ECOLOGICAL EXPERTISE, EVOLVED

Newlands Farm, Arborfield

Information for Habitats Regulations Assessment

Prepared on behalf of

Gleeson Strategic Land Ltd.

Draft Report

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Newlands Farm, Arborfield

Technical Appendix 11.17: Information for Habitats Regulations Assessment

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Newlands Farm, Arborfield

Technical Appendix 11.17: Information for Habitats Regulations Assessment

Contents

MAPS

APPENDICES

Newlands Farm, Arborfield

Technical Appendix 11.17: Information for Habitats Regulations Assessment

1. INTRODUCTION

Background

1.1 Ecological Planning & Research Ltd (EPR) was commissioned by Gleeson Strategic Land Ltd. to provide advice in relation to the need to ensure that the Newlands Farm (The Site) proposals (the Proposed Development), are able to comply with the requirements of the Conservation of Habitats and Species Regulations 2017 (as amended)(the 'Habitats Regulations') in respect of the protection that they afford to Internationally designated sites for nature conservation.

1.2 The Proposed Development is located approximately 4.6km from the Thames Basin Heaths (TBH) Special Protection Area (SPA) International site at its nearest point (see **Map 1**).

1.3 Consequently, it will be necessary for Wokingham Borough Council (WBC), as the Competent Authority under the Habitats Regulations to carry out an HRA of the Proposed Development to determine whether it is likely to have a significant effect on the SPA, either alone or in combination with other plans and projects, and if so carry out an Appropriate Assessment (AA) to determine whether there will be an adverse effect on the integrity of the SPA.

1.4 The Proposed Development forms part of the proposed Loddon Garden Village (LGV), which is identified for allocation within Wokingham Borough Council's Local Plan Update as Policy SS13 (WBC, 2024).

1.5 The purpose of this Information for Habitats Regulations Assessment (IfHRA) report is to provide WBC with the information that they will require in order to carry out an HRA, and if necessary, an AA, and these processes are described in more detail below.

Relevant Legislation, Policy, Guidance and Case Law

1.6 To improve document flow, information relating to relevant legislation, policy, guidance, and case law is included at **Annex 1**.

Preceding Plan-Level Habitats Regulations Assessment

1.7 A Habitats Regulations Assessment (HRA) (AECOM, 2025) was undertaken of the Wokingham Local Plan Update (WBC, 2024), as is required under the Environmental Assessment of Plans and Programmes Regulations 2004 and the Habitat Regulations.

1.8 The HRA identified increases in recreational pressure, atmospheric pollution and loss of functionally linked land as potential impact pathways which may result in adverse effects on the TBH SPA and the features for which it is designated as result of development allocated within the Local Plan Update, which includes the proposed Loddon Garden Village at Policy SS13.

1.9 The loss of functionally linked land was, however, screened out at the AA stage as no allocated sites within the Local Plan Update were found to have suitable offsite supporting habitat for the qualifying SPA species.

1.10 Regarding recreational pressure, following AA the HRA concluded that the Wokingham Local Plan Update "*provides an adequate policy framework to protect the Thames Basin Heaths SPA from an increase in recreation pressure that will occur due to residential growth in the borough."*. The requirements for the provision of Suitable Alternative Natural Greenspace (SANG) and Strategic Access Management and Monitoring (SAMM) contributions from new residential development was assessed as being sufficient to prevent adverse effects on the integrity of the TBH SPA arising as a result of proposed development included within the Local Plan Update, considered both alone and in combination with other plans and projects.

1.11 As part of the Local Plan Update HRA, detailed air quality modelling was undertaken across the TBH SPA. It was ultimately determined that changes in levels of NO_x, ammonia and nitrogen deposition would not have an adverse effect on the integrity of the TBH SPA, arising as a result of proposed development included within the Local Plan Update alone or in-combination.

Conceptual Impact Assessment Model

1.12 In carrying out an assessment of the potential effects of a development proposal on an International Site, the 'source-pathway-receptor' concept provides a useful model for framing and objectively evaluating the mechanisms through which potential effects may occur and has been employed in this assessment. **Table 1.1** below sets out the various parts of the model and how they relate to each other.

Table 1.1: Conceptual Impact Assessment Model

Source	Pathway	Receptor
Elements of the development proposals that are likely to generate or contribute towards certain environmental effects.	Changes in environmental conditions caused by aspects of the development proposals that have the potential to affect an identified impact receptor.	The interest features / conservation objectives of the International Site concerned, and the environmental conditions required to support it.

1.13 During the assessment process, information has been gathered relating to each part of the conceptual assessment model in respect of each potential impact upon nearby International Sites. The consideration of this information will then allow WBC as the Competent Authority to determine whether or not a potentially viable impact pathway exists between the development proposals and International Sites within the Zone of Influence (ZoI) of the proposals.

Scope of the Habitats Regulations Assessment Report

1.14 In view of the above considerations, the scope of this IfHRA report is as follows:

- To gather information to establish whether or not the Proposed Development is likely to contribute to a significant effect on any International Sites located within the ZoI, either alone or in combination with other plans and projects;
- To gather information to establish, if a significant impact is likely, whether or not it would adversely affect the integrity of any International Sites;

- To recommend impact avoidance and mitigation measures, if required, to address any potential impacts identified; and
- To make recommendations in relation to the requirements of the Conservation of Habitats and Species Regulations 2017 (as amended) in view of the information collected, if possible.

2. CHARACTERISATION OF THE PROPOSED DEVELOPMENT

Introduction

2.1 Guidance from the European Commission indicates that the first stage of providing the information that is necessary for a Competent Authority to undertake the HRA process is for all those aspects of the subject project or plan, which either alone or in combination with other plans and projects have the potential for having a significant effect on an International Site, to be identified and characterised.

2.2 Undertaking such a systematic characterisation in respect of the Proposed Development will enable the various aspects of the project to then be related to the particular sensitivities of the International Sites, so that the potential ways in which the former may affect the latter can be examined.

Site Location and Context

2.3 The Site is located entirely within Wokingham Borough and is proposed for allocation under Policy SS13 of the Local Plan Update (WBC, 2024). The Site is located to the north-east of the village of Arborfield, bordered by the B3030.

2.4 The Site comprises mainly of two large fields: a large arable field and a smaller grassland field with other smaller areas of grassland along the southern boundary. There is an area of woodland in the north of the Site, a section of which is listed on Natural England's Provisional Ancient Woodland Inventory. The Site is largely bound by native hedgerows, of which many are heavily managed through flailing. Four veteran trees have been identified on Site; three along the Site boundaries, and one within the central hedgerow that runs east to west, bisecting the two larger fields.

Proposed Development

2.5 The description of development for the application is as follows:

- Up to 430 residential dwellings;
- Vehicular, bus, cycle and pedestrian corridor between Mole Road and northern boundary of site, to connect with the proposed Loddon Garden Village spine road;
- New pedestrian and cycle link between Byway ARB03 (Carter's Hill Lane) and Byway ARB08 (Ellis's Hill);
- Comprehensive strategic landscaping and network of multi-functional green and blue infrastructure;
- Biodiversity enhancements to achieve at least a net gain of 10%; and
- Associated utilities, infrastructure, and engineering works.

Likely Biophysical Changes and Zone of Influence

2.6 The activities associated with the Proposed Development which are likely to lead to biophysical changes – and could accordingly give rise to ecological effects on sensitive designated site

features in the absence of mitigation – are set out in **Table 2.1** below, which is drawn from Box 9 of the EcIA Guidelines (CIEEM, 2018).

2.7 The ZoI of a proposed development is defined by the EcIA Guidelines as:

> *"… the area over which ecological features may be affected by the biophysical changes caused by the proposed project and associated activities''*.

2.8 In this case, the ZoI of the Proposed Development will encompass different areas, and thus potentially impact upon different ecological receptors, depending upon the spatial extent of the relevant biophysical change (e.g. light, noise, habitat loss, recreational disturbance). The ZoI(s) relevant to this assessment are summarised in **Table 2.1** below.

Table 2.1: Activities, potential impacts, and associated ZoIs

Activity	Potential Impact	Zone of Influence
Site Clearance and Construction Phase		
Access and travel on / off site	Noise / visual / lighting disturbance of vulnerable species	Site and immediately adjacent land
Assembly and storage areas for machines and materials; construction compounds	Loss and fragmentation of habitats Noise / visual / lighting disturbance to vulnerable species	Site and immediately adjacent land
Vegetation clearance, ground, excavation and structural works, demolition, and alteration operations	Loss and fragmentation of habitats Damage to vulnerable habitats Direct harm to vulnerable species Noise / visual /vibration/ lighting disturbance to vulnerable species Change to surface and ground water flows Dust generation	Site and immediately adjacent land
Lighting of work area	Disturbance to vulnerable species	Site and immediately adjacent land
Drainage	Change of groundwater flows Change of water quality in groundwater Change in habitats fed by groundwater flows	Site and functionally linked watercourses
Operational Phase		
Access and travel on / off site	Noise / visual / lighting disturbance to vulnerable species Changes in air quality	Site and immediately adjacent land Within 200m of affected roads*
Occupation of new houses: urban effects	Noise / visual / lighting disturbance to vulnerable species Loss and fragmentation of habitats by trampling Increased risk of cat predation Degradation and pollution of vulnerable habitats through urban effects (such as fly tipping, introduction of non-native species, arson)	Approximately 400m radius from new development
Recreation	Fragmentation of habitats by trampling Noise / visual disturbance to vulnerable species by members of the public and/or dogs	Up to 5km radius

**Roads subject to an increase of more than 1,000 Average Annual Daily Trips (AADT) or 200 Heavy Duty Vehicles (HDV)*

3. CHARACTERISATION OF INTERNATIONAL SITES

Introduction

3.1 This section of the IfHRA report describes and characterises International Sites within the potential ZoI of the Proposed Development, including their qualifying features and conservation objectives, in order to enable an assessment to be made of the potential for significant impacts arising in the absence of impact avoidance and mitigation measures.

