

Draft Habitats Regulations Assessment Draft Bracknell Forest Local Plan

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1 Introduction

1.1 This report is a Draft Habitats Regulations Assessment (HRA) undertaken by Bracknell Forest Council (BFC), as the local planning authority and competent body, in respect of the Draft Bracknell Forest Local Plan (BFLP). The objective of this assessment is to identify any aspects of the emerging BFLP that have the potential to cause a likely significant effect on Natura 2000 or European sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites), either in isolation or in combination with other plans and projects, and to begin to identify an appropriate avoidance and mitigation strategy where such effects are identified. This strategy will be developed as the BFLP progresses.

1.2 The BFLP will set the amount and location of new development and once adopted, the planning policies in the BFLP will be used to determine planning applications along with policies in the Site Allocations Local Plan (July 2013). Information relating to the Bracknell Forest Local Plan can be found on the Bracknell Forest Council website at <https://www.bracknell-forest.gov.uk/comprehensive-local-plan>

1.3 The competent body can only adopt a plan once it has ascertained that this will not adversely affect the integrity⁽¹⁾ of sites that have been recognised as internationally important for nature.

1.4 This Draft HRA has been prepared on the basis of information currently available on the nature of the plan in relation to the designated nature conservation sites. Professional judgement has been applied to interpret this information within the context of current guidance.

1.5 Further HRA may also be required at later stages in the planning process, for example, at the planning application stage. This will ensure that any potential effects on the SPA that cannot be assessed in detail at plan level, can be taken into account more fully.

Consultation

1.6 The Issues and Options consultation on the BFLP ran from Monday 13 June to Monday 25 July 2016. This marked the start of the preparation of the Plan. Views were sought on possible policy approaches but at this stage the consultation did not include potential sites as further analysis needed to be done. The consultation attracted 1,326 comments from 83 consultees. A summary of HRA related responses can be seen in Appendix 1.

1.7 A second stage of consultation on the Draft BFLP is being undertaken from 8 February to 26 March 2018 (this consultation). The Draft BFLP, this document and others are available on the Council's website for anyone to view and make comments at each stage of the consultation process.

Legislation

1.8 The Conservation of Habitats and Species Regulations (2010) (as amended), referred to as the "Habitats Regulations" implement in Great Britain the requirements of the EC Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, referred to as the "Habitats

1 The ODPM / Defra Circular (ODPM 06/2005, Defra 01/2005) relating to Planning Policy Statement 9 (Biodiversity and Geological Conservation) (ODPM, August 2005) defines the site integrity as: "... the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified."

Directive” (Council Directive 92/43/EEC) and protect areas classified under the EC Wild Birds Directive (Council Directive 79/409/EEC). The Regulations aim to protect a network of sites in the UK that have rare or important habitats and species in order to safeguard biodiversity.

1.9 Under the EC Birds Directive, Member States are required to take special measures to conserve the habitats of certain rare species of birds (listed in Annex I of the Directive) and regularly occurring migratory birds. In particular each Member State is required to classify the most suitable areas of such habitats as Special Protection Areas (SPAs). This is designed to protect wild birds, and to provide sufficient diversity of habitats for all species so as to maintain populations at an ecologically sound level. All Bird Directive SPAs will also be part of the Natura 2000 network under article 3(1) of the Habitats Directive.

1.10 According to the Conservation of Habitats and Species Regulations (2010) Regulation 102 (4), the plan making authority must give effect to the land use plan only after having ascertained that it will not adversely affect the integrity of the European site.

1.11 Extract from the Conservation of Habitats and Species Regulations (2010).

Assessment of implications for European sites and European offshore marine sites Regulation 102 (1). Where a land use plan—

(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and

(b) is not directly connected with or necessary to the management of the site, the plan-making authority for that plan must, before the plan is given effect, make an appropriate assessment of the implications for the site in view of that site’s conservation objectives.

(2) 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 specify.

(3) They must also, if they consider it appropriate, take the opinion of the general public, and if they do so, they must take such steps for that purpose as they consider appropriate.

(4) In the light of the conclusions of the assessment, and subject to regulation 103 (considerations of overriding public interest), the plan-making authority or, in the case of a regional strategy, the Secretary of State must give effect to the land use plan only after having ascertained that it will not adversely affect the integrity of the European site or the European offshore marine site (as the case may be).

1.12 "European sites" are defined as as candidate Special Areas of Conservation (cSACs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs), and Sites of Community Importance (SCIs). For the purposes of considering development proposals and their likely significant effects on such sites, government policy in England is that potential Special Protection Areas (pSPA), possible/proposed Special Areas of Conservation (pSACs) or listed or proposed Ramsar sites (Ramsar sites are an international designation under the Ramsar Convention on Wetlands of International Importance 1971) sites 'should be given the same protection' as statutory European sites.

HRA Process

1.13 The process consists of five steps as outlined below. 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.

Table 1.1 Steps in the HRA Process

Steps	Task
1	Collect adequate information to complete the assessment – to include a description of the plan and the baseline conditions of the European site(s) that could be affected by the Plan.
2	Predict the likely effects of the plan on the European site(s) , alone and in combination with other plans and projects.
3	Assess whether the predicted effects will have adverse effects on the integrity of the European site(s), as defined by the conservation objectives.
4	Propose and assess impact avoidance measures to cancel or minimise the potential adverse effects, including a timescale and mechanisms through which the measures will be secured, implemented and monitored.
5	Consult the relevant nature conservation bodies and the public.

Identification of Relevant European Sites

1.14 The following table shows the European Sites which lie closest to Bracknell Forest.

Table 1.2 European Sites which lie closest to Bracknell Forest

European Site	Distance from Borough boundary
Windsor and Great Park SAC	Partly within the Borough
Thames Basin Heaths SPA	Partly within the Borough
Thursley, Ash, Pirbright and Chobham SAC	2.3km
South West London Water Bodies (Ramsar)	5.5km
Chilterns Beechwoods SAC	9.2km
Burnham Beeches SAC	10.1km

1.15 There is no guidance that dictates the physical scope of an HRA of a Local Plan. Reference has therefore been made to previous HRAs undertaken for similar plans in the borough and advice received from Natural England.

1.16 In 2007, Bracknell Forest Council undertook a Habitats Regulations Assessment⁽²⁾ to examine the likely significant effects of the Core Strategy on the Thames Basin Heaths Special Protection Area (SPA) and the Windsor Forest and Great Park Special Area of Conservation (SAC). As shown in the table above, part of both these European sites lie within the borough boundary. Also in 2011 the Council undertook a Habitats Regulations Assessment⁽³⁾ to examine the likely significant effects of the Site Allocations Local Plan on the Thames Basin Heaths SPA and the Windsor Forest and Great Park Special Area of Conservation (SAC).

1.17 In both cases, the screening opinions concluded that, without avoidance and mitigation measures, the plans were likely to have a significant effect on the Thames Basin Heaths SPA. No significant effect was identified on the integrity of the Windsor Forest and Great Park SAC or any other European sites.

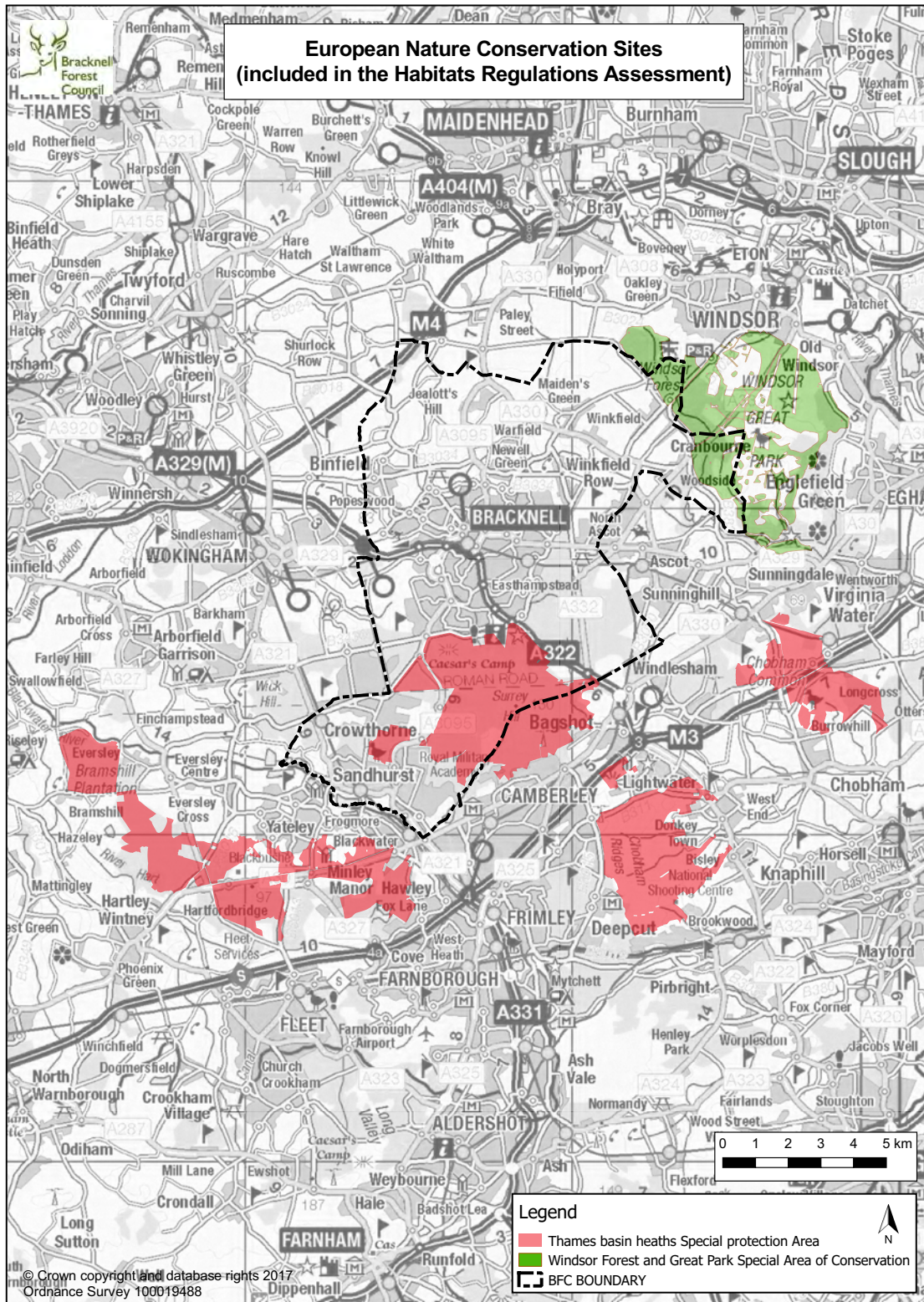
1.18 Part of the Thursley, Ash, Pirbright and Chobham SAC lies 2.3km from the Borough boundary and is a large and varied site consisting of four Sites of Special Scientific Interest (SSSI). Three of the SSSIs which are closest to the Borough boundary also form part of the Thames Basin Heaths SPA. Therefore this SAC will not be considered in this HRA. No other European Sites are considered in this HRA as they lie further than 5km from the Borough boundary.

1.19 This assessment will therefore be confined to two European sites - the Thames Basin Heaths SPA and Windsor Forest Great Park SAC as shown in the map below.

