

## Elmbridge Local Plan

# Habitats Regulations Assessment Stage 1: Initial Screening Report Spatial Strategy Options

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### **Contents**

1.	Introduction	1
2.	Methodology	4
3	Identification of European Sites	7
4.	Impact Pathways (IP)/ Mechanisms for Effect (MfE)	13
5.	In combination effects of other plans	19
6.	Screening	22
7.	Overall HRA Conclusion	30
	ure 1: Screening Methodologyure 2: European sites within 15km of Elmbridge Borough Council	
	ole 1: Definition and example of sources, pathway and receptorsble 2: European sites within 15km of the Borough boundary	
	ole 3: Details of European sites	
	ole 4: Main Atmospheric Pollutants of Concern	
Tab	ole 5: Local Authorities Plans	20
	ole 6: Other Plans and Projects	
Tab	ole 7: Initial screening of the Elmbridge Borough Council Local Plan: Strategic Options.	23

### 1. Introduction

- 1.1 The purpose of this Habitats Regulation Assessment (HRA) is to identify any aspects of the emerging Local Plan that would have the potential to cause a likely significant effect on Natura 2000 or European sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar Sites), either in isolation or in combination with other plans and projects.
- 1.2 This initial screening report is the starting point for this process and focuses on the three Strategic Options presented in the Elmbridge Local Plan: Strategic Options consultation paper 2016 and whether these options alone or 'in combination' are likely to have a significant effect on a European site.

#### **Requirements of the Habitats Regulations**

- 1.3 The European Directive (92/43/EEC) on the conservation of Natural Habitats and Wild Flora and Fauna (the Habitats Directive) protects habitats and species of European nature conservation importance. The Habitats Directive established a network of internationally important sites designated for their ecological status. These are referred to as Natura 2000 sites or European Sites and comprise of Special Areas of Nature Conservation (SAC) and Special Protection Areas (SPAs).
- 1.4 Article 6 of the Habitats Directive and Regulation 48 of the Habitats Regulations 2010 states the need to determine if an Appropriate Assessment (AA) is required for proposed plans or projects which are not necessary for the management of the site but which are likely to have a significant effect on one or more Natura 2000 site.
- 1.5 The amended 2007 Habitats Regulations are currently only supported by draft guidance on "Planning for the Protection of European Sites: Appropriate Assessment" (Department of Communities and Local Government (DCLG), 2006) although European guidance also exists. Guidance on HRA suggests a three-stage process:
  - Screening Determining whether a plan in itself or 'in combination' is likely to have a significant effect on a European site. If "yes" then proceed to full AA
  - 2. **Appropriate Assessment** Determining whether, in view of the site's conservation objectives, the plan, in itself or in combination', would have an adverse effect (or risk of this) on a European site;
  - 3. Mitigation & Alternatives Assessment of mitigation and alternative solutions where the plan is assessed as having an adverse effect (or risk of this) on the integrity of the site, there should be an examination of the alternatives. If it is not possible to identify mitigation or alternatives, it will be necessary to establish the 'imperative reasons of overriding public interest' (IROPI). This is not considered a standard part of the process and will only be carried out in exceptional circumstances.
- 1.6 This report addresses the first stage of this process and seeks to determine whether the Council's three Strategic Options set out in the 2016 consultation paper will have

any significant adverse impacts on nearby Natura 2000 sites either on its own or in combination with other plans or proposals.

### **Elmbridge Local Plan: Strategic Options Consultation**

- 1.7 The Elmbridge Local Plan will guide the direction of new development in the Borough and will replace the Core Strategy. It will set targets for the delivery of different types of development, provides guidance on locations as to where this development will happen and establish which areas should be protected. It will also sets out policies by which future planning applications will be determined. The new Local Plan together with revised and existing documents will set the direction for future development in the Borough up to 2035.
- 1.8 The Strategic Options consultation is the first stage in the production / preparation of a new Local Plan and presents the Borough's challenges and options for meeting future development needs. In particular, it sets out the Council's preferred option for a new spatial strategy against which new development targets will be established. The document also presents questions on the future direction on a range of issues which will help inform the development of a new Local Plan. These are currently just issues and there are no options / policies yet to screen for the HRA Assessment. Therefore this document only considers the three Strategic Options featured in the consultation paper. It is these options that will be subject to the HRA Screening Assessment. The Options are as follows:

Option 1: Maintain Green Belt boundaries and deliver development needs in full by concentrating development within the urban area by:

- Significantly increasing densities on all sites in the urban areas;
- Identifying open spaces such as allotments and playing fields for redevelopment and relocating these uses to the Green Belt; and
- Using the Duty to Co-operate to enquire as to whether other authorities have the potential to meet some of our need.

Option 2: As far as possible meet development needs whilst maintaining development at appropriate densities in the urban area by:

- Increasing densities on sites in the urban area only where it is considered appropriate and does not impact significantly on character;
- Amending Green Belt boundaries where:
  - the designation is at its weakest:
  - o the areas are in sustainable locations; and
  - the areas are not, or are only partially, affected by absolute constraints.

Within these areas opportunities for accommodating our development needs will be explored taking into account site constraints, land ownership, the need to support sustainable development, and compliance with other planning policies; and

• Using the Duty to Co-operate to enquire as to whether other authorities have the potential to meet some of our need.

Option 3: Deliver development needs of the Borough in full and explore opportunities to meet needs of other Boroughs and Districts in the Housing Market Area by:

- Increasing densities only on sites in the urban area only where it is considered appropriate and does not impact on character; and
- Amending Green Belt boundaries regardless of the strength of Green Belt and allocating sites in these areas for development.
- 1.9 The Local Plan is at an early stage in its preparation and therefore it is unlikely that this initial screening process will be able to entirely 'screen out' sites. However, it will attempt to identify those sites that could be 'screened out' as effects are considered to be unlikely and help to provide a starting point for identifying issues that may need to be examined as part of the on-going work.

#### Structure of the Report

1.10 The initial screening report begins by explaining the methodology for carrying out the HRA assessment. The report's structure takes the form of the step by step process identified for screening the options within the methodology contained at Chapter 2. The first step is the identification of European sites that should be considered in the assessment and Chapter 3 highlights those located immediately adjacent to or within Elmbridge. Impact pathways and mechanisms for effects are then explored at Chapter 4. Chapter 5 presents information with regard to neighbouring plans and other projects. The screening assessment is then undertaken at Chapter 6 and the conclusions of the HRA process are presented at Chapter 7.