International Sites Considered to be Within the Potential Zone of Influence of the Proposed Development

3.2 **Map 1** shows the location of the TBH SPA is relation to the Site. There are no other International Sites within a 7 km radius.

3.3 The citation, data sheet, and a summary of the conservation objectives for the TBH SPA are included in **Appendix 2** and summarised below.

Thames Basin Heaths SPA

3.4 The TBH SPA receives its designation due to the breeding populations of Annex 1 bird species it supports, which are listed on Annex I of the Birds Directive. These species nest either on or close to the ground and consequently, are vulnerable to increases in recreational pressure and public access impacts arising as a result of new housing. Their supporting habitat, which includes lowland heathland and rotationally managed conifer plantation, is sensitive to changes in air quality.

3.5 The SPA covers 8274.72ha and is legally underpinned by 13 Sites of Special Scientific Interest (SSSI). The closest of these SSSI's is Bramshill SSSI, which is largely in a 'Favourable' condition (99.94%), with the remaining area 'Unfavourable, no change' (0.06%).

Qualifying Features

3.6 The TBH SPA qualifies for its designation by supporting population of European Importance of the following species listed on Annex I of the Birds Directive:

- A224 Nightjar *Caprimulgus europaeus* – 7.8% of GB population;
- A246 Woodlark *Lullula arborea* – 9.9% pf GB population; and
- A302 Dartford Warbler *Slyvia undata* – 27.8% of GB population.

Conservation Objectives

3.7 The Natural England conservation objectives for the TBH SPA are as follows:

> *"Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:*
>
> - *The extent and distribution of the habitats of the qualifying features;*
> - *The structure and function of the habitats of the qualifying features;*

- *The supporting processes on which the habitats of the qualifying features rely;*
- *The population of each of the qualifying features; and*
- *The distribution of the qualifying features within the site."*

Natural England Supplementary Advice

3.8 Natural England has also published 'Supplementary Advice on Conserving and Restoring Site Features.' Natural England's supplementary advice includes site-specific targets intended to support the achievement of the conservation objectives, and these have been considered throughout this assessment.

3.9 The relevant publication dates for the Supplementary Advice for the TBH SPA is listed in **Table 3.1** below along with a summary of the site-specific targets of most relevance to the HRA of the Proposed Development.

Table 3.1: Summary of Natural England Supplementary Advice for SAC and SPA sites within the ZoI

Site Name	Publication Date	Site-specific Targets	Feature(s) Target Applies to
Thames Basin Heaths SPA	9 May 2016	Maintain management or other measures (whether within and/or outside the site boundary as appropriate) necessary to maintain or restore the structure, function and/or the supporting processes associated with qualifying features and its supporting habitats.	Nightjar Woodlark Dartford Warbler
		Maintain or restore as necessary the concentrations and deposition of air pollutants to at or below the site-relevant Critical Load or Level values given for this feature of the site on APIS	Nightjar Woodlark Dartford Warbler
		Maintain the size of the breeding nightjar population whilst avoiding deterioration from its current level as indicated by the latest mean peak count or equivalent.	Nightjar Woodlark Dartford Warbler
		Maintain the extent, distribution and availability of suitable breeding habitat which supports qualifying features for all necessary stages of its breeding cycle (courtship, nesting, feeding, and roosting).	Nightjar Woodlark Dartford Warbler
		Restrict and reduce the frequency, duration and/or intensity of disturbance affecting nesting, roosting, and/or foraging birds so that the qualifying feature is not significantly disturbed	Nightjar Woodlark Dartford Warbler
		Maintain or restore the distribution, abundance, and availability of key	Nightjar

Site Name	Publication Date	Site-specific Targets	Feature(s) Target Applies to
		prey items at prey sizes preferred by qualifying features.	Woodlark Dartford Warbler

Site Improvement Plans

3.10 Site Improvement Plans (SIPs) produced by Natural England set out measures to address prioritised issues affecting site condition. The SIP for the TBH SPA (NE, 2014) sets out measures to addresses the following prioritised issues:

- Public access/disturbance;
- Under grazing;
- Forestry and woodland management;
- Hydrological changes;
- Inappropriate scrub control;
- Invasive species;
- Wildfire/arson;
- Air pollution;
- Feature location/extent/condition unknown;
- Military activity; and
- Habitat fragmentation.

Bird Populations

3.11 Monitoring surveys of the qualifying features of the TBH SPA are undertaken annually, with the results published by the Thames Basin Heaths Partnership (TBH Partnership, 2024).

3.12 The 2024 survey results showed increases in the number of pairs of all three species since the previous year. Nightjar saw an increase of 4%, Dartford Warbler increased by 35% and Woodlark numbers rose by 30%.

3.13 Numbers of all three species have fluctuated over recent years, which can likely be attributed to environmental conditions and habitat management of the Site (TBH Partnership, 2024). However, since 2021, despite some yearly fluctuations, overall numbers have remained relatively stable, with minor increases for all three species since that time.

3.14 Long-term, numbers have continued to rise, demonstrating the importance of the protection offered by the TBH SPA and the success of the strategy adopted across the region to secure impact avoidance and mitigation measures. In a little over 25 years, the number of Nightjar have increased by 60%, Dartford Warbler by 32% and Woodlark by 47%.

4. ASSESSMENT OF POTENTIAL IMPACT PATHWAYS

Introduction

4.1 The Source-Pathway-Receptor model described in **Section 1** has been used to consider whether the International Site qualifying features listed in **Section 3** might be adversely affected by the biophysical changes predicted to arise as a result of the Proposed Development in **Section 2** in the absence of impact avoidance and mitigation measures. Relevant impact pathways scoped in for further assessment are then considered in greater detail in the proceeding sections.

4.2 The source of potential effects in each case derives from the construction and operation of the Proposed Development, and the receptor is the qualifying features of the International Sites.

Potential Impact Pathways and Vulnerability of Receptors

4.3 **Table 4.1** below summarises the vulnerability of designated site receptors listed in **Section 3** to a number of potential impact pathways, and records whether each designated site is considered to fall within the predicted ZoI for each impact type generated by the Proposed Development (as described in **Section 2**). The relevant sections of this report where further assessment is set out are also listed.

Table 4.1: Scoping of potential impact pathways

Impact Pathway	Vulnerability	Scoped In/Out	Report Section
Loss and/or fragmentation of habitats	The birds associated with the TBH SPA are ground nesting heathland specialists, who rely upon particular habitat types for breeding and/or foraging. Species such as Nightjar are wide ranging, including habitats away from the heathlands, which may include woodland edges, rotationally managed conifer plantation, grasslands, and farmlands. The loss of supporting habitats around the TBH may reduce foraging opportunities and lower the number of territories the heaths are able to support.	Scoped Out – The Site does not contain habitats which may support the SPA birds. Furthermore, the Proposed Development lies more than 4km from the TBH SPA which extends beyond the typical range of these species (up to 5.6km for Nightjar (Evans *et al*, 2017)).	N/A
Light pollution	Increases in light levels can impact upon bird behaviour, including increased levels of activity at unnatural hours of the day (e.g. singing overnight), and changes in foraging behaviour to avoid artificially lit areas. This is particularly prevalent for crepuscular species such as Nightjar. Such impacts may reduce species fitness, increase predation risk, and reduce breeding success.	Scoped Out – The Proposed Development lies more than 4km from the TBH SPA and therefore changes to lighting levels will not impact the SPA or its qualifying features.	N/A
Noise	Increases in noise levels may impact upon bird behaviour and distribution, notably through disturbance to breeding behaviour (i.e. impacts upon singing males and territory distribution) and avoidance of foraging habitats. Such impacts may reduce species fitness and reduce breeding success.	Scoped Out – The Proposed Development lies more than 4km from the TBH SPA and therefore changes to noise levels will not impact the SPA or its qualifying features.	N/A
Hydrological change	Heathland and woodland habitats are sensitive to the effect of changes in surface water and groundwater quality from pollution and changed in water quality which may affect the water table and water levels essential for supporting heathland and woodland habitats and communities.	Scoped Out - The Proposed Development lies more than 4km from, and is not hydrologically connected, to the TBH SPA. Changes local hydrology would therefore not impact the SPA or its qualifying features.	N/A
Recreational pressure	Birds can be sensitive to increased recreational use of nearby accessible land since this may disturb feeding and breeding behaviour, potentially leading to adverse effects. Increased recreational pressure also has the potential to result in effects on habitats from trampling, fragmentation, and increased risk of wildfire.	**Scoped In**	**5**

Impact Pathway	Vulnerability	Scoped In/Out	Report Section
Pet predation	Ground nesting birds may be particularly vulnerable to predation, and the introduction of domestic pets would increase this risk, with the potential to negatively impact the bird population within close proximity to new residential development.	Scoped Out - It is generally accepted that the average roaming distance of domestic cats is approximately 400m. With the Proposed Development located more than 4km away at its closest point an increase in pet presence will not impact the SPA or its qualifying features.	N/A
Changes in air quality	Many terrestrial habitats are sensitive to changes in air quality, including atmospheric nitrogen dioxide concentrations usually associated with traffic and leading to localised effects, and nutrient deposition and acidification which may lead to changes in habitat composition and condition in the long term. These changes may result in a loss of supporting habitats for SPA bird species.	**Scoped In**	**6**

5. RECREATIONAL PRESSURE

Introduction

5.1 This section considers the potential effects of increased recreational pressure generated during the operational phase of the Proposed Development on the TBH SPA, in view of the above-described sensitivities of the SPA and its qualifying features, and available information about the current and potential future levels of recreational pressure that could occur as a result of the proposals either alone or in combination with other plans and projects.