2 See Thames Basin Heaths SPA Technical Background Document to the Core Strategy DPD (June 2007)

3 See Habitats Regulations Appropriate Assessment Site Allocations Local Plan (November 2011)

Figure 1 European Nature Conservation Sites Included in the HRA



2 Information to Complete the Assessment

Bracknell Forest Local Plan (BFLP)

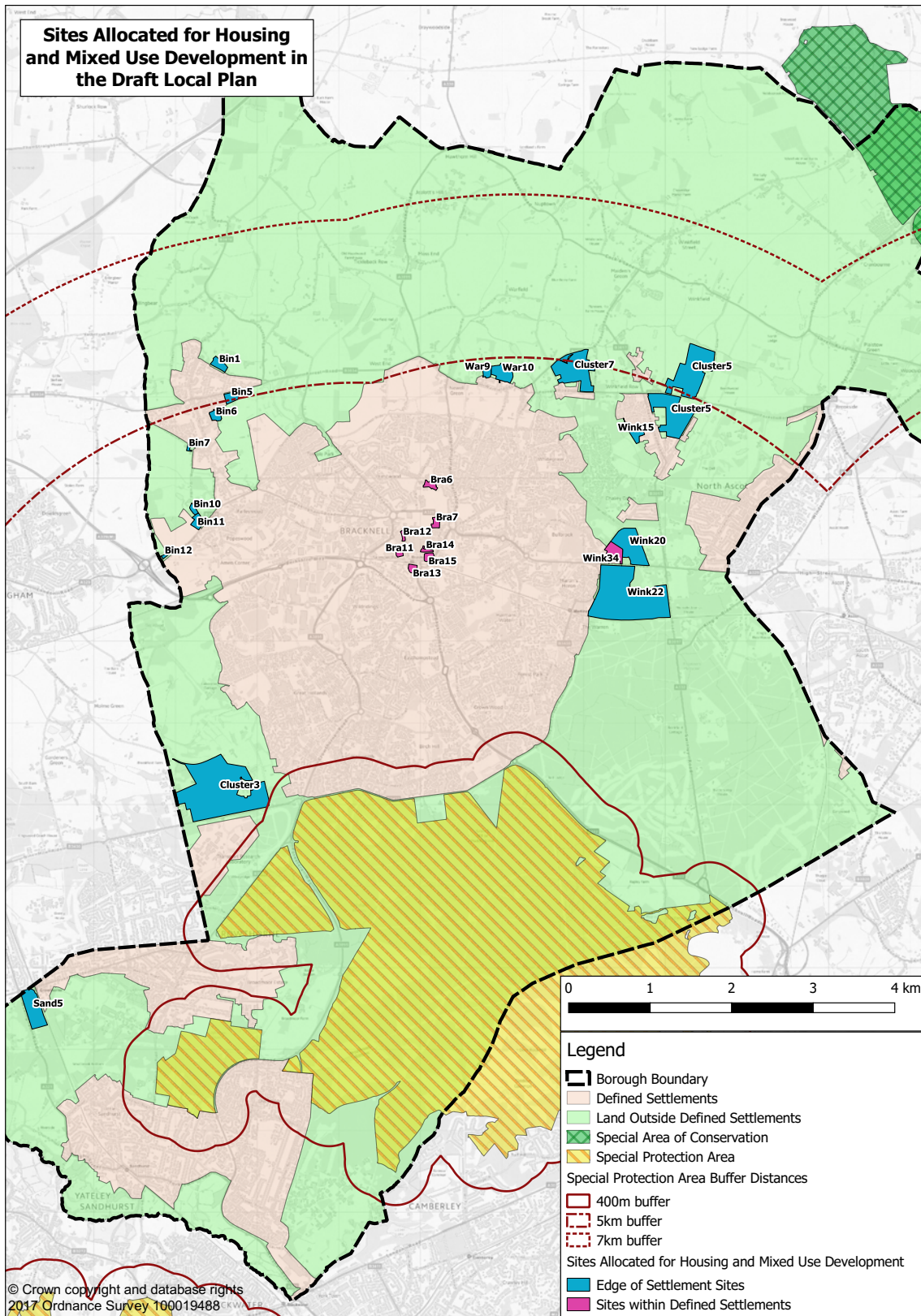
2.1 The BFLP will set the long term spatial vision and development strategy for the borough up to 2034. Once adopted, it will replace many of the saved policies in the Bracknell Forest Borough Local Plan (2002) and the Core Strategy (2008) and supersede some policies in the Site Allocations Local Plan (SALP) (2013).

2.2 In summary, the Plan will include a vision, objectives, and strategy for the level and distribution of development in the borough up to 2034. This includes housing, economic and retail development, new infrastructure and also policies relating to:

- development within the green belt
- development within the countryside
- design, including residential extensions and shop fronts
- environmental issues such as flood risk and water quality
- heritage assets
- the natural environment and biodiversity including landscape, green infrastructure and the Thames Basin Heaths Special Protection Area
- infrastructure needs including open space, sport and recreation and community facilities
- town, district and local centres
- development affecting employment sites
- housing needs
- affordable housing
- healthy and inclusive communities
- climate change including the delivery of renewable energy and sustainable construction

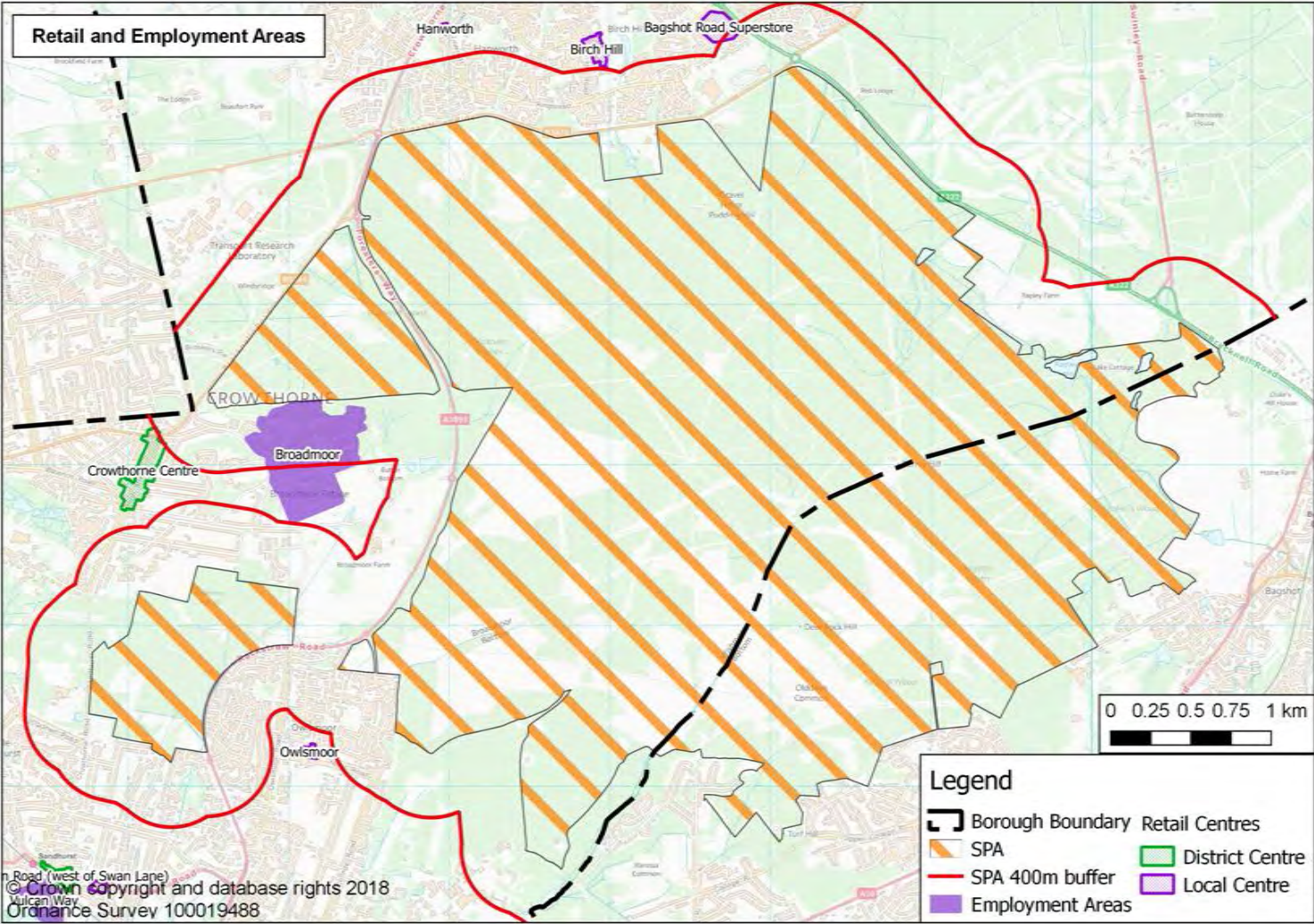
2.3 Figure 2 below shows the sites for housing and mixed use development proposed in the Draft BFLP. It also shows part of the Windsor Forest and Great Park SAC and the Thames Basin Heaths SPA and the SPA Buffer Zones. Site CLU3 lies closest to the SPA with its south eastern corner just bordering on the 400m SPA buffer zone. The majority of the remaining sites lie within the 5km SPA buffer zone. Site BIN1 and part of sites BIN5, CLU5 and CLU7 lie within the 7km SPA buffer zone. The sites in Winkfield lie closest to the SAC, with CLU5 being the closest at about 2.4km from its eastern most point.

Figure 2 Proposed Site Allocations and the European Sites



2.4 Figure 3 shows the retail and employment sites located within (or partly within) 400m of the SPA. These are the Broadmoor Employment Area (northern half), the Bagshot Road Superstore (small part on eastern edge) and Crowthorne Centre (small part on the northern edge).

Figure 3 Retail and Employment Areas within 400m of the SPA



In Combination Effect

2.5 The HRA Screening Assessment must consider the BFLP both alone and in-combination with other plans or projects because a series of individually modest impacts may in-combination result in a significant impact. The intention of this combination provision is to take account of cumulative impacts, and these will often only occur over time.

2.6 Guidance from the European Union (EU)⁽⁴⁾ indicates that the in-combination assessment should only include completed development proposals and development plans if their impacts on the site lead to a continuing loss of integrity.

2.7 Relevant plans with the potential to affect the SPA and SAC are those in neighbouring authorities which, over the lifetime of the Local Plan, lead to an increase in traffic (thereby increasing air pollution) and provide residential dwellings, which in turn increase the population surrounding the SPA and potentially increase recreation on the heathland.

2.8 Spatial planning policies for local authorities surrounding Bracknell Forest are at various stages of production. These will be accompanied by Habitats Regulations Assessments identifying potential adverse effects on European Sites and, where necessary, avoidance and mitigation measures to address these effects. If these local authorities agree with NE no likely significant effect on European Sites then each local authority has addressed its own effects arising from an increased population and there will be no in combination effects.

2.9 The Table below indicates the most up to date information on quantum of development to be expected during the lifetime of the BFLP.

Table 2.1 Quantum of Development in Neighbouring Authorities

Local Authority	Annual Development Plan Housing Allocations ⁽¹⁾	Document
Wokingham BC	661	Core Strategy Development Plan Document (January 2010) OAHN in latest SHMA is 680 dwellings per year
Royal Borough of Windsor and Maidenhead	346	South East Plan housing target OAHN of 721 dwellings per annum, or 14,240 new dwellings over the plan period from 1st April 2013 to 1st April 2033, has been identified.
Surrey Heath BC	190	Adopted Core Strategy and Development Management Policies Development Plan Document (February 2012) OAHN in latest SHMA is 382 dwellings per year

⁴ See http://ec.europa.eu/environment/nature/natura2000/management/guidance_en.htm

Local Authority	Annual Development Plan Housing Allocations ⁽¹⁾	Document
Hart DC	485	Draft Hart Local Plan: Strategy and Sites 2011 - 2032 (April 2017) OAHN in latest SHMA is 382 dwellings per year

1. For a number of authorities the housing figures are still being finalised and have not been formally adopted.

Baseline Conditions of the European Sites

Thames Basin Heaths SPA

2.10 The Thames Basin Heaths SPA covers 12.2% of the Borough of Bracknell Forest, a total of 1,333 hectares. This is 15.9% of the entire SPA and consists of heathland and mixed plantation (1,247 hectares of which lies within Bracknell Forest Borough) and a smaller, unconnected area (86 hectares). Appendix 2 sets out the characteristics and a description of the Thames Basin Heaths SPA in detail.

Windsor Forest and Great Park SAC

2.11 The SAC covers a total area of 1,687.26ha with approximately 416ha (24%) located within the Borough of Bracknell Forest and consists of a large area of continuous woodland. Appendix 3 sets out the characteristics and a description of the Windsor Forest and Great Park SAC in detail.

3 Likely Effects of the BFLP on the Integrity of the European Sites

3.1 Land use plans can have an impact on European sites by following the pathways along which development can be connected with European sites. Pathways are routes by which a change in activity associated with a development can lead to an effect upon a European site.

3.2 Additional development within the proximity of the European Sites will lead to an increase in the population living and working in the vicinity of the sites, which could in turn lead to an increase in traffic movements, recreational visits to the European Sites and urbanisation effects.

3.3 Article 6(3) of the Habitats Directive states that: *“In the light of the conclusions of the [appropriate] assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned.”*

3.4 A commonly used definition of site integrity is given in DCLG circular 06/2005 (para. 20) and the European guidance⁽⁵⁾ on the provisions of Article 6 of the ‘Habitats Directive’. This defines site integrity as: *“the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified.”*

3.5 The European guidance goes on to describe the integrity of a site as involving its ecological functions, and the decision as to whether it is adversely affected should focus on, and be limited to, the site’s conservation objectives.

3.6 For both the Thames Basin Heaths SPA and the Windsor Forest and Great Park SAC a description of potential adverse effects on site integrity has been identified in appendices 2 and 3. The integrity of both European Sites has the potential to be adversely affected by air pollution. The integrity of the Thames Basin Heaths SPA also has the potential to be adversely affected by urbanisation and recreational pressure.

3.7 The pathways of impact can therefore be defined as follows:

- Urbanisation
- Recreational pressure
- Air pollution

Urbanisation

3.8 Urbanisation impacts result from an increase in population within close proximity to the SPA and is distinct from the trampling, disturbance and dog-fouling that results specifically from recreational activity. The main impacts are:

- Increased fly-tipping - Garden waste can lead to the introduction of invasive alien species. Alien species may also be introduced deliberately or may be sown by birds from local gardens.

5 See http://ec.europa.eu/environment/nature/natura2000/management/guidance_en.htm

- Cat predation - A large proportion of domestic cats are found in the urban environment, and increasing urbanisation is likely to lead to increased cat predation.
- Uncontrolled fires – A high frequency of wildfires is associated with urban areas, where nature conservation sites have densely developed areas near to their boundaries.

