

REPORT TO INFORM A HABITAT REGULATIONS ASSESSMENT

BARKHAM SQUARE, ARBORFIELD

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REPORT

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1 INTRODUCTION

1.1 Background

- 1.1.1 This report provides information for a Habitats Regulations Assessment for the proposed residential development at Barkham Square, Arborfield (the Site).
- 1.1.2 The Site has been subject to a UK habitat classification survey (CSA, 2018) and Protected Species surveys (RPS, 2025) covering great crested newts, reptiles, dormouse, invertebrates, riparian mammals, white-clawed crayfish, bat activity, bat emergence and breeding birds. A river MoRPh survey was also undertaken.
- 1.1.3 The Site is dominated by species-poor grassland used for sheep grazing and native hedgerows with trees. Two parcels of ancient woodland are also present, remnants of the former Kidgham Copse. A watercourse, the Barkham Brook, runs through the centre of the site in a north-south orientation, flowing from south to north. There is additionally a large pond adjacent to the Brook in the south of the Site.
- 1.1.4 This report assesses the potential for significant impacts on the designated features of the following habitat site which is located within 10km of the Site:
 - Thames Basin Heaths SPA – 3.45km south-west.
- 1.1.5 The proposed development will comprise up to 660 residential buildings along with associated infrastructure and greenspaces.

1.2 Scope and Objectives

- 1.2.1 This report has been prepared in order to provide the information necessary for the Competent Authority (Wokingham Borough Council) to assess whether the development could have a Likely Significant Effect (LSE) on the integrity of the European designated sites (part of the national site network, commonly referred to as European sites) in line with the tests under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 as amended (the Habitats Regulations).

Appropriate Assessment Legislation

- 1.2.2 The need for an Appropriate Assessment is set out in Regulation 63 of the Habitats Regulations.
- 1.2.3 The Habitats Regulations apply the precautionary principle to relevant designated areas, in so much as plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of a SPA or SAC. Under Government advice, Proposed SPAs (pSPA) should also be treated as having protection under the Habitats Regulations.
- 1.2.4 It is Government policy (as outlined in Section 194 of the National Planning Policy Framework) for sites designated under the Convention on Wetlands of International Importance (Ramsar sites) to be treated as having equivalent status to European sites. As such, information to inform an Appropriate Assessment needs to cover features of any relevant Ramsar site.
- 1.2.5 In undertaking an assessment, competent authorities (in this case the appropriate local authority, Wokingham Borough Council) must have regard to both direct and indirect effects on an interest feature of the European site, as well as cumulative effects. This may include consideration of features and issues outside the boundary of a European site.
- 1.2.6 Plans and projects for which it is not possible to conclude that there would be no adverse effect on the integrity of the European sites may still be permitted if there are no

alternatives and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network.

- 1.2.7 A Court of Justice of the European Union (CJEU) judgment (Case C-323/17, known as People Over Wind) ruled that Article 6(3) of the Habitats Directive should be interpreted as meaning that mitigation/avoidance measures should only be considered within the framework of an appropriate assessment and not at a screening stage.

2 METHODS

2.1 Process

2.1.1 The stages of HRA are described below, adapted from Government guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations and any relevant changes to the plan until no significant adverse effects remain.

- Stage 1 – Qualifying Interest Features: Collect information on identified European sites and Ramsar sites and their conservation objectives.
- Stage 2 – Likely Significant Effect: Determine whether, in the absence of mitigation/avoidance measures, the planning application is likely to have a significant effect on relevant European site and Ramsar sites.
- Stage 3 – Appropriate Assessment: Assess the likely significant effects of the outline planning application on the conservation objectives of relevant European site and Ramsar sites and determine whether no adverse effect can be concluded both alone and in-combination with other plans or projects.

2.1.2 In line with the requirements of Regulation 63, Stages 2 and 3 must be completed both alone and in-combination with other plans and projects.

Stage 1 – Qualifying Interest Features

2.1.3 The qualifying interest features for the sites assessed in this report have been obtained via the citation details on the JNCC website. The conservation objectives provide the basis for determining what is currently, or may cause, a significant effect, and for informing the scope of appropriate assessments.

2.1.4 In addition to qualifying interest features, it is necessary to explore the environmental features and conditions required to maintain the integrity of the European sites, as well as both current condition and trends in environmental processes.