5.2 Where the potential for likely significant effects is identified, the scope of any specific impact avoidance and mitigation measures is also considered as part of an AA.

Relevant Background Information

Thames Basin Heaths Delivery Framework

5.3 The Joint Strategic Partnership Board was formed by local authorities affected by the TBH SPA, alongside other stakeholders, to provide overarching guidance on suitable impact avoidance and mitigation measures for the TBH SPA to allow for development within the Zone of Influence (TBH Joint Strategic Partnership Board, 2009).

5.4 The endorsed Delivery Framework represents the most recent and comprehensive strategic level guidance document relating to the TBH SPA and forms the basis for local mitigation strategies.

5.5 The key provisions of the Delivery Framework that are relevant to the HRA are be summarised below:

- Residential development between 400m-5km linear distance of the SPA should provide SANG at a rate of at least 8ha per 1,000 new residents;
- Large scale development (over 50 units) beyond 5km should be assessed on an individual basis;
- The number of new residents being introduced by a particular development should be calculated using an average household occupancy rate of 2.4 people per household unless robust local evidence demonstrates otherwise;
- SANG design should have regard to Natural England's SANG Quality Guidelines and be provided in perpetuity;
- Contributions to strategically coordinated access management should be provided; and
- That the provisions of the Delivery Framework apply to proposal or 1 or more net new dwellings in Use Class C3 (residential development) and proposals for 1 or more net new units of staff residential accommodation falling within Use Class C1 and C2 (residential institutions).

5.6 The coordinated and strategic approach to access management and monitoring advocated by the Framework is fulfilled in the form of the SAMM Project, delivered by Natural England's Thames Basin Heaths Partnership. Developer contributions are collected by local authorities

and passed onto Natural England to deliver strategic measures on the SPA, including wardening, public engagement and monitoring surveys.

Assessment Methodology

5.7 Existing information regarding the patterns of access to the TBH SPA and its associated SANGs commissioned by the Thames Basin Heaths Partnership were assessed as part of the desktop study.

Assessment of Likely Significant Effects

Baseline Recreational Pressure (Operational Phase only)

5.8 As part of the SAMM Project, visitor surveys have been undertaken across the Thames Basin Heaths over more than 10 years to monitor visitor access patterns and identify trends in visitor numbers. The most recent survey was undertaken in 2023 by Footprint Ecology (Panter *et al,* 2024).

5.9 The findings of the 2023 surveys demonstrated that the visitor profile remained largely consistent with the findings of previous years. The majority of visitors to the TBH SPA comprised of dog walkers (74%), who live within 5km of the SPA (92%) and visit at least weekly (68%). This suggests that mitigation measures previously designed to target these groups are still suitable.

5.10 The number of visitors to the TBH SPA appears to have increased in comparison to both 2018 and 2012/13 (other visitor survey years). The number of people entering per hour increased by 16% compared to 2018, and 8% compared to 2012/13 (Panter *et al*, 2024). This is in contrast to 2018, where site wide reductions in visitor numbers were recorded compared to 2012/13 (Southgate *et al*, 2018).

5.11 During the 2023 visitor surveys of the TBH SPA, a total of 7,208 people were recorded access 30 access points (Panter *et al*, 2024). Of these 212 were recorded at Survey Point 8 (North entrance to Warren Heath), which lies within Bramshill SSSI, and is the closest survey point to the Proposed Development. This is the equivalent to 3% of all visitors recorded during the duration of the visitor surveys. This number, however, includes counts of people both entering and exiting the Survey Point, and therefore may represent an overestimation of true visitor numbers.

5.12 The majority of the visitors to the TBH SPA visit locally, with 92% originating within 5km of the SPA boundary. Visitors at Survey Point 8 (North entrance to Warren Heath), however, travel a larger distance to reach the SPA, with 75% of all visitors travelling from within 8.8km, representing the second largest catchment of the 30 Survey Points.

5.13 Of the 1,092 postcodes provided as part of the survey, 44 originated from within Wokingham Borough, equivalent to 4% of visitors recorded on the TBH SPA visitor survey.

Potential Change in the Pattern of Baseline Recreational Pressure

5.14 The Proposed Development would result in the creation of up to 431 new residential dwellings. Assuming an average household size of 2.4 people per home (2021 census), the Proposed Development would result in an additional 1,034 residents.

5.15 In the United Kingdom, it is estimated that 36% of households own at least one dog (UK Pet Food, 2024), and therefore 155 of the new dwellings would be expected to be dog-owning. The 2023 visitor survey found that dog owning groups were accompanied by 0.92 dogs per group on average. This would indicate that the Proposed Development would account for 143 dogs within the dog owning dwellings.

5.16 The Proposed Development therefore has the potential to contribute to increases in visitation to the TBH, including by dog walkers who, as outlined above, are the key demographic of regular visitors.

5.17 However, the 2023 visitor survey of the TBH found that approximately 4% of all visitors, the equivalent of 44 groups, were visiting from Wokingham. This remains largely consistent with the findings of the 2018 visitor survey which identified 33 groups from Wokingham, the equivalent to 4% of 2018 visitor numbers (Southgate *et al*, 2018).

5.18 With a total 76,315 residential addresses within Wokingham, this equates to approximately 0.06% of the local population recorded as visiting the SPA during the survey.

5.19 If the same proportion of households from the Proposed Development were to visit the SPA, this would represent less than one household, most likely visiting several times a week for dog walking, based on the average visitor profile.

5.20 Given that the visitor survey would not have intercepted every visiting household to the TBH SPA, providing data on visitor access for only a snapshot in time, then the above figures are likely to provide an under-representation of actual visitor numbers. Despite this, given the very low proportion of households anticipated to visit from the Proposed Development in the absence of mitigation, even when accounting for under-representation, additional visitor numbers arising as a result of the Proposed Development would be proportionally low.

5.21 In the absence of mitigation, the anticipated increase in recreational pressure would therefore be low, particularly once spread across the extensive land area encompassed by the SPA. Whilst adverse effects on site integrity would be unlikely to arise when considered alone, the contribution to recreational pressure, however small, would still act in combination with other Local Plan development.

Information for Appropriate Assessment

Impact Avoidance and Mitigation

5.22 As outlined above, the key components of impact avoidance and mitigation as set out in the Thames Basin Heaths Delivery Framework and WBC's supplementary planning guidance Thames Basin Heath Special Protection Area, comprise the delivery of SANG and contributions to SAMM.

5.23 To avoid impacts arising as a result of the Proposed Development, a financial payment will be made to the University of Reading (UoR) to secure capacity within one of the Strategic SANGs operated by the UoR, which will be secured through legal agreement.

Strategic Access Management and Monitoring (SAMM)

5.24 Alongside the provision of SANG, the Proposed Development will make SAMM contributions, to be secured via a S106 Agreement. The total cost to be contributed will be calculated on a per dwelling basis, depending upon the number of bedrooms, in line with the current rates as set out in WBC's supplementary guidance document Thames Basin Heath Special Protection Area.

Conclusion

5.25 With the implementation of the impact avoidance measures as outlined above, the Proposed Development will not result in an adverse effect on the TBH SPA from increased recreational pressure, either alone or in combination with other plans and projects.

6. AIR QUALITY

6.1 This section of the IfHRA report considers the potential effects of changes to air quality generated during the operational phase of the Proposed Development on the Thames Basin Heaths SPA in view of the above-described sensitivities of the these sites and its qualifying features, and available information about the current and potential future levels of recreational pressure that could occur as a result of the proposals either alone or in combination with other plans and projects.

6.2 Where the potential for likely significant effects is identified, the scope of any specific impact avoidance and mitigation measures is also considered as part of an AA.

Relevant Background Information

National Air Quality Strategy & Trends

6.3 Under the requirements of the Environment Act 1995, the UK government published an Air Quality Strategy (AQS). The AQS sets out the UK's national standards and objectives for ambient air quality, and measures to help achieve the objectives. The overall aim of the AQS is to achieve steady improvement in air quality into the long term. The objectives are transcribed into regulations in the Air Quality (England) Regulations 2000, as amended.

6.4 In 2019, the Government published their Clean Air Strategy. The Strategy sets out the measures that the Government intends to take to achieve the legally binding international targets to reduce emissions of key pollutants.

6.5 The deposition of both oxidised nitrogen (NOx, primarily NO_2) and reduced nitrogen (primarily from ammonia – NH_3 and ammonium ions – NH_4^+) contribute to total nitrogen deposition, via dry and wet deposition. National emissions of NO_X have decreased substantially over recent decades and are expected to decline further in the future. Emissions of NH_3, which are dominated by the agricultural sector, have however only marginally decreased in recent years and even increased in some areas of the UK. Under the National Emissions Ceilings Regulations, the UK is legally required to implement measures to reduce emissions of key pollutants, including NH_3 and NO_X, by 8% and 55% respectively by 2029 over 2005 base emissions, and by 16% and 73% respectively post 2030. The UK's National Air Pollution Control Programme (NAPCP), including the Clean Air Strategy in England, is expected to exceed these emission reduction targets such that a 17% decrease in total N deposition onto protected priority sensitive habitats is expected, with a predicted 18.9% decrease from the 2016 base year. Whilst the decrease will not be uniform over all sites, it is reasonable to conclude that background NH_3 concentrations and N deposition rates will decrease in the future.

