hedgerows	<p>1. Trees, woodland and hedgerows are important visual and ecological assets in towns, villages and the countryside. To retain and provide local character and distinctiveness in the landscape, trees (including ancient or veteran trees), woodland, ancient woodland and hedgerows are of particular significance. Development proposals should:</p> <p>a) Ensure existing trees, hedgerows and other landscape features are protected, and where possible enhanced, as an integral part of the development,</p> <p>b) Retain the existing pattern of fields, hedgerows, woodlands, trees, watercourses, water bodies, underlying topography and other landscape features,</p> <p>c) Provide appropriate buffer zones around woodlands, including semi-natural ancient woodlands, planted ancient woodland sites, orchards, hedgerows and individual trees.</p> <p>2. The loss, threat or damage to any tree, woodland or hedgerow of visual, heritage or nature conservation value will only be acceptable where:</p> <p>a) Development proposals have sought to avoid, reduce or minimise impact,</p> <p>b) Mitigation measures, such as structural tree planting are incorporated as part of the development proposals providing equivalent scale, canopy cover, habitat connectivity and character.</p> <p>3. Development proposals that would result in the loss or deterioration of woodland, ancient woodland and ancient or veteran trees will only be permitted if there are wholly exceptional reasons and a suitable compensation strategy exists.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>Policy NE3 provides protection for Wokingham Borough's trees, woodland and hedgerows, thereby expanding on the protection of veteran trees in policy NE1. The policy stipulates that the existing pattern of trees, hedgerows, woodland and watercourses will need to be retained.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy NE4: Development and existing trees, woodland and hedgerows	<p>1. Development proposals that may affect a tree, woodland or hedgerow should:</p> <p>a) Assess all trees, woodland and hedgerows affected, including describing and assessing their value, as part of an Arboricultural Impact Assessment</p> <p>b) Incorporate existing woodland, trees and hedgerows and ensure integration into the public realm within a suitable landscape setting,</p>	<p>There are no LSEs of this policy on European sites.</p> <p>Policy NE4 establishes the methodology that must be followed if a development</p>

	<p>c) Ensure the layout of new developments provide sufficient space to enable trees to grow and thrive, including maintaining adequate root protection areas and limiting excessive shading to residential properties.</p> <p>d) Ensure appropriate tree protection measures are in place prior to development commencing on site and to actively monitor tree protection reporting as part of the Arboricultural Method Statement, including a Tree Constraints Plan and Tree Protection Plan and actively monitor tree protection throughout the construction process.</p>	<p>proposal might affect a tree, woodland or hedgerow, including an Arboricultural Impact Assessment and the adequate protection of root areas.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy NE5: Landscape and Design	<p>1. Development proposals will respect, conserve and enhance the character and distinctiveness of the local landscape by adopting a landscape led approach, using the most up-to-date landscape studies, including the borough-wide Landscape Character Assessment, as part of making a positive contribution to the character and appearance of the development site and the quality of the borough's landscape. Development proposals should:</p> <p>a. Reflect local character and distinctiveness, including the scale and pattern of the surrounding landscape and existing settlement form</p> <p>b. Incorporate a landscape assessment ensuring development is informed by local landscape character,</p> <p>c. Provide an appropriate landscape scheme including masterplans and planting schemes. This should include strategic tree planting in all types of development, reinforcing existing vegetative boundaries and corridors with new planting and any replacement and mitigation planting to compensate for tree removal as detailed in Policy NE4. The layout will need to allow sufficient space for all planting to thrive and mature. The use of native species is preferred.</p> <p>d. Promote landscape spaces, public realm and green infrastructure with associated planting to improve ecological connectivity, create a sense of place, mitigate and adapt to climate change and improve health and wellbeing.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that aligns the design principles of new development with the local landscape character and distinctiveness.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>