### 2. Methodology

- 2.1 This section sets out the basis of the methodology for the HRA. Regulation 102 of the Habitats Regulations describe a procedure that provides for a systematic process for the transparent consideration of the likely effects a plan or project could have on a European site.
- 2.2 Guidance states that there are four tasks in producing an assessment of a plan:
  - Stage 1: Screening the process which identifies whether the plan is required for the management of European site(s) and if not whether there are likely to be any effects upon a European site as a result of the plan, either alone or in combination with other projects or plan, and considers whether these effects are likely to be significant.
  - Stage 2: Appropriate Assessment the consideration of the impact on the integrity of the European site of the plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where adverse effects on site integrity exist, an assessment of the effectiveness of potential mitigation of those impacts will be made.
  - Stage 3: Assessment of alternative solution the process which examines alternative ways of achieving the objectives of the plan that avoid significant effects on the integrity of the European site identified at Stage 2.
  - Stage 4: Assessment where no alternative solutions exist and where adverse
    impact remain an assessment of contemporary measures where, in light of an
    assessment of imperative reasons for overriding public interest (IROPI), it is deemed
    that the plan should proceed.
- 2.3 Each stage determines whether a further stage in the process is required. If, for example, the conclusions at the end of Stage 1 are that there are no likely significant effects on the European sites, there is no requirement to proceed further.

### **Detailed Methodology**

#### Stage 1- Screening

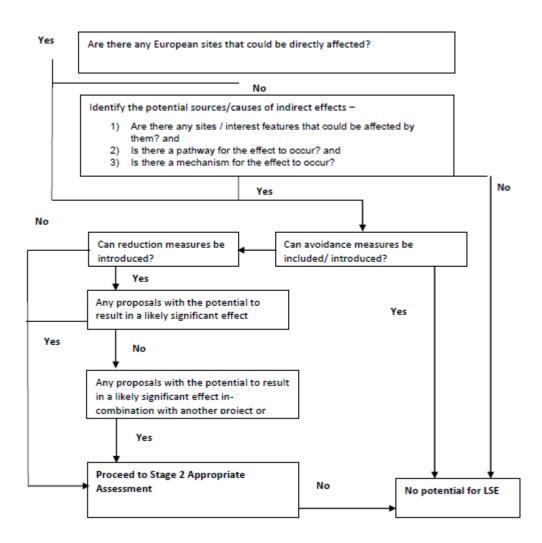
2.4 The screening methodology uses sources, pathways and receptors (Please see Table 1 for the definition and example of each). Each of these elements is considered, and used to screen out/in sources/pathways and receptors.

**Table 1:** Definition and example of sources, pathway and receptors

	Definition	Example
Sources	Where the pollution comes from	Vehicle exhaust/ oil drums.
Pathway	How the pollution can travel through the environment, the pathway	Air, land, water, animal dispersal, air conditioning ducts and people.
Receptor	Who and what could be affected	People, animals and the environment.

- 2.5 When screening in/out sites and interest features it needs to be established whether there is a potential pathway between possible causes of effects and the features of the European site. Where there are no sources or pathways to affect a European site from the strategic options set out in the consultation document this site/ interest feature is considered no further.
- 2.6 Whilst screening constitutes Stage 1 of the overall HRA, screening has been broken down, as illustrated in Figure 1 into a series of sub stages to clearly demonstrate how conclusions have been reached.

Figure 1: Screening Methodology



2.7 Using the flowchart above, the Council has adopted the following process in relation to undertaking the HRA for the Strategic Options.

- Identify the European Sites that could be directly affected by the Strategic Options documenting the qualifying features of those sites, vulnerabilities and key environmental conditions to support the sites' integrity. (Chapter 3)
- 2. Highlight the Impact Pathways (IP) and Mechanisms for Effect (MfE). (Chapter 4)
- 3. List the projects and plans that could affect the European sites 'in combination' with other plans and projects on European sites. (Chapter 5)
- 4. Draft identification of the possible effects of the Strategic Options, either alone or 'in combination' with other plans and projects, on European Sites. (Chapter 6)
- 5. Identification of those sites that could be 'screened out', based on the information available, as they are considered unlikely to be affected. (Chapter 6)
- 6. Identification of those sites that are likely to require further detailed assessment / analysis and where there is considered to be a risk of adverse effects. (Chapter 6)
- 7. Consultation on the HRA Initial Screening Report with Natural England, the Environment Agency and Surrey County Council will be undertaken as part of the Local Plan Strategic Options Consultation in December 2016.

### Stage 2 - Appropriate Assessment Methodology

- 2.8 Preferred options which have been identified as having the potential to result in Likely Significant Effects (LSE) proceed to the Appropriate Assessment (AA) which will consider the effects of the proposals on European sites in relation to their conservation objectives and whether they have the potential to have an adverse effects on site integrity (AEOSI) as a whole.
- 2.9 The AA should consider the favourable conservation status (FCS) of the qualifying features in the site and current site conditions. Should the citations of the European sites include any threats or vulnerabilities these will be considered in the assessment. The AA utilises information that is freely available in the public domain and in light of the best scientific knowledge in the field.
- 2.10 Consultation with Natural England will take place throughout the HRA process. By virtue of Regulation 5 (1), statutory consultation is required in respect of the appropriate assessment by virtue of Regulation 102 (2) which states:

"The plan-making authority must for the purposes of the assessment consult the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority may specify."

### 3 Identification of European Sites

- 3.1 As part of the process, the HRA identifies the European sites that should be considered in the assessment. In considering those sites upon which the potential for significant effects may exist, a precautionary approach has been adopted, and all sites within 15 km (linear) of the Borough boundary have been included. This approach has previously been supported by Natural England in the screening work undertaken by other boroughs and districts. The extent of the area of search reflects the likely 'reach' of any impacts arising from the Elmbridge Local Plan. This is not an exact science and any wider impacts identified would also have to be considered.
- 3.2 Table 1 below lists those European sites lying within 15km (linear) of the Borough boundary and Figure 2 contains a map indicating their location. Only the Thames Basin Heaths SPA and South West London Waterbodies SPA are within the boundaries of Elmbridge, all other sites are located outside of the Borough.

Table 2: European sites within 15km of the Borough boundary

Site Name	Designation	Straight line distance from Borough boundary (km)	Site area (ha)	Brief reason for designation
Mole Gap to Reigate Escarpment	SAC	4	887.68	Calcareous grassland important for its box scrub
Richmond Park	SAC	4.5	846.68	Important for Stag Beetle
South West London Waterbodies	SPA (RAMSAR)	Within and around	828.14	Important over wintering site for Gadwell and Shoveler
Thames Basin Heaths	SPA	Within and around	8,274.74	Lowland heath with important populations of Nightjar, Dartford Warbler and Woodlark
Thursley, Ash, Pirbright & Chobham	SAC	8	5,138	Lowland heaths
Wimbledon Common	SAC	5.9	348.31	Important for Stag Beetle
Windsor Forest & Great Park	SAC	10.5	1,687.26	Veteran Oaks, Violet Click Beetles

3.3 In order to inform the assessment, details of the European sites are required for each stage of the Habitats Regulations Assessment. Table 2 lists the qualifying features, key environmental conditions to support integrity and conservation importance and vulnerabilities for each European site.

