



Topic Paper for the Chilterns Beechwoods SAC

Dacorum Local Plan (2020-2038)
Emerging Strategy for Growth
November 2020

Background Topic Papers

Introduction

A series of background topic papers have been prepared to support the Dacorum Local Plan (2020-2038) Emerging Strategy for Growth consultation. These are as follows:

- **Climate Change and Sustainability**
- **The Development Strategy**
- **Housing**
- **Site Selection**
- **The Green Belt & Rural Area**
- **Employment**
- **Retail and Town Centres**
- **Transport and Connectivity**
- **Open Space, Sport and Leisure**
- **Chilterns Beechwoods SAC**

These papers form part of the evidence base and are intended to make it easier to understand how the Council's emerging approach developed, including any conclusions reached at this stage.

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1. Introduction

- 1.1 The Borough is facing challenging pressures for new development over the next 20 years which it must tackle through its Local Plan. In particular, the need for homes, employment land and associated infrastructure is much higher than faced by previous Plans yet this has to be planned for in the context of the same extensive planning and environmental constraints.
- 1.2 This topic paper summarises the work undertaken to date on the Habitats Regulations Assessment (HRA) to date with a particular focus on the potential for impacts to occur on the Chilterns Beechwoods SAC as a result of growth proposed in the new Local Plan. A significant portion of the site is located in the borough and is reasonable proximity to the major settlements of Hemel Hempstead, Berkhamsted and Tring.
- 1.3 No HRA documents are published alongside the draft Local Plan for consultation. Significant engagement has been undertaken to date, and the Council has worked with Natural England and other stakeholders to develop a process that seeks to deliver the HRA and Appropriate Assessment to inform the publication (final) version of the Local Plan. With this, the Council is looking to appoint consultants with the necessary expertise to deliver this complex and multi-faceted project.
- 1.4 The information presented here is to inform the public on progress of important matters to date, and is not intended to pre-judge the next steps of the HRA process, including any outcomes.

2. Background to HRA and Appropriate Assessment

- 2.1 The HRA process needs to consider whether a plan or project could have adverse effects on nature conservation sites of importance at a European level (European sites).
- 2.2 The EU's Natura 2000 network of European sites provide ecological networks of protected areas set up to ensure the survival of Europe's most vulnerable species and habitats. These sites consist of Special Areas of Conservation (SACs), designated under European Directive 92/43/EEC for the conservation of natural habitats and of wild fauna and flora (the Habitats Directive), and Special Protection Areas (SPAs), classified under European Directive 2009/147/EC on the conservation of wild birds (the Birds Directive).
- 2.3 Paragraph 176 of the National Planning Policy Framework (NPPF) also requires that sites listed under the Ramsar Convention (The Convention on Wetlands of International Importance, especially as Waterfowl Habitat) are to be given the same protection as European sites.
- 2.4 One of the key legal requirements for the new Dacorum Local Plan will be addressing our obligations under the Habitats Directive which looks at the impact of growth on Special Areas of Conservation (SACs), amongst others. Legal compliance with the Directive is usually considered on the first day of any Examination in Public of a Local Plan, alongside other legal requirements such as the Sustainability Appraisal (incorporating Strategic Environmental Assessment) and the Duty to Cooperate.
- 2.5 The process for undertaking the HRA of the Local Plan includes a number of stages which are summarised below. It is important to note that not all of these stages may be required for the new Local Plan.

HRA stages

Stage 1: Screening

- 2.6 All plans which are not directly connected with, or necessary for, the conservation management of a habitat site, require consideration of whether the plan is likely to have significant effects on that site. This consideration should take into account the potential effects both of the plan itself and in-combination with other plans or projects.

2.7 In order to determine whether likely significant effects¹ may occur the following steps need to be taken:

- Identification of European sites which may be affected by the Local Plan, along with a description of their qualifying features, conservation objectives and threats/issues which could result in adverse effects on the site;
- Description of the Local Plan's contents and the potential effect pathways that could lead to likely significant effects;
- Identification of other plans and projects which could combine with the Local Plan to result in 'in-combination' effects;
- Undertaking a screening test to determine whether likely significant effects, either alone or in-combination with other plans or projects, could occur.

2.8 At the end of the screening stage consultation with Natural England should be undertaken in order to obtain comments on the contents and findings of the Screening Report.

2.9 Where the potential for likely significant effects cannot be excluded a competent authority must make an appropriate assessment (Stage 2 below) of the implications of the plan or project for that site, in view of the site's conservation objectives.

2.10 Recent case law² from 2018 ('People over Wind' ruling) has determined that when making screening decisions for the purposes of deciding whether likely significant effects may arise, competent authorities cannot take into account any mitigation measures intended to avoid or reduce the harmful effects of a plan or project. Such measures can only be taken into account as part of an appropriate assessment itself.

2.11 If it is determined that the Local Plan, in-combination with other plans and projects, will not result in likely significant effects on European sites the HRA process can end at Stage 1 – following confirmation of this decision with Natural England.

Stage 2: Appropriate Assessment

2.12 If likely significant effects cannot be ruled out at Stage 1, the HRA should progress to an appropriate assessment which provides a more detailed assessment to determine whether or not the Local Plan will adversely affect the integrity of the European site(s) in view of the site's qualifying features and

¹ A significant effect should be considered likely if it cannot be excluded on the basis of objective information and it might undermine a site's conservation objectives. A risk or a possibility of such an effect is enough to warrant the need for an appropriate assessment.

² Case C-323/17 People Over Wind & Peter Sweetman v Coillte Teoranta ('People over Wind').

conservation objectives. In this context the integrity of a site is the coherence of its ecological structure and function, across its whole area that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was designated.³

- 2.13 At the appropriate assessment stage mitigation measures which are intended to avoid or reduce any direct adverse effects that may be caused by a plan or project, to ensure that it does not have an adverse effect on the integrity of a European site(s), can be taken into account. These can include requirements set out through policies in the Local Plan.
- 2.14 Through further engagement/consultation with Natural England, if it can be concluded that the plan, either alone or in-combination with other plans and projects, will not adversely affect the integrity of any European site the HRA process can end at Stage 2.

Stage 3: Assessment of alternative solutions

- 2.15 If it cannot be concluded at Stage 2 that the plan will not adversely affect the integrity of the European site(s), as a last resort consideration must be given to alternative solutions that would avoid or reduce an adverse effect on the integrity of the European site.

Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain

- 2.16 If alternative solutions cannot be determined at Stage 3, this stage assesses whether the plan or project should proceed for imperative reasons of overriding public interest (IROPI), in conjunction with the provision of compensatory measures. If no such imperative reasons then the damaging element(s) of the plan must be deleted or modified or the plan must be withdrawn. The flowchart on the next page presents how the stages identified is informed by, as well as informs the new Local Plan.
- 2.17 Further guidance on the appropriate assessment stage for plan-making is available on the Planning Practice Guidance (PPG) website at: <https://www.gov.uk/guidance/appropriate-assessment>
- 2.18 The emerging HRA for the Dacorum Local Plan will follow the step-by-step process set out above in accordance with the most up-to-date legislation, guidance and case law. The following sections present a summary of the evidence gathered to date for the Chilterns Beechwoods SAC, therefore highlighting some of the area/pathways considered to be most susceptible to additional pressures from proposed growth in the Local Plan.

³ Planning Practice Guidance – Section on Appropriate Assessment, Paragraph 003 – Reference ID: 65-003-20190722. Available to view online at: <https://www.gov.uk/guidance/appropriate-assessment>

2.19 The evidence has been obtained through engagement with a wide range of key stakeholders, including Natural England and the National Trust, who are majority landowners of the Chilterns Beechwoods SAC.