Stage 2 – Likely Significant Effect

2.1.5 The second stage is to determine whether there are any Likely Significant Effects (LSEs) on European sites as a result of the proposed development in the absence of mitigation. This is essentially a risk assessment to decide whether a more detailed assessment is required, and if so, the scope of the issues and features to be addressed.

2.1.6 This involves pathways through which the planning application could affect the interest features of relevant European sites, and then assessing in broad terms the magnitude of each effect to determine whether a LSE would occur.

2.1.7 The main purpose of this stage is to screen out those aspects of the proposal which would not give rise to LSEs, and to screen out features of each relevant European site that are not likely to be significantly affected. Judgements have been based on sound reasoning and within the context of best available knowledge on the various ways in which development of the nature proposed could impact on the interest features of the relevant European sites. Judgements are made in the absence of mitigation/avoidance measures, in line with the People over Wind judgement. If it cannot be concluded with confidence that adverse effects are unlikely, then under the precautionary principle, it is assumed that the issue requires more detailed consideration.

2.1.8 There is no formal screening stage under the Habitats Regulations, but for convenience the term is used here to refer to the consideration of whether the need for appropriate

assessment under the Habitats Regulations has been triggered according to the application of the precautionary principle summarised above. Experience suggests that the best approach to addressing this is on a site-by-site basis.

Stage 3 – Appropriate Assessment

- 2.1.9 The appropriate assessment stage assesses the effects of the Project on the qualifying features of the site, in view of the conservation objectives of relevant sites and determines whether a conclusion of no adverse effect on the integrity of the site in question can be reached for the Project alone and in-combination with other plans or projects.
- 2.1.10 It is at this stage that consideration of mitigation and avoidance measures can be made in making the judgement with respect to adverse effects on integrity.

3 STAGE 1 – QUALIFYING INTEREST FEATURES

3.1 European Designated Sites

3.1.1 The Information presented below is taken from the SPA JNCC citation.

Thames Basin Heaths SPA

- 3.1.2 The Thames Basin Heaths SPA was designated in 2005 and covers an area of 8,311.06 hectares. It comprises a range of remnant heathland and woodland sites across northern Hampshire, Berkshire and Surrey that were once continuous but are now fragmented into separate blocks by development and farmland. The open heathland and mire habitats are interspersed by woodland (both coniferous and broadleaved) and dense scrub. The area of the SPA is covered by 14 Sites of Special Scientific Interest (SSSI). A review of the condition of the underlying SSSI units was completed using information on the MAGIC website. The majority of units within the 14 SSSIs are in favourable condition with areas that are in unfavourable recovering.
- 3.1.3 The closest underlying SSSI to the Site is the Bramshill SSSI, 3.45km to the south west. The SPA was designated under Article 4.1 of the Birds Directive (2009/147/EC) by supporting populations of European importance of the following species listed on Annex I of the Directive:
- Dartford Warbler *Sylvia undata*, 445 pairs representing at least 27.8 % of the breeding population in Great Britain (Count as at 1999);
 - Nightjar *Caprimulgus europaeus*, 264 pairs representing at least 7.8 % of the breeding population in Great Britain (Count mean 1998-99); and Woodlark *Lullula arborea*, 149 pairs representing at least 9.9 % of the breeding population in Great Britain (Count as at 1997).
 - Woodlark *Lullula arborea*, 149 pairs representing at least 9.9 % of the breeding population in Great Britain (Count as at 1997).
- 3.1.4 The citation for the site provides the following description of the SPA (Natural England, 2019):
- 3.1.5 '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.
- 3.1.6 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 lowlying 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.

- 3.1.7 “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”.’
- 3.1.8 The Conservation Objectives for the SPA (Natural England, 2019) are to “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”*

Site Improvement Plan – Thames Basin Heaths SPA (Natural England, 2014)