Critical Levels and Loads

European CAFE Directive (2008/50/EC) and Air Quality Standards Regulations 2010

6.6 The Directive details air quality limit values, target values, and Critical Levels for a number of air pollutants established by the European Parliament and Council for the protection of human health, vegetation, and ecosystems. These have been transposed into UK legislation by the Air Quality Standards Regulations 2010 (as amended).

United Nations Economic Commission for Europe Critical Loads

6.7 The United Nations Economic Commission for Europe (UNECE) has set Critical Loads for N-Deposition for specific sensitive ecosystems (UNECE, 2003).

The Air Pollution Information System (APIS)

6.8 The Air Pollution Information System (APIS) is the UK's principal source of information on pollutant levels, including at designated nature conservation sites (SAC/SPA/SSSI), and on the sensitivity of their component habitats, providing a continually updated web-based data resource.

6.9 APIS sets out the relevant environmental standards for pollutant types (as defined by the 2010 Regulations and UNECE), which vary by habitat type where Nitrogen (or N) deposition is concerned. Critical Levels define the environmental standard for airborne gaseous pollutants (NOx and NH_3) and Critical Loads define the environmental standard for deposited pollutants (N deposition).

6.10 Critical Levels and Loads (referred to collectively as the 'CL') are defined as:

> *Critical Level (ug/m3): "concentrations of pollutants in the atmosphere above which direct adverse effects on receptors, such as human beings, plants, ecosystems or materials, may occur according to present knowledge".*
>
> *Critical Load (kg N/ha/yr): "a quantitative estimate of exposure to one or more pollutants, below which significant harmful effects on sensitive elements of the environment do not occur, according to present knowledge."*
>
> *For NOx the Critical Level for all habitats is a concentration of 30µg/m^3 and for NH_3 the Critical Level for all higher plant habitats (such as those that are the subject of this report) is a concentration of 3µg/m^3 (the CL for lower plant habitats, including those supporting sensitive lichens and bryophytes, is 1 µg/m^3).*

6.11 For N deposition the Critical Load is habitat specific, with lower and upper ends of a CL range cited for application in different circumstances (for example differing hydrological or management regimes); in practice there is rarely sufficient information to justify use of anything but the lower CL, and lower CLs are used throughout this assessment on a precautionary basis.

6.12 Whilst the TBH SPA's Annex 1 birds are not known to be directly affected by air pollution, Nightjar are also not sensitive to air pollution impacts on their supporting habitat where the broad habitat type is coniferous woodland.

6.13 When pollutant loads (or concentrations) exceed the CL, it is considered that there is a risk of harmful effects. A value in excess of the CL is termed the 'exceedance.' A larger exceedance is often considered to represent a greater risk of damage, although other factors also influence this.

Natural England's Approach to Air Quality Assessment

6.14 Natural England's guidance to Local Authorities regarding air quality assessment and HRA (Natural England, 2018) takes account of case law of relevance to air quality assessment (the 'Wealden Judgment') and describes the screening threshold for appropriate assessment as follows:

"widely accepted Environmental Benchmarks for imperceptible impacts are set at 1% of the critical load or level" [our emphasis].

6.15 Critical Levels and Loads (referred to collectively as the 'CL') are defined by the UK Air Pollution Information System (APIS) as:

Critical Level (ug/m3): "concentrations of pollutants in the atmosphere above which direct adverse effects on receptors, such as human beings, plants, ecosystems or materials, may occur according to present knowledge".

Critical Load (kg N/ha/yr): "a quantitative estimate of exposure to one or more pollutants, below which significant harmful effects on sensitive elements of the environment do not occur, according to present knowledge."

6.16 Natural England's (2018) guidance advocates the following stepwise approach to assessing the potential for likely significant effects from air pollution:

1) Does the proposal give rise to emissions which are likely to reach a European site?

2) Are the qualifying features of sites within 200m of a road sensitive to air pollution?

3) Could the sensitive qualifying features of the site be exposed to emissions?

4) Application of screening thresholds:

4a) Apply the threshold alone - consider the contributions of the project alone and whether they could exceed 1% of the CL or a change of more than 1,000 Average Annual Daily Trips (AADT) (or 200 Heavy Duty Vehicles, HDV) [our emphasis];

4b) Apply the threshold in-combination with emissions from other plans and projects - consider the contributions of the project in addition to other live plans and projects (but see further below) and whether collectively they could exceed 1% of the CL or a change of more than 1,000 AADT (or 200 HDV);

5) Advise on the need for Appropriate Assessment where thresholds are exceeded, either alone or in-combination:

- If step 4 (a and b) does not result in exceedance of the screening threshold, then the potential for likely significant effects either alone or in combination can be screened out, and further investigation as part of an appropriate assessment is not required;

- If step 4 (a and/or b) results in exceedance of the screening threshold, then the need for appropriate assessment is triggered. This is because the development either alone or in combination is predicted to contribute pollutants to a site at a level above which harm could occur, irrespective of whether background levels already exceed the CLs. The guidance provides further advice on the information that should be considered as part of an appropriate assessment, which includes, amongst a plethora of factors, the potential for areas subject to air quality exceedance to coincide with sensitive qualifying features, and the specific

conservation objectives for the sites concerned and how these relate to existing, and future predictions of, background levels of pollutants.

6.17 Natural England's 2018 guidance comments on the scope of in-combination assessment:

> *"4.44 It is generally well-established that the scope of an in-combination assessment is restricted to plans and projects which are 'live' at the same time as the assessment being undertaken. These can potentially include:*
>
> - *The incomplete or non-implemented parts of plans or projects that have already commenced;*
> - *Plans or projects given consent or given effect but not yet started;*
> - *Plans or projects currently subject to an application for consent or proposed to be given effect;*
> - *Projects that are the subject of an outstanding appeal;*
> - *Ongoing plans or projects that are the subject of regular review and renewal;*
> - *Any draft plans being prepared by any public body;*
> - *Any proposed plans or projects that are reasonably foreseeable and/or published for consultation prior to application; and*
> - *As stated above, when considering this scope, competent authorities can be mindful of the assessment, reasoning and conclusions included in any previous HRAs for these plans or projects." [our emphasis]*

6.18 Their guidance also states:

> *"4.47 In general terms, it is important for a competent authority to remember that the subject plan or project remains the focus of any in-combination assessment. Therefore, it is Natural England's view that care should be taken to avoid unnecessarily combining the insignificant effects of the subject plan or project with the effects of other plans or projects which can be considered significant in their own right. The latter should always be dealt with by its own individual HRA alone. In other words, it is only the appreciable effects of those other plans and projects that are not themselves significant alone which are added into an in-combination assessment with the subject proposal (i.e. 'don't combine individual biscuits (=insignificant) with full packs (=significant)')." [our emphasis]*

Assessment Methodology

6.19 Transport data was assessed by Abley Letchford Partnership (ALP) Ltd to determine the predicted AADT generated by the Proposed Development. Further details on the project-specific transport model can be found in **Chapter 17**. In summary, the transport model is derived from the Wokingham Strategic Transport model (WSTM), taking into account committed development and other planned growth in the area.

6.20 The core transport assessment model scenarios available to inform the assessment of potential air quality effects are as follows:

- 2026 Baseline;
- Do Minimum 2040 – Future baseline, to include future Local Plan growth and other committed development; and
- Do Something 2040 – Future Baseline, to include future Local Plan growth, other committed development, and the Proposed Development.

6.21 In line with Natural England guidance (2018), traffic growth associated with the Wokingham Local Plan Update should be scoped out of the in-combination assessment on the basis that the plan has the potential to generate significant air pollution effects in its own right which should be, and has been, subject to plan-level HRA.

6.22 Natural England's guidance (2018) states:

> *"4.47 In general terms, it is important for a competent authority to remember that the subject plan or project remains the focus of any in-combination assessment. Therefore, it is Natural England's view that care should be taken to avoid unnecessarily combining the insignificant effects of the subject plan or project with the effects of other plans or projects which can be considered significant in their own right. The latter should always be dealt with by its own individual HRA alone. In other words, it is only the appreciable effects of those other plans and projects that are not themselves significant alone which are added into an in-combination assessment with the subject proposal (i.e. 'don't combine individual biscuits (=insignificant) with full packs (=significant)')."* [our emphasis]

Assessment of Likely Significant Effects (Operational Phase only)

6.23 Traffic from the Proposed Development is likely to head into Reading or Wokingham as part of a standard daily commute. Heading into Wokingham, traffic would be required to pass along the A322, which passes within 200m of component parts of the TBH SPA. Trips on this link road arising as a result of other local plan development could therefore act in combination with trips arising from the Proposed Development to potentially exceed the aforementioned screening threshold, with the consequential risk of adverse effects from changes in air quality.

6.24 Transport analysis undertaken by ALP (2025) predicted that the Proposed Development at the closet link locations to the exit of the Proposed Development to Mole Road heading west (Link 11 Church Lane), south (Link 15 Sindlesham Road) and east (Link 16 Mole Road) from the site will generate 140, 390 and 534 AADT respectively (see Table 17.13 of Chapter 17 and Figure 17.1 of Chapter 17 for the location of the highway links). The traffic will further dissipate through the road network prior to reaching the roads within 200m of the TBH SPA. These figures lie below the 1,000 AADT screening threshold set out by Natural England, as described above.