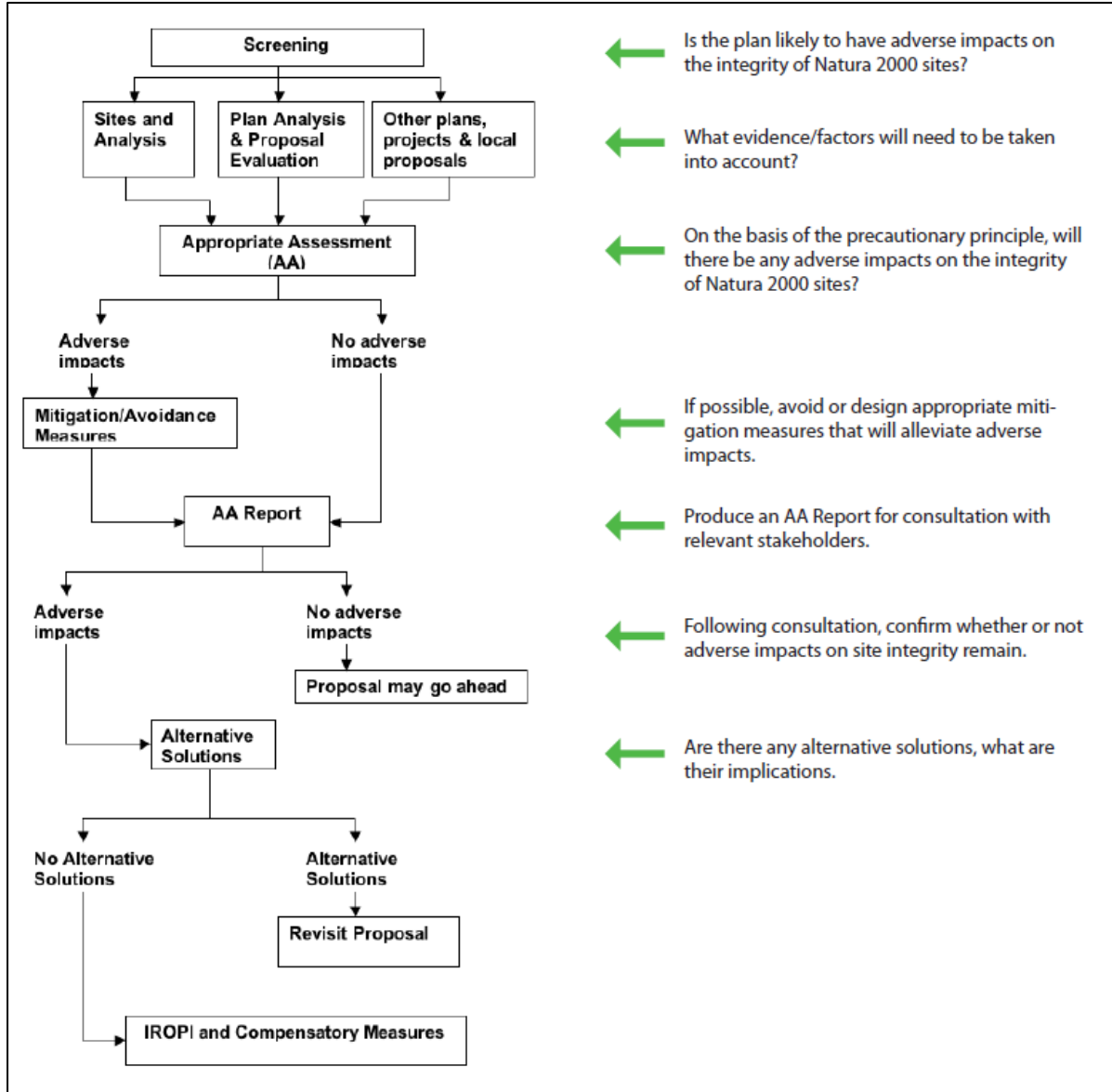


Figure 1 - Flowchart of the HRA Stages

3. Overview of Chilterns Beechwoods SAC and the reasons for the designation

3.1 The Chilterns Beechwoods SAC comprises nine separate sites amounting to just over 1,285 hectares in size and scattered across the Chilterns. It includes sites within Berkshire (6.71%), Buckinghamshire (43.19%), Hertfordshire (35.07%) and Oxfordshire (15.03%). The component parts of the SAC are also Sites of Special Scientific Interest (SSSIs) and are listed as follows:

- Ashridge Commons and Woods SSSI;
- Aston Rowant Woods SSSI;
- Bisham Woods SSSI;
- Bradenham Woods, Park Wood and the Coppice SSSI;
- Ellesborough and Kimble Warrens SSSI;
- Hollowhill & Pullingshill Woods SSSI;
- Naphill Common;
- Tring Woodlands SSSI; and
- Windsor Hill SSSI.

3.2 Two of the nine component sites, namely Ashridge Commons and Woods SSSI and Tring Woodlands SSSI, are located either wholly or partly in Dacorum. The following map shows the extent of the Chilterns Beechwoods SAC, including those component parts located in Dacorum.

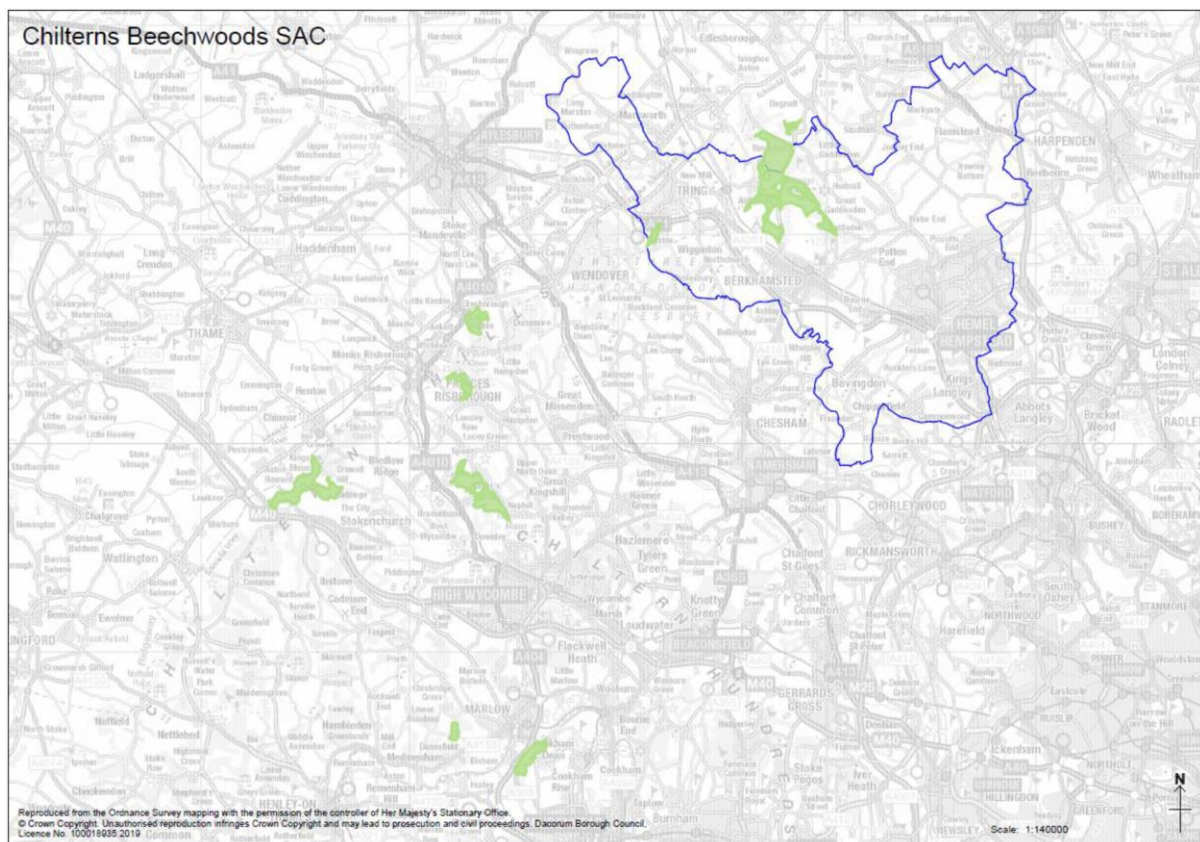


Figure 2 - Map showing the component parts of the Chilterns Beechwoods SAC

What makes the Chilterns Beechwoods SAC important?

3.3 There are three important ‘interest features’ which relate to the whole of the Chilterns Beechwoods SAC (i.e. its nine component parts)⁴. These are the key features subject to protection under European and national law and are listed as follows:

- Beech woodland (*Asperulo-Fagetum*): The woodland is a primary reason for the designation of this site as an SAC. The Chilterns Beechwoods represent a very extensive tract of beech forests in the centre of the habitat’s UK range. The woodland is an important part of a grassland-scrub-woodland mosaic. A distinctive feature in the woodland flora is the occurrence of the rare coralroot *Cardamine bulbifera*⁵. It is considered to be one of the best areas for beech woodland in the UK;
- Semi-natural grasslands and scrubland on chalk: These habitats are considered a qualifying feature, but are not a primary reason for the site’s designation as an SAC; and
- Stag beetle (*Lucanus cervus*): for which the SAC is considered to support a significant presence. This species is a qualifying feature, but not a primary reason for the site’s designation as an SAC.

3.4 It should also be noted that the rare coralroot (*Cardamine bulbifera*) is also found in these woods. These species and habitats are vulnerable to air pollution and impact from recreational visits and domestic animals.

Ashridge Commons and Woods SSSI (Ashridge Estate)

3.5 This designated area broadly corresponds with the extent of Ashridge Estate, of which the National Trust are majority landowners. Approximately 70% of the designated area is located in Dacorum, with the remainder located in Buckinghamshire.

⁴ Citation for Chilterns Beechwoods Special Area of Conservation, available to view at:

<http://publications.naturalengland.org.uk/file/4855330563424256>

⁵ From <https://sac.jncc.gov.uk/site/UK0012724>

3.6 A map of the SSSI is presented on the following page:

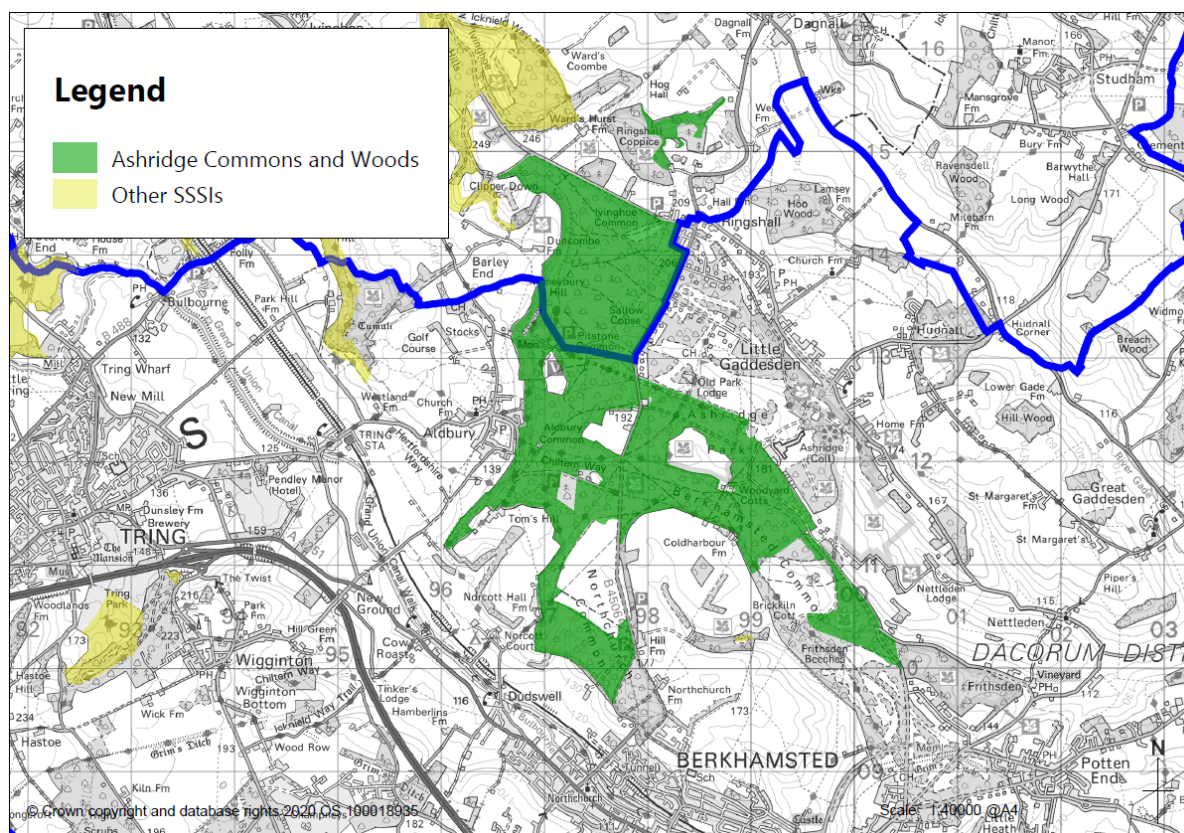


Figure 3 - Map of Ashridge Commons and Woods SSSI

3.7 The reason for its designation as a SSSI, taken from the official citation, is set out as follows:

“Ashridge Commons and Woods is an extensive area of mainly semi-natural vegetation on the Hertfordshire/Buckinghamshire border. Situated towards the northern end of the Chiltern escarpment on wet, acidic Claywith-Flints plateau soils and more base rich flinty chalks of the scarp slopes, the site comprises a mosaic of different habitats: a mixture of ancient semi-natural and secondary woodland, plantation, scrub, a more open component dominated by bracken, and grassland. The site supports an exceptionally rich breeding bird community including both county and national rarities.

A wide range of woodland bird species is known to breed, with raptors, woodpeckers, chats, warblers, tits and finches all well represented. Of particular importance within the community are species found rarely elsewhere in Hertfordshire, such as redstart, nightingale and wood warbler. The nationally rare firecrest is found here at one of its two known county localities. Other more widespread species are breeding in good numbers at this site, examples being sparrowhawk, tree pipit, lesser spotted woodpecker and hawfinch. The last species has a particularly strong population in the Ashridge woodlands.

The site is able to support the rich breeding bird community because of varied woodland stand types, an extensive range of trees giving structural variety and the diversity of shrub and plant communities. The ancient semi-natural stands on the scarp slopes are usually of beech and in places there is vigorous regeneration. Ancient large pollards are important nesting sites for redstart. The secondary woodland has developed over common land and is mainly self-sown birch interspersed with pedunculate oak and beech. Elsewhere, broadleaved woodland diversity is enhanced by storied hornbeam-sweet chestnut coppice and an area of ash-maple-hazel coppice with a varied shrub understorey. The tall ash poles are frequently the site for singing wood warbler. Mixed conifer-broadleaved plantations add structural diversity and provide necessary sites for goldcrest, firecrest and coal tit.

On the acidic plateau soils the woodland ground flora is generally sparse. Where a more basic influence is found the plant community is correspondingly richer with wood melick, woodruff and sanicle all abundant. Less frequent are fly orchid, violet helleborine and yellow bird's-nest, all of which are locally uncommon, while nationally rare are narrow-lipped helleborine, green flowered helleborine and stinking helleborine. Other habitats which are important for the bird community, especially for warblers, tree pipit and nightingale, include scrub, adjacent open areas dominated by bracken and with scattered trees, and small areas of unimproved calcareous and acidic grassland. The calcareous grassland is characterised by locally uncommon yellow-wort and autumn gentian, whilst of county importance in the acidic grassland is the presence of heath-grass and trailing St John's wort.⁶

3.8 This SSSI is made up of seven component units. The most recent condition assessment of these units has determined that all but one of these are considered 'favourable', with the remaining one deemed to be 'unfavourable-recovering'⁷.

3.9 As mentioned earlier, the Ashridge Estate makes up the SSSI and is a critical asset in Dacorum, extending to some 5,000 acres (2,000 Ha). The estate is an extremely popular site with in excess of 1 million visitors per annum. The site attracts a wide variety of interest due to the mix of:

- Ashridge House: a historic, grade 1 Listed Building set in 190 acres of landscaped gardens (these are privately owned and not open to the public);
- Ashridge Park: parkland and woodland designated as a grade II* registered park and garden (National Trust are major landowners of the park);
- Multiple walking/cycling routes and bridleways;
- Its attractive setting within the Chilterns AONB;
- Extensive Ancient Woodland (c.140 hectares, in addition to the woodland within the SSSIs);

⁶Ashridge Commons and Woods SSSI – Reason for Notification, Natural England, available to view at: <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1000452.pdf>

⁷ Unit condition as per 13/06/2014

- Other heritage assets, including 12 Scheduled Monuments. The Estate has considerable non-designated archaeology recording the evolution of the landscape prior to creation of the designed landscape park as well as assets which have survived from the WWII-era; and
- the entire estate being freely accessible to the public and a substantial portion designated as 'common land' or 'access land' under the Countryside and Rights of Way Act 2000.

Tring Woodlands SSSI

3.10 Tring Woodlands is owned by Hertfordshire County Council and leased to Dacorum Borough Council. The SSSI is adjacent to Tring Park⁸ which is owned by the Woodlands Trust/Dacorum Borough Council).

3.11 The reason for its designation is set out as follows:

*“This site is one of the best examples in Hertfordshire of ancient semi-natural beech *Fagus sylvatica* woodland, a habitat which is in decline nationally. The woods lie at the eastern end of the Chilterns on the steep north-west facing Middle Chalk escarpment, and extend onto the plateau capped by clay with-flints. There is a rich flora present, indicating that the woodland has been long established.*

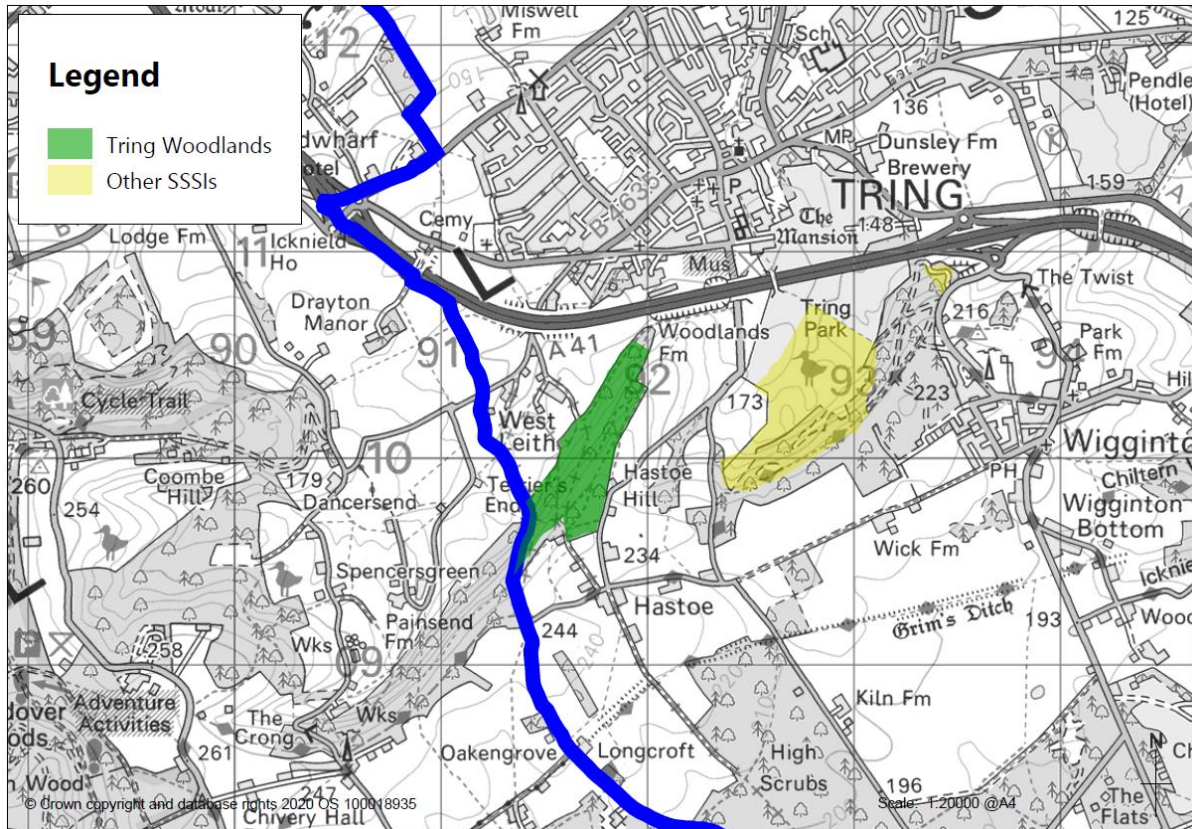
*Associated with beech high forest are areas of standard ash *Fraxinus excelsior* and pedunculate oak *Quercus robur*. Holly *Ilex aquifolium* and yew *Taxus baccata* comprise the sparse shrub layer on upper slopes, though lower down there is more variety with dogwood *Cornus sanguinea*, field maple *Acer campestre*, wayfaring tree *Viburnum lantana* and coppiced hazel *Corylus avellana*. A small mixed plantation of larch *Larix decidua* and species native to the site is situated on the plateau, and retains elements of the established plant community.*