- 3.1.7 The Site Improvement Plan (SIP) for the site includes the following priority issues:
- Public access disturbing European nightjar, woodlark and Dartford warbler populations;
 - Undergrazing;
 - Forestry and woodland management;
 - Hydrological changes;
 - Inappropriate scrub control;
 - Invasive species;
 - Wildfires;
 - Air pollution and the impact of atmospheric nitrogen;
 - The extent of populations and features unknown;
 - Military; and
 - Habitat fragmentation.
- 3.1.9 There are several proposed actions to address the above priority issues:
- Implementation of a wardening strategy and consistent access management strategies;
 - Implementation of appropriate alternative management where grazing is not practical, alternative uses for materials arising from habitat management such as biomass to bioenergy;
 - Undertake review of long-term forestry management policy in the complex to ensure suitable habitat conditions for Annex 1 birds are consistently maintained;
 - Commission of hydrological studies and implement of mire restoration plans;
 - Implement programme of scrub clearance to reverse effects of encroachment of heathland to follow on from investigation of sustainable uses of arisings;
 - Invasive Species Control Programme;
 - Completion of fire strategies and risk management plans for all sites and agree implementation in order to reduce fire risk;

- Site Nitrogen Action Plan;
- Establish sustainable long-term bird monitoring strategy which provides adequate coverage of all parts of both SPAs;
- Completion of integrated management plans for all military training sites in the complex; and
- Commission study to identify priorities for habitat management which reduces the adverse impacts of habitat fragmentation.

4 STAGE 2 – LIKELY SIGNIFICANT EFFECTS

- 4.1.1 This section deals with the screening of Likely Significant Effects (LSE) on the qualifying feature and sub-features of the relevant European site. All judgements are made in the absence of any mitigation/avoidance measures. The environmental pathways that could lead to a significant effect may be summarised as:
- Direct loss or damage of habitats within a designated site or of nearby areas used by interest species;
 - Changes in hydrology/drainage;
 - Changes in air quality;
 - Changes in water quality; and
 - Disturbance (construction activity, recreation, noise and lighting).
- 4.1.2 The likelihood of the development proposed within the planning application having a significant effect in the absence of mitigation is discussed for each of these environmental pathways in turn below.

4.2 Direct loss/ damage of habitats used by interest species

- 4.2.1 The Site is located at the closest point 3.45km to the north-east of the Thames Basin Heaths SPA. At this distance the proposed development will not result in the direct loss of any habitat within the European site.
- 4.2.2 The Site is not considered suitable for any of the interest feature bird species. Dartford warblers are small, insectivorous birds, resident in Britain and associated exclusively with heathland, favouring gorse with heather understorey for nesting. Being dependant on invertebrates as prey, they are strongly associated with heathland areas that provide year-round sources of such food, ie where there is sufficient habitat variation to do so. Dartford warblers have therefore been shown to have a strong affinity for heathland (Bibby 1979) and a negative association with woodland (van der Berg *et al.*, 2001).
- 4.2.3 Nightjars are summer visitors to the UK, arriving to breed around May and typically departing around August. They are also insectivorous, feeding on flying insects such as moths. They breed in open heathland and typically forage across heathland and early stage plantations but require such foraging to be close to their nesting territories and will actively avoid foraging in established woodland (Sharps *et al.*, 2015).
- 4.2.4 Woodlarks are associated with short vegetation for foraging (feeding mainly on spiders and beetles), interspersed with taller, dense vegetation for nesting, frequently tall heather or grass (Mallord *et al.*, 2007). They also utilise recently-cleared areas of coniferous plantation woodland for nesting.
- 4.2.5 Functionally, therefore, the grazed grassland/woodland of the Site is not habitat that would support the breeding, resting or feeding of interest feature birds. As such, there is no potential for the development to result in loss or damage of habitats used by species which are designated features of the European site identified in this report.
- 4.2.6 Consequently, it is concluded that the effects of direct habitat loss on qualifying features of the SPA can be screened out on the grounds of no LSE.

4.3 Hydrology / Water Quality

- 4.3.1 The Site is a minimum of 3.45km from the nearest underlying SSSI of the SPA, and there is therefore no possible pathway for surface water run-off during construction or operation

of the development to affect the European site given the distance and the lack of a hydrological connection.

- 4.3.2 Although the Barkham Brook flows to the north and eventually into the River Loddon, this river continues to flow in a northerly direction to its mouth at the River Thames in Wargrave away from the Thames Basin Heaths SPA. As such, there is no hydrological connectivity between the Site and the SPA and, therefore, no pathway by which changes in water quality to could impact the habitats that are supporting features of the designated site.
- 4.3.3 On this basis, it is concluded that the effects of hydrology and changes in water quality on qualifying features of the SPA can be screened out on the grounds of no LSE.