3.9 The Thames Basin Heaths Special Protection Area Delivery Framework (2009) makes recommendations for accommodating development while also protecting the SPA's features interest. This includes the recommendation of implementing a series of zones within which varying constraints would be placed upon development. The zone extending 400m from the SPA boundary concerns urbanisation (particularly predation of the chicks of ground-nesting birds by domestic cats). The delivery plan concluded that the adverse effects of any net increase in residential development located within 400m of the SPA boundary could not be mitigated since this was the range within which cats could be expected to roam as a matter of routine and there was no realistic way of restricting their movements. As such, no new housing should be located within this zone.

Recreational Pressure

3.10 Recreational use of the SPA has the potential to:

- Cause disturbance to the ground-nesting birds;
- Prevent appropriate management or exacerbate existing management difficulties;
- Cause damage through erosion; and
- Cause eutrophication as a result of dog fouling.

3.11 Recreational pressure can have a significant adverse effect on the Annex 1 bird species for which the SPA is designated in various ways. Increased nest predation by natural predators as a result of adults being flushed from the nest and deterred from returning to it by the presence of people and dogs is likely to be a particular problem. Recreational pressure can also lead to reduced breeding success as a consequence of disturbance. The main reasons given for the reduction in breeding success tend to be nest abandonment and increased predation of eggs or young.

3.12 Several studies have shown that birds are affected more by dogs and people with dogs than by people alone, with birds flushing more readily, more frequently, at greater distances and for longer. Also, dogs, rather than people, tend to be the cause of many management difficulties, for example by worrying grazing animals, and can cause eutrophication near paths. Nutrient-poor habitats such as heathland are particularly sensitive to the fertilising effect of inputs of phosphates, nitrogen and potassium from dog faeces.

3.13 As stated above, the Thames Basin Heaths Special Protection Area Delivery Framework (2009) makes recommendations for accommodating development while also protecting the interest features of the SPA. This includes the recommendation of implementing a series of zones within which varying constraints would be placed upon development. The zones relating to recreational pressure extend to 5km (and to 7km for larger developments) from the SPA as this was determined from visitor surveys to be the principal recreational catchment for the SPA.

3.14 Where increased recreational use is predicted to cause adverse impacts on the SPA, avoidance and mitigation should be considered. Retained Policy NRM6 of the South East Plan sets out these measures for the Thames Basin Heaths SPA. Avoidance measures involve locating new development away from the SPA. Where avoidance is not possible, mitigation involves a combination of access management and provision of alternative recreational space:

- Active management of access is provided through the Strategic Access Management and Monitoring (SAMM) Project.
- Provision of alternative recreational space can help to attract recreational visitors away from the SPA and therefore reduce pressure on it. These sites are called Suitable Alternative Natural Greenspaces (SANGs).

3.15 A net increase in car parking within 400m of the SPA as a result of non-residential development can also lead to an increased number of visitors accessing the SPA. Car parking should therefore be restricted in these areas.

Air Pollution

3.16 As set out in Appendices 2 and 3, the integrity of both the Thames Basin Heaths SPA and the Windsor Forest and Great Park SAC has the potential to be adversely affected by air pollution.

3.17 It is estimated that the implementation of the BFLP will lead to an increase in the population of Bracknell Forest of approximately 10,042 people up to 2034 (see Appendix 4). An increase in local population is likely to lead to an increase in car journeys and this has the potential to lead to an increase in air pollution. Provision of new infrastructure, employment and retail development also has the potential to increase traffic and lead to increased air pollution in combination with other plans and projects.

3.18 Air pollution has the potential to arise from increases in nitrogen oxides (NO_x), which are generated from increases in local road traffic emissions. Although airborne NO_x can be directly toxic to the above-ground parts of plants at extremely high concentrations, the principal impact upon ecosystems that can be caused by elevated airborne concentrations of NO_x is the deposition of nutrient nitrogen, either by adsorption at the ground (dry deposition) or by being washed out by precipitation (wet deposition), leading to eutrophication. This can affect species diversity and the composition of plant communities in nitrogen-limited communities, by increasing rates of vegetative growth and promoting the development of more competitive or faster-growing plant species.

3.19 Nitrogen deposition from increased traffic flows therefore has the potential to lead to adverse effects on the SPA and SAC and the potential for in-combination effects.

3.20 Department for Transport guidance - Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 1 - states that '*only Designated Sites within 200m of the road affected by the project need to be considered*', proceeding to define "affected roads" as including '*those where daily traffic flows will change by 1,000 AADT (Annual Average Daily Traffic) or more*'. NE advise, based on this guidance that if, additional traffic movements cause the concentration within the emission footprint in any part of the European site(s) to increase by less than 1% of the relevant long-term benchmark (Environmental Assessment Level, Critical Level or Critical Load), the emission is not likely to have a significant effect alone or in combination irrespective of the background levels. However, NE's guidance is currently under review.

3.21 It has been determined that parts of the SPA and SAC are situated within 200m of major roads that may be regularly used for vehicle journeys arising from the site allocations in the Draft BFLP.

3.22 In March 2017, a high court judgement quashed part of the Lewes Joint Core Strategy. This judgement related to the assessment of nitrogen deposition impacts from increased traffic flows on Natura 2000 sites and the potential for in-combination effects. The Council has considered the implications of this judgement and recognises the potential adverse effect on the integrity of the SPA and SAC as a result of the proposed allocations in the BFLP. It will work with NE to agree a methodology for an air quality assessment of the BFLP alone and in combination with other plans and projects. The intention is to carry out this assessment at the Submission stage of the BFLP when the proposed allocations are more certain and more information is available regarding Local Plan proposals in other local authorities .

A Summary of the Likely Significant Effects of the BFLP upon the Integrity of the European Sites

3.23 The likely significant effects of the BFLP upon the Integrity of the SPA and SAC are summarised in the table below. As described above, the methodology for an air quality assessment of the BFLP alone and in combination with other plans and projects is still to be developed and the assessment undertaken. Likely significant effects as a result of air pollution are therefore yet to be determined.

Table 3.1 Likely Significant Effects of the BFLP on the Integrity of the SPA and SAC

European Site	Likely effects of the BFLP on site integrity	Plan Characteristics Which Could Lead to Adverse Effects
Thames Basin Heaths SPA	Human disturbance (as a result of urbanisation) such as increased fly-tipping, cat predation and uncontrolled fires	A net increase in residential development within 400m of the SPA.
	Recreational pressure such as disturbance to ground-nesting birds, preventing appropriate management or exacerbating existing management difficulties, causing damage through erosion and causing eutrophication as a result of dog fouling.	A net increase in dwellings within 400m - 7km of the SPA. A net increase in car parking spaces within 400m of the SPA.
	Air pollution (potential effect on site integrity - likelihood yet to be determined through further assessment)	An estimated increase in the local population of approximately 10,042 people (see Appendix 4) and potential increase in traffic flows within 200m of the SPA. Provision of new infrastructure, employment and retail development and potential increase in traffic flows within 200m of the SPA.

European Site	Likely effects of the BFLP on site integrity	Plan Characteristics Which Could Lead to Adverse Effects
Windsor Forest and Great Park SAC	Air pollution (potential effect on site integrity - likelihood yet to be determined through further assessment)	An estimated increase in the local population of approximately 10,042 people (see Appendix 4) and potential increase in traffic flows within 200m of the SAC. Provision of new infrastructure, employment and retail development and potential increase in traffic flows within 200m of the SAC.

Screening of Draft Local Plan Policies

3.24 All policies in the Draft BFLP were screened for likely significant effects on the integrity of the SPA and SAC (see Appendix 6). Many of the policies could be screened out of further consideration due to the absence of any mechanism for an adverse effect on the integrity of the European sites. The table below is a summary of the policies which have been screened in for further consideration. These policies require further discussion in this document since unmitigated, they could result in pathways of impact linking to the European Sites. It should be noted that this screening was carried out at a time before the methodology for the air quality assessment was agreed. A precautionary approach has therefore been taken but in future versions of this HRA some policies may be able to be screened out of needing further consideration due to likely air quality effects. Avoidance and mitigation measures are discussed in the next section.

Table 3.2 Summary Screening of Draft Local Plan Policies

Policy Ref	Name	Likely Urbanisation Effects on SPA	Likely Recreational Effects on SPA	Potential Air Quality Effects on SPA and SAC
LP2	Provision of Housing	Yes	Yes	Yes
LP3	Sites Allocated for Residential/Mixed Use Development	No	Yes	Yes
LP4	Land at the Hideout and Beaufort Park, Nine Mile Ride, Bracknell	No	No	Yes
LP5	Land South of London Road, East of Bog Lane and West of Swinley Road (Whitmoor Forest), Bracknell	No	No	Yes

Policy Ref	Name	Likely Urbanisation Effects on SPA	Likely Recreational Effects on SPA	Potential Air Quality Effects on SPA and SAC
LP6	Land at Winkfield Row	No	No	Yes
LP7	Land at Hayley Green	No	No	Yes
LP8	Sites Allocated for Economic Development in Bracknell Town	No	No	Yes
LP9	Strategic and Local Infrastructure	No	No	Yes
LP11	Protection of Countryside	Yes	Yes	Yes
LP12	Landscape Character and Strategic Gaps	Yes	Yes	Yes
LP13	Rural Workers Dwellings	Yes	Yes	Yes
LP16	Overarching Green Belt Policy	Yes	Yes	Yes
LP17	Developed Site in the Green Belt: Jealott's Hill International Research Centre	No	Yes	Yes
LP21	Protection of Existing Housing Stock and Land	Yes	Yes	Yes
LP26	Travelling Populations	Yes	Yes	Yes
LP27	Employment Areas	No	Yes	Yes
LP28	Employment Development Outside Employment Areas	No	Yes	Yes
LP29	Smaller Businesses	No	Yes	Yes
LP30	Development in Bracknell Town Centre	No	Yes	Yes
LP31	Out of Centre Development	No	Yes	Yes
LP32	Changes of Use Within Defined Retail Centres	No	Yes	Yes

Policy Ref	Name	Likely Urbanisation Effects on SPA	Likely Recreational Effects on SPA	Potential Air Quality Effects on SPA and SAC
LP34	Protection of Community Facilities and Services	No	Yes	No
LP44	Development of land potentially affected by contamination	Yes	Yes	Yes
LP45	Strategic Transport Principles	No	Yes	Yes
LP46	Assessing, Minimising and Mitigating the Transport Impacts of Development	No	Yes	Yes
LP47	Transport Infrastructure Provision	No	Yes	Yes
LP49	Parking	No	Yes	Yes
LP50	Play, Open Space and Sports Provision	No	Yes	Yes

Screening of Site Allocations in the Draft Local Plan

3.25 All the sites allocated for development in the Draft BFLP were screened for likely adverse effects on the integrity of the SPA and SAC (see Appendix 7). It should be noted that this screening was carried out at a time before the methodology for the air quality assessment was agreed. A precautionary approach has therefore been taken but in future versions of this HRA some sites may be able to be screened out of needing further consideration due to air quality effects.

3.26 Initial screening results suggest that all sites have the potential to result in an in-combination impact upon the SPA and SAC as they have the potential to lead to a decrease in air quality from an increase in traffic on roads within 200m of the SPA and SAC. It has also been identified that all sites have the potential to lead to a likely significant effect on the SPA as a result of recreational effects due to a net increase in dwellings within 400m - 7km of the SPA. Therefore no site allocations can be screened out at this stage. Further discussion is required in this document since unmitigated, they could result in pathways of impact linking to the European Sites that cannot be immediately screened out. Avoidance and mitigation measures are proposed in the next section.

4 Avoidance and Mitigation Measures

4.1 Chapter 3 has identified ways in which the BFLP, unmitigated, is likely to lead to a significant adverse effect on the integrity of the SPA and SAC. Therefore it is necessary to devise measures to avoid and mitigate, where possible, the identified adverse effects. The following sections outline the proposed avoidance and mitigation measures.