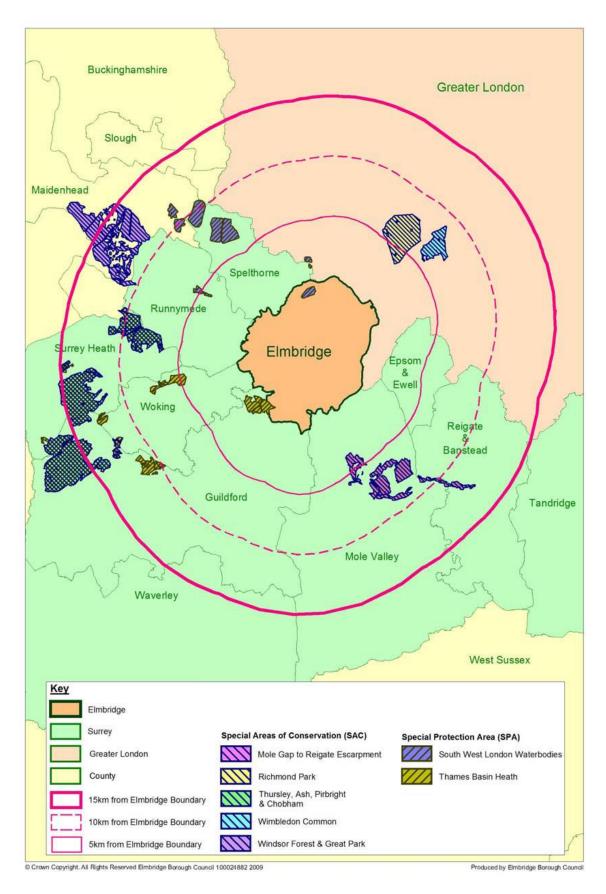


Figure 2: European sites within 15km of Elmbridge Borough Council

 Table 3: Details of European sites

Site Name and Designation	Qualifying Features	Key Environmental conditions to support site integrity	Comments on nature conservation importance and vulnerability
South West London Waterbodies SPA and Ramsar	Comprises a series of reservoirs and former gravel pits that support internationally important numbers of wintering Gadwell and Northern Shoveler (828.14 ha)  Also Great crested grebe, great cormorant, Tufted duck, Black-necked grebe and Smew	<ul> <li>Lack of disturbance during winter months;</li> <li>Areas of open water;</li> <li>Areas of shallow water (&lt;300mm) for feeding;</li> <li>Presence and abundance of aquatic plant and invertebrate food;</li> <li>Adjacent banks for loafing; and</li> <li>Relevant nearby waterbodies used for feeding and as refuges.</li> <li>Good air quality is vital for lichens which the notified birds feed on.</li> </ul>	Current research indicates that birds are using a range of waterbodies within the area but outside the SPA boundaries and that these sites are relevant to the integrity of the SPA.
Thames Basin Heath SPA	Nationally important breeding populations of Nightjar, Woodlark and Dartford Warbler (8,274.72 ha)	<ul> <li>Acid soils;</li> <li>Minimal air pollution;</li> <li>Unpolluted water;</li> <li>Un-fragmented habitat;</li> <li>Minimal recreational pressure and low incidence of wild fires; and</li> <li>Appropriate grazing pressure.</li> </ul>	<ul> <li>Dependent on active management.</li> <li>Lack of grazing and other traditional management practices pose a threat. Traditional management is being implemented through schemes such as Countryside Stewardship and Wildlife Enhancement Scheme.</li> <li>Development pressure on neighbouring land and the cumulative and indirect effects of neighbouring developments also pose a potential long-term problem, e.g. housing developments.</li> <li>Natural England comment on planning applications and provide input into structural and local plans. A strategic approach to accommodating development whilst ensuring the compatibility with Habitats Regulations is being addressed through the Thames Basin Heaths Delivery Project.</li> <li>Tenure is mixture of public, private, local authorities and non-governmental organisations. MoD and local authorities' significant landowners. Local authority land</li> </ul>

Thursley, Ash, Pirbright and Chobham SAC	Important for Northern Atlantic wet heaths with Erica tetrlix, European dry heaths and examples of depressions on peat substrates of the Rhynchosporion (5,138 ha)	<ul> <li>Traditional management, including grazing, bracken control and shrub clearance;</li> <li>Water quality (there can be problems with diffuse discharges from agricultural fertilisation causing eutrophication);</li> <li>Water levels;</li> <li>Managed recreational disturbance;</li> <li>Absence or management of urbanisation effects e.g. fires, flytipping, introduction of non-native species; and</li> <li>Minimal atmospheric or direct pollution (nitrogen deposition can affect heathland habitats).</li> </ul>	<ul> <li>often designated as public open space and used heavily for informal recreation. Private owners - management addressed through Site Management Statement process.</li> <li>Important site for invertebrates.</li> <li>Mosaic of habitats largely dependent on active heathland management.</li> <li>Insufficient gazing or other traditional practices, including bracken control and scrub clearance, is a serious potential threat, as is lowering of water tables as a result of abstraction or other reasons which could cause loss or damage to wet heath and mire communities.</li> <li>Grazing trials have been established on several parts of the site with great success, but currently extensive grazing is absent from much of the site.</li> <li>Indirect effects of neighbouring housing developments pose a potential long-term problem, but can probably be addressed through the planning system.</li> <li>Measures are also needed to address recreational pressures, including disturbance to wildlife and fires resulting from arson, which may pose a serious risk to habitats and some species.</li> <li>MoD major landowner – firing ranges and military exercises.</li> </ul>
Mole Gap to Reigate Escarpment SAC	Natural box scrub     Dry grasslands and scrublands on chalk or limestone     Dry grasslands and scrublands on chalk or limestone, including important orchid sites     Yew-dominated woodland     Dry heaths     Beech forests on neutral to rich soils     Great Crested Newt	<ul> <li>Appropriate management: grazing;</li> <li>Absence of direct fertilization;</li> <li>Minimal air pollution;</li> <li>Low recreational pressure;</li> <li>Absence of urbanization effects, e.g. introduction of invasive non-native species;</li> <li>Suitable foraging and refuge habitat within 500m of the pond;</li> <li>Relatively unpolluted water of roughly neutral pH;</li> <li>Some ponds deep enough to retain water throughout February to August</li> </ul>	<ul> <li>Supports the only area of stable box scrub in the UK (due to natural erosion on steep slope.</li> <li>Also supports a wide range of calcareous grassland types and is particularly important for orchids including the nationally scarce musk orchid and man orchid.</li> <li>Also significant in exhibiting transitions to scarce scrub, woodland and dry heath types, notably yew woods and chalk heath.</li> </ul>