*The diverse flora is dominated by woodruff *Galium odoratum*, wood anemone *Anemone nemorosa*, dog's mercury *Mercurialis perennis* and brambles *Rubus fruticosus* with frequent sanicle *Sanicula europaea* and wood spurge *Euphorbia amygdaloides*. Notable amongst twenty species of grass present are wood melick *Melica uniflora* and two local species, wood barley *Hordelymus europaeus* and lesser hairy brome *Bromus benekenii*. In the central part of the wood floral diversity is enhanced by the presence of more restricted species such as yellow birds nest *Monotropa hypopitys*, common wintergreen *Pyrola minor* and narrow-lipped helleborine *Epipactis leptochila* at one of its few county localities. Two other typical beech wood orchids present are fly orchid *Ophrys insectifera* and white helleborine *Cephalanthera damasonium*.*

⁸ A recent planning permission proposal by Woodlands Trust (4/02304/19/MFA) proposes an extension to the park and new car park arrangements. The proposal provides more permanent / promoted links between the Oddy Hill and Tring Park (SSSI) and Tring Woodlands (SSSI and component part of the SAC).

*A good range of woodland bird species have been recorded including breeding tawny owl *Strix aluco* and great spotted woodpecker *Dendrocopus major*.⁹*

3.12 The most recent condition assessment of the SSSI has determined the site to be classified as ‘unfavourable-recovering’¹⁰.



What are the possible issues identified at this stage?

3.13 The Site Improvement Plan prepared in 2015 identifies seven potential pressures/threats to the Chilterns Beechwoods SAC. These are as follows:

1. Forestry and woodland management (Pressure/Threat); Feature(s) affected: H9130 Beech forests on neutral to rich soils
2. Deer (Pressure/Threat); Feature(s) affected: H9130 Beech forests on neutral to rich soils
3. Changes in species distribution (Threat); Feature(s) affected: S1083 Stag beetle
4. Invasive species (Pressure/Threat) Feature(s) affected: H9130 Beech forests on neutral to rich soils
5. Disease (Pressure/Threat); Feature(s) affected: H9130 Beech forests on neutral to rich soils

⁹ Tring Woodlands SSSI – Reason for Notification, Natural England, available to view at:

<https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1001430.pdf>

¹⁰ Unit condition as per 16/09/2009.

6. Public Access/Disturbance (Pressure/Threat); Feature(s) affected: S1083 Stag beetle
 7. Air pollution: impact of atmospheric nitrogen deposition (Pressure/Threat); Feature(s) affected: H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites), H9130 Beech forests on neutral to rich soils, S1083 Stag beetle
- 3.14 Two of these potential pressures/threats, namely 6 – Public Access/ Disturbance and 7 – Air pollution, are considered to be of particular relevance to the HRA of the Local Plan. On the matter of public access and disturbance, the Council considers that this pressure/threat extends to the other protected features of the SAC (i.e. not just the Stag Beetle as mentioned by Natural England for public access/disturbance).

Recreational pressures

- 3.15 Public access/disturbance (i.e. recreational pressure) is identified as a potential issue, both in the Natural England SAC Site Improvement Plan and in the Natural England Supplementary Advice on Conserving and Restoring Site Features (March 2019). This is confirmed through the consultation response received from Natural England to the SA/SEA Scoping Report and subsequent DAS guidance requested by the Council from Natural England (November 2018) which highlight recreational pressure as being an issue that needs to be taken into consideration in the HRA.
- 3.16 Recreation pressure within the SAC, particularly at Ashridge Commons and Woods SSSI is likely to have an adverse impact on the health of the site. The impacts of recreational pressure - such as visitor trampling, disturbance and soil compaction - may directly harm potential stag beetle habitat, as well as other qualifying features of the SAC such as beech forest and semi-natural grasslands and scrubland.
- 3.17 Impacts can also include visitor parking and damage caused by vehicles, but may also include to some extent dog fouling and nutrient enrichment; mountain biking; removal / disturbance of dead wood habitats; footpath widening (by people, horses and bikes) and associated loss of marginal / ride vegetation.
- 3.18 Many of the features and landscapes of the SAC are a result of preservation and/or historic management, which means these same recreational impacts are also affecting the condition of the registered park and garden (such as the parkland, woodland and veteran trees).
- 3.19 The new Local Plan is expected to deliver significant new growth for the plan period up to 2038. The majority of this growth will be focussed towards the three main settlements of Hemel Hempstead, Berkhamsted and Tring. With this, it is predicted that such growth could give rise to further recreational pressures over and above what currently exists at the SAC. This needs to be considered carefully alongside any additional growth proposed through new Local Plans for neighbouring authorities.

Air Quality pressures

- 3.20 The Natural England SAC Site Improvement Plan recognises the threat of air quality issues on the key features of the SAC. Atmospheric nitrogen deposition levels are broadly exceeding acceptable levels across the SAC, however it is unclear what impact, if any, these levels are having on the key features present.
- 3.21 In addition to this, vehicular movements on the road network in the vicinity of the SAC could result in impacts from road traffic emissions on the sensitive ecosystems and protected features of the site. These effects are likely to be local in nature, and relating mainly to the areas of the SAC nearest to the road network.
- 3.22 Natural England has advised the Council to consider the in-combination effects of nitrogen resulting from increased traffic on the A41 (from both Aylesbury Vale/Buckinghamshire and our own Plan as well as any other neighbouring local authority growth (where its shown to make use of the A41) and whether this will result in adverse effects on the integrity of the Chilterns Beechwoods SAC.
- 3.23 Growth proposed in the new Local Plan will likely result in an increase in the number of vehicles using the local road network. It is important that the Council ensures that this growth, alongside any growth in neighbouring areas, does not adversely impact the protected features of the SAC as a result of an increase in vehicular emissions and the accompanying deterioration in air quality. This is particularly relevant for a small section of the Tring Woodlands SSSI that lies closest to the A41.
- 3.24 It is acknowledged that the SAC's other protected features, including the semi-natural grasslands and the stag beetle species are also sensitive to air pollution. With this, it is expected that HRA and Appropriate Assessment will need to consider these possible effects in more detail.

4. What have we done so far / what do we know?

Engagement undertaken to date

- 4.1 The Council has engaged with a wide range of stakeholders over the course of preparing this Local Plan, both through the Duty to Cooperate process and also through formal and informal engagement with other key stakeholders and organisations.
- 4.2 The following presents a short summary of who we have engaged with and how this has assisted in developing our understanding of the complex matters relating to the Chilterns Beechwoods SAC.

Engagement with Natural England

- 4.3 Natural England set the conservation objectives for the SAC and are prescribed to ensure that the integrity of the site is maintained or restored as appropriate. These ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:
- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
 - The structure and function (including typical species) of qualifying natural habitats;
 - The structure and function of the habitats of qualifying species;
 - The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;
 - The populations of qualifying species; and,
 - The distribution of qualifying species within the site.
- 4.4 Natural England have advised the Council that the key issues that the HRA will likely need to address include recreational pressure and air quality pressures at the Chilterns Beechwoods SAC. They have pointed to a number of important evidence base and guidance documents which may be helpful with progressing the various stages of the HRA (if necessary).
- 4.5 For recreational pressures, they have also provided links to relevant data to assist with understanding visitor pressures and behaviours. This includes their MENE and more recently “People in Nature” surveys. Natural England have also referred the Council to other external sources such as Strava and Google Mobility data. Some of the information received is summarised in later sections and in the appendices accompanying this topic paper.

Engagement with the National Trust

- 4.6 The National Trust provided information to the Council in respect to recreational pressures at Ashridge Commons and Woods SSSI (Ashridge Estate).

Engagement to date has identified the following potential pressures on this part of the Chilterns Beechwoods SAC, with varying degrees of evidence provided to support this.

- Unregulated parking, especially on Monument Drive.
 - National Trust note that in some situations following bad weather, some vehicles are known to have got stuck in muddy conditions.
 - On peak days unregulated parking could result in between 600-700 vehicles seeking to park on verges.
- Visitors straying from the designated paths and tracks further and wider off of any tracks.
 - National Trust state that this is resulting in the compaction of soils (clay), and the creation of new paths or widening of existing paths.
 - This also results in the trampling of woodland as visitors explore the site in an ad-hoc manner. Waymarked routes have been provided by the National Trust to limit this.
- Erosion of chalk grassland
 - National Trust believe some of this is on land identified as Scheduled Ancient Monuments and on key features associated with the SSSI designations.
- Mountain biking
 - It is considered that the impact of biking is limited, but is becoming more popular.
- Regular dog walking routes
- Casual visitors who stay close to vehicle and sit or picnic
 - It is considered that such visitors result in greater impacts in these locations.

4.7 The National Trust have also clarified that there tends to be high visitor demand throughout the year, usually accompanied with bright and sunny days, and numbers are not significantly affected during colder months. Summer is naturally where demand peaks, alongside bank holiday weekends. The flowering of bluebells in Spring also draws more visitors to the site.