Avoidance and Mitigation of Likely Urbanisation Effects on the SPA

4.2 Likely urbanisation effects on the SPA have been identified as a result of a net increase in residential development (including care homes) within 400m of the SPA. Proposed avoidance and mitigation measures are set out in the table below:

Table 4.1 Proposed Avoidance and Mitigation Measures of Likely Urbanisation Effects on the SPA

Plan Characteristic Leading to Likely Urbanisation Effect	Avoidance and Mitigation Measure(s)
Net increase in dwellings within 400m of the SPA	<p>BFLP Policy LP39 - Thames Basin Heaths Special Protection Area - sets an exclusion zone within 400m of the SPA '<i>... A straight line distance of between 0 and up to 400 metres from the SPA boundary. This will be an 'exclusion zone' where mitigation measures are unlikely to be capable of protecting the integrity of the SPA. Proposals for a net increase in dwellings within this zone will not be supported unless it can be demonstrated through an appropriate assessment that there will be no adverse effect on the integrity of the SPA.</i></p> <p>For proposals for care homes within 400m of the SPA, guidance in paragraph 3.6.2 of the Bracknell Forest Council Thames Basin Heaths SPA Avoidance and Mitigation Supplementary Planning Document (2012) states:</p> <p><i>'These developments will be dealt with on a case by case basis at the planning application stage, in agreement with Natural England. Certain avoidance and mitigation measures may need to be put in place in order to reach a conclusion of no adverse effect on the integrity of the SPA. For example, these could include the following:</i></p> <ul style="list-style-type: none"> - <i>A workable pet covenant enforceable by the accommodation management company / organisation which precludes the keeping of cat and dogs on the premises; with the exception of assisted living dogs...'</i> <p>This guidance is being updated through the Draft Thames Basin Heaths SPA SPD (January 2018) which is undergoing consultation in early 2018. This HRA will be updated accordingly when the new SPD is adopted.</p>

Avoidance and Mitigation of Likely Recreational Effects on the SPA

4.3 Likely recreational effects on the SPA have been identified as a result of

- A net increase in car parking spaces within 400m of the SPA
- A net increase in dwellings within 400m - 7km of the SPA

4.4 Proposed avoidance and mitigation measures are set out in the table below:

Table 4.2 Proposed Avoidance and Mitigation Measures of Likely Recreational Effects on the SPA

Plan Characteristic Leading to Likely Urbanisation Effect	Avoidance and Mitigation Measure(s)
A net increase in car parking spaces within 400m of the SPA	When planning applications for residential and non residential development are submitted to the Council or when projects are developed to bring forward new or improved transport infrastructure, employment and retail developments or the provision of new or improved community facilities, the Council must ensure that these do not lead to a net increase in car parking spaces within 400m of the SPA.
Net increase in dwellings within 400m - 7km of the SPA	<p>BFLP Policy LP39 ' - Thames Basin Heaths Special Protection Area - sets two zones of influence with specific mitigation measures required for each zone: 'ii A straight line distance of between 400 metres to 5 kilometres from the SPA boundary. Within this zone measures must be provided to ensure that the integrity of the SPA is protected. Mitigation measures will be based on a combination of the provision of Suitable Alternative Natural Greenspace (SANG) and Strategic Access Management and Monitoring (SAMM) measures and will be delivered prior to occupation and in perpetuity.</p> <p>iii. A straight line distance of between 5 and 7 kilometres from the SPA boundary. Within this zone residential developments with a net increase of more than 50 dwellings will be dealt with on a case by case basis and are likely to be required to provide appropriate mitigation based on a combination of SAMM and the provision of SANG to a lower standard than within the 400m – 5km zone. Mitigation measures will be delivered prior to occupation and in perpetuity'.</p> <p>More detail is provided in the Policy and in the Thames Basin Heaths SPA Avoidance and Mitigation SPD (March 2012) which is to be updated in 2018. Further more detailed information on SANGs and the SAMM Project is set out below the table.</p>

Plan Characteristic Leading to Likely Urbanisation Effect	Avoidance and Mitigation Measure(s)
	<p>For proposals for care homes within 400m - 7km of the SPA there is guidance in paragraph 3.6.3 of the Bracknell Forest Thames Basin Heaths SPA Avoidance and Mitigation Supplementary Planning Document (2012). It states: <i>'These developments will be dealt with on a case by case basis at the planning application stage, in agreement with Natural England. Certain avoidance and mitigation measures may need to be put in place in order to reach a conclusion of no adverse effect on the integrity of the SPA. For example, these could include the following:</i></p> <p><i>- That the use class of the property is limited to that of C2, and the occupants will only be of limited mobility and thus will not access the Thames Basin Heaths SPA'.</i></p> <p>This guidance is being updated through the Draft Thames Basin Heaths SPA SPD (January 2018) which is undergoing consultation in early 2018. This HRA will be updated accordingly when the new SPD is adopted.</p>

Suitable Alternative Natural Greenspaces (SANGs)

4.5 The provision of alternative recreational land to attract new residents away from the SPA is a key part of the avoidance and mitigation strategy. Such land is commonly known as SANGs - Suitable Alternative Natural Greenspaces.

4.6 SANG provision should be funded by developer contributions, purchased from landowners of private SANGs or may be provided by developers for individual developments (bespoke SANG). To meet the requirements of the Habitats Regulations, SANG must be provided and managed in perpetuity. Sufficient SANG should be provided in advance of occupation of a dwelling to ensure there is no likely significant effect on the SPA.

4.7 Usually SANGs must be provided at a minimum of 8ha per 1000 new residents, as set out in the Thames Basin Heaths SPA Delivery Framework (2009). The standard may however increase for developments that lie closer to the SPA. For developments located between 5-7km of the SPA, a minimum 2ha/1,000 new residents is likely to apply. This standard of SANGs provision is necessary, in addition to normal open space requirements,⁽⁶⁾ in order that the Council can have certainty that the Avoidance and Mitigation Strategy will prevent an adverse impact on the integrity of the SPA.

4.8 Where a SANG which is provided on existing public open space, these areas will have a level of existing visitor use this will need to be discounted to protect current access. When new land or existing public open space is proposed as SANG, any existing nature conservation interests must be taken into account and potentially discounted.

6 See Thames Basin Heaths SPA Avoidance and Mitigation Supplementary Planning Document (March 2012)

4.9 Where there is sufficient SANG capacity available, for developments that have a net increase in dwellings of less than 109 dwellings, the Council will accept a payment contribution towards strategic SANGs in line with its adopted SPA Avoidance and Mitigation Strategy.

4.10 Developments with a net increase of 109 or more dwellings, a bespoke SANG must be provided.⁽⁷⁾ The Council may make exceptions to this where the development is located in Bracknell Town Centre.

4.11 The standard provision of strategic SANGs (an average open space standard of 8ha per 1000 new population) is not directly transferable to bespoke solutions where compliance with a general standard may not be sufficient to demonstrate that the requirements of the Habitats Regulations are met.

4.12 The quality of new SANG land should be agreed with the Council and Natural England.⁽⁸⁾

4.13 In order to demonstrate that there is sufficient SANG capacity to mitigate for the net increase in dwellings proposed in the BFLP a provisional SANG solution has been identified for each site allocation (see Appendix 8).

Strategic Access Management and Monitoring (SAMM)

4.14 On-site access management (on the SPA) aims to avoid the impacts of current and predicted future users of the SPA. South East Plan policy NRM6 states that access management measures will be provided strategically to ensure that adverse impacts on the SPA are avoided and that SANG functions effectively.

4.15 The Thames Basin Heaths SPA comprises multiple SSSI sites, owned and managed by many different organisations and some private individuals. In order to ensure that access management implemented in one area does not simply displace visitors onto another part of the SPA, it is necessary to take a strategic approach to visitor access management.

4.16 On 17 July 2011, Bracknell Forest Council, Natural England and 11 other local authorities in the sub-region affected by SPA issues, signed the Strategic Access Management and Monitoring (SAMM) agreement. The SAMM Project aims to:

- Promote SANGS as new recreational opportunities for local people and particularly encourage their use during the breeding bird season.
- Provide on-the-ground wardening service to supplement existing wardening efforts.
- Provide an SPA-wide education programme.
- Create new volunteering opportunities.
- Demonstrate best practice for strategic access management of visitors and visitor infrastructure where the supply of greenspace is heavily dependent on protected areas.
- Monitor visitor usage of SANGs and SPA.
- Monitor Annex 1 birds on SPA sites.

4.17 A SAMM contribution will be required from developers for each net additional dwelling on new residential development sites. The contributions are calculated on a 'per bedroom' basis and are set out in the Thames Basin Heaths SPA Avoidance and Mitigation SPD (March 2012). The level of these contributions may change over time.

7 109 dwellings is the number necessary (at an average of 2.31 people per dwelling and 8ha per 1000 population SANG requirement) to generate a requirement for a 2ha SANG (which is the smallest SANG by area which would be acceptable).

8 See Guidelines for the Creation of Suitable Accessible Natural Green Space (SANGs). Natural England. (June 2008)

Avoidance and Mitigation of Potential Air Quality Effects on the SPA and SAC

4.18 Potential air quality effects on the SPA have been identified as follows:

- Residential and non-residential development leading to additional traffic movements on affected roads (i.e. those within 200m of the SPA and SAC where there is a change in daily traffic flows by 1,000 AADT (Annual Average Daily Traffic) or more) and where this causes the concentration within the emission footprint in any part of the European sites to increase by more than 1% of the relevant long-term benchmark (Environmental Assessment Level, Critical Level or Critical Load).

4.19 An air quality assessment has not yet been undertaken so it is currently not known whether the BFLP will lead to *likely* air quality effects. Therefore only the *potential* effects are set out above.

4.20 A report prepared for The West London Alliance Air Quality Cluster Group⁽⁹⁾ identifies four broad types of mitigation measures:

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

4.21 The policies in the draft BFLP cover all these categories except for the fourth one (roadside barriers). These policies are described in the table below.

4.22 NE identifies three mitigation measures (the first two which relate to roadside barriers)⁽¹⁰⁾ These are:

- The use of a shelterbelt of trees planted alongside a road to prevent the transport of pollutants away from the area on the SPA and SAC to be protected
- The use of a buffer zone of vegetation located between the road and the protected SPA habitat. This means that the area affected by the pollution is within the buffer zone.
- Compensatory habitat creation. The loss of habitat due to adverse effect on the SPA vegetation as a result of air pollution might be compensated for by the creation of the same habitat at a nearby location.

4.23 The Council intends to undertake further investigation into the use of roadside barriers as strategic mitigation. These mitigation methods can also be agreed at the planning application stage if adverse effects on the integrity of the SPA and / or SAC are found.

4.24 Some avoidance and mitigation measures for adverse air pollution effects related to the construction stage of the developments could also be tackled through a Code of Construction Practice.

9 Best Practice Guide for Assessment of Traffic and Air Quality Impacts Prepared for the West London Alliance Air Quality Cluster Group by Transport Travel Research Ltd (August 2005)

10 See The Ecological Effects of Diffuse Air Pollution from Road Transport. English Nature Research Report 580 at <http://naturalengland.etraderstores.com/NaturalEnglandShop/R580>

4.25 A Habitats Regulations Assessment at the planning application stage would need to consider existing local air quality conditions, an assessment of the construction phase impacts and the impacts during operation of the development. Any mitigation measures would need to be agreed with the Council and Natural England.

Table 4.3 Proposed Avoidance and Mitigation Measures of Potential Air Quality Effects on the SPA and SAC

Potential Air Quality Effect	Avoidance and Mitigation Measure(s)
<p>Residential and non-residential development leading to additional traffic movements on affected roads (i.e. those within 200m of the SPA and SAC where there is a change in daily traffic flows by 1,000 AADT (Annual Average Daily Traffic) or more) <u>and</u> where this causes the concentration within the emission footprint in any part of the European sites to increase by more than 1% of the relevant long-term benchmark (Environmental Assessment Level, Critical Level or Critical Load).</p>	<p>Behavioural measures and modal shift, traffic management and emissions reduction at source are tackled through the following policies in the BFLP:</p> <p>LP45 Strategic Transport Principles, LP46 Assessing, minimising and mitigating the transport impacts of development, LP47 Transport Infrastructure Provision, LP48 Travel Plans and LP49 Parking.</p>
	<p>LP43 Pollution and Hazards states that '<i>Development proposals should neither individually nor cumulatively have an adverse effect on... the quality of the natural environment or landscape, either during the construction phase or when completed</i>'. The supporting text goes on to say '<i>Applicants will be required to undertake air quality modelling and assessment where necessary to address the effects on... biodiversity. This will be provided or funded by the applicant</i>'.</p> <p>Therefore when certain planning applications for residential and non residential development (including transport infrastructure) are submitted to the Council (some of these sites will be determined by the Council following strategic traffic modelling of the sites proposed in the BFLP in combination with proposed allocations in other Local Authorities), the Council will require a detailed air quality assessment to be undertaken at that stage.</p> <p>If an application is found to lead to a likely significant adverse effects on the SPA and / or SAC (in agreement with NE) further mitigation methods will be agreed at the planning application stage and could include planting a shelterbelt of trees alongside a road, planting a buffer zone of vegetation located between the road and the protected SPA habitat or compensatory habitat creation.</p>
	<p>Possible use of roadside barriers as strategic mitigation. The Council intends to investigate this issue in more detail.</p>

5 Conclusions

5.1 The likely significant effects of the BFLP on the integrity of the SPA have been identified as follows:

- Urbanisation as a result of a net increase of residential development within 400m of the SPA;
- Recreational pressure as a result of a net increase in car parking spaces within 400m of the SPA and a net increase in dwellings located between 400m - 7km of the SPA;

5.2 The potential effects of the BFLP on the integrity of the SPA and SAC have been identified as follows:

- Air quality as a result of an increase in the concentration of Nitrogen Oxides (NO_x) on the habitats of the SPA and SAC arising from increased traffic flows on roads within 200m of the European Sites.

5.3 Avoidance and mitigation measures have been proposed in this HRA which has led the Council to conclude that there will be no significant adverse urbanisation and recreational effects upon the integrity of the SPA as a result of the developments and policies within the BFLP.

5.4 Although various avoidance and mitigation measures have been proposed to safeguard the SPA and SAC from potential air quality effects of the BFLP, the Council is not able to conclude at this time that there will be no significant adverse air quality effects upon the integrity of the SPA and SAC as a result of the developments and policies within the BFLP. It is recognised that there is still some work to be undertaken to establish likely air quality effects on these European Sites and the Council proposes to undertake strategic traffic modelling at the Submission stage of the Plan when the proposed allocations are more certain and when more information is available regarding the Local Plan proposals in other Local Authorities.