	Bechstein's Bat (887.68 ha)	at least one year in every three; In a wider context, Great Crested Newts require good connectivity of landscape features (ponds, hedges etc.) as they often live as a meta- population; and In a wider context, bats require good connectivity of landscape features to allow foraging and commuting.	
Wimbledon Common SAC  Important for Stag Beetle (Lucanus Cervus). North Atlantic dry wet heaths and European dry heaths (348.31 ha)  Position and degree of exposure of old broad-leaved dead wood; Quantity and size of broad-leaved dead timber. Proximity to urban area means it suffers heavy recreational pressure. Habitat for Stag Beetle, for which this is only one of 4 known outstanding localities in the UK. Site of national importance for the conservation of the fauna of invertebrates associated with the		<ul> <li>Proximity to urban area means it suffers heavy recreational pressure.</li> <li>Habitat for Stag Beetle, for which this is only one of 4 known outstanding localities in the UK.</li> <li>Site of national importance for the conservation of the fauna of invertebrates associated with the decaying timber of ancient trees</li> </ul>	
Richmond Park SAC	Important for Stag Beetle ( <i>Lucanus Cervus</i> ) (846.68 ha)	<ul> <li>The number of old broad-leaved trees and state of decay;</li> <li>Condition of old broad-leaved trees – state of decay;</li> <li>Position and degree of exposure of old broad-leaved trees and stumps;</li> <li>Quantity and size of broad-leaved dead wood;</li> </ul>	<ul> <li>Proximity to urban area means it suffers heavy recreational pressure. However this does not directly affect the European interest feature.</li> <li>Habitat for Stag Beetle, for which this is only one of 4 known outstanding localities in the UK.</li> </ul>

		Condition and position of available dead timber.	
Windsor Forest and Great Park SAC	<ul> <li>Dry oak-dominated woodland</li> <li>Beech forests on acid soils</li> <li>Violet Click Beetle (1,687.26 ha)</li> </ul>	<ul> <li>Minimal atmospheric pollution – may increase the susceptibility of beech trees to disease and alter epiphytic (lichen) communities;</li> <li>Managed public access (site is already heavily accessed); and</li> <li>Appropriate management.</li> </ul>	<ul> <li>Site has the largest number of veteran oaks in Britain (and probably in Europe);</li> <li>Identified as of potential international importance for its saproxylic (deadwood) invertebrate fauna. The site is thought to support the largest of the known populations of the Violet Click Beetle in the UK. The special invertebrate interest is heavily dependent upon a continuous supply of very old decaying trees;</li> <li>Trees are suffering, perhaps from a combination of drought, higher average temperatures and air quality issues.</li> </ul>

### 4. Impact Pathways (IP)/ Mechanisms for Effect (MfE)

- 4.1 There are a number of potential IPs/MfEs in the context of the European sites. These include:
  - 1. Land take
  - 2. Air Quality (that includes atmospheric pollution, diffuse air pollution and nutrient enrichment)
  - 3. Water Quality
  - 4. Species Disturbance
  - 5. Water Quantity.

#### **Land Take**

4.2 European sites are particularly vulnerable to land take. The land on which European sites depend is a finite resource. Loss is often permanent and often irreversible (Commission & others 1992). Therefore, any reduction in the physical quantity or fragmentation of a European site as a consequence of land take would be considered to result in a likely significant effect. The scale and extent of any adverse effects would depend on the location, maintenance, and use of the new development and the nature conservation characteristics and value of the area affected.

#### **Air Quality**

- 4.3 The continued use and development of the transport network and reliance on carbon based energy provision inevitably gives rise to atmospheric emissions. These emissions contribute to air pollution at the local and regional scales leading to continued deterioration in air quality.
- 4.4 The main pollutants of concern for European sites are outlined in Table 3 below. Of particular concern are oxides of nitrogen (NOx), ammonia (NH<sub>3</sub>) and sulphur dioxide (SO<sub>2</sub>). NOx can have a directly toxic effect upon vegetation found on heathland but its most significant role is through its contribution to nitrogen deposition to soils leading to an increase in soil fertility, which can have a serious effect on the quality of semi-natural, nitrogen-limited habitats.

Table 4: Main Atmospheric Pollutants of Concern

Pollutants [critical levels] <sup>1</sup>	Source	Exceedance Effects on Ecosystems <sup>2</sup>
Nitrogen (N) deposition [12 kg ha <sup>-1</sup> yr <sup>-1</sup> ] <sup>3</sup>	The pollutants that contribute to nitrogen deposition derive mainly from NO <sub>X</sub> and NH <sub>3</sub>	Terrestrial Impacts     Changes in species composition especially in nutrient poor

<sup>&</sup>lt;sup>1</sup> Levels are taken from the EU ambient air quality directive (2008/50/EC) obligations that have been translated into UK law by the Air Quality Standard Regulations 2010 http://www.legislation.gov.uk/uksi/2010/1001/schedule/3/made

<sup>&</sup>lt;sup>2</sup> Source: http://www.apis.ac.uk/overview/issues/overview\_Cloadslevels.htm#\_Toc279788050

<sup>&</sup>lt;sup>3</sup> http://jncc.defra.gov.uk/pdf/ashmore.pdf

	emissions.	ecosystems with a shift towards species associated with higher nitrogen availability (e.g. dominance of tall grasses)  Reduction in species richness Increases in plant production Decrease or loss of sensitive lichens and bryophytes. Increases in nitrate leaching  Freshwater Impacts  There is a potential in N-limited systems for N deposition to change algal productivity and nutrient regimes in upland lakes. Increase rate of succession.
Acid deposition [NOx = 30 μg/m <sup>3</sup> yr <sup>-1</sup> ] [SO <sub>2</sub> = 20 μg/m <sup>3</sup> yr <sup>-1</sup> and winter (1st October – 31st March)]	SO <sub>2</sub> , NOx and ammonia all contribute to acid deposition. Although future trends in sulfur dioxide emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, it is likely that increased nitrogen oxides emissions may cancel out any gains produced by reduced sulfar dioxide levels.	Terrestrial Impacts  Leaching will cause a decrease in soil base saturation, increasing the availability of Al <sup>3+</sup> ions, mobilisation of Al <sup>3+</sup> may cause toxicity to plants and mycorrhiza, and have a direct effect on lower plants (bryophytes and lichens).  Freshwater Impacts  Increase Al <sup>3+</sup> concentration associated with freshwater acidification, impact on invertebrate populations, toxicity to fish.
Ammonia (NH <sub>3</sub> ) [3 μg/m <sup>3</sup> (with an uncertainty range of 2-4 μg/m <sup>3</sup> )]	Ammonia is released following decomposition and volatilisation of animal wastes. It is a naturally occurring trace gas, but levels have increased considerably with expansion in numbers of agricultural livestock. Ammonia reacts with acid pollutants such as the products of SO <sub>2</sub> and NO <sub>X</sub> emissions to produce fine ammonium (NH <sub>4</sub> <sup>+</sup> ) containing aerosol, which may be transferred much longer distances.	<ul> <li>Direct damage to sensitive species, for example, leaf discoloration, bleaching, observed in Sphagnum species at high concentrations.</li> <li>Increase in algal growth over Sphagnum.</li> <li>Suppression of root uptake of cations such as Ca, Mg and K leading to nutrient imbalances.</li> <li>Changes in species composition of ground flora, bryophyte, and lichen communities.</li> </ul>
Sulphur Dioxide $(SO_2)$ $[SO_2 = 20 \mu g/m^3 yr^{-1}$ and winter (1st October – 31st March)]]	Main sources of SO2 emissions are electricity generation, industry, and domestic fuel combustion. May also arise from shipping and increased atmospheric concentrations in busy ports. Total SO2 emissions in the UK have decreased substantially since the 1980s.	<ul> <li>Visible symptoms, for example, leaf discoloration.</li> <li>Stimulated growth at low concentrations of sulfar dioxide potentially changing community composition.</li> <li>The vulnerability to direct damage of mosses, liverworts and lichens which are often sensitive to lower</li> </ul>

