

Habitats Regulations Appropriate Assessment Warfield SPD (Final)

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1 Introduction

Habitat Regulations Assessment

1.1 This report is a Habitats Regulations Assessment undertaken by Bracknell Forest Council, as the local planning authority and competent body, in respect of the Warfield Supplementary Planning Document (SPD).

1.2 The competent authority can only adopt the plan once it has ascertained that this will not adversely affect the integrity of the Thames Basin Heaths SPA.⁽¹⁾

1.3 Thames Basin Heaths SPA mitigation and avoidance measures comply with current standards:

- Bracknell Forest Council Core Strategy DPD (February 2008) Policy CS14: Thames Basin Heaths Special Protection Area
- South East Plan (May 2009) Policy NRM6: Thames Basin Heaths Special Protection Area and its evidence base.
- Thames Basin Heaths SPA Delivery Framework (February 2009) endorsed by the Thames Basin Heaths Joint Strategic Partnership Board.
- Bracknell Forest Council Thames Basin Heaths SPA Technical Background Document to the Core Strategy Development Plan Document (DPD) (June 2007).
- Bracknell Forest Council Limiting the Impact of Development SPD (July 2007) (as revised in July 2011)
- Other evidence and emerging guidance.

1.4 The Habitat Regulations Assessment has been prepared on the basis of information currently available on the nature of the plan in relation to the Thames Basin Heaths SPA. Professional judgement has been applied to interpret this information within the context of current guidance.

Warfield SPD

1.5 The Warfield SPD sets out (according to Core Strategy Policy CS5) the planning framework for a large residential urban extension to the north of the neighbourhoods of Whitegrove and Quelm Park in the Parish of Warfield. It includes both the proposed broad approach, e.g. sustainable mixed-use development, and the development principles against which planning applications would be judged.

1.6 Information relating to the Warfield SPD can be found on the Bracknell Forest Council website at <http://www.bracknell-forest.gov.uk/warfield>

Habitats Regulations

1.7 The Conservation of Habitats and Species Regulations (2010), 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 Directive” (Council

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 92/43/EEC) and protect areas classified under the EC Birds Directive (Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version) or Council Directive 2009/147/EC. 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.

1.8 Under the EC Birds Directive, Member States are required to take special measures to conserve the habitats of certain rare species of birds 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.

1.9 Under the Habitats Regulations, competent authorities have a duty to ensure that all the activities they regulate have no adverse effect on the integrity of any of the Natura 2000 sites. Regulation 61 of the Habitats Regulations requires the competent authority to assess the possible effects of the various proposals on, or potentially affecting, any Natura 2000 sites. This includes screening for potential impacts on European sites. If there is a probability or a risk that there will be significant effects (having regard to the site's conservation objectives) then the plan or project must be subject to an Appropriate Assessment of its implications on the site (Regulation 61(1)). In the light of the conclusions of the assessment the competent authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned (Regulation 61(5)).

1.10 It is for the decision-taker to consider the likely and reasonably foreseeable effects and to ascertain that the plan **will not have an adverse effect on the integrity of the site** before it may be adopted.

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

Assessment of implications for European sites and European offshore marine sites 61.—(1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which—

(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 that site,

must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.

(5) In the light of the conclusions of the assessment, and subject to regulation 62 (considerations of overriding public interest), the competent authority may agree to the plan or project 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).

Screening Opinion

1.12 Screening is required to examine the likely effects of a project or plan, either alone or in-combination with other projects or plans, upon a Natura 2000 site. The screening considers whether it can be objectively concluded that the effects will not be significant and fulfils the requirements of Regulation 61(1).

1.13 In 2007, Bracknell Forest Council undertook a Habitats Regulations Assessment Screening Exercise⁽²⁾ to examine the likely effects of the Core Strategy and the Site Allocations DPDs on the Thames Basin Heaths SPA and the Windsor Forest and Great Park Special Area of Conservation (SAC).