6.25 The Proposed Development alone, therefore, does not exceed the screening threshold whereby significant effects arising from changes to air quality are likely to occur, i.e. the potential for likely significant effects can be screened out in accordance with Natural England guidance, as set out above.

6.26 The Wokingham Strategic Transport Model (WSTM) upon which the project-specific transport model is based and which was used to inform the Reg 19 Local Plan Update HRA, includes Local Plan growth and other committed development within all future scenarios. This means

that it is not possible to isolate the potential impacts of committed development acting in combination with the Proposed Development from the impacts of the Local Plan which, as outlined above, should be scoped out of the in-combination assessment in accordance with Natural England's guidance.

6.27 However, as stated above, the project-specific transport model utilises traffic flows taken from the WSTM, which includes the Proposed Development as an allocated site under Local Plan Update Policy SS13. Detailed air quality modelling has been carried out as part of the Local Plan Update HRA, which has considered the effects of the Local Plan Update (including the Proposed Development) alone and in combination with other committed development, including growth associated with plans and committed developments within neighbouring Boroughs. Therefore, the conclusions of the in-combination assessment carried out for the Local Plan Update HRA may be used to inform the conclusion reached as part of the in-combination assessment for the Proposed Development.

6.28 Since Local Plan Update development should be scoped out of the project-level in combination assessment, as explained above, the pollutant concentrations and deposition rates modelled as part of the Local Plan Update HRA, and the conclusions reached, reflect what should be considered 'worst-case' in the context of the Proposed Development project-level HRA.

6.29 The Reg 19 HRA of the Local Plan Update has undertaken air quality modelling, based upon the WSTM. The air quality model (Appendix D of the Reg 19 HRA) utilises the following scenarios:

- *"2021 Existing baseline*
- *2040 Do Nothing (DN) – a theoretical baseline with no traffic growth between the baseline and 2040, but with anticipated reduction in emissions from traffic due to future changes in vehicle type and background concentrations (2030 backgrounds).*
- *2040 Do Minimum (DM) – the 'Reference Case' traffic model scenario including the 2026 Local Plan excluding Hall Farm/Loddon Valley Development* [Policy SS13] *or other LPU development, but includes committed developments and anticipated future reductions in emissions from traffic due to future changes in vehicle type and background concentrations (2030 backgrounds); and*
- *2040 Do Something (DS) – the 'Local Plan Scenario 1b' includes forecast growth on the local network with mitigation (under Local Plan Scenario 1B) plus Hall Farm/Loddon Valley development (3,930 dwellings)* [Policy SS13] *and other Local Plan Update development (i.e. south Wokingham SDL extension site with totals 1,150 houses and other smaller Local Plan Update site allocations with a total quantum of 3,762 dwellings and with anticipated future reductions in emissions from traffic due to future changes in vehicle type and background concentrations (2030 backgrounds)."*

6.30 Furthermore "*The results for the Do-Minimum and Do-Something scenarios have been compared to show the impacts of the LPU growth scenario 'in isolation'. The results of the Do-Nothing and Do-Something scenarios have been compared to identify the potential 'in-combination' impacts associated with the growth scenario, other projects and plans*."

6.31 Assessing modelled changes in NO_x, NH_3 and N deposition, the Reg 19 HRA concluded that there would be no adverse effect on the integrity of the TBH SPA from changes to air quality

arising as a result of the Local Plan Update (which includes the Proposed Development), either alone or in-combination with other plans and projects. This conclusion can therefore be adopted as the conclusion reached for the in-combination assessment of the Proposed Development.

6.32 A summary of the Local Plan HRA Update air quality assessment can be found below.

NO_x

6.33 The change in NOx concentrations for the modelled receptors on transects associated with the component SSSI's closest to the Proposed Development (Broadmoor and Bagshot Woods and Heaths SSSI, Bramshill SSSI and Castle Bottom to Yateley and Hawley Commons SSSI) was found to increase by no more than 0.4% of the Critical Level (30 μgm^{-3}) between the 2040 Do Minimum Scenario and the 2040 Do Something Scenario, with the majority of receptors predicted to be subject to changes of between 0.0% and 0.2% of the Critical Level. This falls below the 1% screening threshold, and as a result, adverse effects arising from changes in NO_x levels were not predicted as result of the Update Local Plan Update (which includes the Proposed Development) alone.

6.34 When considered in-combination, changes in NOx levels at the majority of receptors were found to exceed the 1% screening threshold. However, it was found that the total NO_x forecast (the 'Predicted Environmental Concentration' or 'PEC') did not exceed the Critical Level on any of the modelled receptors within the TBH SPA. It was therefore concluded that adverse effects on the TBH SPA from changes in NO_x levels resulting from the Local Plan Update (including the Proposed Development) would not arise, either alone or in-combination with other plans and projects.

Ammonia

6.35 In order to be precautionary, the Local Plan Update air quality modelling applied the lower Critical Level for NH_3, of 1 μgm^{-3}, on the basis that sensitive lower plants (lichens and bryophytes) could be present as qualifying features or interest features associated with the International sites assessed. When comparing the 2040 Do Minimum Scenario and the 2040 Do Something Scenario,, changes in NH_3 concentrations exceeded more than 1% of the Critical Level on 12 transects associated with component SSSI's closest to the Proposed Development, with changes ranging from 1.0% to 4.2% of the CL. Similarly, the in-combination assessment found that the CL was exceeded by 1% or more on the majority of transects.

6.36 However, the assessment went on to consider that the upper CL for NH_3 - $3\mu gm^{-3}$ - should be applied to assess adverse effects on the TBH SPA (where it does not overlap with other Internationally designated sites) on the basis that sensitive lichens and bryophytes are not a habitat component involved in supporting the Annex I birds for which the SPA is designated. Once the upper CL was applied, changes in NH3 concentrations did not exceed more than 1% of the CL on any TBH SPA transect, either alone or in-combination with other plans and projects.

6.37 Therefore, adverse effects arising from changes in ammonia levels resulting from the Local Plan Update (which includes the Proposed Development) were not predicted on any of the component parts of the TBH SPA within proximity of the Site, either alone or in-combination with other plans and projects.

Nitrogen Deposition

6.38 When comparing the 2040 Do Minimum Scenario and the 2040 Do Something Scenario for N deposition, the Critical Load of 5 kg N/ha/yr was exceeded by more than 1% on 13 transects associated with component SSSI's closest to the Proposed Development, with increases in N deposition ranging from 1.0% to 4.6% of the CL.

6.39 Despite this, the forecasted N deposition rates on 6 of the transects was very small and considered to be well within the range of normal background variation, with levels of 0.05kgN/ha/yr or lower. Furthermore, on these transects the N deposition rates were considered to be too small to make a meaningful contribution to any in-combination effect. As such, no adverse effect on these TBH SPA transects as a result of the Local Plan Update (which includes the Proposed Development) was predicted by the Local Plan Update HRA, either alone or in-combination.

6.40 On those transects where N deposition rates were higher (up to 0.15 kg N/ha/yr when the Local Plan Update is considered alone, and 15.0 kgN/ha/yr when considered in combination) and in excess of 1% of the CL, it was determined that no heathland habitats, upon which the qualifying bird species of the TBH SPA principally rely, were present. Furthermore, the total future N deposition rates (the PEC) in both the Do Something and Do Minimum scenarios was found to have decreased compared to the levels recorded in the baseline year (2021). This can be attributed to the anticipated decrease in vehicle and background NO_x emissions taken into account within the air quality modelling.

6.41 The Local Plan Update HRA therefore concluded that adverse effects on the TBH SPA from changes in N deposition rates would not arise from the Local Plan Update (which includes the Proposed Development) either alone or in-combination with other plans and projects.

Conclusion

6.42 On the basis of the above analysis, no adverse effects on the integrity of the TBH SPA from changes in air quality (NOx, NH_3 and N deposition) are predicted to arise from the Proposed Development, considered alone and in combination with other plans and projects.

7. SUMMARY AND CONCLUSIONS

Summary

7.1 **Table 7.1** below provides a summary of the impact pathways considered in this Information for HRA report, the conclusion of the screening stage assessment carried out in respect of each, and a summary of the impact avoidance and mitigation strategy (IAMS) that is proposed to address the potential for likely significant effects.

7.2 The IAMS summarised below, delivered in advance of first occupation/operation, and secured in perpetuity, will ensure that adverse effects on the integrity of the TBH SPA considered in this assessment will not arise as a result of the Proposed Development, either alone or in combination with other plans and projects.

Table 7.1: Summary of information for HRA

Report Section	Impact Pathway	Scoping Result	Screening Stage Conclusion	Impact Avoidance and Mitigation Measures Proposed to Ensure No Adverse Effect and pass Appropriate Assessment test (alone and in combination)
		Thames Basin Heaths SPA		
5	Increased recreational pressure	IN	Likely Significant Effect	Financial payment to UoR to secure capacity within a SANG. Contribution to SAMM via S106 Agreement.
6	Changes in air quality	IN	Likely Significant Effect	N/A - AA concluded no adverse effect on the site integrity

Conclusions in Respect of the Habitats Regulations

7.3 In accordance with the Conservation of Habitats and Species Regulations 2017 (as amended), and taking into account the most recent relevant case law, it is considered that WBC can safely conclude that the proposals **will not have an adverse effect on the integrity** of the TBH SPA International Site considered in this assessment, either alone or in combination with other plans or projects.