		concentrations than those causing injury to higher plants.
Nitrogen oxides (NO <sub>x</sub> ) [NO <sub>x</sub> = 30 μg/m <sup>3</sup> yr <sup>-1</sup> ]	Nitrogen oxides are mostly produced in combustion processes. About one quarter of the UK's emissions are from power stations, one-half from motor vehicles, and the rest from other industrial and domestic combustion processes.	<ul> <li>Visible symptoms for example, leaf discoloration.</li> <li>The vulnerability to direct damage of mosses, liverworts and lichens which receive their nutrients largely from the atmosphere.</li> <li>Changes in species composition</li> </ul>
Ozone (O <sub>3</sub> ) [AOT 40 (calculated from 1 h values) 18,000 μg/m³ h⁻¹ averaged over five years]	A secondary pollutant generated by photochemical reactions from NO <sub>x</sub> and volatile organic compounds (VOCs). These are mainly released by the combustion of fossil fuels. The increase in combustion of fossil fuels in the UK has led to a large increase in background ozone concentration, leading to an increased number of days when levels across the region are above 40ppb.	<ul> <li>Visible injury to foliage</li> <li>Reduction in growth rate and yield</li> <li>Selection against ozone sensitive genotypes</li> <li>Changed reaction to water stress</li> </ul>

- 4.5 Currently, more than half of all  $NO_x$  emissions derive from vehicle use. Therefore it is reasonable to expect an increase in  $NO_x$  emissions to accompany greater vehicle use as an indirect effect of Elmbridge Borough Council's: Local Plan Strategic Options consultation document, as all the options promote increased housing and commercial developments.
- 4.6 Ammonia (NH<sub>3</sub>) emissions tend to be dominated by agriculture. As Elmbridge is not a major agriculture location, and none of the strategic options are proposing to promote a strategy which seeks to increase the amount of agricultural land in the Borough or intensify the use of existing agricultural land, it is unlikely that it will result in a material increase in either SO<sub>2</sub> or NH<sub>3</sub> emissions.
- 4.7 SO<sub>2</sub> emissions primarily originate from power stations and industrial processes that require the combustion of coal and oil. In addition, SO<sub>2</sub> levels can be influenced locally by shipping. The National Expert Group on Transboundary Air Pollution (Fowler et al. 2001) concluded that reductions in SO<sub>2</sub> concentrations virtually eliminated its direct impacts on vegetation.
- 4.8 The same group (ibid) concluded that the then current ozone concentrations threaten crops and forest production nationally and further go on to suggest that the effects of ozone deposition are likely to remain significant beyond 2010. As this secondary pollutant is generated by photochemical reactions from NO<sub>x</sub> and VOCs it is possible that the Strategic Options could contribute to increased emissions of both NO<sub>x</sub> and VOCs accompanying greater vehicle use as an indirect effect of its policies that promote increased housing and commercial developments.

Diffuse air pollution

- 4.9 In addition to the contribution to air quality issues, development can also contribute cumulatively to an overall change in background air quality across an entire region (although individual plans and developments are with the exception of large point sources such as power stations likely to make only very small individual contributions). In July 2006, when this issue was raised by Runnymede Borough Council, Natural England advised that their Local Development Framework 'can only be concerned with locally emitted and short range locally acting pollutants' as this is the only scale which falls within a local authority remit.
- 4.10 It is generally accepted that this guidance was not initially intended to set a precedent. However, given the fact that it was issued by the Government's statutory nature conservation adviser in response to a specific diffuse air pollution query, it has inevitably done so. It receives considerable weight, as it is the only formal guidance that has been issued to a Local Authority from any Natural England office on this issue.
- 4.11 It is therefore considered reasonable to conclude that it is the responsibility of national government to set a policy framework for addressing the cumulative cross boundary air quality impacts at the regional level and above.

#### **Water Quality**

- 4.12 The quality of the water that feeds European sites is an important determinant of the nature of their habitats and the species they support. Rivers, streams and aquatic environments supporting these sites can be adversely affected by increased numbers of housing and business development. Sewage treatment can contribute to increased nutrients entering these habitats leading to unfavourable conditions. In addition, diffuse pollution, partly from urban hard-standing run-off, has been identified as being a major factor in causing the unfavourable condition of relevant European sites. It is reasonably foreseeable that the Strategic Options will result in or contribute to this IP/MfE and will therefore be considered as part of this HRA.
- 4.13 Poor water quality can have a range of environmental impacts:
  - At high levels, toxic chemicals and metals can result in the immediate death
    of aquatic life. At lower levels, detrimental effects can also be experienced,
    including increased vulnerability to disease and changes in wildlife behaviour.
  - Eutrophication, the enrichment of plant nutrients in water, increases plant growth and consequently results in oxygen depletion. Algal blooms, which commonly result from eutrophication, increase turbidity and decrease light penetration. The decomposition of organic wastes that often accompanies eutrophication deoxygenates water further, augmenting the oxygen depleting effects of eutrophication. In the marine environment, nitrogen is the limiting plant nutrient and so eutrophication is associated with discharges containing available nitrogen; in the freshwater environment, phosphorus is usually a principal cause of eutrophication;
  - Some pesticides, industrial chemicals, and components of sewage effluent are suspected to interfere with the functioning of the endocrine system, possibly having negative effects on the reproduction and development of aquatic life, and subsequently bird life that feed on them.