4.8 The National Trust are currently in the process of preparing a number of different studies and plans for Ashridge Estate, some of which may be helpful evidence to inform the HRA. These are as follows:

- National Trust 50 year vision for Ashridge;
- Woodland Management Plan – Ashridge;
- Cranfield University study on soil compaction;
- National Trust Conservation Management Plan; and
- Biodiversity monitoring report of invertebrates

4.9 Some visitor data, including survey work covering a number of years has also been provided. This is summarised in later sections and also presented in the appendices accompanying this topic paper.

Engagement with Historic England

- 4.10 Historic England have advised that some of the landholdings west of the B4506 (which are non-designated heritage assets) contribute to the historic origins/understanding of the sites development and therefore, the significance of the designated heritage assets within the Ashridge Estate.
- 4.11 These non-designated heritage assets include considerable archaeological features and elements of the C18/C19 designed landscape which extend well beyond the current boundaries of the registered park and garden. These are detailed in the Ashridge Estate Central Area Conservation Management Plan.

Engagement with other stakeholders

- 4.12 As part of the evidence gathering stage and through duty to cooperate meetings, the Council has also engaged with a number of other stakeholders in relation to the preparation of the HRA and other matters relating to it. These include:
- Buckinghamshire Council
 - Central Bedfordshire Council
 - Woodland Trust
 - Chilterns (AONB) Conservation Board
 - Hertfordshire Ecology (as ecological advisors to Dacorum Borough Council)

Recreational pressures

Understanding the source of recreational pressures

- 4.13 The particular characteristics of the Chilterns Beechwoods SAC as a destination, including its size, varying nature and visitor offering means that it attracts a wide range of visitors to the site. The component parts of the SAC within Dacorum offer their own particular draws in terms of visitors.
- 4.14 At Ashridge Commons and Woods SSSI (Ashridge Estate), the scale and nature of the site and its surrounding area, coupled with various on-site facilities and attractions (such as Ashridge House) mean that it is exposed to a variety of different users.
- 4.15 The estate is accessed via the local road network with multiple car parks that are frequently unable to cope with demand in peak periods. There is an intricate network of public rights of way within and around the estate which allows more active forms of travel for people from nearby settlements as well as active hillwalkers from further afield.
- 4.16 In addition to these, the site includes bridleways for horse riders and a cycle network that connects it with the wider area, drawing a multitude of users from various directions.

4.17 Not all users are necessarily responsible for adversely impacting upon the special features of the SAC. This is something that the Council needs to understand more through additional survey work of the site. It is important at this stage that we consider what users, both current and in the future, are likely to contribute most towards the greatest recreational pressures and possible adverse effects.

Behaviours of local residents – Hertfordshire

4.18 Natural England have undertaken significant survey work for a number of years across the country to understand the behavioural attitudes of residents in different areas. This is captured in the Monitor of Engagement with the Natural Environment, or MENE data for short.

4.19 Information is available online for Hertfordshire County which helpfully breaks the survey results down into different sections, including frequency of visits, places visited, travel information, motivations and attitudes¹¹. Some of this information is presented in the appendices supporting this topic paper. Key headlines for Hertfordshire residents include:

Places visited:

- The vast majority of residents visited the countryside or towns/cities.
- However, urban parks were identified as the most visited type of place, quite significantly more than other types of locations.
- The next most visited types of locations were woodlands and country parks, followed by footpaths/cycle paths, playing fields and then rivers/lakes/canals.

Travel:

- Over two thirds of Hertfordshire residents travelled to their destination by foot, with the majority of the rest travelling by car/van.
- Almost half travelled less than one mile to their destination, with a further quarter travelling between 1-2 miles.

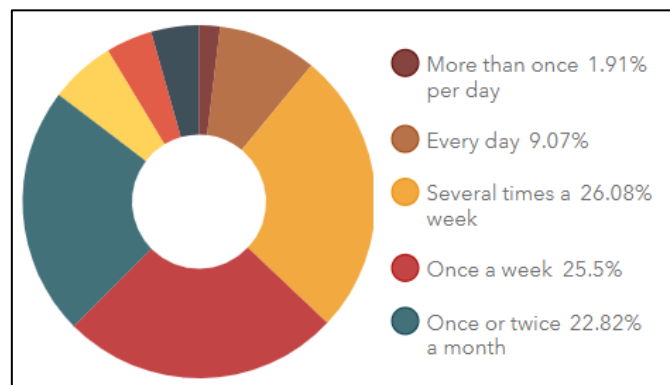


Figure 4 - Frequency of visits by Hertfordshire Residents

Motivation:

¹¹ Available to view on line at :

<https://defra.maps.arcgis.com/apps/MapSeries/index.html?appid=2f24d6c942d44e81821c3ed2d4ab2ada>

- Better health and exercise is the biggest motivation for Hertfordshire residents
- Other important motivations include fresh air and for relaxation purposes.
- Scenery, meeting with family and to entertain children were considered to be less of a motivation when using these spaces.

Barriers:

- Work priorities are considered the biggest barrier to getting out in Hertfordshire
- Other notable factors included bad weather, poor health and being busy at home. Old age and disability were also recognised by some respondents as barriers.

Behaviours of local residents - Dacorum

- 4.20 MENE data is available at the local authority level, although it is recognised that due to the smaller number of surveys (when compared to the county-wide data above) it is potentially less reliable/more heavily swayed by individual responses.
- 4.21 Analysis of the data for Dacorum broadly reflects the county-wide data. The highest motivations for going out are for health and exercise (including to exercise pet dogs), for fresh air and for relaxation. Dacorum residents seem to give greater consideration to using such spaces to spend time with family and to entertain children than is evident at the countywide level.
- 4.22 Unlike at the county-wide level, more Dacorum residents surveyed specifically visited a woodland area, over and above an urban park. Country parks were ranked much lower than at the county level, while other open space in the countryside was ranked third overall.
- 4.23 A key statistic from Dacorum residents are what activities they undertake when they use these spaces. Some residents have highlighted more than one of these activities but this can be an important consideration when planning for future growth.
- 4.24 Walking, including short walks, rambling and/or hill walking is considered the most frequent activity. Using spaces to play with children and for eating and drinking out were also quite important. Other activities such as informal games and sports, running, visiting an attraction, picnicking and road cycling were also notable.
- 4.25 The manner in which the surveys were undertaken may mean it was difficult to obtain accurate results for some of these, such as those who use these spaces for running and cycling. The results are presented in the table overleaf:

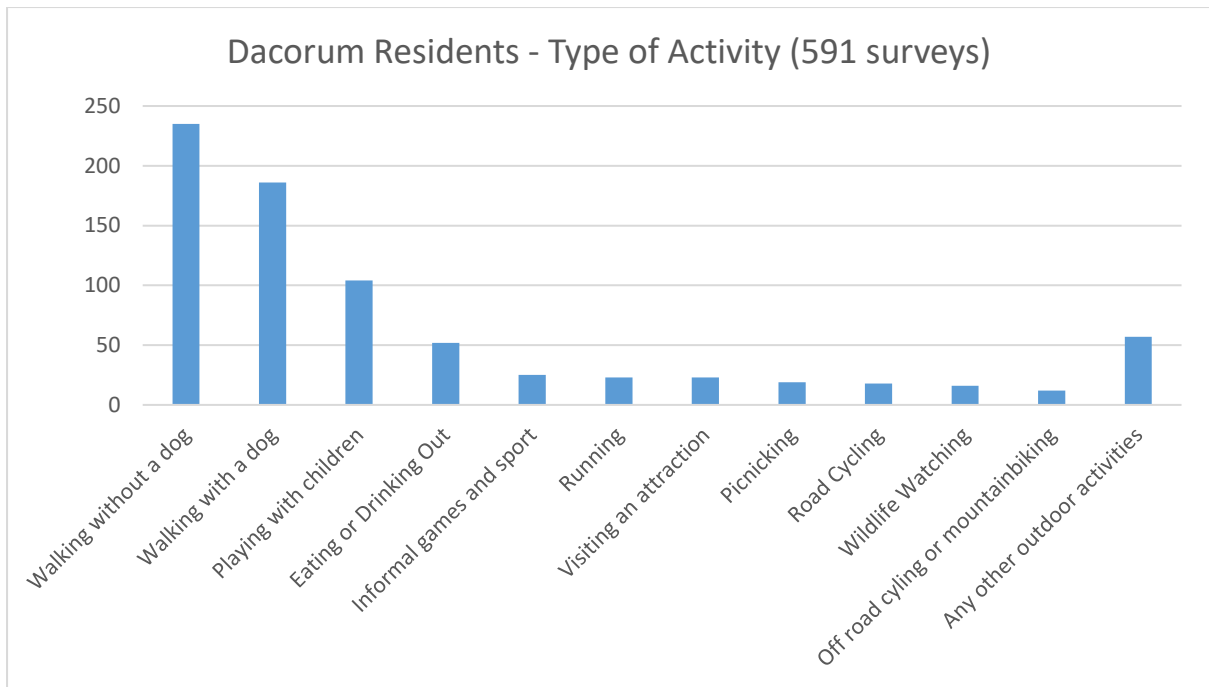


Figure 5 - Activities of Dacorum residents (MENE data 2009-2019)

Use of Ashridge Commons and Woods SSSI (Ashridge Estate)

4.26 MENE data is available for 127 surveys undertaken at a number of locations in or around this SSSI component (which forms part of the wider SAC), including in Buckinghamshire. It is noted that the survey results are not extensive and may not truly capture the full extent of activities on the site.