	e. For land on the rural urban fringe design effective landscape transitions for land on the rural edge, consisting of native tree and hedgerow planting consistent with local landscape character.	
Policy NE6: Landscape Character, Value and Green Routes	<p>1. Development proposals must take into account key characteristics, sensitivities and strategies including key issues and guidelines of the landscape, in order to safeguard intrinsic character, scenic beauty and perceptual qualities, for example tranquillity and dark skies, as set out in the Landscape Character Assessment.</p> <p>2. Valued landscapes are identified on the Policies Map. Development proposals will only be permitted where they protect and enhance features that contribute to the character, quality and interpretation of valued landscapes and specifically the criteria set out in the Guidance for Landscape and Visual Impact Assessment (GLVIA) Box 5.1:</p> <ul style="list-style-type: none"> <li>a. Landscape quality (condition)</li> <li>b. Scenic quality</li> <li>c. Rarity</li> <li>d. Representativeness</li> <li>e. Conservation interests</li> <li>f. Recreation value</li> <li>g. Perceptual aspects</li> <li>h. Associations</li> </ul> <p>3. Development proposals on or in proximity to Green Routes will only be permitted where existing trees are retained and should contribute to the improvement of Green Routes through landscape schemes, including tree and hedge planting.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that expands on the protection of the landscape character, its value and the Green Routes. The protection of Green Routes is important, because these might absorb some of the recreational pressure resulting from the Local Plan Update.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy NE7: Sites of Urban Landscape Value	<p>1. Sites of Urban Landscape Value are defined on the Policies Map.</p> <p>2. Planning Permission will only be granted for development proposals within or affecting Sites of Urban Landscape Value where they demonstrate that they:</p> <ul style="list-style-type: none"> <li>a. Retain and enhance the special landscape features and qualities that make the site valuable to the character, townscape and urban form; and</li> <li>b. Minimise the visual impact of the development site on the Sites of Urban Landscape Value; and</li> <li>c. Protect, manage and enhance the sites' capacity for informal recreation.</li> </ul>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that defines the Sites of Urban Landscape Value and protects them from negative effects of new development proposals.</p>

		<p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy NE8: Development and Flood Risk (from all sources)	<p>1. All sources of flood risk, including historic flooding, must be taken into account at all stages and to the appropriate degree at all levels in the planning application process to avoid inappropriate development in areas at risk of flooding. Proposals must be consistent with national policy and guidance and demonstrate how they have used the Strategic Flood Risk Assessment (SFRA) to determine the suitability of the proposal.</p> <p>2. Development proposals in Flood Zones 2 or 3 must take into account the vulnerability of proposed development.</p> <p>3. Development must be guided to areas of lowest flood risk, in the first instance, by applying the sequential approach taking into account the effects of climate change and flooding from all sources. Development should ensure flood risk is not worsened for the application site and elsewhere, and ideally that betterment of existing conditions is achieved. The sequential test will not be required if at least one of the following applies:</p> <p>a) Minor non-residential extensions: industrial/commercial/leisure etc. extensions with a footprint of less than 250 square metres.</p> <p>b) Alterations: development that does not increase the size of buildings e.g. alterations to external appearance.</p> <p>c) Householder development: for example shed, garages, games rooms etc. within the curtilage of the existing dwelling, in addition to physical extensions to the existing dwelling itself. This definition excludes any proposed development that would create a separate dwelling within the curtilage of the existing dwelling e.g. subdivision of houses into flats.</p> <p>d) Changes of use, except where the change of use is to a caravan, camping or chalet site, or to a mobile home or park home site<sup>1</sup>.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a development management policy that relates to development proposals and their associated flood risk (from various sources). It specifies that areas of high flood risk must be avoided and that proposals should employ a Strategic Flood Risk Assessment.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>

	<p>4. In exceptional circumstances, new development in areas of flood risk will be supported where it can be demonstrated that:</p> <ul style="list-style-type: none"> <li>a) The development provides wider sustainability benefits to the community that outweigh flood risk</li> <li>b) The development will: <ul style="list-style-type: none"> <li>i. Be safe for its lifetime, taking account of the vulnerability of its users</li> <li>ii. Not increase flood risk in any form elsewhere and, where possible, will reduce flood risk overall</li> <li>iii. Incorporate flood resilient and resistant measures into the design</li> </ul> </li> <li>c) Appropriate evacuation and flood response procedures are in place to manage the residual risk associated with an extreme flood event.</li> </ul> <p>5. Where required, suitable and appropriately detailed flood risk information will need to accompany a planning application. A site-specific Flood Risk Assessment (FRA) is required for:</p> <ul style="list-style-type: none"> <li>a) All proposals in areas of known historic flooding from all sources</li> <li>b) Where there is evidence of a risk from all sources of flooding identified in the Strategic Flood Risk Assessment</li> <li>c) All development in Flood Zones 2 and 3. In Flood Zone 1, an assessment should accompany all proposals involving: <ul style="list-style-type: none"> <li>i. sites of 1 hectare or more;</li> <li>ii. land which has been identified by the Environment Agency as having critical drainage problems;</li> <li>iii. land identified in a strategic flood risk assessment as being at increased flood risk in future; or</li> <li>iv. land that may be subject to other sources of flooding, where its development would introduce a more vulnerable use.</li> </ul> </li> </ul> <p>1 National Planning Policy Framework, footnote 51</p>	
Policy NE9: Sustainable Drainage	<p>1. Development proposals must ensure surface water arising from the proposed development, including the impact of climate change, is managed in a sustainable manner.</p>	<p>There are no LSEs of this policy on European sites.</p>