#### **Species Disturbance**

- 4.14 The impacts of increasing recreational disturbance as a result of new residents and an increasingly mobile ageing population with more leisure time have been a key concern of Natural England for some time. Natural England's premise is that increased recreational pressure, particularly dog walking, has a detrimental impact on the populations of ground nesting birds. It contended during 7 days of technical meetings in support of the South East Plan EIP<sup>4</sup> that further residential developments within 5 kilometres of the edge of TBH SPA would exacerbate such pressures either in their own right or in combination.
- 4.15 Since May 2006 Natural England has sought to encourage the local authorities surrounding such sites as Thames Basin Heath SPA to adopt an approach as set out in its then Draft Delivery Plan (DDP) when dealing with new residential development within 5 and 7 kilometres of TBH SPA. This has now been replaced with the Delivery Framework (DF). Elmbridge Borough Council is part of the Joint Strategic Partnership Board which plans for the long term protection of the SPA with other affected authorities.
- 4.15 The DF restricts all new residential development within an area some 400 metres from the boundary of the TBH SPA and also advocates a number of mitigation measures for development within the 400 metres to 5 kilometres boundary area. The primary measure is the provision of Suitable Alternative Natural Green Space (SANGS). The DF sets down specific thresholds for the provision of such SANGS space as well as guidance on the nature and breakdown of this space.
- 4.17 Compliance with the DF requirements ensures that housing development proposals are not likely to have significant adverse effects on the integrity of the SPA. This avoids the need for a full Habitats Regulations Assessment for each planning application. All affected local authorities have in some way published and rely on SANGS Planning Guidance Notes. Elmbridge Borough Council has published its Developer Contributions Supplementary Planning Document in 2012. This document provides guidance on contributions towards SANG and sets out its approach to Strategic Access Management and Monitoring (SAMM).
- 4.18 SAMM forms part of the approach to mitigating adverse effects of residential development between 400m and 5km from the Thames Basin Heaths SPA in addition to SANGs. The SAMM project introduces mitigation measures on the SPA itself, including a monitoring programme that will provide the baseline assessment and on-going data to measure the effect of visitor numbers on the SPA. It will also evaluate the success of avoidance and mitigation measures, including the effectiveness of SANG. The access management element focuses on "soft", non-infrastructure measures e.g. wardening, leaflets and educational material<sup>5</sup>.

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<sup>&</sup>lt;sup>4</sup> These meeting took place between 21 November 2006 and 2 February 2007 under Inspector Peter Burley appointed as Assessor for the South East Plan considering implications of the Thames Basin Heaths SPA for future housing development in the London Fringe and Western Corridor and Blackwater Valley sub-regions. <sup>5</sup> Elmbridge Borough Council, Developer Contributions SPD, 2012

#### Water Quantity - Water resources management

4.19 Elmbridge is located within an area of particular water stress. Over the next 30 years water resources are expected to experience an increase in pressures from the rising population and associated development (Environment Agency 2008). These development pressures will be amplified by the impacts of climate change. It is therefore reasonable to conclude that European sites with features that are dependent upon adequate water resource levels and sensitive to changes to this level could suffer considerable significant impacts.

# Other potential IP/MfE – Trampling, Dog Fouling, Pet Predation, Garden Waste Dumping and Malicious Fire Setting.

- 4.20 This impact is closely related to recreational pressure, in that they both result from increased populations within close proximity to sensitive sites. Urbanisation is considered separately as the detail of the impacts is distinct from the trampling, disturbance and dog-fouling that results specifically from recreational activity. The list of urbanisation impacts can be extensive, but core impacts can be singled out:
  - Increased fly-tipping Rubbish tipping is unsightly but the main adverse ecological
    effect of tipping is the introduction of invasive alien species with garden waste.
     Garden waste results in the introduction of invasive aliens precisely because it is the
    'troublesome and over-exuberant' garden plants that are typically thrown out<sup>6</sup>. Alien
    species may also be introduced deliberately or may be bird-sown from local gardens.
  - Cat predation A survey performed in 1997 indicated that nine million British cats brought home 92 million prey items over a five-month period<sup>7</sup>. A large proportion of domestic cats are found in urban situations, and increasing urbanisation is likely to lead to increased cat predation.
- 4.21 The most detailed consideration of the link between relative proximity of development to European sites and damage to interest features has been carried out with regard to the Thames Basin Heaths SPA.
- 4.22 After extensive research, Natural England and its partners produced a 'Delivery Plan' which made recommendations for accommodating development while also protecting the interest features of the European site. This included the recommendation of implementing a series of zones within which varying constraints would be placed upon development. While the zones relating to recreational pressure expanded to 5km (as this was determined from visitor surveys to be the principal recreational catchment for this European site), that concerning other aspects of urbanisation (particularly predation of the chicks of ground-nesting birds by domestic cats, but also including recreational pressure, fly tipping, increased incidence of fires and general urbanisation) was determined at 400m from the SPA boundary. The delivery plan concluded that the adverse effects of any development located within 400m of the SPA boundary could not be mitigated, in part because this was the range within cats could be expected to roam as a matter of routine and there was no realistic way of

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<sup>&</sup>lt;sup>6</sup> Gilbert, O. & Bevan, D. 1997. The effect of urbanisation on ancient woodlands. British Wildlife 8: 213-218. 
<sup>7</sup> Woods, M. et al. 2003. Predation of wildlife by domestic cats *Felis catus* in Great Britain. Mammal Review 33, 2 174-188

restricting their movements, and as such, no new housing should be located within this zone.

### 5. In combination effects of other plans

- 5.1 In accordance with Article 6 (3) of the Habitats Directive, it is necessary to consider the implications of the Strategic Options for European sites 'in combination' with other plans and projects. There are various impacts that could have an 'in combination effect' with all three options. These are:
  - Water demand and availability including supply / demand balance, annual abstraction rates, household consumption, leakage and water demand;
  - Traffic growth and associated emissions;
  - Energy Consumption;
  - Waste arising including the potential for waste transfer and waste management sites which brings potential issues of dust, emissions and noise disturbance;
  - Development which may result in land-take within close proximity of sites and lead to other issues such as increased noise and dust disturbance of wildlife, trampling of habitats, etc;
  - Flood risk;
  - Nitrates in groundwater; and
  - Climate change and resulting extreme weather events, leading to problems of drought and flooding.
- 5.2 Natural England advises that the Local Authorities which should be taken into account for in-combination effects should mainly be those with 5km of the borough and all of the authorities which include areas of the Thames Basin Heaths Special Protection Area.
- 5.3 The table below sets out the Local Planning Authorities objectively assessed housing need and their different stages in local plan preparation. They have all undertaken Strategic Housing Market Assessments in line with the NPPF and are all obliged to meet their objectively assessed need. As the table below shows, this figure is much higher than previously prepared housing targets and collectively, this will have environmental impacts described in Chapter 4 on all of the European sites depending on location.
- 5.3 The London Borough's minimum 10 year housing targets are set out in the London Plan (March 2016). Many of the Surrey authorities are at the early stages of local plan preparation and targets have yet to be confirmed.
- 5.4 Due to the early stages of most authorities plan making, many of the locations for the required commercial and residential development is also unknown. For some areas, the location of large scale development is being proposed. For example, Guildford Borough Council is proposing 2,100 homes at the former Wisley airfield and

Runnymede is proposing 1,975 homes at the former DERA site. These will create in combination effects alongside any future housing target for the Borough especially in relation to the Thames Basin Heath European site.