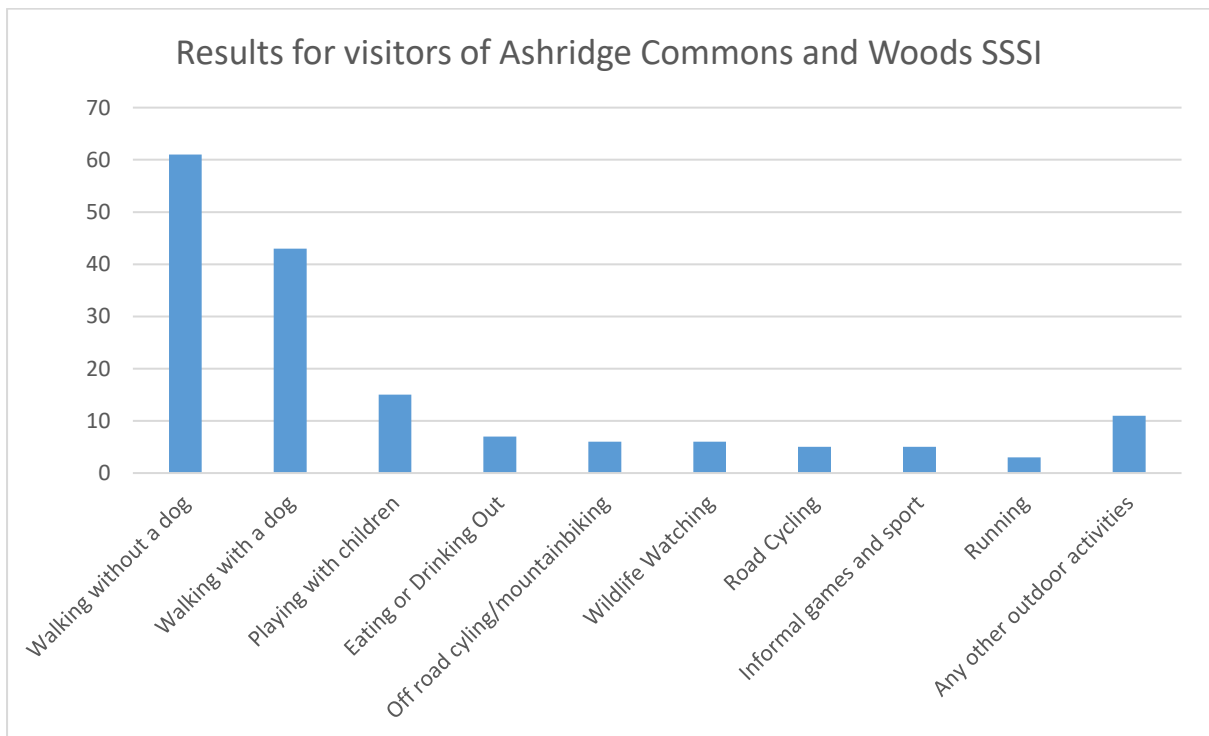


Figure 6 - Activities of visitors to Ashridge Estate (MENE data 2009-2019)

4.27 The table for visitors to Ashridge Estate demonstrates a degree of consistency with the patterns for Dacorum residents. Walking, including with dogs, is the biggest activity in this location, following by the use of space to play with children and for eating/drinking out. Cycling, including road cycling and mountain biking are also more prevalent activities here.

4.28 The National Trust have also undertaken a number of visitor surveys for Ashridge Estate in recent years. The focus of these surveys are based at Monument Drive, which is the focal point for many travelling visitors to the area. It includes a number of important destination facilities, including visitor attractions (including a visitor centre) a café, shop, the main car park and toilets. No visitor data is held for those accessing the site on foot or via the other 23 car parks (as the site is 'entirely open access' a robust strategy for further visitor surveys would need to be agreed in advance with relevant stakeholders).

4.29 The following chart presents the results of the survey work undertaken by Arkenford in 2013, and demonstrates a degree of consistency with the MENE data presented above.

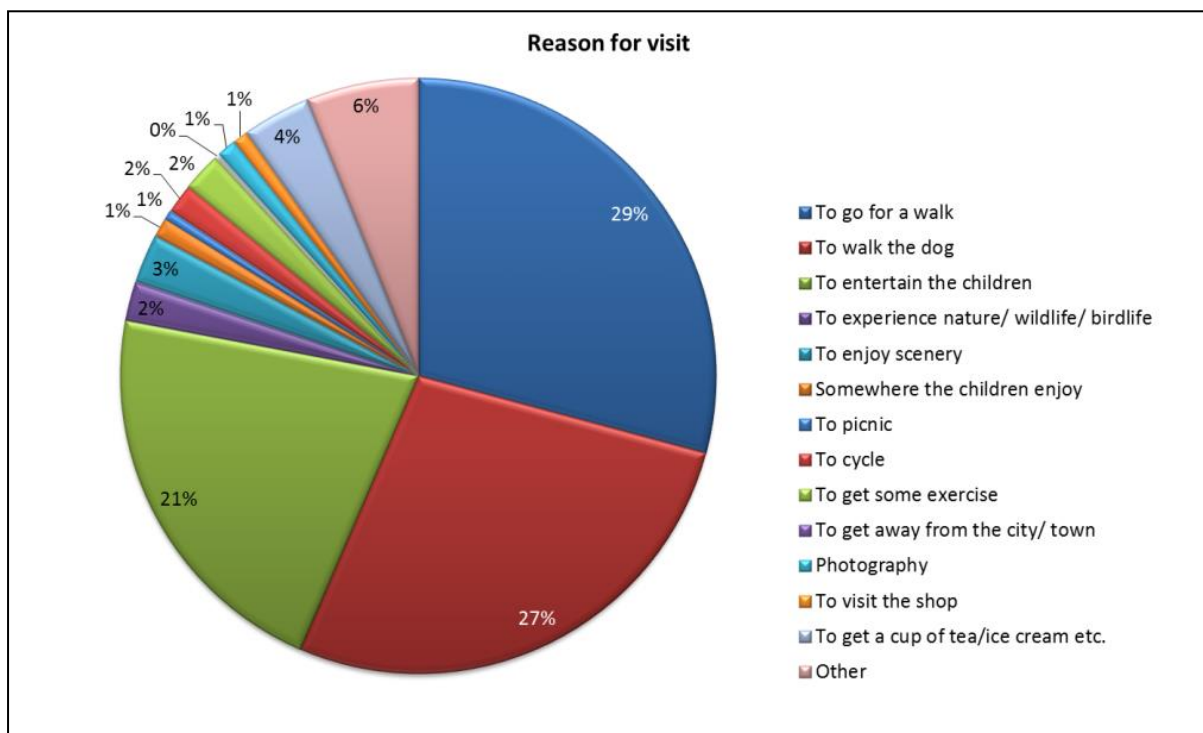


Figure 7 - Reasons for visiting Ashridge Estate (National Trust data, prepared by Arkenford 2013)

4.30 Again walking is the biggest reason for visiting, followed by entertaining the children, which received significantly more responses than with the MENE data, which is likely to be influenced by the specific location. Other notable reasons include eating/drinking out, to enjoy the scenery, to get exercise and to cycle all of which correspond with the survey results produced by Natural England.

4.31 Additional survey work at the car park on Monument drive was undertaken by the National Trust between 2017 and 2020 (prior to lockdown). While the

results of this information again indicate a strong preference for visitors to use the site for walking and for playing with children, significantly more people highlighted a preference to use the café while there, and is ranked second overall ahead of dog walkers. This conclusion may be swayed by the fact that the surveys have been undertaken either within the visitor centre or proximate to the Monument Drive/facilities. National Trust expects any wider survey data at Ashridge Estate would capture the full extent that local residents utilise the site, especially if captured around Northchurch Common.

Origins of trips to Ashridge Commons and Woods SSSI (Ashridge Estate)

- 4.32 Visitor survey data by the National Trust shows that 42% of visitors to this part of the SAC/Ashridge Estate were residents of Dacorum. The majority were from Berkhamsted and Hemel Hempstead, alongside Marsworth, Dunstable and Leighton Buzzard and to a lesser extent other settlements within Dacorum.
- 4.33 All the locally based surveys summarised above demonstrate that the site also draws visitors from further afield, beyond the average 'normal visit' travel distance of 12 miles. National Trust emphasised that another important factor from this survey was the frequency of visits from each household. The results for Monument Drive concluded that approximately 19% of total visits, taking account of frequency of visits, were from Hemel Hempstead. 32% of total visits were from Berkhamsted, with 6% from Tring.
- 4.34 National Trust expect these percentages to be a minimum estimation of the number of visitors from Dacorum, as it does not assess all of the 24 car parks they have on site, especially those located closer to the settlements of Northchurch and Berkhamsted. In these locations, there is an expectation that most visitors are from the local area who know these smaller, local car parks or the 'quieter areas' of the site.
- 4.35 Natural England data for the SSSI, which includes surveys for parts of the site outside of Monument Drive, demonstrate that the majority of visits hail from within a five mile travel distance to the site. It is worth noting that over a third of those surveyed travel more than 6 miles to the site, demonstrating the wider-reaching attractiveness and influence of the site to visitors. This could be due to it being part of the 'National Trust' portfolio.