1.14 The screening opinion indicated that the Core Policies relating to housing provision and the areas for future growth (such as CS5 - Land North of Whitegrove and Quelm Park (Parish of Warfield)), were likely to have a significant effect on the Thames Basin Heaths SPA, and therefore require a full Appropriate Assessment (AA). No significant effect was identified on the integrity of the Windsor Forest and Great Park SAC or any other Natura 2000 sites.

Steps in Appropriate Assessment

1.15 The following Appropriate Assessment consists of five steps as outlined below:

Table 1.1 Steps in Appropriate Assessment

Steps	Task
1	Collect adequate information to complete the assessment – to include a description of the plan and the baseline conditions of the Natura 2000 site.
2	Predict the likely effects of the plan.
3	Assess whether the predicted effects will have adverse effects on the integrity of the site, 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.

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

2 Step 1: Collection of Adequate Information to Identify Adverse Effects

Characteristics Which May Affect the Site

2.1 The Warfield SPD could potentially give rise to an adverse effect on the Thames Basin Heaths SPA. New residential development within 5km of the Thames Basin Heaths SPA will lead to an increased population surrounding the SPA. This could lead to an increase in recreational effects on the integrity of the SPA.

In Combination Effect

2.2 The Appropriate Assessment must be considered 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. Article 6(3) of the Habitats Directive addresses this by requiring AA to take into account the combination of effects from other plans or projects. The intention of this combination provision is to take account of cumulative impacts, and these will often only occur over time.

2.3 Guidance from the EC⁽³⁾ 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.

2.4 The screening exercise identified that the relevant plans with the potential to affect the SPA are those which provide residential dwellings, which in turn increase the population surrounding the SPA and increase recreation on the heathland. The (proposed) plans, that are considered likely to affect the SPA, are:

- The Bracknell Forest Core Strategy Development Plan Document (DPD) (February 2008)
- The Bracknell Forest Site Allocations Development Plan Document (DPD) (draft)
- The Bracknell Forest Amen Corner Supplementary Planning Document (SPD) (March 2010)
- Other Thames Basin Heaths affected Local Authority's Local Development Frameworks

2.5 The South East Plan sets out the regional planning policies for the South East. It was approved in 2009 and provides the vision for planning for the region up to 2026. Whilst this document currently forms part of the development plan, the Government has clearly stated its intention to revoke Regional Strategies. The Localism Bill will allow this to happen and is currently progressing through Parliament. It is possible that Royal Assent will be in April 2012. It is unlikely that the South East Plan will form part of the development plan on adoption of the SADPD.

2.6 Bracknell Forest Council is involved in partnership working through the Thames Basin Heaths Joint Strategic Partnership. A Delivery Framework has been produced by the Joint Strategic Partnership Board (JSPB) to guide planning authorities in the local implementation of avoidance and mitigation measures, and ensure a consistent approach to mitigation across the affected area.

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

Core Strategy DPD

2.7 Bracknell Forest Council's adopted Core Strategy DPD includes the following policies:

- CS3: Bracknell Town Centre (a mixed use development on contribute to the vision and function of Bracknell Town Centre)
- CS4: Land at Amen Corner (land identified for a mixed use development)
- CS5: Land North of Whitegrove and Quelm Park (now known as Warfield) - (land identified for a mixed use development)
- Policy CS14:Thames Basin Heaths Special Protection Area, which states:

Core Policy CS14: Thames Basin Heaths Special Protection Area

The Council will carry out an assessment of the effects of a development proposal on the conservation objectives of the Thames Basin Heaths Special Protection Area (SPA) where there is a risk of the proposal having a significant impact on the integrity of the site, either alone or in-combination with other proposals. Proposals leading to a net increase in residential dwellings within a straight-line distance of 5 kilometres from the SPA boundary are likely to have a significant effect. The Council will not permit development which, either alone or in-combination with other development, has an adverse effect upon the integrity of the SPA.

Development outside of the 400 metre zone will be permitted where it can be demonstrated that it can remove any adverse effect by contributing towards avoidance and mitigation measures in line with the SPA Technical Background Document.

The effective avoidance and/or mitigation of any identified adverse effects must be demonstrated and secured prior to the approval of the development.