	<p>In accordance with the council's Local Validation Requirements, this must be demonstrated through either a:</p> <ul style="list-style-type: none"> <li>a) Site-specific Flood Risk Assessment, or</li> <li>b) Surface Water Drainage Strategy.</li> </ul> <p>2. Development will only be supported where proposals:</p> <ul style="list-style-type: none"> <li>a) For major developments and developments in areas at risk of flooding from all sources, incorporate SuDS as an intrinsic part of the proposal, unless it can be effectively demonstrated that it is not feasible within the constraints of the site</li> <li>b) Reproduce greenfield runoff characteristics and return run-off rates and volumes back to the original greenfield levels for greenfield sites; and for brownfield sites both run-off rates and volumes be reduced to as near greenfield as practicably possible, or 40% betterment of existing, whichever is achievable</li> <li>c) Incorporate Sustainable Drainage Systems (SuDS), which must be of an appropriate design (in line with the principles and local standards set out in the council's latest SuDS Strategy and Technical Guide and any current national technical standards) to meet the long term needs over the lifetime of the development and which achieve wider social, ecological and environmental benefits</li> <li>d) Provide clear details of proposed SuDS including the adoption arrangements and how they will be maintained to the satisfaction of the Council, as the Lead Local Flood Authority (LLFA)</li> <li>e) Do not cause adverse impacts to the public sewerage network serving the development where discharging surface water to a public sewer.</li> <li>f) Incorporate guidance set out in the Wokingham SuDS Strategy to effectively manage flood risk, improve the water environment, enhance biodiversity and mitigate and adapt to the effects of climate change.</li> <li>g) Incorporate SuDs solutions that will contribute towards water quality treatment and biodiversity enhancements in line with the Water Framework Directive (WFD) and the Thames River Basin Management Plan.</li> <li>h) Avoid the use of underground tanks, except when all other reasonable alternatives to provide a sustainable drainage solution have been exhausted.</li> </ul>	<p>Policy NE9 specifies that major developments must incorporate Sustainable Drainage Systems (SuDS), which are designed to mimic greenfield runoff characteristics and to contribute to targets set in the Water Framework Directive. This is a policy that could have positive effects on European sites that rely on a steady hydrological regime.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
Policy NE10: River Corridors	<p>1. Development proposals that include or are adjacent to a watercourse must protect or enhance its function, setting and biodiversity and historical significance. As a last resort, development should provide mitigation for any unavoidable impacts.</p>	<p>There are no LSEs of this policy on European sites.</p>

	<p>2. Development encompassing a watercourse, wherever practicable and appropriate, should provide or retain a minimum undeveloped 10 metre buffer zone to create a corridor favourable to the enhancement of biodiversity. This should be provided on both sides of a main river measured from the top of each watercourse bank at the point at which the bank meets the level of the surrounding land.</p> <p>3. Where appropriate, development proposals adjacent to watercourses will be required to:</p> <ul style="list-style-type: none"> <li>a. meet the principles of high quality design set out in this plan, having special regard to riverside setting and water frontage character, and consider views of the proposals from all public vantage points, including from the river</li> <li>b. maintain, and where possible enhance, public access for riverside walking and river corridor cycling (including Greenways, and Green Routes), and tourism and leisure activities, such as fishing and boating</li> <li>c. maintain tree cover, conserve and enhance natural watercourse banks and their associated bankside and marginal vegetation and the ecological value of the area including its role as a wildlife network. There may be opportunities for the restoration and enhancement of natural elements of the river environment that should be incorporated within the design of new developments.</li> <li>d. demonstrate how the development proposal will support the achievement of Water Framework Directive objectives, and guidance set out in the Thames River Basin Management Plan or any local catchment management plans</li> </ul> <p>4. Appropriate proposals for sport, leisure and river-related employment, infrastructure and renewable energy generation will be supported where they meet the above criteria and where they do not obstruct access along or to the river for any users, or harm its ecological value.</p> <p>5. The culverting of any watercourses should be avoided.</p> <p>River Thames</p> <p>6. The ecological value of the River Thames will be maintained and in appropriate circumstances restored and enhanced together with natural elements of the riparian</p>	<p>Policy NE10 provides protection for Wokingham Borough's river corridors or, if effects cannot be avoided, appropriate mitigation measures should be provided. Furthermore, the policy sets out that public access to the riverside (e.g. for walking, cycling or fishing) should be facilitated. The River Thames is to be managed in line with the EA's Thames River Basin Management Plan. Enabling public access to Wokingham Borough's rivers could provide additional mitigation for recreational pressure effects in European sites.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>
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	<p>environment. Proposals should seek to promote the healthy growth in the use of the River Thames for communities, wildlife, leisure, business and tourism in ways that are compatible with its character, setting and ecology, and in line with the objectives of the River Thames Waterways Plan and the Environment Agency's Thames River Basin Management Plan.</p> <p>7. Particular care will be taken to ensure developments within the setting of the River Thames complement the distinctive character of the water frontage and important views. Existing riverside access will be maintained and opportunities to improve or extend access to the River Thames and adjoining sites will be supported.</p>	
<b>Chapter 11 – Minerals and Waste</b>		
Policy MW1: Sustainable Waste Management	<p><u>New Facilities</u></p> <p>1. All new strategic developments should provide on-site recycling and composting waste management facilities capable of processing a volume equivalent to the volume of waste produced by the development and its occupants, except where existing or proposed facilities in the immediate vicinity of the strategic development can meet existing and newly arising needs. The longer-term waste needs of the borough, including any shortfall in capacity, should be considered as part of providing new waste management facilities.</p> <p>2. Development proposals for waste management must maximise the management of waste through the Waste Hierarchy with priority given in order of preference to:</p> <ul style="list-style-type: none"> <li>i. Prevention;</li> <li>ii. Preparation for re-use;</li> <li>iii. Recycling;</li> <li>iv. Other recovery; and</li> <li>v. Disposal.</li> </ul> <p><u>Safeguarding</u></p> <p>3. All existing, planned and allocated waste management facilities are safeguarded against development that may affect their ability to operate.</p>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a waste management policy detailing the requirements for new strategic developments, including on-site recycling and composting facilities. Any development proposals for waste management should maximise the management capacity through the waste hierarchy.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>