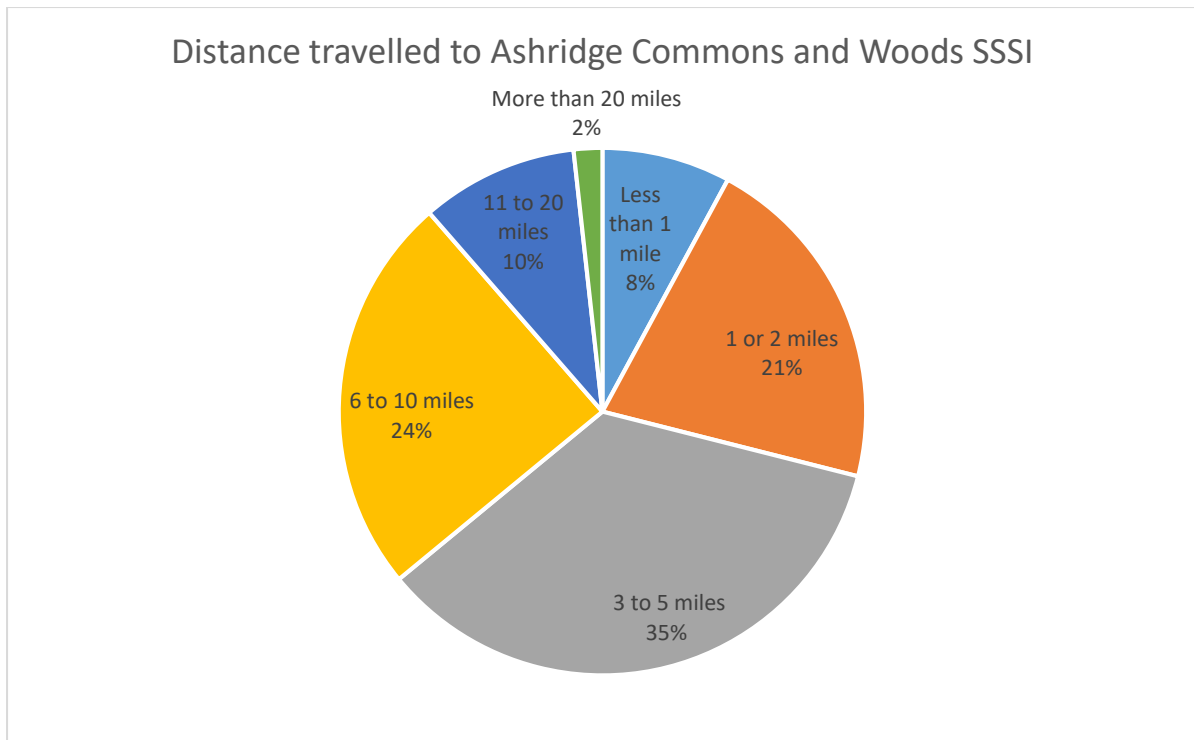


Figure 8 - Natural England MENE data for distance travelled to the site

Recreational pressures at Tring Woods SSSI

4.36 Less data on recreational pressure is available for Tring Woods SSSI, the second component of the Chilterns Beechwoods SAC located in Dacorum. It does not serve as a destination in a similar manner to Ashridge Estate, as there are no on-site car parks or facilities such as toilets to serve visitors. It is understood to mainly serve local residents in the area by means of its existing public rights of way.

4.37 Tring Park is located a short distance to the east of the site and is also a designated SSSI. The park is believed to serve the majority of recreational trips in the area, reducing pressures on Tring Woods. This is demonstrated through Strava data¹² collected for the area, which shows higher activity of users at Tring Park. The topography in this location is more undulating than that of Ashridge Commons and Woods SSSI, where much of the land is relatively flat in nature. Ashridge also has a number of surfaced pathways which assists visitors during changeable weather, while Tring Woodlands generally does not have any surfaced pathways. This also presents further challenges to those less mobile, such as older people, those with children in prams or on bike and those with disabilities from accessing Tring Woods.

¹² Available to view at <https://www.strava.com>

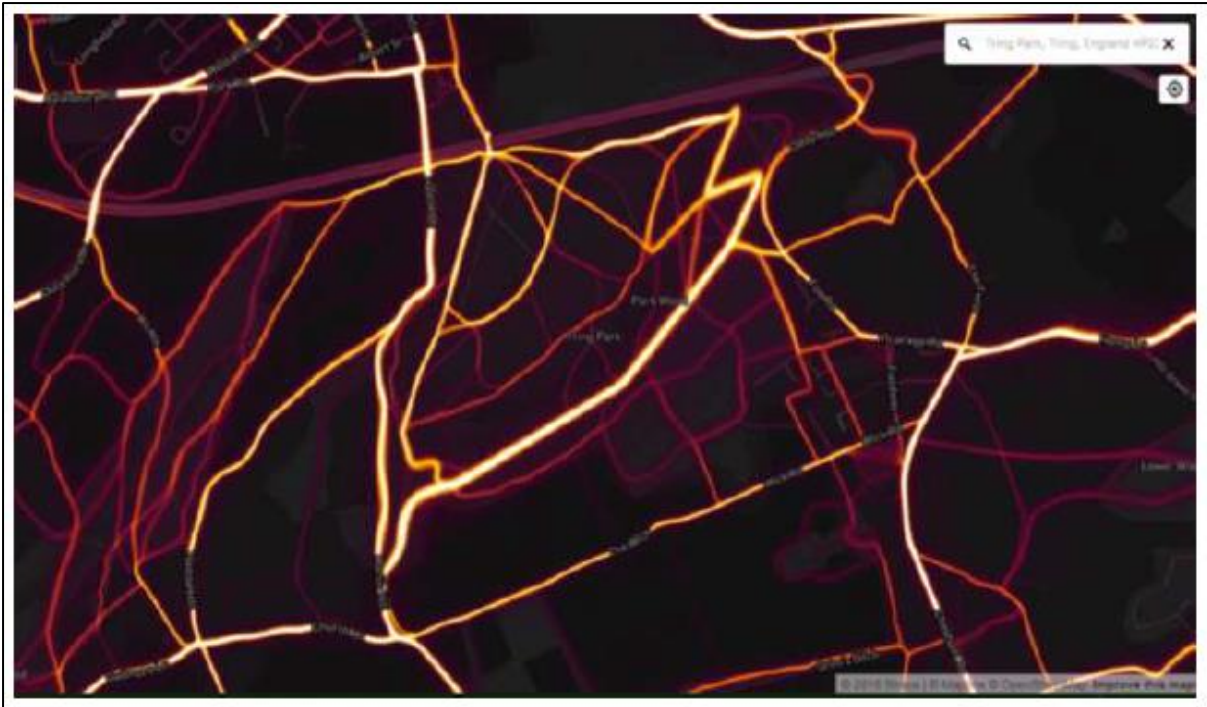


Figure 9 - Strava data for all modes at Tring Woods (left side of image) and Tring Park (centre of image)

4.38 The two sites are however linked through a number of public rights of way as shown in the image above. The recently permitted scheme to construct a new car park on the western edge of Tring Park may give rise to additional pressures at Tring Woods due to its closer proximity to the site and resultant 'opening up' of access to and around the site. It is unclear at this stage what effects may arise. If relevant, the Council may look to investigate this further through the next steps of the HRA. Further information on recreational pressures is presented in the appendices accompanying this topic paper.

Types of impacts experienced at Chilterns Beechwoods SAC

Beech woodland / Semi-natural grasslands and scrubland on chalk

4.39 It is recognised earlier in this topic paper that there are a number of possible impacts that can occur to the beech woodland, grasslands and scrubland. Areas of high visitor activity inevitably lead to more impacts on the ground, which are usually prolonged and the impacts experienced occur slowly and over a long period of time. If left and the beechwoods begin to show signs of damage it could result in irreversible damage. Other impacts can arise as a result of anti-social behaviour. These tend to occur quite quickly and long-lasting effects can vary.

4.40 Parts of the SAC, such as Monument Drive at the Ashridge Estate, are exposed to high visitor numbers and while waymarked routes are in place, this does not stop people from exploring the areas away from these. There is evidence of high areas of footfall on parts of the site mainly within the wooded areas where clearly defined paths are not present. This footfall has resulting in the erosion of

ground flora and other species and well as soil compaction on the ground beneath and around the trees.

- 4.41 In wet conditions, or at times following periods of bad weather, the existing paths can be churned up very quickly. Impacts as a result of trampling worsen during this time, with many visitors choosing to avoid now muddied paths and create new routes on previously undisturbed soils.
- 4.42 In high visitor areas, there is evidence of root compaction where people naturally congregate around the base of trees, often as meeting points but also to provide shade in warmer conditions. Where car parking on verges occur, some visitors seek to shade their car from direct sunlight by parking under mature trees, further compounding the issue of root compaction. The parking of cars on road verges elsewhere leads to further deterioration of ground conditions, including the loss of some species.
- 4.43 Some direction, short term mitigation to avoid further root compaction is provided through the application of woodchip, however in many instances such measures are short lived. Other measures to deter visitors and inappropriate car parking include the construction of dead hedges to deter those getting close to the base of vulnerable trees or along grassy verges.
- 4.44 At particular times of the year, such as during the bluebell season, it is recognised that visitors leave the waymarked paths in order to get a better view of these natural features. This too can result in the slow degradation of the land.
- 4.45 Anti-social behaviour, such as the creation of fires, can have particularly damaging effects on biodiversity. Mature tree groups as well as grasses and flora can be affected by this, depending on the location, while the use of deadwood as fuel can impact upon important species, such as the Stag Beetle.
- 4.46 The presence of cycling and mountain biking on the SAC can give rise to the creation of new off-road paths which can become more established routes over time. This can result in a deterioration in ground conditions, depending on the frequency of use and the ability for the land to restore itself over a period of time.
- 4.47 In terms of air quality, it is recognised that nitrogen levels are high across much of the component parts of the SAC that lie within Dacorum. These are background levels and not a direct result of visitors, however vehicular use can result in further exceedances in localised areas. The areas likely to be most affected by air quality issues are along a small part of Tring Woodlands SSSI that is situated close to the A41, and also on the B4506 north of Berkhamsted, which travels through the centre of the Ashridge Commons and Woods SSSI.
- 4.48 Traffic levels on the A41 are significantly more than that experienced on the B4506, however it is unclear at this stage if an increase in harmful emissions is having an effect on the special features of the SAC in these locations and elsewhere. It is predicted that future growth in Dacorum as a result of the Local

Plan will result in further increases in vehicular use, particularly on the A41. The potential for issues to occur needs to be balanced against the continuing improvement in the efficiencies of cars and the slow but gradual improvement in air quality both in Dacorum and more widely.