2.8 The Thames Basin Heaths SPA Technical Background Document to the Core Strategy (June 2007) contains the Appropriate Assessment of the Core Strategy and the Avoidance and Mitigation Strategy,⁽⁴⁾ designed to ensure that residential development between 400 metres and 5 kilometres can go ahead without an adverse effect on the integrity of the SPA. The consideration of bespoke solutions is also addressed within the Avoidance and Mitigation Strategy. Natural England has agreed that they will have no cause to object to applications for residential development where they are in conformity with the Avoidance and Mitigation Strategy.

Bracknell Town Centre

2.9 In summer 2010, the Council received an extension of time application with respect to Bracknell Town Centre. A further HRA was undertaken, approved by Natural England and published in June 2010.⁽⁵⁾ Avoidance and mitigation measures have been agreed which allows the local authority to conclude that the development will not give rise to an adverse effect on the integrity of the SPA.

4 See also BFC Limiting the Impact of Development Supplementary Planning Document (July 2007) as amended on 5 July 2011. This SPA Avoidance and Mitigation Strategy is in the process of being updated through a Thames Basin Heaths SPA Avoidance and Mitigation SPD.

5 See Habitats Regulations Appropriate Assessment Bracknell Town Centre Redevelopment (June 2010).

Amen Corner Supplementary Planning Document (SPD)

2.10 The Amen Corner SPD was adopted in March 2010. An Appropriate Assessment of the SPD was undertaken and consulted on with the result that the SPD now contains the Development Principle AC7: Thames Basin Heaths Special Protection Area. Avoidance and mitigation measures have been agreed which allows the local authority to conclude that the development will not give rise to an adverse effect on the integrity of the SPA.

Other Thames Basin Heaths affected Local Authority's Local Development Frameworks.

2.11 Each of the affected local authorities has or is in the process of producing a Core Strategy DPD, which will be accompanied by an Appropriate Assessment identifying potential adverse impacts and, where possible, avoiding or removing these.

2.12 If all of the LDF policies and appropriate assessments can conclude no adverse effect, each local authority has addressed its own effects arising from an increased population.

Characteristics and Description of the Thames Basin Heaths SPA

2.13 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.

2.14 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.

Conservation Objectives

2.15 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*".

2.16 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.

2.17 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.

2.18 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.

2.19 This is relevant when carrying out an AA 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.

Qualifying Species

2.20 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*)

2.21 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.

2.22 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.***"

2.23 The above conservation objective can be broken down into its separate components to assist with the Appropriate Assessment 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.

Non Qualifying Species of Interest

2.24 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

2.25 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.

SSSI Condition

2.26 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 2.1 Condition of Broadmoor to Bagshot Wood and Heaths SSSI (September 2011)

Condition	% of Area
Favourable	65.61%
Unfavourable recovering	34.39%
Unfavourable no change	0%
Unfavourable declining	0%
Destroyed / part destroyed	0%

Table 2.2 Condition of Sandhurst to Owlsmoor Bogs and Heaths (also known as Wildmoor Heath) SSSI (September 2011)

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 or 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 or 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 or displacement of birds; extent and distribution of habitat area.