7.4 Consequently, an AA of the proposals under Regulation 63(1) of the Conservation of Habitats and Species Regulations 2017 (as amended) can be passed.

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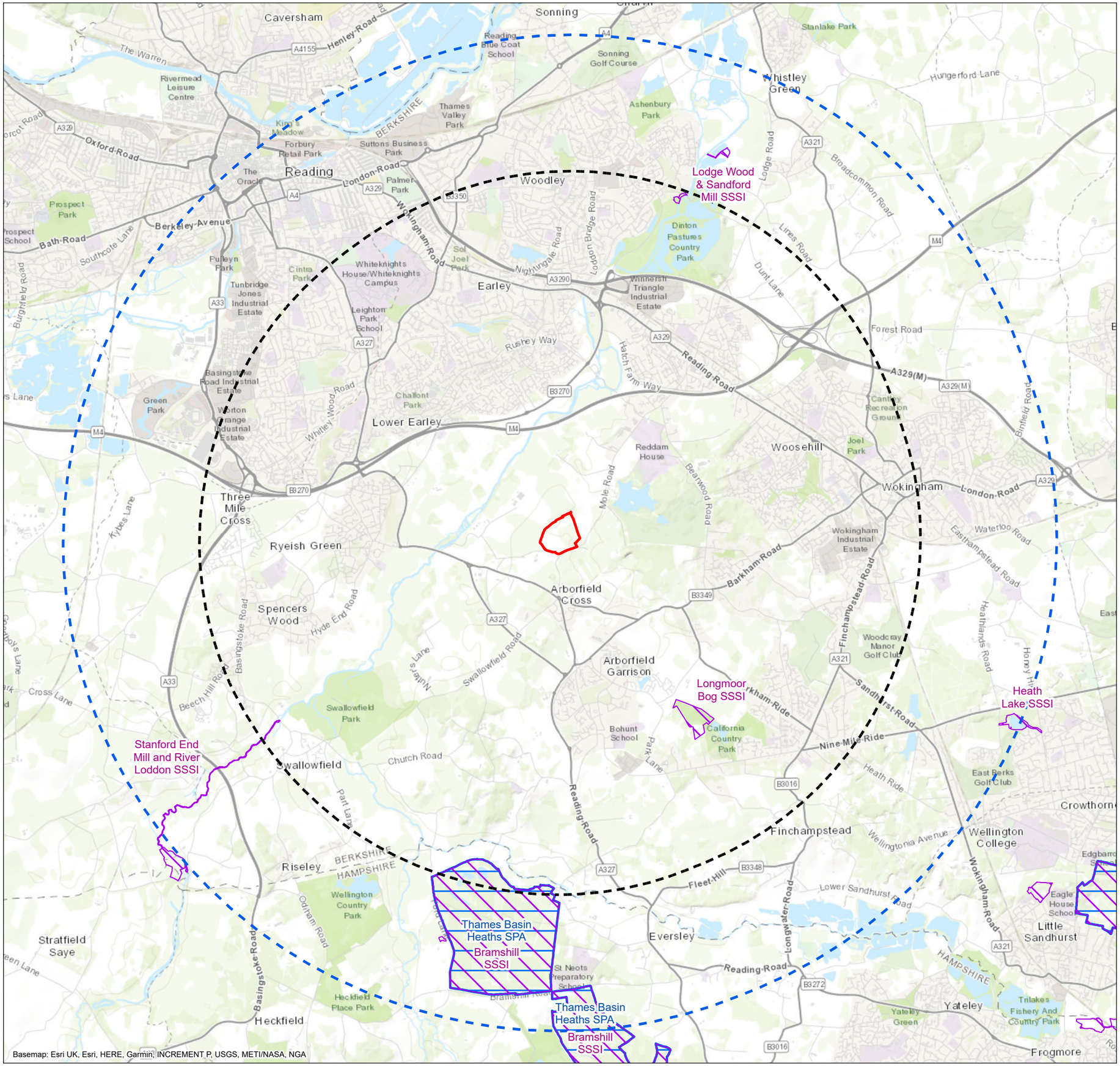

MAP 1 Site Location & Statutory Designated Sites

KEY

- Site boundary
- 5km linear distance from site boundary
- 7km linear distance from site boundary
- Special Protection Areas (SPA)
- Sites of Special Scientific Interest (SSSI)

SCALE: 1:55,000 at A3

0 500 1,000 1,500 2,000 Metres

N

EPR

CLIENT: Gleeson Strategic Land

PROJECT: Newland Farm

DATE: 26 June 2025

Y:\GleesonLane, LGV 2231\GIS\HRA\Map1_StatutoryDesignations_P3026_3893_260825.aprx

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Appendix 1
Relevant Legislation, Policy, Guidance and Case Law

Legislation

The Conservation of Habitats and Species Regulations 2017 (as amended) (known as the "Habitats Regulations") were originally drawn up to transpose the European Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the "Habitats Directive") into UK legislation. Following the UK's exit from the European Union, the Habitats Regulations – as amended by Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 – remain in force until such a time as they are superseded by new or updated domestic legislation.

The key sections of relevance to projects appear from Regulation 63 onwards. Regulation 63 states that:

> *"(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 of the plan or project for that site in view of that site's conservation objectives.*
>
> *(2) A person applying for any such consent, permission or other authorisation must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable it to determine whether an appropriate assessment is required."* **[our emphasis]**

The above legislation thus requires that a sequential approach be adopted when addressing potential impacts upon International Sites. Guidance for doing this in practice has been published by the European Commission and others, and is discussed below.

The requirement for HRA under the Habitats Regulations applies to Special Areas of Conservation (SACs) designated under for certain Internationally important habitat types and animal populations under the aforementioned Habitats Directive, and Special Protection Areas (SPAs) classified under the earlier Birds Directive (now codified under Directive 2009/147/EC).

SACs and SPAs are collectively referred to as either European Sites or Natura 2000 sites in Europe, and are now part of the UK's "National Sites Network". However, as the National Planning Policy Framework (2019) also applies the protection afforded to these sites to Ramsar Sites (which are wetlands of International Importance designated under the separate Ramsar Convention in Iran in 1979) as a matter of National Planning Policy, these three types of site are collectively referred to as 'International Sites' for expediency.

Policy

National Planning Policy Framework 2024 (NPPF)

Section 15 ('Conserving and enhancing the natural environment') of the NPPF sets out expectations and principles regarding the protection of designated sites of importance for biodiversity, including international or 'habitats' sites. Paragraph 195 states:

> *"The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site."* [our emphasis]

Wokingham Borough Council Adopted Core Strategy (January 2010)

The Wokingham Borough Council Adopted Core Strategy: Development Plan Document (January 2010) sets out the framework for the development of the borough, through a series of policies and strategies.

Policy CP8 – Thames Basin Heaths Special Protection Area states:

> *"Development which alone or in combination is likely to have a significant effects on the Thames Basin Heaths Special Protection Area will be required to demonstrate that adequate measures to avoid and mitigate any potential adverse effects are delivered."*

Wokingham Borough Local Plan Update 2023-2040

The Wokingham Borough Local Plan Update 2023-2040 was submitted to the Secretary of State for examination by an independent Planning Inspector in February 2025. Whilst not currently enforced, consideration has been given to these emerging policies during the course of the impact assessment, and design of mitigation, compensation, and enhancement strategies.

Policy NE1: Biodiversity and Geodiversity, sets out the expectations of development in respect of local biodiversity and states:

> *"[…] Internationally Designated Sites*
>
> *4. Development proposals likely to result in a significant effect on internationally designated sites either alone or in combination with other plans or projects, will not be supported unless it can be demonstrated that the adverse effects on the integrity of the designated site can be fully avoided, mitigated and/or compensated."*

Guidance

The Habitats Regulations Assessment Process

Although the UK has now left the European Union, as the HRA process originates from the European Habitats Directive and must still (at time of writing) be interpreted in accordance with rulings from the CJEU, reference has been made to European Commission guidance on Habitats Regulations Assessment (EC, 2000, 2001, 2018). This guidance provides advice on meeting the correct stepwise approach required by Article 6 of the Habitats Directive. The whole process is usually referred to in the

UK as “Habitats Regulations Assessment” (HRA) and is split into the following stages that are undertaken in sequence:

- Screening the need for an Appropriate Assessment;
- The “Appropriate Assessment” (AA);
- The Assessment of Alternative Solutions; and
- Assessment where no alternative solutions exist and where adverse impacts remain (also known as the test for ‘’Imperative Reasons of Overriding Public Interest’’ or IROPI).

Each of the stages determines the requirement for the next one in the sequence to be carried out. For example, if it is concluded at the Screening stage that the plan or project is unlikely to generate significant adverse effects upon the International site in question, there is no need to proceed to the Appropriate Assessment stage, and so on.

Undertaking the Habitats Regulations Assessment process is the responsibility of the decision maker as the Competent Authority for the purposes of the Habitats Regulations (in this case Wokingham Borough Council as the Local Planning Authority); although it is the responsibility of the proponent of a plan or project to provide the Competent Authority with the information that they require for this purpose.

In the first instance, this report is intended to provide the Competent Authority under the Habitats Regulations with the information that is required in order to determine whether or not the proposals are likely to have a significant effect on an International Site either alone or in combination with other plans and projects, and consequently whether or not an Appropriate Assessment is required. Should it be considered that an Appropriate Assessment is required, then this report also aims to supply the information that will be necessary in determining whether or not there will be an adverse effect on the integrity of the International Site(s) concerned.