4.4 Air Quality

- 4.4.1 The Site is a minimum of 3.45km from the SPA, and there is therefore no possible pathway for dust generation during construction to affect the SPA.
- 4.4.2 The other potential impact pathway from changes to air quality is via emissions from traffic flows generated by the development if the development would result in increases in traffic movements along roads located in or adjacent to the SPA with interest features that are sensitive to increases in pollutants associated with traffic emissions (primarily NO_x and nutrient nitrogen deposition).
- 4.4.3 As set out in the traffic and transport ES Chapter, the Affected Road Network (the area within which the transport assessment has concluded there would be material change in traffic flows) is within circa 1km of the Site. Therefore, no modelling of roads adjacent to the SPA has been completed. Specifically, none of the roads in proximity to the SPA are those that would be used by new residents to travel to any of the key local towns (Wokingham and Reading, for example).
- 4.4.4 On this basis, therefore, changes in air quality derived from traffic-related emissions has been screened out on the grounds of no LSE.

4.5 Disturbance

Direct disturbance during construction or operation activity

- 4.5.1 The Site is a minimum of 3.45km from the Thames Basin Heaths SPA. Given the distance, there is no possible impact pathway for movement of people and vehicles during both the construction and operation of the proposed development to affect species that are designated features of the SPA.
- 4.5.2 Consequently, it is concluded that disturbance from activities associated by construction and operation of the development on the SPA can be screened out on the grounds of no LSE.

Recreation

- 4.5.3 Any development which results in a net increase in the residential population has the potential to generate additional recreational use of the SPA with public access in the vicinity. There are particular sensitivities associated with breeding ground-nesting birds that are qualifying features of the Thames Basin Heaths SPA.
- 4.5.4 The effects of increases in recreational activity on designated sites such as the Thames Basin Heaths have been extensively studied. Impacts may occur due to, for example:
- direct disturbance/damage to nests by walkers/dogs; and

- disturbance of birds using nests by humans/dogs such that birds abandon the nests.

- 4.5.5 Predation by domesticated animals, primarily cats, can be discounted given the distance between the Site and the nearest European site; evidence suggests that the maximum range for domestic cats is between 300 – 400 m (Thomas 2014).
- 4.5.6 Therefore, in the absence of avoidance/mitigation measures, there is the potential for new residents to regularly access the SPA, increasing the disturbance pressures on interest features, particularly ground nesting birds that are qualifying features of the SPA.
- 4.5.7 Therefore, the issue of recreation is taken through to Stage 3 Appropriate Assessment in order to determine whether such pressure may have an adverse effect on the integrity of the European site. This conclusion is both alone and in combination with other plans and projects.

Noise

- 4.5.8 Therefore, in the absence of avoidance/mitigation measures, there is the potential for new residents to regularly access the SPA, increasing the disturbance pressures on interest features, particularly ground nesting birds that are qualifying features of the SPA.
- 4.5.9 Therefore, the issue of recreation is taken through to Stage 3 Appropriate Assessment in order to determine whether such pressure may have an adverse effect on the integrity of the European site. This conclusion is both alone and in combination with other plans and projects.

Lighting

- 4.5.10 Therefore, in the absence of avoidance/mitigation measures, there is the potential for new residents to regularly access the SPA, increasing the disturbance pressures on interest features, particularly ground nesting birds that are qualifying features of the SPA.
- 4.5.11 Therefore, the issue of recreation is taken through to Stage 3 Appropriate Assessment in order to determine whether such pressure may have an adverse effect on the integrity of the European site. This conclusion is both alone and in combination with other plans and projects.

4.6 Screening stage summary

4.6.1 A summary of the outcomes of Stage 2 is presented in Table 4.1.

Table 4.1: Summary of Screen Stage

Potential impact	Screening Outcome	Features
Direct loss of habitats	No LSE	N/a
Habitat loss outwith a designated site used by an interest feature	No LSE	N/a
Hydrology/drainage	No LSE	N/a
Recreational disturbance	LSE	All

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Air quality	No LSE	All
Visual disturbance	No LSE	N/a
Noise disturbance	No LSE	N/a
Lighting disturbance	No LSE	N/a

4.6.2 It is therefore concluded that for the residential development at Barkham Square, the following sites are taken through to Stage 3: Appropriate Assessment:

- Thames Basin Heaths SPA in relation to recreational disturbance.

4.6.3 All other potential impacts, both alone and in combination with other plans and projects, can be screened out as not likely to have a significant effect.