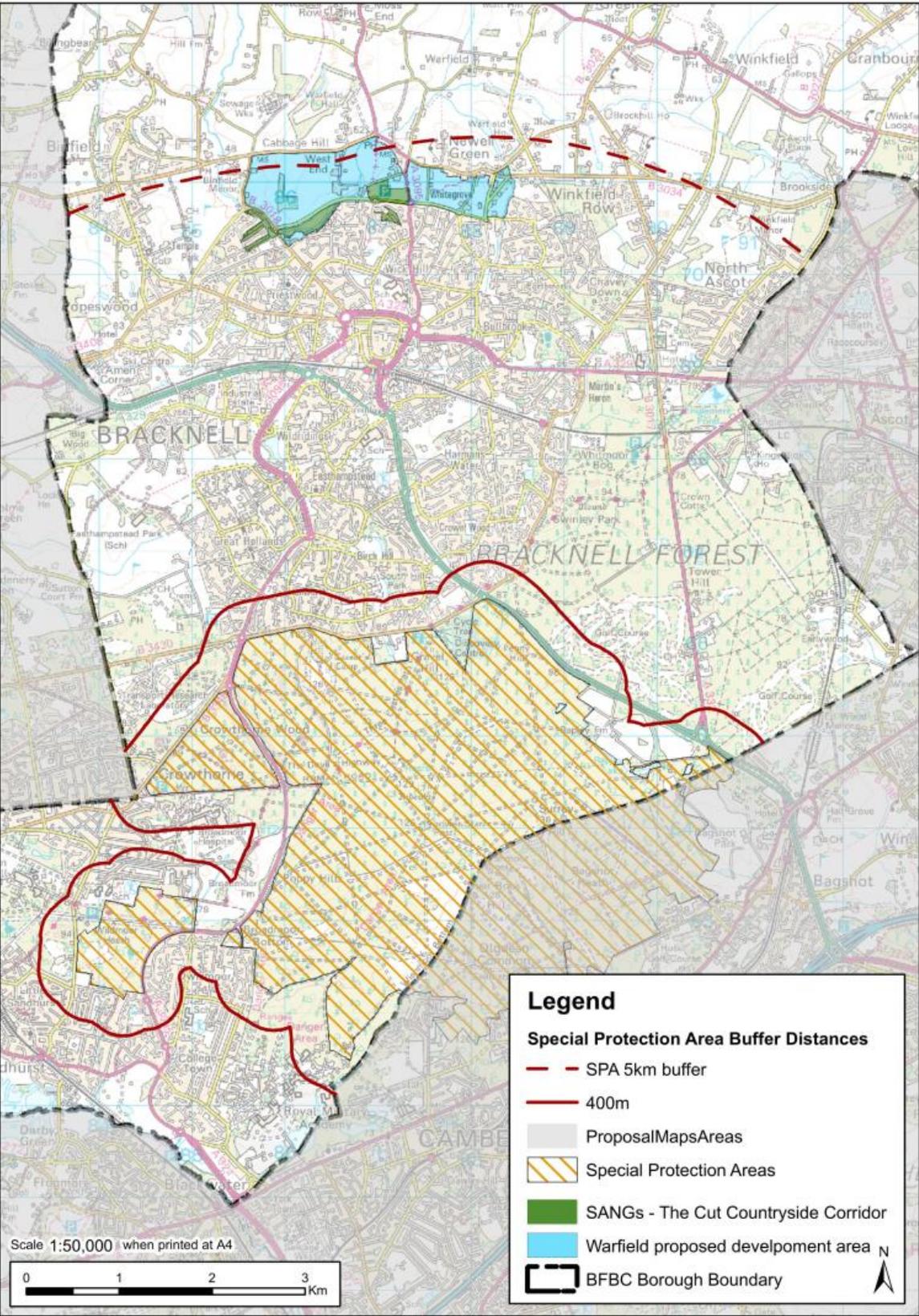
Relationship Between the Plan Area and the SPA

2.27 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 Thames Basin Heaths 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). The nearest part of the SPA is Broadmoor to Bagshot Woods and Heaths SSSI, located approximately 4km from the Warfield site.

2.28 The map below shows the Warfield SPD area and the distance between this and the Thames Basin Heaths SPA. The vast majority of this site lies within the 5km SPA buffer zone. The northern boundary lies just outside the 5km zone.

2.29 According to the Thames Basin Heaths SPA Delivery Framework (2009), applications for large scale development proposals beyond the zone of influence (400m - 5km) should be assessed on an individual basis.

Figure 1 Warfield Proposed Development Area and the Thames Basin Heaths SPA



3 Step 2: Predict the Likely Effects of the Warfield SPD

Site Integrity

3.1 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.”*

3.2 A commonly used definition of site integrity is given in DCLG circular 06/2005 (para. 20) and the European guidance⁽⁶⁾ 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.”*

3.3 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.

3.4 As discussed in the previous section, the concept of favourable conservation status and the conservation objectives both provide parameters within which an assessment can be made. It is therefore necessary to use this information to predict or forecast what would happen to the SPA habitats and bird populations if the Warfield SPD were to be adopted.