Table 5: Local Authorities Plans

Local Authority	Existing Target	Source of data	Objectively Assessed Housing Need*	Current stage in local plan preparation 2016
Elmbridge	3,375 (to 2026)	Core Strategy adopted 2011	9,480 (2015-2035)	About to consult on Strategic Options for new Local Plan.
Kingston	6,434 (to 2025)	The current London Plan March 2016	14,384 (2015-2035)	Undertaking Issues and Options Consultation
Epsom and Ewell	2,715 (to 2022)	Core Strategy adopted 2007	8,352 (2015-2035)	Preparing and new Statement of Community Involvement Local Plan preparation halted.
Mole Valley	3,760 (to 2026)	Core Strategy adopted 2009	7,814 (2015-2035)	Call for sites has ended Currently developing Spatial Strategy Options
Guildford	Housing Target Expired	Local Plan 2003	13,860 (2013-33)	Proposed Submission Local Plan: Strategy and Sites Consultation June 2016 Borough wide strategy says all 13,860 homes will be provided.
Reigate and Banstead	6,900 (to 2027)	Core Strategy 2014	9,750 (2012-33)	Consultation on the Draft Development Management Plan ended on 10 October 2016. This sets out the policy designations and site allocations. Work continuing on this with next consultation scheduled for summer 2017.
Richmond	3,150 (to 2025)	The current London Plan March 2016	17,347 (2014-33)	Second consultation on the draft Local Plan due in winter 2016/17.
Runnymede	Housing Target Expired	Local Plan Core Strategy submitted 2014; currently being revised)	10,700 (2013-33)	Consultation on the Issues, Options and Preferred Approaches took place in the summer and the report on this is due on 14 December 2016. Preferred Option looks to deliver between 2,890 and 3,480 dwellings up to 2035.
Spelthorne	3,320 (to 2026)	Core Strategy Adopted	15,140 (2013-33)	Options not due to take place until at least Spring 2017.

		2009		
Surrey Heath	3,240 (to 2028)	Core Strategy & Development Management Policies 2011-2028 adopted Feb 2012	6,800 (2011-31)	The Council is currently updating its evidence base after stopping work on its Site allocations DPD in 2013.
Tandridge	2,500 (to 2026)	Core Strategy Adopted 2008	9,400 (2013-33)	Sites consultation (the second stage of consultation) is currently underway, running until December 2016.
Waverley	Housing Target Expired	-	10,380 (2013-33)	Consultation of the Pre- Submission Local Plan Part 1 ended on 3 October 2016. These will be collated before submission later in 2016.
Woking	4,964 (to 2027)	Core Strategy Adopted 2012	10,340 (2013-33)	Further work is being undertaken on the final recommendations should be made on the way forward on the Site Allocations DPD in response to consultation responses earlier this year.
Bracknell Forest	11,139 (2006- 2026)	Core Strategy Adopted 2008	14,605 (2013-36)	Completed Issues and Options in 2016. Publication document due Summer 2017.
Rushmoor	6,350 (to 2027)	Core Strategy Adopted October 2011	9,400 (2011-31)	Consultation on preferred Approach in 2015. Due to publish draft Local Plan for consultation in March/April 2017.
Royal Borough of Windsor and Maidenhead	Housing Target Expired	-	16,376 (2013-36)	Consultation under Regulation 18 is due to take place in December 2016.
Wokingham	13,230 (2006- 2026)	Core Strategy Adopted January 2010	19,688 (2013-36)	Completed the Issues and Options stage in the production of a new local plan in 2016. Preferred Options due 2017.
Hart	Housing Target Expired	-	7,400 (2011-31)	Options consultation completed in 2016. Publication due late 2016.

<sup>\*</sup>These figures are taken from each Strategic Housing Market Assessment study undertaken. They do not represent the actual housing target for that Borough/District but do provide an indication of exactly what is needed if there were no other constraints to development.

**Table 6:** Other Plans and Projects

Other Plans and Projects	
Surrey Waste Plan	Consultation on the Draft Issues and Options Report is taking place until 25 November 2016.
Surrey Minerals Plan	Adopted on 19 July 2011
Surrey Transport Plan LTP3 2014	Updated in 2016 to incorporate the Local Transport Strategies and Forward Programme
Surrey Hills AONB Management Plan 2014-2019	Updated in 2015
River Mole Flood Alleviation Strategy	Published 24 June 2014
Lower Thames Flood Risk Management Strategy	Updated hydraulic model made available on 15 July 2016. Approval of outline business case by HM treasury due in 2017/18
Water Resource Management Plans	Affinity Water: published 14 May 2014 Thames Water: currently preparing WRMP19
The Mole: Catchment Abstraction Management Strategy (CAMS)	Published in March 2013
Strategic Flood Risk Assessment (SFRA)	Published June 2015. A 'living' document that will be updated as new flood maps etc. are published by the EA.

### 6. Screening

- 6.1 This section provides the HRA Screening Assessment results for the Elmbridge Borough Council Strategic Options for both the 'Alone' and 'In-combination' assessments.
- 6.2 As work on the Local Plan at this point is at an early stage, there are no specific policies or development targets against which to assess the impact on the European sites. Therefore, in light of the precautionary principle it is felt that no European sites could be entirely 'screened out'. However, the process has helped to identify the potential effects of the three strategic options, where the main focus of attention should lie and where further information and assessment may be required. In all three strategic options there is a risk that they could have in combination adverse effects:
  - Increased recreational pressure on sites South West London Waterbodies SPA, Thames Basin Heath SPA, Thursley, Ash, Pirbright and Chobham SAC, Mole Gap to Reigate Escarpment SAC.
  - General urbanisation leading to increased activity, noise, light, fly-tipping Thames Basin Heath SPA.
  - Increased traffic with increased localised air quality implications on key roads crossing sites, which could affect features sensitive to air quality – Thames Basin Heath SPA, Thursley, Ash, Pirbright and Chobham SAC, Mole Gap to Reigate Escarpment SAC.

 Increased demand for water possibly leading to reduced water levels in some reservoirs and changes in groundwater levels from increased abstraction – Thursley, Ash, Pirbright and Chobham SAC, Thames Basin Heath SPA, South West London Waterbodies SPA.

Table 7: Initial screening of the Elmbridge Borough Council Local Plan: Strategic Options

Note- the effects that are listed here are without reference to the proposed mitigation measures which maybe in place.

European Site	Possible Impacts Arising from EBC Strategic Options	Possible Impacts from other plans and projects	Is there significant risk of an 'in combination' effect
South West London Waterbodies SPA & RAMSAR	Recreational pressure – new development may result in increased visitor pressure. Increase in traffic could impact air quality.	-Development of potentially 25,000 new houses should Spelthorne and Runnymede meet housing need in full may ultimately result in increased recreational pressure on this site (Thorpe Park, watersports etc)In addition, development of 13,5288 new houses in Windsor & Maidenhead may also result in increased recreational pressure on this siteHousing allocations within the London Plan may increase recreational pressureHeathrow expansion may impact on local transport provision at Staines and HounslowBirds may come from other bird sites (e.g. Lea Valley) and so may be vulnerable to disturbance in other areas. Increased traffic could impact on air quality.	Unknown

<sup>&</sup>lt;sup>8</sup> Windsor and Maidenhead's objectively assessed need for housing in the Borough over the plan period from 2013 to 2032 is 13,528 new dwellings equivalent to 712 new dwellings per annum. Figure from the Strategic Housing Market Area Assessment February 2016.