5.5 The Council will continue to work with Natural England and other stakeholders to ensure that a package of measures is secured which ensures no likely significant effect on the integrity of the European sites. These mitigation measures will be implemented through:

- The determination and monitoring of planning applications.
- The Community Infrastructure Levy (CIL), conditions, section 106 Agreements or other agreements to secure contributions or works.

6 Glossary

Table 6.1

Term	Acronym	Definition
Appropriate Assessment	AA	An assessment, required under the Habitats Directive, if a plan or project is judged as likely to have a significant effect on a Natura 2000 site.
Biodiversity		Biological Diversity - the variety and total number of all biological life.
Bracknell Forest Council	BFC	
Competent Authority		The decision maker under the Conservation of Habitats and Species Regulations 2010: often the local authority, but could be a planning inspector or other body responsible for assessing a plan or project.
Development Plan Document	DPD	A Local Development Document which forms part of the statutory development plan, examples include the Core Strategy, Proposals Map and Area Action Plans.
Local Development Framework	LDF	The portfolio of Local Development Documents which sets out the planning policy framework for the borough.
Natura 2000 sites		An ecological network of sites such as Special Protection Areas (SPAs) and Special Areas of Conservation SACs established under the Habitats Directive to provide a strong protection for Europe's wildlife areas.
Natural England	NE	
Pathways of Impact		Land use plans can have an impact on European sites, by following the pathways along which development can be connected with European sites. Pathways are routes by which a change in activity associated with a development can lead to an effect upon a European site.
Precautionary Principle		Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation (Principle 15 of the Rio Declaration on Environment and Development).

Term	Acronym	Definition
Significant Effect		Any reasonably predictable effect of a plan or project on the conservation objectives of the designated site features but excluding de minimis or inconsequential effects.
Special Area of Conservation	SAC	Strictly protected sites designated under the EC Habitats Directive and the habitat types and species are those considered to be most in need of conservation at a European level (excluding birds).
Special Protection Area	SPA	A nature conservation site designated for its bird interest under the Birds Directive, but subject to the assessment procedure set out in the Habitats Directive.
Strategic Access Management and Monitoring Project	SAMM	Overseen by Natural England. Implements standard messages, additional wardening and education across the Thames Basin Heaths SPA.
Supplementary Planning Document	SPD	An Local Development Document which does not form part of the statutory development plan, but is part of the Local Development Framework. Supplementary Planning Documents (SPDs) elaborate upon policies and proposals in a Development Plan Document.
Suitable Alternative Natural Greenspace	SANG	Open space, meeting guidelines on quantity and quality, for the purpose of providing recreational alternatives to the SPA.
Thames Basin Heaths Joint Strategic Partnership		Partnership of Thames Basin Heaths SPA-affected local authorities and key stakeholders, which form and oversee the implementation of sub-regional guidance, for example the Delivery Framework.

Appendix 1 Summary HRA Responses to the BFLP Issues and Options Consultation

A Summary of HRA Responses to the Issues and Options Consultation

As part of the BFLP Issues and Options Consultation which ran from Monday 13 June to Monday 25 July 2016, the following organisations provided responses which are relevant to the HRA. The summary responses help to confirm that a Habitats Regulations Assessment needs to be carried out for the BFLP and that, without appropriate avoidance and mitigation measures, significant adverse effects on the integrity of the Thames Basin Heaths SPA are likely to arise as a result of this plan.

Table 7.1 A Summary of HRA-Related Responses to the Issue and Options Consultation

Organisation	Summary Response
Natural England	<p><u>HRA</u></p> <p>The Local Plan should be screened under Regulation 102 of the Conservation of Habitats and Species Regulations 2010 (as amended) at an early stage so that outcomes of the assessment can inform key decision making on strategic options and development sites. Natural England would welcome early discussion on the Habitats Regulations Assessment (HRA) of the plan and can offer further advice as policy options are progressed.</p> <p><u>The Plan's vision and strategy</u></p> <p>As recognised in Section 7.4 of the consultation document, in accordance with the NPPF, the plan's development strategy should seek to avoid areas of high environmental value. Natural England expects sufficient evidence to be provided, through the SA and HRA, to justify the site selection process and to ensure sites of least environmental value are selected, e.g. land allocations should avoid designated sites and landscapes and should consider the direct and indirect effects of development on land within the setting of designated landscapes.</p> <p><u>Environmental Protection</u></p> <p>We would expect the plan to address the impacts of air quality on the natural environment. In particular, it should address the traffic impacts associated with new development, particularly where this impacts on European sites and SSSIs. The environmental assessment of the plan (SA and HRA) should also consider any detrimental impacts on the natural environment, and suggest appropriate avoidance or mitigation measures where applicable.</p> <p>Natural England advises that one of the main issues which should be considered in the plan and the SA/HRA are proposals which are likely to generate additional nitrogen emissions as a result of increased traffic generation, which can be damaging to the natural environment.</p>

Organisation	Summary Response
	<p>The effects on local roads in the vicinity of any proposed development on nearby designated nature conservation sites (including increased traffic, construction of new roads, and upgrading of existing roads), and the impacts on vulnerable sites from air quality effects on the wider road network in the area (a greater distance away from the development) can be assessed using traffic projections and the 200m distance criterion followed by local Air Quality modelling where required. We consider that the designated sites at risk from local impacts are those within 200m of a road with increased traffic, which feature habitats that are vulnerable to nitrogen deposition/acidification. APIS provides a searchable database and information on pollutants and their impacts on habitats and species.</p>
RSPB	<p>As part of the sequential approach to protecting important areas for wildlife, the Council should look to locate new housing away from the Thames Basin Heaths Special Protection Area (SPA) zone of influence in order to avoid or minimise the recreational and other urban impacts arising from new residential development.</p> <p>The RSPB supports the hierarchy approach to the protection of designated nature conservation sites. However, for internationally important sites (SPAs) the consideration of supporting / functionally linked habitat should also be included. For the Thames Basin Heaths SPA this could, for example, include important feeding areas for nightjar (which are known to feed up to 7km from their breeding sites) and undesignated sites supporting further breeding territories of Annex I heathland birds.</p>

Appendix 2 Thames Basin Heaths SPA

The Thames Basin Heaths SPA was proposed in October 2000, and full SPA status was approved on 9 March 2005. It is an example of a heathland landscape based within a highly active economy. It consists of a composite site covering an area of some 8,274 hectares, consisting of 13 Sites of Special Scientific Interest (SSSI) scattered from Hampshire in the west, to Berkshire in the north, through to Surrey.

The habitat consists of both dry and wet heathland, mire, oak, birch acid woodland, gorse scrub and acid grassland with areas of rotational conifer plantation.

Qualifying Species

This site qualifies under Article 4.1 of the Birds Directive as it is used by 1% or more of the Great Britain population of species of European Importance listed in Annex I of the Directive. During the breeding season this includes:

- Dartford warbler (*Sylvia undata*)
- Nightjar (*Caprimulgus europaeus*)
- Woodlark (*Lullula arborea*)

The SPA supports the second largest concentration of Dartford warbler in Great Britain, the third largest number of woodlark, and the fourth largest population of breeding nightjars.

Non Qualifying Species of Interest

Hen harrier (*Circus cyaneus*), merlin (*Falco columbarius*), short-eared owl (*Asio flammeus*) and kingfisher (*Alcedo atthis*) (all Annex I species) occur in non-breeding numbers of less than 1% of the GB population.

Seasonality

The breeding season of the protected bird species occurs predominantly in April, May, June and July, but an extended season can occur between February and August, therefore this is when the ground-nesting species are most vulnerable to disturbance. The breeding season for nightjar occurs from mid-May through to August, with a peak in June; woodlark nest from March until July, but commence territorial activity from early February; the Dartford warbler generally breeds between April and August. Territorial activity may begin as early as February and, as yet, there is no indication of how climate change might affect the breeding season.

Conservation Objectives

The Directive requires Appropriate Assessment to be undertaken *'in view of the site's nature conservation objectives'* and the European Commission states that the purpose of the Natura 2000 network, which includes the Thames Basin Heaths SPA, is *"to preserve biodiversity by maintaining or restoring natural habitats of Community importance"*.

Conservation objectives are a statement of measures which are related to the maintenance or restoration of the individual site, and its contribution towards the favourable conservation status of the natural habitats and/or populations of species of wild fauna and flora for which the site has been selected. The conservation status of a species is defined as favourable when the

population range and natural habitats of the species are stable or increasing and population dynamics indicate the species is able to maintain itself on a long-term basis as a viable component of its natural habitat. Similarly, the conservation status of a habitat is favourable when the range, structure and function, and typical species, thereof, are stable or increasing, i.e. there is sufficient geographical extent of the habitat area to sustain the selected species.

Favourable Conservation Status is a trend-based assessment based on the population as a whole across Europe and not specifically on the Thames Basin Heaths SPA.

The conservation objective for the Thames Basin Heaths SPA is "***Subject to natural change, to maintain, in favourable condition, the habitats for the populations of Annex 1 bird species of European importance, with particular reference to lowland heathland and rotationally managed plantation.***"

The above conservation objective can be broken down into its separate components to assist with the HRA and impact prediction:

- To maintain, in favourable condition, lowland heathland and rotationally managed plantation to provide habitats for Annex I breeding bird populations of woodlark, nightjar and Dartford warbler.
- To maintain the geographical extent of the habitat area.
- To sustain and improve population numbers of woodlark, nightjar and Dartford warbler.

SSSI Condition

Condition assessment is a concept applied to SSSIs rather than SPAs. A condition assessment is an expert judgement of the condition of a site (that is, a site unit) at a moment in time, based upon available information on defined attributes (which may be biological, chemical or physical), for the notified features on the unit at the date of assessment.

This is relevant when carrying out an HRA which explores the impact of a plan or project on site integrity. For example, this can conclude that where existing pressures do not have a current, readily-measurable impact on condition, but the appropriate assessment has nevertheless identified the risk of such effects becoming manifest in the future, the existing pressure is threatening the ability of the site to 'maintain' favourable condition in the long term and a conclusion of 'no adverse effect on integrity' cannot be recorded. In these cases, the condition assessment may currently be recorded as favourable.

The two areas of the Thames Basin Heaths SPA that lie within Bracknell Borough are the Broadmoor to Bagshot Heaths SSSI and the Sandhurst to Owlsmoor Bogs and Heaths (also known as Wildmoor Heath) SSSI. The condition of these SSSIs is shown below.

Table 8.1 Condition of Broadmoor to Bagshot Wood and Heaths SSSI (22 March 2017)

Condition	% of Area
Favourable	65.61%
Unfavourable recovering	34.39%
Unfavourable no change	0%

Condition	% of Area
Unfavourable declining	0%
Destroyed / part destroyed	0%

Table 8.2 Condition of Sandhurst to Owlsmoor Bogs and Heaths (also known as Wildmoor Heath) SSSI (22 November 2013)

Condition	% of Area
Favourable	0%
Unfavourable recovering	100%
Unfavourable no change	0%
Unfavourable declining	0%
Destroyed / part destroyed	0%

Ecological Requirements of the Qualifying Species

- **Dartford warbler** - Large unbroken dwarf-shrub layer of heather with scattered gorse; abundance of shrub layer invertebrates; mix of heather trees and gorse amongst heathland vegetation; reduction in displacement of birds; extent and distribution of habitat area.
- **Nightjar** - Abundance of night flying insects; open ground with predominantly low vegetation bare patches and sparse woodland/scrub cover; reduction in displacement of birds; extent and distribution of habitat area.
- **Woodlark** - Abundance of ground surface invertebrates; mix of shrub/tree cover, short-medium vegetation and bare ground; reduction in displacement of birds; extent and distribution of habitat area.

Description of Potential Adverse Effects on Site Integrity

The Natura 2000 Standard Data Form for the Thames Basin Heaths SPA (dated 25 January 2016)⁽¹¹⁾ identifies the following threats and pressures which may have a negative impact on the site as:

- Air pollution, air-borne pollutants (from inside and outside the SPA)
- Other human intrusions and disturbances (from inside the SPA)
- Outdoor sports and leisure activities, recreational activities (from inside the SPA)
- Biocenotic evolution, succession (from inside the SPA)
- Forest and Plantation management & use (from inside the SPA)

It can be concluded that the first three pressures and threats above (air pollution, human disturbance and recreational activities) have the potential to lead to an adverse effect on the integrity of the SPA as a result of the CLP. The CLP has no effect on the management of SPA and the last two bullet points are therefore irrelevant in this case.