Description of Potential Adverse Effects on Site Integrity

3.5 Previous consultation responses from Natural England on Habitats Regulations Appropriate Assessments undertaken in Bracknell Forest have helped to identify the following potential adverse effects on the integrity of the SPA:

- Vandalism (including fire)
- Enrichment
- Predation
- Fragmentation within heathland
- Fragmentation between heathland
- Disturbance
- Trampling
- Supporting Habitats (loss of foraging habitats)
- Hydrology (run off from the development)
- Noise
- Lighting
- Air pollution from vehicle emissions

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

Plan Characteristics Which Could Lead to Adverse Effects

3.6 Additional residential development within the proximity of the SPA has the potential to increase the population surrounding the site, which could in turn lead to an increase in recreational and urbanisation impacts. Various visitor surveys⁽⁷⁾ have indicated people will travel relatively long distances to use such sites for recreational purposes. As a result, the impacts from developments up to several kilometres away from the site must also be considered. Natural England's advice based upon the results of visitor surveys on the Thames Basin Heaths SPA is there will be a significant impact arising from new residential development which falls within a 5km straight line distance from the boundary of the SPA.

3.7 The Warfield SPD proposes 2,200 new residential dwellings as set out in the Core Strategy Policy CS5. The vast majority of the proposed dwellings would be located within 5km of the SPA.

3.8 The main impact resulting from the implementation of the development is **an increase in population leading to an increase in recreational activity.**

Projected Population Arising from the Warfield SPD

3.9 Average household size for the plan period has been calculated at 2.31 persons.⁽⁸⁾ The Warfield SPD sets out guidance on delivering Core Policy CS5 which provides for 2,200 new residential properties at Warfield. At an average household size of 2.31, these properties would accommodate approximately **5,082 new residents.**

Calculation of Additional Visitors Resulting from this Increased Population

3.10 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.

3.11 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.

3.12 The Appropriate Assessment of the Core Strategy calculated that, on average each resident of Bracknell Forest Borough visits the SPA 7.81 times a year. If this is extrapolated forward, and it is assumed this rate of visits will remain the same or decline because no plans or projects are currently being approved which would increase this level, the number of visits arising from the new population can be calculated. The amount of new visits, arising from residential development at Warfield, works out to an estimated **39,690 visits per annum.** To give a degree of scale to this number, this impact is 0.73% of the total number of current visits to the SPA (total = 5,365,500 visits per annum based on 2005 figures).

7 The most relevant being Liley, Jackson & Underhill-Day (2005)

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

Conclusions

3.13 The above information has led the Council to conclude that, in order to remove the adverse impact arising from development at Warfield, avoidance and mitigation measures are required.

4 Step 3: Assessment of Site Integrity

Impacts Arising from the Warfield SPD

4.1 Once the effects of the Warfield SPD have been identified and predicted, it is necessary to assess whether any of these will lead to adverse effects on the integrity of the site as defined by the conservation objectives.

4.2 Therefore the impacts arising from the SPD, shown in the table below, have been viewed in the context of their impacts on the conservation objectives of the site, as described above. A precautionary approach has been taken, and adverse effects must be assumed where it cannot be objectively demonstrated, with supporting evidence, that the integrity of the site would not be compromised.