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		Т	Т
	Water levels – new development may lead to a reduction in water levels at some reservoirs.	Development of new houses may also lead to a reduction in water levels in some reservoirs.	Unknown
Thames Basin Heath SPA	Recreational pressure - Increase in visitor numbers as part of the Ockham Common is located within the Borough. Parts of the Borough therefore fall within the 5km zone.	Development of some 52,000° new homes in Boroughs adjacent to Heaths likely to result in a severe increase in recreational pressure on this site.	Yes
	General effects of urbanisation due to increased housing density close to site.	General urbanisation affects i.e. more fires, fly tipping, cat predation etc.	Yes
	Air quality - Natural England have advised that transport generated air pollution should be considered to have an impact on the integrity of a site if they are within 200m of the road where increased traffic is forecast. New development in the Borough may lead to increased traffic/emissions on roads close to the SPA (A3).	Associated increased car use may lead to increased atmospheric pollution and nitrogen enrichment (particularly since this site is crossed by the A30, A322, A3 and M3).	Yes
	Risk of effect on water levels from abstraction if future water needs require this;	Risk of effects on water levels if future needs lead to abstraction from Folkstone Beds (which is in hydraulic continuity with heathlands) as well as the Hythe Beds. All abstraction or discharge consents covered by the Environment Agency Review of Consents	Unknown

 $<sup>\</sup>begin{tabular}{ll} 9\\ Objectively assessed need figures taken from Elmbridge, Woking, Guildford, Runnymede and Mole Valley. \end{tabular}$ 

Thursley, Ash, Pirbright and Chobham SAC	Recreational pressure – site is located 8km from the Borough (as the crow flies). Any increase in visitors as a result of development is considered to be insignificant due to distance from sites and the large areas of open space that cater for these activities closer to the residents of the Borough e.g. Bushy Park, Esher Commons. In addition, new open space being provided as part of mitigation for the Thames Basin Heath SPA will offer alternatives.	None	No
	Air quality - Natural England have advised that transport generated air pollution should be considered to have an impact on the integrity of a site if they are within 200m of the road where increased traffic is forecast. New development in the Borough may lead to increased traffic/emissions on roads close to the SAC (A3).	Increased traffic with localised air quality implications on roads that cross the SAC (A3, M3 etc.).	Unknown
	General effects of urbanisation - site is located 8km (as the crow flies) from the Borough therefore urbanisation effects are considered unlikely.	None	No

	Water levels - Risk of effect on water levels from abstraction if future water needs require this.	Risk of effects on water levels if future needs lead to abstraction from Folkstone Beds (which is in hydraulic continuity with heathlands) as well as the Hythe Beds. All abstraction or discharge consents covered by the Environment Agency Review of Consents.	Unknown
Mole Gap to Reigate Escarpment SAC	Recreational pressure - the site is approx 4km from the Borough (as the crow flies). Correspondence from Natural England to both Reigate and Banstead Borough Council and Mole Valley District Council has confirmed that recreational pressure is focused mainly around 'honeypot' sites, primarily visited by tourists e.g. Boxhill. Additional development, population growth and an emphasis on healthy lifestyles may result in an increase in visitors to the site.	Increased number of visitors as a result of other developments in the region may in combination increase pressure on the site.	Unknown
	Air quality - Natural England have advised that transport generated air pollution should be considered to have an impact on the integrity of a site if they are within 200m of the road where increased traffic is forecast. New development in the Borough may lead to increased traffic/emissions on roads close to the SAC (M25)	Increased traffic with localised air quality implications on roads that cross the SAC (M25).	Unknown

	Risk of severance/loss of bat flight lines between SAC and surrounding landscape by development/roads - The AA of the South East Plan suggests that there are areas outside of the site that are of importance as foraging and roosting sites for bats. It recommends the consideration of a policy to protect against the severance of tree and hedge lines used as sight lines within 6km. Only a	None	No
	very small predominantly rural part of the Borough falls within 6km of the site and will not be the focus for significant new development. Therefore adverse effects are unlikely.		
Wimbledon Common SAC	The site is approx 4.5km from the Borough (as the crow flies). Any increase in visitors as a result of development is considered to be insignificant as there are large areas of open space that cater for these activities closer to the residents of the Borough e.g. Bushy Park, Esher Commons. In addition, new open space being provided as part of mitigation for the Thames Basin Heath SPA will offer alternatives.	None	No
Richmond Park SAC	Recreational pressure - The site is approx. 4.5km from the Borough (as the crow flies) as a result of development is considered to be insignificant as there are large areas of open	None	No

	space that cater for these activities closer to the residents of the Borough e.g. Bushy Park, Esher Commons. In addition, new open space being provided as part of mitigation for the Thames Basin Heath SPA will offer alternatives.		
Windsor Forest and Great Park SAC	Although recreational pressure on this site is high, Natural England has previously commented that increased recreational activity will not adversely affect the interest features for which the site was designated. This is therefore ruled out as an impact.	None	No
	Air quality - Natural England have previously advised that transport generated air pollution should be considered to have an impact on the integrity of a site if they are within 200m of the road where increased traffic is forecast. The site is over 10km (as the crow flies) from the Borough and it is considered unlikely that there will be any increase in visitors as a result of development as there are large areas of open space that cater for these activities closer to the residents of the Borough. Furthermore, the 2011 Census data indicates that less than 1% of the economically active resident population travel to work in Windsor & Maidenhead. Therefore new	None	No Local effect not significant

### 7. Overall HRA Conclusion

- 7.1 All three strategic options are proposing a greater amount of development in the urban area and for Options 2 and 3, additional development in the Green Belt as well as the urban area. Therefore, all of the three options will have likely significant effects and will need to be taken forward to Appropriate Assessment before conclusion of no adverse effects can be drawn or can at least be mitigated. Although the Preferred Option (Option 2) has a lesser amount of development proposed, it will still have likely significant effects and therefore an appropriate assessment will be required at the preferred approach stage.
- 7.2 At this stage, the actual number, location and distribution of development has not been decided and hence a detailed assessment on these cannot be completed.
- 7.3 This screening report will be revised and updated when the plan reaches the 'Preferred Approaches' stage, when more information on its content is available. This will enable a more detailed assessment of likely impacts to be undertaken. It will then be possible to conclude those sites can be 'screened out' completely and where adverse effects remain proceed to Stage 2: Appropriate Assessment.
- 7.4 The overall conclusions of this scoping statement will need to be consulted with Natural England and the Environment Agency to ensure that we are moving forward in the right direction.