Other HRA guidance that has been taken into account during the preparation of this document includes:

- The European Commission’s ‘Managing Natura 2000 Sites’ document (2018) that provides guidance on some of the key concepts enshrined in Article 6 of the Habitats Directive);
- The European Commission’s 'Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites’ (Revised Version, 2021) that outlines the key steps and principles of the HRA process;
- The 'Communication from the Commission on the Precautionary Principle’ (2000) which provides guidance on the correct application of the precautionary principle, stating that it should be applied with proportionality and should not aim at zero risk;
- Circular 06/05 ‘Biodiversity and Geological Conservation – Statutory Obligations and Their Impact Within the Planning System’; and
- ‘Planning for the Protection of European Sites’ (DCLG, 2006); and
- PINS NOTE 05/2018 ‘Consideration of avoidance and reduction measures in Habitats Regulations Assessment: People over Wind, Peter Sweetman v Coillte Teoranta’ (Planning Inspectorate 9 May 2018).

The National Planning Policy Framework (NPPF) (2024) also contains sections of relevance to HRA and International Sites, and this has been taken into account.

The Chartered Institute of Ecology and Environmental Assessment's Guidelines for Ecological Impact Assessment in the United Kingdom (CIEEM, 2018)

Whilst the key guidance documents for the HRA process are those produced by the European Commission (EC, 2000, 2001, 2018), the approach taken in this document has also been carried out in accordance with the broad process advocated in Version 1.3 of the Chartered Institute of Ecology and Environmental Management's 'Guidelines for Ecological Impact Assessment' (the "EcIA Guidelines").

These guidelines are endorsed by the main stakeholders in the UK planning system that have a specific responsibility for wildlife and nature conservation, including Natural England, the Environment Agency, and the Wildlife Trusts.

Broadly, the EcIA Guidelines prescribe an approach that can be summarised as the following sequential process:

- Establishing the spatial extent of the Zone of Influence (ZoI) within which the proposed development is likely to exert biophysical changes upon the environment during either the site clearance, construction, or operational phase;
- The identification, description and valuation (where possible) of ecological features and resources of value within that ZoI (note that in this case the ecological features of relevance will be those for which the relevant International Sites were designated, and consequently of International nature conservation value);
- The assessment of the likely magnitude and significance of potential impacts and effects that might be exerted upon those features and resources in the absence of any impact avoidance or mitigation measures;
- The development of impact avoidance and/or mitigation measures to avoid and/or minimise potentially significant effects;
- The assessment of any residual effects (positive or negative) that would remain following the application of any impact avoidance and/or mitigation measures, and the development of appropriate compensation measures where significant residual negative effects remain;
- The development of ecological enhancement measures to be incorporated into the project proposals to deliver net gains; and
- Advice on the consequent potential implications of relevant nature conservation related legislation or planning policy.

Other subject-specific guidance is referred to in the relevant assessment sections in this document.

Relevant Case Law

There is a wide body of case law pertaining to the HRA process that provides insight into the correct interpretation of the Habitats Regulations, from both domestic UK Courts and the Court of Justice of the European Union (CJEU). Details of the most relevant articles of case law are given below (organised according to points of relevance for ease of reading, rather than chronology, and with some relevant interpretation from Planning Inquiry decisions presented), and include the following:

- CJEU Case C-127/02 (2002) – The 'Waddenzee' Case;
- The Supreme Court ruling of R. (Champion) v North Norfolk DC [2015] 1 WLR 3710;

- UK Court of Appeal judgement in R (on the application of Boggis) v Natural England (2009) EWCA Civ 1061;
- The UK High Court, in the judgement of J Sullivan in Hart DC v Secretary of State for Communities and Local Government (referred to as 'Dilly Lane') (2008);
- CJEU Case C-323/17 in 2018 (referred to as 'People over Wind');
- Eco Advocacy CLG and An Bord Pleanála (Case C-721/21) (June 2023);
- Administrative Court ruling on R (on the application of Christopher Prideaux) v Buckinghamshire County Council [2013] EWHC 1054 (Admin)

Case C-127/02 of the European Court of Justice (ECJ) – The 'Waddenzee' Case

The ECJ Waddenzee Case clarified a number of important points in relation to the correct interpretation of Article 6(3) of the Habitats Directive in particular. This clarification has been helpfully set out in Government Circular 06/05 *'Biodiversity and Geological Conservation'*.

In particular, one of the key messages from the ECJ was that, where a plan or project has the potential to affect a Natura 2000 site, an 'Appropriate Assessment' is necessary:

> *"….if it cannot be excluded, on the basis of **objective information**, that it will have a significant effect on that site, either alone or in combination with other plans and projects"* [our emphasis]
>
> [Paragraph 13 of Circular 06/05 or paragraph 44 of the Waddenzee Judgment]

The ECJ expanded upon this by saying that:

> *''…where such a plan or project has an effect on that site but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the site concerned.''*
>
> [Paragraph 47 of the Waddenzee Judgement]

Further to the above the ECJ clarified that, once an Appropriate Assessment has been triggered, except in the circumstances outlined in Article 6(4) of the Directive, a plan or project can only be authorised where it will not have an adverse effect on the integrity of the Natura 2000 site, and that:

> *''That is the case where no reasonable scientific doubt remains as to the absence of such effects''.*
>
> [Paragraph 21 of Circular 06/05, or paragraph 59 of the Waddenzee Judgement]

Champion in the Supreme Court

The Supreme Court ruling of R. (Champion) v North Norfolk DC [2015] 1 WLR 3710 considers the "Screening" stage in HRA and clarifies the level of certainty required in an Appropriate Assessment, further building on the Waddenzee Judgment.

This case related to an earlier Court of Appeal decision which upheld the consenting of a proposed development by North Norfolk District Council for the Crisp Malting Group to erect two silos and construct a lorry park near the river Newsum, an SAC, without the need for an EIA, or an Appropriate

Assessment under the Habitats Regulations. After the developer produced a report that recommended pollution prevention strategies and mitigation measures and bodies such as Natural England and the Environment Agency withdrew their objections, NNDC approved the development with planning conditions attached.

The Supreme Court said that first stage of Article 6(3) was to consider whether there "may" be a significant effect, until Champion it was common to call this first stage a "Screening" stage, and much of the guidance and case-law pre-dating (and indeed post-dating) this case uses this language. Lord Carnwath said:

> *"the Habitats Directive and Regulations contain no equivalent to "screening" under the EIA Regulations. Mr Buxton relies on the opinion of Advocate General Sharpston in the Sweetman case [2014] PTSR 1092 itself. She was principally concerned to dispel confusion created by different terminology used in some of the cases to describe the test under article 6(3) . In her view all that was needed at what she called "the first stage" of article 6(3) was to show that there "may" be a significant effect …*
>
> *However, there is nothing in the language of the Habitats Directive to support a separate stage of "screening" in any formal sense. Nor is it reflected in the reasoning of the CJEU [Court of Justice of the European Union] itself. In Sweetman the first stage was the appropriate assessment, the second the decision whether in the light of its conclusions the project could be permitted. "Triggering" was simply the word the CJEU used to set the threshold for the first stage. The same approach is also found in the European Commission's guidance Managing Natura 2000 Sites …*
>
> *… At least in this country the use of the term "screening" in relation to the Habitats Directive is potentially confusing, because of the technical meaning it has under the EIA Regulations. The formal procedures prescribed for EIA purposes, including "screening", preparation of an environmental statement, and mandatory public consultation, have no counterpart in the Habitats legislation" [our addition]*

Champion therefore clarified that there is no prescribed filtering process at the Screening Stage of the Directive, but that does not mean that a Competent Authority must ignore information in front of them when deciding whether or not to carry out an Appropriate Assessment. This is supported by the Dilly Lane Case (discussed further below).

The process for, and certainty required in an Appropriate Assessment is also considered:

> *"All that is required is that, in a case where the authority has found there to be a risk of significant adverse effects to a protected site, there should be an appropriate assessment. Appropriate is not a technical term. It indicates no more than that the assessment should be appropriate to the task in hand: that task being to satisfy the responsible authority that the project will not adversely affect the integrity of the site concerned taking account of the matters set in the article. As the court itself indicated in Waddenzee the context implies a high standard of investigation. However, as Advocate General Kokott said in Waddenzee [2005] All ER (EC) 353, para 107:*
>
> *"the necessary certainty cannot be construed as meaning absolute certainty since that is almost impossible to attain. Instead, it is clear from the second sentence of article 6(3) of the Habitats Directive that the competent authorities must take a decision having*

assessed all the relevant information which is set out in particular in the appropriate assessment. The conclusion of this assessment is, of necessity, subjective in nature. Therefore, the competent authorities can, from their point of view, be certain that there will be no adverse effects even though, from an objective point of view, there is no absolute certainty."

In short, no special procedure is prescribed, and, while a high standard of investigation is demanded, the issue ultimately rests on the judgment of the authority."

R (on the application of Boggis) v Natural England

The Court of Appeal (Civil Division) ruling on R (on the application of Boggis) v Natural England [2009] EWCA Civ 1061, concerned a dispute over the extension of a SSSI on the Suffolk Coast to include an area subject to cliff erosion, as this could prevent affected residents from creating sea defences to protect their properties.

The case is of interest as it reiterates the earlier ruling in Waddenzee 2004 that the requirement for an appropriate assessment is conditional on there being "a probability or a risk that the [plan or project] will have significant effects on the site concerned."

The Appeal Court found that "a claimant who alleges that there was a risk which should have been considered by the authorising authority so that it could decide whether that risk could be "excluded on the basis of objective information", must produce credible evidence that there was a **real, rather than a hypothetical, risk** which should have been considered." (para 37). [Our emphasis].