Table 4.1 Potential Impacts arising from the Warfield SPD

Potential adverse effects	Impact on conservation objectives
PLAN CHARACTERISTIC: Increased recreational activity	
Fragmentation within heathland – the proliferation of footpaths and widening of existing tracks may cause isolation of plants and animals.	The paths within the areas of the SPA most visited by residents of the borough are wide and well-defined and the surrounding habitat is often dense, containing gorse, in many places. Research by Clarke <i>et al</i> (2005) in Dorset found that the majority of people (82%) visiting the SPA stayed on the paths. Therefore, fragmentation within the heathland is not likely to have a significant impact affecting the condition of the heathland or plantations, and is for that reason, unlikely to impact on the populations of protected birds.
Predation – dogs could potentially have an effect on predation. There may be a direct effect arising from dogs preying on the birds, their eggs or chicks, but also an indirect effect as the dogs scare ground nesting birds from their nests, leaving the eggs and chicks vulnerable to other types of predation.	Predation of chicks or eggs by either domestic dogs or cats, or other wild animals as a result of the nests being temporarily abandoned can result in a reduction in species density.
Enrichment – dogs could potentially contribute to enrichment of the soil.	Enrichment can cause nutrient-loving plant species to out-compete heathland species, changing the birds' habitat.
Disturbance – car-borne visitors, dog walkers and cyclists travel over 5km to visit the site. These activities have been shown to cause disturbance of the protected bird species, for example dogs, particularly off lead and off the	<ul style="list-style-type: none"> Increased nest predation by natural predators when adult birds are flushed from the nest or deterred from returning to it by the presence of people or dogs,

Potential adverse effects	Impact on conservation objectives
<p>paths, can scare birds off the nests which leaves the eggs or chicks vulnerable to chilling or predation from other sources.</p>	<p>resulting in a reduction in species density.</p> <ul style="list-style-type: none"> ● Chicks or eggs dying of exposure because adults are kept away from the nest, resulting in a reduction in species density. ● Reduced nest/territory density, delayed territory establishment and/or delayed egg laying (i.e. fewer broods in a season). ● Increasing stress levels in adult birds resulting in an associated reduction in breeding success and therefore population density. <p>These factors can all lead to adverse effect on population and less resilience of population to natural factors, such as climatic variations.</p>
<p>Trampling - an increase in track use and proliferation of tracks could cause habitat erosion and trampling of eggs.</p>	<p>Accidental trampling of eggs by people, given that the woodlark and nightjar are ground nesting, will affect bird populations. This is not likely to affect the site to a great degree due to the small numbers, but could not be said to have a <i>de minimus</i> impact. Some parts of the SPA may be more sensitive and prone to trampling.</p>

Conclusion

4.3 This stage of the HRA has identified those aspects of the Warfield SPD where a likely affect on the SPA is confirmed or uncertain. The next stage of the process is to propose appropriate avoidance and mitigation measures to cancel or avoid the potential adverse effects.

5 Step 4: Propose and Assess Avoidance and Mitigation Measures

Avoidance and Mitigation Strategy

5.1 The table above identifies ways in which the Warfield SPD could have an adverse effect on the integrity of the SPA. Therefore it is necessary to devise measures to avoid and mitigate, where possible, the identified adverse effects. Avoidance measures need to specifically relate to the adverse effects the application is likely to cause. It is for the competent authority to determine what level of avoidance measures are required, in agreement with Natural England and taking into account suggestions from the relevant nature conservation bodies.

5.2 It is widely recognised that avoidance and mitigation measures are required to safeguard the SPA from recreational impacts arising from new housing development. The Thames Basin Heaths SPA Delivery Framework⁽⁹⁾ recommends a three part approach to avoiding and mitigating recreational impacts:

- a) Habitat Management
- b) On-Site Access Management
- c) Suitable Alternative Natural Greenspaces (SANGs)

a) Habitat Management

5.3 On-site habitat management should aim to bring the SPA into favourable condition ensuring the habitat across the site is suitable for the Annex I species. This is a duty of the landowners which falls outside the development control system.

b) On-Site Access Management

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

5.5 On 17 July 2011, Bracknell Forest Council, Natural England and 10 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.

9 Joint Strategic Partnership Board (2009)

- 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.

5.6 A SAMP contribution will be required from developers for each net additional dwelling on the development site as outlined in the SPD. The contributions are calculated on a 'per bedroom' basis as follows:

Table 5.1 Level of Strategic Access Management and Monitoring (SAMP) Contributions

Size of Dwelling (bedrooms)	SAMP Contribution
1	£399
2	£526
3	£711
4	£807
5+	£1,052

5.7 The level of these contributions may change over time. Reference should be made to the Council's Avoidance and Mitigation Strategy.

c) Suitable Alternative Natural Greenspaces (SANGs)

5.8 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.