5 STAGE 3: APPROPRIATE ASSESSMENT

5.1 Assessment of recreational disturbance effects

- 5.1.1 The development proposal will comprise up to 660 new residential properties with the potential to increase the population of the area by up to 1,584 individuals assuming an occupancy of 2.4 people per dwelling.
- 5.1.2 The Thames Basin Heaths comprise a series of lowland heathlands that are attractive natural areas for recreation, especially walking and dog walking. The Barkham Square development will lie within close travelling distance to the SPA.
- 5.1.3 Outdoor activities in the SPA could include walking, dog-walking, cycling, horse riding, kite flying, picnicking, motor cycling, model aircraft flying, camping and barbecuing, some of which will be unauthorised. Increased visitor numbers at the site will lead to more people on paths, and potential trespass.
- 5.1.4 Disturbance from people directly on the SPA is likely to be the most damaging to the bird species of interest, because the disturbance is intensified by its close proximity to the birds and frequency. The two main groups of visitors with the potential to cause disturbance to birds are walkers and dog walkers, because of the nature of their activities and the frequency of visits. Some research indicates that people with dogs can have a greater impact on birds than people walking without dogs, especially where dog walkers let their dogs off the lead, this is one of the main attractions for exercising dogs.
- 5.1.5 Disturbance can also cause delays to the start of breeding and thus the number of broods that could be raised in any one season.
- 5.1.6 The impact of recreational disturbance on the interest feature birds of the Thames Basin Heaths SPA has long been recognised with the publication in 2009 of a mitigation strategy to address such impacts and enable a conclusion of no adverse effect on the integrity of the SPA both alone and in combination with other plans/projects. The strategy has been adopted by all the local authorities within which the Thames Basin Heaths SPA sit, including Wokingham Borough Council (WBC 2025). The core components of the strategy are:
- Provision of Suitable Alternative Natural Greenspace (SANG) – these are alternative places to visit designed to attract new residents away from the SPA; and
 - Strategic Access Management and Monitoring (SAMM) measures – visitor management across the SPA via a team of wardens and monitoring programmes.
- 5.1.7 In addition, the strategy establishes three buffer zones around the SPA (all distances are from edge of the SPA):
- 0 – 400m: No residential development would normally be permitted within this zone as it is considered that the threat of predation of the interest feature birds by domestic cats would have a serious adverse effect on the populations of the birds;
 - 400m – 5km: Any residential development in this zone may result in adverse effects on the bird interest features and therefore would be subject to the requirements of the Strategy with respect to both SANG provision and SAMM measures; and
 - 5km – 7 km: Any residential development of greater than 50 dwellings may result in an adverse effect and therefore would be subject to the requirements of the Strategy.

- 5.1.8 The Barkham Square project is located 3.45km from the SPA and, as such, is located within the 400m – 5km zone. Therefore, in order to ensure a conclusion of no adverse effect on the integrity of the SPA, the project is required to provide appropriate SANG and SAMM measures.
- 5.1.9 Therefore, as per the Wokingham Borough Council guidance, the project has been designed to include a SANG at a ratio of 8ha of SANG per 1,000 new residents. With up to 1,584 new, the SANG would therefore be required to be:
- Requirement for SANG @ 8ha/1,000 population = $1,584/1,000 \times 8 = 12.67\text{ha}$
- 5.1.10 As shown on the Illustrative Masterplan (BMD.23.0016.SK.022.D), the SANG will be circa 13.23ha in size and, as such, is slightly oversized compared to the minimum.
- 5.1.11 The SANG is located to the east of the development, largely east of the Barkham Brook. The design has been subject to pre-application consultation with both Natural England who have confirmed that the overall layout and design are acceptable. The design incorporates the Brook, the ancient woodland that runs along it along with grassland to the east of the Brook. This area is currently species-poor modified grassland intensively grazed by sheep. To enhance the SANG, much of the grassland will be planted with new woodland. The Site is located on what was historically the Kidgham Copse and, as such, the opportunity provided by the SANG to recreate part of the woodland has been taken. This will link the area of ancient woodland within the SANG with the other on site, along the southern border of the site adjacent to the Arborfield Studios site. The remaining grassland within the SANG will be enhanced to become species-rich glades within the new blocks of woodland and scrub.
- 5.1.12 The SANG has been designed to ensure compliance with the Natural England SANG Design Guidelines (Natural England 2021). It therefore includes (essential elements):
- Easy access for local residents from the new development;
 - A circular walk >2.3km;
 - Access points from the new development at both the north, centre and south of the Site;
 - It will include safe walking routes including areas that are open;
 - Paths will be maintained to ensure ease of use with some areas being hoggan style;
 - The habitats to be created will ensure a natural feel to the SANG and a variety of habitats for users to experience, a combination of woodland, grassland, scrub and Barkham Brook;
 - The SANG will be free from artificial structures other than dog bins near to entrances; and
 - Although the Brook will form part of the SANG, the area will otherwise be open and unrestricted to allow dogs to be safely exercised off lead. The edges of the SANG will be appropriately fenced with low-key fencing to support this function.
- 5.1.13 The 'should have' elements will include:
- The SANG will be clearly sign-posted from within the development; and
 - The presence of the SANG, its function and guidelines for usage will be provided to new residents as part of their welcome pack.
- 5.1.14 The 'desirable' elements will include:
- The SANG is gently undulating, sloping down to the valley through which the Brook runs; and