	<p>4. Development proposals for non-waste uses that result in the loss of permanent waste management capacity will only be acceptable when it is demonstrated that:</p> <ul style="list-style-type: none"> <li>a. The proposed development will have no adverse impact on the continuing function of the waste site, and suitable mitigation provided to minimise any impact on proposed non-waste development; or</li> <li>b. There is an alternative site providing an equal or greater level of waste management capacity of the same type within the Central and Eastern Berkshire Joint Minerals and Waste Plan area, which will be operational prior to the loss of the existing site; or</li> <li>c. The waste management facility is no longer required and will not be required within the Plan period; or</li> <li>d. The planning benefits of the non-waste development clearly outweigh the need for the waste management facility at the location.</li> </ul>	
Policy MW2: Minerals and Infrastructure	<p><u>Resources</u></p> <ul style="list-style-type: none"> <li>1. Mineral Safeguarding areas (MSAs) are defined on the Policies Map.</li> <li>2. Sand and Gravel are a finite resource of national and local importance that can only be worked where they occur. Resources within the MSAs will be protected from sterilisation by non-minerals development, where this can be avoided. To this end proposals for non-mineral development within the MSA must be accompanied by a Mineral Resource Assessment.</li> <li>3. Development proposals for non-mineral development within the MSAs will only be permitted where: <ul style="list-style-type: none"> <li>a) The proposal incorporates the prior extraction of all minerals of economic value in an environmentally acceptable way, where a comprehensive Mineral Resource Assessment shows that only a percentage of the reserve may be extracted all evidence must be submitted as part of the assessment; or</li> <li>b) The mineral resource concerned is, not present, no longer of any economic value or holds no potential future economic value following consultation with industry; or</li> <li>c) The extraction of any minerals is not feasible on grounds of access or other constraints; or</li> <li>d) The need for development outweighs the need to safeguard the minerals for the future; or</li> <li>e) Development would not prevent the future extraction of minerals on neighbouring land; or</li> </ul> </li> </ul>	<p>There are no LSEs of this policy on European sites.</p> <p>This is a resource management policy detailing how resource extraction in Wokingham Borough will be treated.</p> <p>The policy does not provide for a specific quantum or location of housing and employment development. Furthermore, there are no other mechanisms through which European sites might be affected.</p> <p>Overall, there are no impact pathways present and this policy can thus be screened out from Appropriate Assessment.</p>

	<p>f) The development constitutes 'exempt development' (Set out in Table 5)</p> <p>4. Where prior extraction is not viable, the mineral recovered through incidental extraction as part of the construction process and should be reused on site, where possible, to reduce the environmental impact and conserve mineral resources which may otherwise have been lost.</p> <p><u>Infrastructure</u></p> <p>5. Alongside in-situ resources there is a need to safeguard minerals infrastructure. Development proposals, which may impact the ability of an existing or proposed/allocated site to function as permitted, should prepare a Minerals Infrastructure Assessment to outline whether and how, the existing minerals development may be impacted, and what mitigation is proposed.</p> <p>6. Development proposals for non-mineral development in close proximity to existing or proposed minerals infrastructure will only be permitted where:</p> <ul style="list-style-type: none"> <li>a) Development proposals will not involve the loss of the site or its capacity, or</li> <li>b) Development proposals will not cause an unacceptable detrimental impact on permitted operations; or</li> <li>c) The safeguarded infrastructure facility affected is not viable or required; or</li> <li>d) The capacity of the infrastructure can be satisfactorily re-located elsewhere prior to its loss.</li> </ul>	
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