11 Available at <http://jncc.defra.gov.uk/pdf/SPA/UK9012141.pdf>

Appendix 3 Windsor Forest and Great Park SAC

Windsor Forest and Great Park SAC is a large area of continuous woodland. The SAC covers a total area of 1,687.26 hectares. The predominant habitat is mixed woodland (95%). There are also areas of dry grasslands (4.5%) and inland water bodies (0.5%). The soil and geology is a mix of acidic, clay, neutral and sand. The geomorphology and landscape is classified as lowland. The SAC represents old acidophilous oak woods in the south-eastern part of its UK range. It has the largest number of veteran oaks *Quercus spp.* in Britain (and possibly in Europe), a consequence of its long continuity of management. Windsor Forest is listed as the most important site in the UK for fauna associated with decaying timber on ancient trees (oak spp, beech, and other species of tree). It is of importance for its range and diversity of saproxylic invertebrates, including many rare species (e.g. the beetle *Lacon querceus*). The SAC is thought to support the largest of the known populations in the UK of European important Violet click beetle *Limoniscus violaceus*. It is also recognised as having rich fungal assemblages. Atlantic acidophilous beech forest habitat is present at the site and supports many of the important invertebrate and fungi assemblage

Qualifying Features

- H9120 Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrublayer (*Quercion robori-petraeae* or *Illici-Fagenion*); Beech forests on acid soils
- H9190 Old acidophilous oak woods with *Quercus robur* on sandy plains; Dry oak-dominated woodland
- S1079 *Limoniscus violaceus*; Violet click beetle

Conservation Objectives

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.

SSSI Condition

The table below provides information on the condition of the SSSI making up the SAC at 24 May 2016.

Table 9.1 Condition of Windsor Forest and Great Park SSSI (19 July 2013)

Condition	% of Area
Favourable	51.84%
Unfavourable recovering	48.16%
Unfavourable no change	0%
Unfavourable declining	0%
Destroyed / part destroyed	0%

Description of Potential Adverse Effects on Site Integrity

The Natura 2000 Standard Data Form for the Windsor Forest and Great Park SAC (dated 25 January 2016)⁽¹²⁾ identifies the following negative threats, pressures which may have a negative impact on the site as:

- Air pollution, air-borne pollutants (from inside and outside the SAC)
- Invasive non-native species (from inside and outside the SAC)
- Forest and Plantation management and use (inside the SAC)
- Interspecific floral relations (inside the SAC)

It can be concluded that air pollution has the potential to lead to an adverse effect on the integrity of the SPA as a result of the CLP. Given that the preferred option allocations lie at least 2.4km away from the SAC and the CLP has no effect on the management of the SAC, the last three bullet points are irrelevant in this case.

12 Available at <http://jncc.defra.gov.uk/protectedsites/sacselection/n2kforms/UK0012586.pdf>

Appendix 4 Projected Population Arising from the Plan

The Thames Basin Heaths SPA Delivery Framework (2009) sets out an average household size of 2.4 persons per dwelling. Paragraph 5.9 states that '*SANG should be provided on the basis of at least 8ha per 1,000 population. The average occupancy rate should be assumed to be 2.4 persons per dwelling unless robust local evidence demonstrates otherwise*'. Footnote 13 confirms that this is '*Based on the occupancy rate across the 11 affected authorities in 2006*'. Bracknell Forest applies an average household size of 2.31 persons per dwelling in agreement with Natural England.

Therefore, with an estimated net increase of 3,651 dwellings on the proposed allocations plus 696 dwellings on windfall sites the projected population arising from the BFLP is [4,347 x 2.31] **10,042 people.**

Appendix 5 Potential Visits to the SPA Arising from Increased Population

As a general rule, the number of walkers, riders, cyclists and motor cyclists using a heathland will increase with an increase in local population, which would indicate a relationship between housing development and recreational disturbance.

In reality this is not likely to be a linear relationship due to the effect of other complex factors, such as the accessibility of the SPA, education, information available and access to other areas of open space. However, it is necessary to quantify the impact arising from the new residents; therefore a linear correlation has been assumed for the purposes of this assessment.

The following table shows that, on average each resident of Bracknell Forest **visits the SPA 7.44 times a year**. If this is extrapolated forward, and it is assumed this rate of visits will remain the same or decline because no other plans or projects are currently being approved which would increase this level, the number of visits arising from the new population within 5km of the SPA can be calculated. This amount of new visits per annum works out to **an estimated 74,712 visits**. To give a degree of scale to this number, this impact is approximately **1.3%** of the total number of current visits to the SPA.

Table 11.1 Potential Visits to the SPA arising from Plan Allocations

	Calculation / reference	Result
Total number visits to SPA per annum	Liley, Jackson & Underhill-Day, 2012/13	5,902,050*
Total residential properties within 5km of the SPA	Liley, Jackson & Underhill-Day, 2015	316,152
Bracknell Forest Borough residential properties within 5km of the SPA	Bracknell Forest Borough Council GIS Property Gazetteer, July 2017	47,431
Proportion of properties and therefore visits arising from Bracknell Forest Borough	$(47,431 \div 316,152) \times 100\%$	15%
Number of visits arising from Bracknell Forest Borough population	$5,902,050 \times 15\%$	885,308
Borough population	ONS mid-2015 estimate	118,982
Visits per annum per head population	$885,308 \div 118,982$	7.44 (rounded up to 2 d.p.)
New population arising from implementing the plans	$4,347 \text{ dwellings} \times 2.31^{(1)}$ average persons per dwelling	10,042

	Calculation / reference	Result
Visits per annum arising from new population (new pop x visits per head pop)	10,042 x 7.44	74,712
% of new visits relating to current total visitors	74,712 ÷ 5,902,050	1.3%

1. See appendix 4

* In 2005 the total number of visits to the SPA was estimated to be 5,365,500. The 2012/13 visitor survey argued that the initial 2005 visitor survey was not designed to provide an informed estimate of visitor or visit numbers to and across the entirety of the Thames Basin Heaths. Therefore, the 2012/15 visitor survey did not give a total estimate. For the purposes of this exercise, the 2005 figure was increased by 10% in order to derive a more recent estimate. This percentage was applied because the total number of people (adults and children) counted entering the SPA during the survey period was 10% higher than in 2005.

Appendix 6 Screening of Draft BFLP Policies

The table presents the screening assessments for each Draft Local Plan Policy. The green shading in the second column indicates a policy that has been screened out of further consideration due to the absence of any mechanism for an adverse effect on the integrity of the European sites. The orange shading indicates that further discussion is required in this document since a pathway of impact exists that cannot be immediately screened out at this stage.

Table 12.1 Screening of Draft Local Plan Policies

Policy Ref. / Name	Screening Decision (green = screened out, amber = screened in for appropriate assessment)
LP1 Sustainable Development Principles	Positive HRA implications. This policy includes a statement to 'protect and enhance the natural environment' and this includes the protection of European Sites.
LP2 Provision of Housing	<p>Potential HRA implications. This policy sets out the number of additional homes to be provided to 2034. Many of these homes will be located within 7km of the Thames Basin Heaths SPA. The policy also makes reference to windfall sites, the location of which is currently unknown. Unmitigated, this could result in the following pathways of impact linking to the European Sites:</p> <ul style="list-style-type: none"> • Urbanisation from a net increase in dwellings within 400m of the SPA • Recreational pressure from a net increase in dwellings located between 400m to 7km from the SPA and a net increase in car parking within 400m of the SPA. • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
Policy LP3 Sites Allocated for Residential/Mixed Use Development	<p>Potential HRA implications. This policy sets out the sites allocated for residential/mixed use development. These sites all lie outside the 400m SPA buffer zone and are assessed more fully in Appendix 8. Unmitigated, this could result in the following pathways of impact linking to the European Sites:</p> <ul style="list-style-type: none"> • Recreational pressure from a net increase in dwellings located between 400m to 7km from the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP4 Land at the Hideout and Beaufort Park, Nine Mile Ride, Bracknell	<p>Potential HRA implications. This site is located between 400m - 5km of the Thames Basin Heaths SPA. It allows for development including residential dwellings, a community hub and transport infrastructure. It includes measures to avoid and mitigate the impact of residential development upon the SPA but does not make reference to potential significant effects on the integrity of the SPA as a result of non</p>

Policy Ref. / Name	Screening Decision (green = screened out, amber = screened in for appropriate assessment)
	<p>residential development nor any reference to potential significant effects on the integrity of the SAC. Unmitigated the policy could provide for the following impact pathways linking to the European Sites:</p> <ul style="list-style-type: none"> <li data-bbox="501 472 1390 539">• Air quality from an increase in traffic on roads within 200m of the SPA and SAC
<p>LP5 Land South of London Road, East of Bog Lane and West of Swinley Road (Whitmoor Forest), Bracknell</p>	<p>Potential HRA implications. This site is located between 400m - 5km of the Thames Basin Heaths SPA. It allows for development including residential dwellings, a community hub, a school and transport infrastructure. It includes measures to avoid and mitigate the impact of <u>residential</u> development upon the SPA but does not make reference to potential significant effects on the integrity of the SPA as a result of non residential development nor any reference to potential significant effects on the integrity of the SAC. Unmitigated the policy could provide for the following impact pathways linking to the European Sites:</p> <ul style="list-style-type: none"> <li data-bbox="501 981 1390 1048">• Air quality from an increase in traffic on roads within 200m of the SPA and SAC
<p>LP6 Land at Winkfield Row</p>	<p>Potential HRA implications. Part of this site is located between 400m - 5km of the Thames Basin Heaths SPA and part between 5 - 7km of the SPA. It allows for development including residential dwellings, a community hub, a school and transport infrastructure. It includes measures to avoid and mitigate the impact of <u>residential</u> development upon the SPA but does not make reference to potential significant effects on the integrity of the SPA as a result of non residential development nor any reference to potential significant effects on the integrity of the SAC. Unmitigated the policy could provide for the following impact pathways linking to the European Sites:</p> <ul style="list-style-type: none"> <li data-bbox="501 1458 1390 1525">• Air quality from an increase in traffic on roads within 200m of the SPA and SAC
<p>LP7 Land at Hayley Green</p>	<p>Potential HRA implications. Part of this site is located between 400m - 5km of the Thames Basin Heaths SPA and part between 5 - 7km of the SPA. It allows for development including residential dwellings, a school and transport infrastructure. It includes measures to avoid and mitigate the impact of <u>residential</u> development upon the SPA but does not make reference to potential significant effects on the integrity of the SPA as a result of non residential development nor any reference to potential significant effects on the integrity of the SAC. Unmitigated the policy could provide for the following impact pathways linking to the European Sites:</p>

Policy Ref. / Name	Screening Decision (green = screened out, amber = screened in for appropriate assessment)
	<ul style="list-style-type: none"> Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP8 Sites Allocated for Economic Development in Bracknell Town	<p>Potential HRA implications. This policy sets out the sites allocated for employment development in Bracknell Town. These sites all lie outside the 400m SPA buffer zone. Unmitigated, this could result in the following pathways of impact linking to the European Sites:</p> <ul style="list-style-type: none"> Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP9 Strategic and Local Infrastructure	<p>Potential HRA implications. The policy is concerned with the provision of new, or enhancement of existing infrastructure in the borough. It could provide for the following impact pathways linking to the European Sites:</p> <ul style="list-style-type: none"> Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP10 Presumption in Favour of Sustainable Development	<p>Positive HRA implications. This policy reflects the position of the NPPF with regards to the presumption in favour of sustainable development. There is a caveat with respect to 'material considerations', which in the context of the NPPF will explicitly include protection of European sites.</p>
LP11 Protection of Countryside	<p>Potential HRA implications. This policy has the potential to allow for the construction of new buildings in the Countryside according to specific criteria. Whilst it is likely to lead to only a small amount of residential development it could provide for the following pathways of impact linking to the European Sites:</p> <ul style="list-style-type: none"> Urbanisation from a net increase in dwellings within 400m of the SPA Recreational pressure from a net increase in dwellings located between 400m to 5km from the SPA and a net increase in car parking within 400m of the SPA Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP12 Landscape Character and Strategic Gaps	<p>Potential HRA implications. This policy has the potential to allow for the construction of new buildings in strategic gaps. Whilst it is likely to lead to only a small amount of residential development it could provide for the following pathways of impact linking to the European Sites:</p> <ul style="list-style-type: none"> Urbanisation from a net increase in dwellings within 400m of the SPA

Policy Ref. / Name	Screening Decision (green = screened out, amber = screened in for appropriate assessment)
	<ul style="list-style-type: none"> • Recreational pressure from a net increase in dwellings located between 400m to 5km from the SPA and a net increase in car parking within 400m of the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP13 Rural Workers Dwellings	<p>Potential HRA implications. This policy has the potential to lead to a net increase in rural worker's dwellings. Whilst this policy is likely to lead to only a small amount of residential development it could provide for the following impact pathways linking to the European Sites:</p> <ul style="list-style-type: none"> • Urbanisation from a net increase in dwellings within 400m of the SPA • Recreational pressure from a net increase in dwellings located between 400m to 5km from the SPA and a net increase in car parking within 400m of the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP14 Occupancy Conditions	<p>No HRA implications. The policy is concerned with the removal of occupancy conditions. There are no pathways of impact linking to the SPA or SAC present.</p>
LP15 Equestrian Uses	<p>No HRA implications. The policy is concerned with equestrian uses in the Borough and states that the development will not cause harm to a site of nature conservation... that cannot be satisfactorily mitigated. There are no pathways of impact linking to the SPA or SAC present.</p>
LP16 Overarching Green Belt Policy	<p>Potential HRA implications. This policy has the potential to allow for the construction of new buildings in the Green Belt in very special circumstances and limited infilling within the identified settlement boundaries in certain villages. Whilst this policy is likely to lead to only a small amount of residential development it could provide for the following impact pathways linking to the European Sites:</p> <ul style="list-style-type: none"> • Urbanisation from a net increase in dwellings within 400m of the SPA • Recreational pressure from a net increase in dwellings located between 400m to 5km from the SPA and a net increase in car parking within 400m of the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC

Policy Ref. / Name	Screening Decision (green = screened out, amber = screened in for appropriate assessment)
LP17 Developed Site in the Green Belt: Jealott's Hill International Research Centre	<p>Potential HRA implications. This policy has the potential to allow for infilling and/or partial or complete redevelopment according to specific criteria within the built envelope of the Jealott's Hill Research Centre as defined on the Policies Map. Part of the site lies within 5-7km of the SPA. It could therefore provide for the following impact pathways linking to the European Sites:</p> <ul style="list-style-type: none"> • Recreational pressure from a net increase in dwellings located between 400m to 7km from the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP18 Design	<p>No HRA implications. The policy is concerned with achieving a high standard of design and positively contributing to the distinctive character and amenity of the local area. There are no pathways of impact linking to the SPA or SAC present.</p>
LP19 Tall Buildings	<p>No HRA implications. The policy is concerned with where the Council will support proposals for tall buildings. There are no pathways of impact linking to the SPA or SAC present.</p>
LP20 Internal Residential Space Standards	<p>No HRA implications. The policy is concerned with the internal residential space standards. There are no pathways of impact linking to the SPA or SAC present.</p>
LP21 Protection of Existing Housing Stock and Land	<p>Potential HRA implications. This policy is concerned with protecting the existing housing stock, and land already in, or last in, residential use and supports proposals to bring empty homes into use. Unmitigated, this could result in the following pathways of impact linking to the European Sites:</p> <ul style="list-style-type: none"> • Urbanisation from a net increase in dwellings within 400m of the SPA • Recreational pressure from a net increase in dwellings located between 400m to 7km from the SPA and a net increase in car parking within 400m of the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP22 Housing for Older People	<p>No HRA implications. This is a development management policy relating to the provision of Housing for Older People. There are no pathways of impact linking to the SPA or SAC present.</p>
LP23 Self Build and Custom Built Housing	<p>No HRA implications. This is a development management policy requiring large sites to provide a certain amount of self build and custom build housing. There are no pathways of impact linking to the SPA or SAC present.</p>

Policy Ref. / Name	Screening Decision (green = screened out, amber = screened in for appropriate assessment)
LP24 Affordable Housing	No HRA implications. This is a development management policy requiring large sites to provide a certain amount of affordable homes. There are no pathways of impact linking to the SPA or SAC present.
LP25 Housing Mix – Tenure, Size and Accessibility	No HRA implications. This policy relates to housing mix. There are no pathways of impact linking to the SPA or SAC present.
LP26 Travelling Populations	<p>Potential HRA implications. This policy makes provision for five additional gypsy and traveller pitches to meet the accommodation needs of travelling populations in the borough. The locations of these pitches are not defined in the policy however, unmitigated, this could result in the following pathways of impact linking to the European Sites:</p> <ul style="list-style-type: none"> • Urbanisation from a net increase in dwellings within 400m of the SPA • Recreational pressure from a net increase in dwellings located between 400m to 7km from the SPA and a net increase in car parking within 400m of the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP27 Employment Areas	<p>Potential HRA implications. This policy aims to flexibly accommodate the changing needs of business over the coming years including development that will enable existing businesses to expand within the existing employment areas. There is one Employment Area which lies within 400m of the SPA (Broadmoor). Unmitigated, this could result in the following pathways of impact linking to the European Sites:</p> <ul style="list-style-type: none"> • Recreational pressure from a net increase in car parking within 400m of the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP28 Employment Development Outside Employment Areas	<p>Potential HRA implications. This policy sets criteria for the support of employment development outside employment areas. It also includes appropriate intensification, redevelopment and upgrading of an existing employment site or premises to help meet the forecast demand over the plan period and to respond to modern business needs. Unmitigated, this could result in the following pathways of impact linking to the European Sites:</p>

Policy Ref. / Name	Screening Decision (green = screened out, amber = screened in for appropriate assessment)
	<ul style="list-style-type: none"> • Recreational pressure from a net increase in car parking within 400m of the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP29 Smaller Businesses	<p>Potential HRA implications. This policy aims to support development proposals to enable smaller businesses to operate and expand. Unmitigated, this could result in the following pathways of impact linking to the European Sites:</p> <ul style="list-style-type: none"> • Recreational pressure from a net increase in car parking within 400m of the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP30 Development in Bracknell Town Centre	<p>Potential HRA implications. The policy sets out criteria of support for the provision of a mix of uses including retail, residential, employment, recreational, leisure, civic, cultural and health facilities and associated infrastructure. Unmitigated, this could result in the following pathways of impact linking to the European Sites:</p> <ul style="list-style-type: none"> • Recreational pressure from a net increase in dwellings located between 400m to 5km from the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP31 Out of Centre Development	<p>Potential HRA implications. The policy sets out criteria of support for the provision out of centre development. Unmitigated, this could result in the following pathways of impact linking to the European Sites:</p> <ul style="list-style-type: none"> • Recreational pressure from a net increase in car parking within 400m of the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP32 Changes of Use Within Defined Retail Centres	<p>Potential HRA implications. This policy refers to the changes of use within defined retail centres. A small part of the eastern edge of the Bagshot Road Superstore lies within 400m of the SPA. A small part of the northern edge of the Crowthorne Centre also lies within 400m of the SPA. Unmitigated, this could result in the following pathways of impact linking to the European Sites:</p> <ul style="list-style-type: none"> • Recreational pressure from a net increase in car park spaces within 400m of the SPA

Policy Ref. / Name	Screening Decision (green = screened out, amber = screened in for appropriate assessment)
	<ul style="list-style-type: none"> Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP33 Advertisements and Shop Fronts	No HRA implications. The policy is concerned with advertisements and shop fronts. There are no pathways of impact linking to the SPA or SAC present.
LP34 Protection of Community Facilities and Services	<p>Potential HRA implications. This policy relates to the protection of community facilities and services. Unmitigated, this could result in the following pathways of impact linking to the European Sites:</p> <ul style="list-style-type: none"> Recreational pressure from a net increase in car parking within 400m of the SPA
LP35 Protection and Enhancement of the Historic Environment	No HRA implications. The policy is concerned with conservation and enhancement of heritage assets and their settings in the borough. There are no pathways of impact linking to the SPA or SAC present.
LP36 Biodiversity	Positive HRA implications. The purpose of the policy is to ensure that development in the Borough should achieve no net loss and wherever possible a net gain of biodiversity.
LP37 Designated Nature Conservation and Geological Sites	Positive HRA implications. The purpose of the policy is to protect, maintain and enhance the Borough's designated nature conservation sites which includes European Sites.
LP38 Green Infrastructure	Positive HRA implications. The purpose of the policy is to protect and enhance the green infrastructure network. Improvements to the green infrastructure network throughout the Borough could help to protect the SPA from recreational pressure if people are able to undertake longer walks nearer to their homes rather than visiting the SPA.
LP39 Thames Basin Heaths Special Protection Area	Positive HRA implications. This policy states that new development which, either alone or in combination with other plans or projects, is likely to have a significant adverse effect on the ecological integrity of the Thames Basin Heaths Special Protection Area (SPA) without appropriate avoidance and mitigation measures will be refused. The avoidance and mitigation measures are set out in some detail but there is no specific reference to the potential air quality effects on the SPA. More information on this is contained in Policy LP43 Pollution and Hazards.
LP40 Flood Risk	No HRA implications. The policy is concerned with managing flood risk. There are no pathways of impact linking to the SPA or SAC present.

Policy Ref. / Name	Screening Decision (green = screened out, amber = screened in for appropriate assessment)
LP41 Sustainable Drainage Systems (SuDS)	No HRA implications. The policy is concerned with Sustainable Drainage Systems. There are no pathways of impact linking to the SPA or SAC present.
LP42 Addressing Climate Change through Renewable Energy and Sustainable Construction	No HRA implications. The policy is concerned with addressing climate change through renewable energy and sustainable construction in the borough. There are no pathways of impact linking to the SPA or SAC present.
LP43 Pollution and Hazards	Positive HRA implications. Part of the policy is to ensure that development proposals do not either individually or cumulatively have an adverse effect on the quality of the natural environment or landscape, either during the construction phase or when completed. The supporting text states ' <i>Pollution that affects air quality can also impact upon biodiversity and protected habitats, such as Special Protection Areas and Special Areas of Conservation. A precautionary approach will be taken to such areas to ensure they are not subject to adverse harm</i> '.
LP44 Development of Land Potentially Affected by Contamination	Potential HRA implications. This policy sets out criteria where development proposals will be supported on, or near sites which are known, or are suspected to be, potentially contaminated, or proposals for sensitive land uses. Unmitigated, this could result in the following pathways of impact linking to the European Sites: <ul style="list-style-type: none"> • Urbanisation from a net increase in dwellings within 400m of the SPA • Recreational pressure from a net increase in dwellings located between 400m to 7km from the SPA and a net increase in car parking within 400m of the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP45 Strategic Transport Principles	Potential HRA implications. This policy seeks to minimise and mitigate negative impacts on the highways network and road safety as a result of development proposals. Although some of the principles may lead to positive HRA implications, improvements to the capacity to the public highway network has the potential to alter traffic flows (and thus air quality) along roads within 200m of the SPA and SAC, thus potentially resulting in a likely significant effect upon the SPA and SAC. This policy could therefore provide for the following impact pathways linking to the European Sites: <ul style="list-style-type: none"> • Recreational pressure from a net increase in car parking within 400m of the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC

Policy Ref. / Name	Screening Decision (green = screened out, amber = screened in for appropriate assessment)
LP46 Assessing, Minimising and Mitigating the Transport Impacts of Development	<p>Potential HRA implications. Although part of the policy may lead to positive HRA implications, mitigation measures designed to overcome transport impacts of development have the potential to alter traffic flows (and thus air quality) along roads within 200m of the SPA and SAC, thus potentially resulting in a likely significant effect upon the SPA and SAC. This policy could therefore provide for the following impact pathways linking to the European Sites:</p> <ul style="list-style-type: none"> • Recreational pressure from a net increase in car parking within 400m of the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP47 Transport Infrastructure Provision	<p>Potential HRA implications. Although part of the policy has positive HRA implications (by the provision of walking, cycling and public transport infrastructure potentially leading to a decrease in air pollution from vehicle emissions) the provision of transport infrastructure could provide for the following impact pathways linking to the European Sites:</p> <ul style="list-style-type: none"> • Recreational pressure from a net increase in parking spaces within 400m of the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP48 Travel Plans	<p>Positive HRA implications. The purpose of the policy is to ensure that travel plans are implemented which seek to mitigate adverse transport impacts and reduce the need to travel. This policy could reduce air pollution which has the potential to adversely effect the integrity of the SPA and SAC.</p>
LP49 Parking	<p>Potential HRA implications. The policy supports development which is in accordance with current parking standards. It has the potential to lead to an increase in car parking within 400m of the SPA. It could therefore provide for the following impact pathways linking to the European Sites:</p> <ul style="list-style-type: none"> • Recreational pressure from a net increase in parking spaces within 400m of the SPA • Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP50 Play, Open Space and Sports Provision	<p>Potential HRA implications. The provision of play, open space and sports facilities could provide for the following impact pathways linking to the European Sites:</p> <ul style="list-style-type: none"> • Recreational pressure from a net increase in parking spaces within 400m of the SPA

Policy Ref. / Name	Screening Decision (green = screened out, amber = screened in for appropriate assessment)
	<ul style="list-style-type: none"> <li data-bbox="501 300 1393 367">Air quality from an increase in traffic on roads within 200m of the SPA and SAC
LP51 Standards for Open Space of Public Value	No HRA implications. The policy is concerned with Standards for Open Space of Public Value. There are no pathways of impact linking to the SPA or SAC present.

Appendix 7 Screening of Draft BFLP Site Allocations

The table presents the screening assessments for each Draft Local Plan Site Allocation. No sites have been identified as leading to urbanisation effects on the SPA as they do not lie within 400m of the European Site. However all sites have the potential to lead to a likely significant effect upon the SPA and SAC. This is because they have the potential to reduce air quality (as a result of an increase in traffic on roads within 200m of the SPA and SAC) and to lead to a likely significant effect on the SPA as a result of recreational effects (due to a net increase in dwellings within 400m - 7km of the SPA). Therefore no site allocations can be screened out. Further discussion is required in this document since a pathway of impact exists that cannot be immediately screened out at this stage. See section 4 which proposes avoidance and mitigation measures for air quality effects on the SPA and SAC and recreational effects on the SPA.