The 'Dilly Lane' and 'People over Wind' Judgments

The High Court, in the judgment of J Sullivan in Hart DC v Secretary of State for Communities and Local Government (2008), has for some time formed the basis of established HRA Practice pertaining to the Thames Basin Heaths SPA, insofar as it has determined the approach to the Screening and Appropriate Assessment stages of the HRA process.

Up until recently the established approach derived from the Dilly Lane Case meant that where impact avoidance and mitigation measures (such as SANG) were put forward as integral parts of a plan or project, and where the Competent Authority was also satisfied that those measures would both be effective, deliverable and could be secured, then there was no need for an Appropriate Assessment to be carried out.

This was because in such circumstances it was considered that the information pertaining to the efficacy of those impact avoidance and mitigation measures represented the 'objective information' referred to by the European Court of Justice (ECJ) in the Waddenzee case (above)

More recently however, in case C-323/17 of the ECJ (referred to as 'People over Wind'), the ECJ concluded that it was not appropriate to take account of *"…measures intended to avoid or reduce the harmful effects of the plan or project…"* at the Screening stage of the HRA process. Although there appear to be some inconsistences between this judgment and previous ECJ case law, until such time as the ECJ may provide further clarification, it will be necessary to consider the efficacy of impact avoidance and mitigation measures such as SANG and SAMM through the medium of an Appropriate Assessment in order to ensure compliance with the findings of the judgment.

A further more recent ECJ case, known as the *Grace and Sweetman* case (July 2018)(Case C-164/17) appears to have reiterated the approach taken in *'People over Wind'* with respect to measures intended to avoid or reduce the harmful effects of a plan or project, as well as outlining that compensatory measures should only be taken into consideration in the circumstances laid out by Article 6(4) of the Habitats Directive (i.e. where there are imperative reasons of overriding public interest).

Eco Advocacy CLG and An Bord Pleanála (Case C-721/21) (June 2023)

This case from June 2023 followed on from the People over Wind' (POW) ruling in 2018 (C-323/17) outlined above, which ruled that "…it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that [The European designated] site…"

The Eco Advocacy CLG case clarified that the CJEU considers features to be 'measures intended to avoid or reduce the harmful effects of the plan or project' if they have been deliberately introduced into the project for that purpose alone, and otherwise the project could proceed without it. If however projects of that type are always required to incorporate those features regardless of the potential of the project to affect a European site, then such features can be considered as 'standard features, inherent in such a plan or project' and can be taken into account at the Screening stage of HRA, regardless of whether or not the feature has the effect of reducing harm to a European protected site.

R (on the Application of Prideaux) v Buckinghamshire CC

The Administrative Court ruling on R (on the application of Christopher Prideaux) v Buckinghamshire County Council [2013] EWHC 1054 (Admin) is notable in that it discusses the weight that should be given to Natural England's expert opinion in planning decisions.

In this case, the claimant (Prideaux) challenged a planning permission granted by the defendant (Buckinghamshire CC) for an energy from waste facility, on nature conservation related grounds. Natural England had initially objected to the proposals due to likely negative impacts on the interest features of nearby SSSIs. Following continued consultation with the applicant, and the provision of the further information by the applicant's ecologist regarding the mitigation and compensation proposed, Natural England withdrew their objection.

Mr Justice Lindblom considers the weight that should be given to Natural England's opinion at paragraph 116:

> *"(…) It is clear that the committee gave considerable weight to the conclusions reached by Natural England. This is hardly surprising. It is exactly what one would expect. Natural England is the "appropriate nature conservation body" under the regulations. Its views on issues relating to nature conservation deserve great weight. An authority may sensibly rely on those views. It is not bound to agree with them, but it would need cogent reasons for departing from them."*

At paragraph 133 he goes on to underline the importance of making a decision based on the sum of information provided, including any extra material submitted following the initial application:

> *"It is important, I think, to view the relevant ecological material as a whole, as it was after a process of consultation, the submission of further information, the refinement of FCC's proposals, the evolution of the intended measures for avoiding harmful impacts on the*

species potentially affected by the development, SLR's correspondence [SLR were the developer's ecological consultants] and dialogue with Natural England, and the withdrawal of Natural England's objection." [our additio

Appendix 2

Thames Basin Heaths Special Protection Area Supplementary Information

EC Directive 79/409 on the Conservation of Wild Birds
Special Protection Area (SPA)

Name: Thames Basin Heaths

Unitary Authority/County: Bracknell Forest; Hampshire; Surrey; Windsor and Maidenhead.

Site description: The Thames Basin Heaths SPA is a composite site that is located across the counties of Surrey, Hampshire and Berkshire in southern England. It encompasses all or parts of Ash to Brookwood Heaths Site of Special Scientific Interest (SSSI), Bourley and Long Valley SSSI, Bramshill SSSI, Broadmoor to Bagshot Woods and Heaths SSSI, Castle Bottom to Yateley and Hawley Commons SSSI, Chobham Common SSSI, Colony Bog and Bagshot Heaths SSSI, Eelmoor Marsh SSSI, Hazeley Heath SSSI, Horsell Common SSSI, Ockham and Wisley Commons SSSI, Sandhurst to Owlsmoor Bogs and Heaths SSSI and Whitmoor Common SSSI.

The open heathland habitats overlie sand and gravel sediments which give rise to sandy or peaty acidic soils, supporting dry heathy vegetation on well-drained slopes, wet heath on low-lying shallow slopes and bogs in valleys. The site consists of tracts of heathland, scrub and woodland, once almost continuous, but now fragmented into separate blocks by roads, urban development and farmland. Less open habitats of scrub, acidic woodland and conifer plantations dominate, within which are scattered areas of open heath and mire. The site supports important breeding populations of a number of birds of lowland heathland, especially nightjar *Caprimulgus europaeus* and woodlark *Lullula arborea*, both of which nest on the ground, often at the woodland/heathland edge, and Dartford warbler *Sylvia undata*, which often nests in gorse *Ulex* sp. Scattered trees and scrub are used for roosting.

Together with the nearby Ashdown Forest and Wealden Heaths SPAs, the Thames Basin Heaths form part of a complex of heathlands in southern England that support important breeding bird populations.

Size of SPA: The SPA covers an area of 8274.72 ha.

Qualifying species:
The site qualifies under **article 4.1** of the Directive (79/409/EEC) as it is used regularly by 1% or more of the Great Britain populations of the following species listed in Annex I in any season:

Annex 1 species	Count and season	Period	% of GB population
Nightjar *Caprimulgus europaeus*	264 churring males – breeding	1998/99	7.8%
Woodlark *Lullula arborea*	149 pairs – breeding	1997	9.9%
Dartford warbler *Sylvia undata*	445 pairs – breeding	1999	27.8%

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 European importance (less than 1% of the GB population).

Status of SPA:
Thames Basin Heaths was classified as a Special Protection Area on 9 March 2005.

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9012141**

SITENAME **Thames Basin Heaths**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

Back to top

1.1 Type	1.2 Site code
A	UK9012141

1.3 Site name

Thames Basin Heaths

1.4 First Compilation date	1.5 Update date
2005-03	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	2005-03
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

Back to top

2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
-0.7383	51.3717

2.2 Area [ha]:

8311.06

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKJ2	Surrey, East and West Sussex
UKJ1	Berkshire, Buckinghamshire and Oxfordshire
UKJ3	Hampshire and Isle of Wight

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

Back to top

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A224	Caprimulgus europaeus			r	264	264	p	P	G	B		C	B
B	A246	Lullula arborea			r	149	149	p		G	B		C	B
B	A302	Sylvia undata			r	445	445	p		G	A		C	A

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information

- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

Back to top

4.1 General site character

Habitat class	% Cover
N06	0.6
N17	34.2
N07	4.9
N16	7.0
N19	3.6
N23	5.7
N08	44.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: clay,alluvium,sedimentary,acidic,sand,nutrient-poor 2 Terrestrial: Geomorphology and landscape: lowland

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Caprimulgus europaeus 7.8% of the GB breeding population Count mean (RSPB 1998-99) Lullula arborea 9.9% of the GB breeding population Count as at 1997 (Wotton & Gillings 2000) Sylvia undata 27.8% of the GB breeding population Count as at 1999 (RSPB)

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	H04		B
H	G05		I
H	B02		I
H	K02		I
H	G01		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A02		I
H	B02		I
H	A04		I
H	D05		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

Back to top

5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

6. SITE MANAGEMENT

Back to top

6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

7. MAP OF THE SITES

Back to top

INSPIRE ID:

Map delivered as PDF in electronic format (optional)

- [ ] Yes
- [X] No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

European Site Conservation Objectives for Thames Basin Heaths Special Protection Area Site Code: UK9012141

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

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

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

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

A224 *Caprimulgus europaeus*; European nightjar (Breeding)

A246 *Lullula arborea*; Woodlark (Breeding)

A302 *Sylvia undata*; Dartford warbler (Breeding)

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2017 (as amended) ('the Habitats Regulations'). They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment' including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives, and the accompanying Supplementary Advice (where this is available), will also provide a framework to inform the management of the European Site and the prevention of deterioration of habitats and significant disturbance of its qualifying features

These Conservation Objectives are set for each bird feature for a Special Protection Area (SPA).

Where these objectives are being met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving the aims of the Wild Birds Directive.

Publication date: 21 February 2019 (version 3). This document updates and replaces an earlier version dated 30 June 2014 to reflect the consolidation of the Habitats Regulations in 2017.