5.9 SANG provision should be funded by developer contributions 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.

5.10 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). This standard of SANGs provision is necessary, in addition to normal open space requirements,⁽¹⁰⁾ 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.

5.11 Where a SANG is provided on existing public open space, these areas will have a level of existing visitor use and 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.

10 See the Council's Thames Basin Heaths SPA Avoidance and Mitigation Strategy.

5.12 Due to the size of the proposed development at Warfield, a bespoke SANG will be provided.⁽¹¹⁾

5.13 The standard provision of strategic SANGs (a standard of at least 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.

5.14 The quality of new SANG land should be agreed with the Council and Natural England.⁽¹²⁾

SPA Avoidance and Mitigation Measures Required for the Proposed Development at Warfield

5.15 The proposed number of additional dwellings on this site is 2,200 dwellings. To avoid an adverse impact on the integrity of the SPA the following mitigation measures must be applied:

Table 5.2 SPA Avoidance and Mitigation Measures Required for the Land at Warfield

SPA Avoidance and Mitigation Requirements	Explanation
SANG Provision and Quality	<p>A new SANG should be secured of a size and quality which will enable a conclusion of no adverse impact on the integrity of the SPA and should be provided and maintained in perpetuity in agreement with the Council and Natural England. The SANG should be on site at Cabbage Hill (including Long Copse) and could also include the Cut River Park, Land at Manor Farm and Bull Brook River Park. The approximate location of the SANG is set out on the Concept Plan in the Warfield SPD. An alternative will be acceptable subject to passing Appropriate Assessment and in agreement with the Council and Natural England.</p> <p>It is expected that the area of this bespoke SANG will need to be at least the standard requirement (which would be 2,200 dwellings x 2.31 average persons per dwelling / 1000 persons x 8ha = 40.66ha).</p> <p>Enhancement of the SANG will be carried out by the developer and must meet Natural England's Quality Guidance. Links to other SANGs, the Public Rights of Way network and other open space of public value should be provided.</p> <p>Levels of existing visitor use on the SANG will need to be discounted to protect current access, where relevant. Any existing nature conservation interests must also be taken into account and potentially discounted.</p>

11 110 dwellings is the number necessary (at an average of 2.31 people per dwelling and at least 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).

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

SPA Avoidance and Mitigation Requirements	Explanation
	<p>Ownership of the SANG will be transferred to BFC (or an alternative acceptable ownership solution) and a contribution will be sought towards management of the SANG in perpetuity.</p> <p>Works will be completed in a timely manner, early in the development, so as to ensure provision of functional SANGs prior to occupation of residential development.</p>
Strategic Access Management and Monitoring (SAMM) Contribution	<p>A Strategic Access Management and Monitoring contribution will be required for each net additional dwelling in accordance with the Council's Avoidance and Mitigation Strategy.</p> <p>1 bedroom dwelling = £399 2 bedroom dwelling = £526 3 bedroom dwelling = £711 4 bedroom dwelling = £807 5+ bedroom dwelling = £1,052</p>

5.16 The bespoke avoidance and mitigation package in the form of a Warfield Avoidance and Mitigation Strategy will be required prior to the approval of a comprehensive planning application affecting the residential element on the site, which will fully detail:

- The provision of new SANGs, to meet Natural England SANGs Quality Guidance.
- Its management in perpetuity.
- The creation, enhancement and management of green corridors including connections to existing SANGs near to the site.
- The provision of dedicated parking, signage, footpaths and other necessary measures.
- Strategic Access Management and Monitoring provision.

5.17 Early dialogue with the Council and Natural England is advisable.

5.18 In this way, the development will bring forward a bespoke mitigation solution, based on the principles outlined in the Avoidance and Mitigation Strategy. It will be assessed on its merits and in agreement with Natural England, taking account the views of other nature conservation bodies.