Table 13.1 Screening of Draft BFLP Site Allocations

Site Ref.	Site Name	Relevant SPA Buffer Zone	Screening Decision
Large sites (1ha or over) proposed for allocation			
Bin1	Land north of Tilehurst Lane	5-7km	Recreational effects on SPA Air quality effects on SPA and SAC
Bin5	Land south of Forest Road and east of Cheney Close	Part within 5km most 5-7km	
Bin6	Land south of Emmets Park and east of Cressex Close	400m - 5km	
Bin11	Popes Farm, Murrell Hill Lane	400m - 5km	
Cluster 3 (Bra3 & 4)	Land at the Hideout and Beaufort Park, Nine Mile Ride	400m - 5km	
Bra6	Bracknell and Wokingham College, Wick Hill, Sandy Lane	400m - 5km	
Bra7	Town Square, The Ring	400m - 5km	
Bra13	Coopers Hill Youth and Community Centre, Crowthorne Road North	400m - 5km	
Sand5	Land east of Wokingham Road and south of Dukes Ride (Derby Field)	400m - 5km	
War9	Land north of Herschel Grange	400m - 5km	
War10	Land north of Newhurst Gardens	400m - 5km	

Site Ref.	Site Name	Relevant SPA Buffer Zone	Screening Decision
Cluster7 (War13, 14, 15, 16 & 22)	Land at Hayley Green	400m - 5km	
Cluster 5 (Wink8-14 and 35)	Land at Winkfield Row	Part within 5km part within 5-7km	
Wink15	Whitegates, Mushroom Castle, Chavey Down Road	400m - 5km	
Wink20	Former landfill site, London Road	400m - 5km	
Wink22	Land south of London Road, east of Bog Lane and west of Swinley Road (Whitmoor Forest)	400m - 5km	
Wink34	Land to the rear of Forest View and Oriana, Longhill Road and west of Fern Bungalow, London Road (extension of site allocated through Policy SA3 of the SALP)	400m - 5km	
Medium sites (less than 1ha and with 5 (net) dwellings or more) proposed for allocation			
Bin7	Land to south of Foxley Lane and west of Whitehouse Farm Cottage, Murrell Hill Lane	400m - 5km	Recreational effects on SPA Air quality effects on SPA and SAC
Bin10	Popes Manor, Murrell Hill Lane	400m - 5km	
Bin12	Land south of London Road (Eastern Field)	400m - 5km	
Bra11	Bus Depot (Coldborough House), Market Street	400m - 5km	
Bra12	Former Bus Depot, Market Street	400m - 5km	
Bra14	Jubilee Gardens and the British Legion Club, The Ring	400m - 5km	
Bra15	Land east of Station Way and north of Church Road (Southern Gateway)	400m - 5km	

Appendix 8 Provisional Identification of SANG Solution for Residential Development Sites

Table 14.1 Provisional SANG Solution for Large sites (1ha or over) proposed for allocation

Site Ref	Site Name	Suggested Dwelling Capacity (net)	SPA Buffer Zone	Normal Type of SANG Mitigation Required ⁽¹⁾	Minimum SANG Standard	Provisional SANG	Notes
Bin1	Land north of Tilehurst Lane	45	5-7km	Strategic SANG contribution	2ha/1,000	Contribution towards new Council strategic SANGs or Moss End, Wellers Lane SANG or another to be identified by the planning application stage.	Purchase SANG capacity from new Council strategic SANGs coming forward in a revised SPA SPD or from 3rd party SANGs.
Bin5	Land south of Forest Road and east of Cheney Close	40	Part within 5km most within 5-7km	Strategic SANG contribution	8ha/1,000 and 2ha/1,000	Contribution towards Blue Mountain excess SANG capacity.	Purchase SANG capacity from new Council strategic SANGs coming forward in a revised SPA SPD or from 3rd party SANGs.
Bin6	Land south of Emmets Park and east of Cressex Close	34	400m-5km	Strategic SANG contribution	8ha/1,000	Contribution towards Blue Mountain excess SANG capacity.	Purchase SANG capacity from new Council strategic SANGs coming forward in a revised SPA SPD or from 3rd party SANGs.

Site Ref	Site Name	Suggested Dwelling Capacity (net)	SPA Buffer Zone	Normal Type of SANG Mitigation Required ⁽¹⁾	Minimum SANG Standard	Provisional SANG	Notes
Bin11	Popes Farm, Murrell Hill Lane	22	400m-5km	Strategic SANG contribution	8ha/1,000	Make a financial contribution to the SANG at Amen Corner North or Council strategic SANG capacity.	Amen Corner North SANG to be transferred to the Council so payment to BFC or another Council SANG coming forward in a revised SPA SPD.
Cluster 3 (Bra3 & 4)	Land at the Hideout and Beaufort Park, Nine Mile Ride	570	400m-5km	Bespoke SANG	8ha/1,000	The site can accommodate the SANG on-site which will also link to the TRL SANG.	Provide land in-kind. Minimum amount of SANG required = 10.53ha
Bra6	Bracknell and Wokingham College, Wick Hill, Sandy Lane	67	400m-5km	Strategic SANG contribution	8ha/1,000	Payment towards Council Strategic SANGs or Moss End, Wellers Lane SANG or another to be identified by the planning application stage.	Purchase SANG capacity from new Council strategic SANGs coming forward in a revised SPA SPD or from 3rd party SANGs.
Bra7	Town Square, The Ring	200	400m-5km	Bespoke SANG	8ha/1,000	Town centre site so needs an off-site SANG solution. Payment towards Council Strategic SANGs or Moss End, Wellers Lane SANG or	Purchase SANG capacity from new Council strategic SANGs coming forward in a revised SPA SPD or from 3rd party SANGs.

Site Ref	Site Name	Suggested Dwelling Capacity (net)	SPA Buffer Zone	Normal Type of SANG Mitigation Required ⁽¹⁾	Minimum SANG Standard	Provisional SANG	Notes
						another to be identified by the planning application stage.	
Bra13	Coopers Hill Youth and Community Centre, Crowthorne Road North	69	400m-5km	Strategic SANG contribution	8ha/1,000	Payment towards Council Strategic SANGs or Moss End, Wellers Lane SANG or another to be identified by the planning application stage.	Purchase SANG capacity from new Council strategic SANGs coming forward in a revised SPA SPD or from 3rd party SANGs.
Sand5	Land east of Wokingham Road and south of Dukes Ride (Derby Field)	217	400m-5km	Bespoke SANG	8ha/1,000	Off-site bespoke SANG by providing land in Wellington College ownership or another SANG in the vicinity of the site.	Purchase / provide in-kind land off-site at a minimum of 4.01ha.
War9	Land north of Herschel Grange	33	400m-5km	Strategic SANG contribution	8ha/1,000	Payment towards new Council strategic SANGs or Moss End, Wellers Lane SANG or another to be identified by the planning application stage.	Purchase SANG capacity from new Council strategic SANGs coming forward in a revised SPA SPD or from 3rd party SANGs.

Site Ref	Site Name	Suggested Dwelling Capacity (net)	SPA Buffer Zone	Normal Type of SANG Mitigation Required ⁽¹⁾	Minimum SANG Standard	Provisional SANG	Notes
War10	Land north of Newhurst Gardens	96	400m-5km	Strategic SANG contribution	8ha/1,000	Payment towards new Council strategic SANGs or Moss End, Wellers Lane SANG or another to be identified by the planning application stage.	Purchase SANG capacity from new Council strategic SANGs coming forward in a revised SPA SPD or from 3rd party SANGs.
Cluster 7 (War13, 14, 15, 16 & 22)	Land at Hayley Green	235	400m-5km	Bespoke SANG	8ha/1,000	Bespoke solution required - new Council strategic SANGs or Moss End, Wellers Lane SANG or another to be identified by the planning application stage.	Purchase SANG capacity from new Council strategic SANGs coming forward in a revised SPA SPD or from 3rd party SANGs at a minimum of 4.34ha.
Cluster 5 (Wink8-14 and 35)	Land at Winkfield Row	500	Part within 5km part within 5-7km	Bespoke SANG	8ha/1,000 and 2ha/1,000	Bespoke SANG on Land at Winkfield Triangle.	Provide in-kind land of at least 9.24 hectares on-site SANG..
Wink15	Whitegates, Mushroom Castle, Chavey Down Road	48	400m-5km	Strategic SANG contribution	8ha/1,000	Payment towards new Council strategic SANGs or Moss End, Wellers Lane SANG or another to be identified by the planning application stage.	Purchase SANG capacity from new Council strategic SANGs coming forward in a revised SPA SPD or from 3rd party SANGs.

Site Ref	Site Name	Suggested Dwelling Capacity (net)	SPA Buffer Zone	Normal Type of SANG Mitigation Required ⁽¹⁾	Minimum SANG Standard	Provisional SANG	Notes
Wink20	Former landfill site, London Road	278	400m-5km	Bespoke SANG	8ha/1,000	Payment towards new Council strategic SANGs or Moss End, Wellers Lane SANG or another to be identified by the planning application stage.	A minimum of 5.17ha of off-site SANG required.
Wink22	Land south of London Road, east of Bog Lane and west of Swinley Road (Whitmoor Forest)	450	400m-5km	Bespoke SANG	8ha/1,000	Bespoke SANG.	Provide in-kind land (within Crown Land holding to the south of the site) of a minimum 8.32 hectares.
Wink34	Land to the rear of Forest View and Oriana, Longhill Road and west of Fern Bungalow, London Road (extension of site allocated)	6	400m-5km	Strategic SANG contribution	8ha/1,000	Payment towards Council Strategic SANGs.	Purchase SANG Capacity from the Council.

Site Ref	Site Name	Suggested Dwelling Capacity (net)	SPA Buffer Zone	Normal Type of SANG Mitigation Required ⁽¹⁾	Minimum SANG Standard	Provisional SANG	Notes
	through Policy SA3 of the SALP)						

1. if SANG capacity available

Table 14.2 Provisional SANG Solution for Medium sites (less than 1ha and with 5 (net) dwellings or more) proposed for allocation

Site Ref	Site Name	Suggested Dwelling Capacity (net)	SPA Buffer Zone	Normal Type of SANG Mitigation Required ⁽¹⁾	SANG standard	Provisional SANG	Notes
Bin7	Land to south of Foxley Lane and west of Whitehouse Farm Cottage, Murrell Hill Lane	5	400m-5km	Strategic SANG contribution	8ha/1,000	Payment towards Council Strategic SANGs.	Purchase SANG Capacity from the Council.
Bin10	Popes Manor, Murrell Hill Lane	13	400m-5km	Strategic SANG contribution	8ha/1,000	Bespoke SANG - extension to Popes Meadow Strategic SANG.	Provide in-kind land. Opportunity to extend Popes Meadow strategic SANG and recreate former estate park land.

Site Ref	Site Name	Suggested Dwelling Capacity (net)	SPA Buffer Zone	Normal Type of SANG Mitigation Required ⁽¹⁾	SANG standard	Provisional SANG	Notes
Bin12	Land south of London Road (Eastern Field)	8	400m-5km	Strategic SANG contribution	8ha/1,000	Make a financial contribution to the SANG at Amen Corner North or other Council strategic SANGs.	Amen Corner North SANG to be transferred to the Council so payment to BFC or another Council SANG coming forward in a revised SPA SPD.
Bra11	Bus Depot (Coldborough House), Market Street	212	400m-5km	Off site Bespoke SANG	8ha/1,000	Town centre site so needs an off site SANG solution. Payment towards new Council strategic SANGs or Moss End, Wellers Lane SANG or another to be identified by the planning application stage.	Purchase SANG capacity from new Council strategic SANGs coming forward in a revised SPA SPD or from 3rd party SANGs.
Bra12	Former Bus Depot, Market Street	92	400m-5km	Strategic SANG contribution	8ha/1,000	Payment towards new Council strategic SANGs or Moss End, Wellers Lane SANG or another to be identified by the planning application stage.	Purchase SANG capacity from new Council strategic SANGs coming forward in a revised SPA SPD or from 3rd party SANGs.
Bra14	Jubilee Gardens and the British Legion Club, The Ring	144	400m-5km	Off site Bespoke SANG	8ha/1,000	Town centre site so needs an off site SANG solution. Payment towards	Purchase SANG capacity from new Council strategic SANGs coming

Site Ref	Site Name	Suggested Dwelling Capacity (net)	SPA Buffer Zone	Normal Type of SANG Mitigation Required ⁽¹⁾	SANG standard	Provisional SANG	Notes
						new Council strategic SANGs or Moss End, Wellers Lane SANG or another to be identified by the planning application stage.	forward in a revised SPA SPD or from 3rd party SANGs.
Bra15	Land east of Station Way and north of Church Road (Southern Gateway)	267	400m-5km	Off site Bespoke SANG	8ha/1,000	Town centre site so needs an off site SANG solution. Payment towards new Council strategic SANGs or Moss End, Wellers Lane SANG or another to be identified by the planning application stage.	Purchase SANG capacity from new Council strategic SANGs coming forward in a revised SPA SPD or from 3rd party SANGs.

1. if SANG capacity available

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Nepali

यस प्रचारको सक्षेपं वा सार निचोड चाहिं दिइने छ ठूलो अक्षरमा, ब्रेल वा क्यासेट सून्नको लागी । अरु भाषाको नक्कल पनि हासिल गर्न सकिने छ । कृपया सम्पर्क गनुहोला ०१३४४ ३५२००० ।

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