- The SANG will be a naturalistic space, with areas of open grassland and denser woodland/scrub through which residents will be able to walk. The presence of the Brook is a particular draw, creating natural interest.
- 5.1.15 It is not intended for official SANG carparking to be provided, given that the function of the SANG is to mitigate recreational impacts from new residents who will access the SANG on foot from the main development.
- 5.1.16 The construction of the SANG will be fully implemented prior to first occupation. The development will fund the ongoing monitoring of the effectiveness of the SANG. Remedial measures would be implemented as agreed with Natural England where monitoring finds that the SANG is not meeting its objectives as an alternative recreation site to the European sites in the local area.
- 5.1.17 In addition, in line with the second requirement of the Thames Basin Heaths SPA Strategy, a financial contribution towards SAMM will also be made, in line with WBC's tariffs which are dependent on house size:
- 1 bedroom: £582.00
 - 2 bedroom: £810.00
 - 3 bedroom: £1,077.00
 - 4 bedroom: £1,267.00
 - 5 bedroom: £1,447.00
- 5.1.18 The final calculation with respect to SAMM payments will be secured via S106 agreement and will be determined once the housing mix is established.
- 5.1.19 Therefore, in accordance with the WBC Core Strategy Core Policy CP8, the mitigation in the form of the provision of a new >8ha SANG and a financial contribution to SAMM, any effects arising from increased recreational pressure due to new residents from the Barkham Square project will be appropriately mitigated. As such, a conclusion of no adverse effect on the integrity of the Thames Basin Heaths SPA can be reached both alone and in combination.

5.2 Summary of Appropriate Assessment Conclusions

5.2.1 A summary of the conclusions of the assessment are presented in Table 5.1 below.

Table 5.1: Summary of Appropriate Assessment conclusions

Feature	Potential effect pathway	Stage 2 - Screening	Stage 3 – Appropriate Assessment
Thames Basin Heaths SPA	Habitat loss	No LSE	Not required
	Air quality	No LSE	Not required
	Hydrology/drainage	No LSE	Not required
	Visual disturbance	No LSE	Not required
	Recreational disturbance	Potential LSE	Mitigation for LSE via delivery of new SANGs and SAMM payments No residual adverse effect

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Noise disturbance	No LSE	Not required
Lighting disturbance	No LSE	Not required

6 CONCLUSIONS

- 6.1.1 Information to enable an Habitats Regulations Assessment of the Barkham Square residential development has been provided.
- 6.1.2 The screening stage identified that in the absence of mitigation visitor pressure impacts could result in a Likely Significant Effect on the Thames Basin Heaths SPA. This LSE relating to recreation pressure was therefore taken forward to Appropriate Assessment stage.
- 6.1.3 A mechanism for mitigation of visitor pressure impacts on the Thames Basin Heaths SPA has been embedded in the planning system and is subject to guidance from Wokingham Borough Council and Natural England. Mitigation to avoid a potential increase in visitor pressure will be fully achieved through the creation of a new SANG, directly connected to the development and accessible for residents, coupled with the funding of SAMM.
- 6.1.4 Therefore, in accordance with the WBC policy CP8, it is concluded that there would be no significant adverse effect on the integrity of the Thames Basin Heaths as a result of the development at Barkham Square both alone and in combination.

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