Summary of Avoidance and Mitigation Measures

Table 5.3 Summary of Avoidance and Mitigation Measures

Effects	Proposed Measure
Increased Recreational Activity	

Effects	Proposed Measure
Predation	<ul style="list-style-type: none"> The Strategic Access Management and Monitoring (SAMM) Project aims to avoid impacts arising from predation from dogs belonging to current and future dog-walkers. This could include the implementation of a policy on the SPA of keeping dogs on leads during the breeding season and enforcing this using wardens. Education can encourage visitors to act in a more responsible and less harmful way.
Enrichment	<ul style="list-style-type: none"> The Strategic Access Management and Monitoring (SAMM) Project will provide on-site visitor access management measures such as wardens and the provision of dog fouling bins. This can reduce enrichment by encouraging and enforcing responsible dog ownership.
Disturbance	<ul style="list-style-type: none"> The provision of SANGs for new residents to visit for recreational purposes will keep the levels of visitors to the SPA at the current baseline level.
Trampling	<ul style="list-style-type: none"> The Strategic Access Management and Monitoring (SAMM) Project aims to encourage visitors to act in a more responsible and less harmful way.

6 Step 5: Consultation

6.1 Natural England, the Royal Society for the Protection of Birds (RSPB) and the Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust (BBOWT) were invited to comment on the Draft Habitat Regulations Appropriate Assessment alongside the Draft Warfield SPD during November and December 2010. The draft document was also available on the Council's website for everyone to view and make comments.

6.2 Consultation responses were taken into account in finalising this Habitats Regulations Appropriate Assessment and the Warfield SPD. A consultation statement can be found on the Council's website at <http://www.bracknell-forest.gov.uk/warfield>

7 Conclusions

7.1 Avoidance and mitigation measures have been proposed which has lead the Council to conclude that there will be no significant adverse effects upon the integrity of the Thames Basin Heaths SPA as a result of the developments within the Warfield SPD. These avoidance and mitigation measures include:

- Any net increase in residential development is required to make a contribution towards Strategic Access Management and Monitoring (SAMM).
- A bespoke SANG must be provided as set out on the Concept Plan in the SPD. Any changes to these areas will need to be in accordance with the Habitats Regulations and Council policy and agreed with Natural England.
- SANGs must be provided in advance of occupation of the development, managed in perpetuity and meet Natural England's Quality Guidance.

7.2 The Council will continue to work with Natural England and other stakeholders to ensure that a package of measures is secured which ensures no adverse effect on the integrity of the Thames Basin Heaths SPA. These mitigation measures will be implemented through:

- The determination and monitoring of planning applications.
- Conditions, Section 106 Agreements or other agreements unless other legal measures to secure contributions or works are put in place.

8 Glossary

Table 8.1 Glossary

Term	Description
Appropriate Assessment	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 variation and total number of all biological life.
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.
Delivery Framework	Sub-regional guidance on Thames Basin Heaths SPA avoidance and mitigation methods, produced and endorsed by the Thames Basin Heaths Joint Strategic Partnership Board.
Development Plan Document	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	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.
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).
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 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.

Term	Description
Supplementary Planning Document	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.
Technical Background Document	Accompanied the Core Strategy to Examination and includes the Appropriate Assessment of the Core Strategy and the original Avoidance and Mitigation Strategy.
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.
UK Biodiversity Action Plan (BAP)	A nationwide Action Plan to conserve and enhance the UK's biodiversity, following the Biodiversity Convention of 1992.

9 Abbreviations

Table 9.1 Abbreviations

Abbreviation	Explanation
AA	Appropriate Assessment
BBOWT	Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust
BFC	Bracknell Forest Council
CE	Crown Estate
DCLG	Department of Communities and Local Government
DPD	Development Plan Document
FC	Forestry Commission
JNCC	Joint Nature Conservation Committee
JSP	Joint Strategic Partnership
LDD	Local Development Document
LDF	Local Development Framework
NE	Natural England
RSPB	Royal Society for the Protection of Birds
SAMM	Strategic Access Management and Monitoring
SANGs	Suitable Alternative Natural Greenspaces
SPA	Special Protection Area
SPD	Supplementary Planning Document

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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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Development Plan Team
Planning and Transport Policy
Environment, Culture and Communities
Bracknell Forest Council
Time Square
Market Street
Bracknell
RG12 1JD