Stag beetle

- 4.49 The stag beetle has a south-eastern distribution in the UK and is close to its northern limit at the southern end of the Chilterns. It been recorded on a number of occasions at Bisham Woods as well as at Hollowhill and Pullingshill Woods, indicating that these woods provide important supporting habitat at the northern limit of stag beetle distribution¹³. To date, there has been no evidence that demonstrates the presence of Stag Beetles as far north as Tring Woodlands SSSI and Ashridge Commons and Woods SSSI.
- 4.50 The stag beetle interest feature of the SAC has been identified as being under threat from removal of dead and decaying wood which forms an important element of the stag beetle's habitat. The SAC Site Improvement Plan (2014) identifies the reduction of visitor impacts on deadwood as an important measure to address possible effects.
- 4.51 There is no evidence identified to date which suggests that the stag beetle and its accompanying habitat is at threat for the component parts of the SAC within or near to Dacorum. However, it is recognised that the impacts of recreational pressures, such as visitor trampling and soil compaction may directly harm potential stag beetle habitats, should they exist.

¹³ Natural England's supplementary advice on conserving and restoring site features (March 2019)

Air Quality pressures

Background

- 4.52 Natural England Guidance published in June 2018¹⁴ has been prepared to assist Natural England staff when giving advice relating to the assessment of the potential impacts from road traffic emissions on the qualifying features of European Sites. This has been made available to the public and so has been used to inform this HRA.
- 4.53 The guidance prepared by Natural England following the High Court judgement in *Wealden v SSCLG* [2017] ('the Wealden judgement') which quashed part of the Lewes District Council and South Downs National Park Authority Joint Core Strategy (JCS) due to deficiencies in considering in-combination assessments as part of the HRA, in particular the in-combination Annual Average Daily Traffic Flow (AADT) generated on roads adjacent to the SAC.

Distance criterion

- 4.54 In relation to the requirement for assessing impacts that road projects may have on air quality the UK Government's Design Manual for Roads and Bridges (DMRB) LA 105 – Air Quality¹⁵ identifies that "*Only properties and Designated Sites within 200 m of roads affected by the project need be considered*".
- 4.55 The Natural England guidance confirms that only those European sites present within 200 m of the edge of a road on which a plan or project will generate traffic will need to be considered when checking for the likelihood of significant effects from road traffic emissions - although where (unusually) there is a credible risk that air quality impacts might extend beyond 200 m from a road, Natural England may advise that additional sites should also be scoped into the HRA screening and potentially the assessment.

Traffic level increase criterion

- 4.56 The DMRB in relation to air quality identifies a screening threshold above which the predicted change resulting from the plan or project is likely to be significant. This threshold is based on a predicted change of daily traffic flows of 1,000 Annual Average Daily Traffic Flow (AADT) used as a proxy for emissions. Where the AADT, in combination with other plans or projects, is less than 1,000 the plan or project can be screened out from requiring Appropriate Assessment.
- 4.57 The DMRB also contains other thresholds, but which are not considered relevant for the Dacorum Local Plan HRA. These are: carriageway alignment will change by 5m or more; Heavy Duty Vehicle (HDV) flows will change by 200 AADT or more; daily average speed will change by 10 km/hr or more; and peak hour speed will change by 20 km/hr or more.

¹⁴ Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations (June 2018)

¹⁵ <https://www.standardsforhighways.co.uk/prod/attachments/10191621-07df-44a3-892e-c1d5c7a28d90>

Potential for effects on Chilterns Beechwoods SAC

4.58 Based on the criteria set out above, the only elements of the Chilterns Beechwoods SAC which lies with 200 m of an A or B road and which could therefore have the potential to be affected by > 1,000 AADT are as follows:

- The Tring Woodlands SSSI component of the SAC which is situated within 200 meters of the A41 to the west of Tring. The total area of the SSSI/SAC that lies within 200 metres is just under 1 hectare; and
- The Ashridge Commons and Woods SSSI component of the SAC which is situated within 200 m of the B4506 which runs through the Ashridge Estate.

4.59 The implications of the Dacorum Local Plan in relation for likely significant effects associated with air pollution on these two components of the SAC are considered further in Section **Error! Reference source not found.**

Traffic modelling work undertaken to date

4.60 Traffic modelling has been undertaken by Dacorum BC based on a higher scale of development to that proposed in the draft Local Plan, but broadly corresponds with the proportionate distribution of growth for each of the main settlements.

4.61 For the B4506 running through the Ashridge Estate all the changes to AADTs are well below the 1,000 AADT threshold which would trigger the need for an Appropriate Assessment.

4.62 The results from the model for the predicted traffic flows for the two roads which run within 200 m of the SAC, which could result in likely significant effects associated with air pollution are provided below.

Table 1: B4506 North of Berkhamsted

Road section	Direction	(A) Dacorum baseline AADT	(B) Dacorum Additional Allocation AADT	(C) Change in AADT (B-A)
B4506 Berkhamsted - Junction with Toms Hill Road	Northbound	3,500	3,050	-500
B4506 Berkhamsted - Junction with Toms Hill Road	Southbound	2,250	2,350	+100
B4506 Ringshall - Junction with Toms Hill Road	Northbound	2,800	2,500	-300
B4506 Ringshall - Junction with Toms Hill Road	Southbound	1,950	2,050	+100
Toms Hill Road	Westbound	800	850	+50
Toms Hill Road	Eastbound	600	650	+50

4.63 For the A41 to the west of Tring the eastbound flows under the Dacorum Additional Allocation scenario show a decrease of 950 AADT. However for the westbound flows the model shows an increase of 1,800 AADT for that same scenario.

Table 2: A41 to the west of Tring

Road section	Direction	(A) Dacorum baseline	(B) Dacorum Additional Allocation	(C) Change in AADT (B-A)
A41 between two junctions (B4009 Tring Road and Dunsley Farm junction)	Eastbound	13,550	12,600	-950
A41 between two junctions (B4009 Tring Road and Dunsley Farm junction)	Westbound	18,200	20,000	+1,800

4.64 The DMRB specifies that “*The AADT and HDV criteria are applied to the sum of carriageways and not individual carriageways.*” On this basis, the AADT for the

A41 to the west of Tring to be used to inform this initial summary of likely key issues is +850 AADT.

- 4.65 Based upon the precautionary principle at this stage, we are unlikely to ‘scope’ either road out of the appropriate assessment process as they both have parts of the SAC which fall within 200m.

Air quality information from neighbouring Local Plans

- 4.66 Of direct relevance to this screening for the A41 is the HRA undertaken for the Aylesbury Vale Local Plan. Although the Council notes that it needs to consider if there are any other neighbouring local authorities or those slightly further afield i.e. Luton (generation of traffic along the A41 to Luton Airport) or Watford (as the main settlement at the end of the A41) which merit/require consideration as part of the ‘in-combination’ assessment.
- 4.67 The Buckinghamshire county-wide road traffic modelling, used to inform the HRAs for the Aylesbury Vale Local Plan and the Chiltern and South Bucks Local Plan HRA, predicted an increase of around 3,300 AADT for this same section of the A41 and as a result air quality modelling and assessment was undertaken to inform the Appropriate Assessment of the AVDC Local Plan, which was published in June 2019¹⁶. Based on the results of this modelling the Air Quality Assessment prepared by LUC in association with Air Quality Assessments Ltd (in Appendix 5 of their HRA Report) concluded that:

“The effects of the Local Plan have been shown to be not significant with regard to annual mean NOx concentrations and nutrient and acid nitrogen deposition. This conclusion is based on the following:

- *Contributions to annual mean NOx and nutrient and acid nitrogen deposition being below the screening criteria, assuming EFT emissions;*
- *Contributions to nutrient and acid nitrogen deposition being below the screening criteria, assuming CURED emissions; and*
- *Total annual mean NOx concentrations being well below the assessment criterion, assuming CURED emissions.¹⁷”*

- 4.68 The Air Quality Assessment also concluded that no mitigation will be required. Based on these conclusions from the Air Quality Assessment the Appropriate Assessment concluded that:

¹⁶ Vale of Aylesbury Local Plan 2013-2033 – Habitats Regulations Report, LUC. June 2019.

¹⁷ The Air Quality Assessment identified that “Total NOx concentrations with the Local Plan are predicted to be just 52% of the assessment criterion at the point closest to the A41.”

“... the Local Plan is not predicted to adversely affect the Chilterns Beechwoods SAC as a result of air pollution, either alone or in-combination.”

4.69 In response to the HRA Report, Natural England concurred with the conclusion, as follows:

“We also agree with the conclusions reached in regards to air pollution, and with the data laid out in Appendix 5”

4.70 Given the findings of the HRA for the Aylesbury Vale Local Plan, in particular the finding that the predicted total annual mean NO_x concentrations would be well below the assessment criterion, it is considered to be very unlikely that the additional AADT generated by modelled growth increases within Dacorum (+850 AADT overall) would result in this assessment criterion being exceeded. Although since this date, Buckinghamshire Council have undertaken some additional air quality/transport modelling work to account for the proposed main modifications to the plan. It should also be noted that our ‘in-combination’ assessment may include a different ‘bundle’ of local authority’s growth or indeed different (more recent) growth levels.

4.71 However, at this stage of plan development this is not certain and therefore based on the precautionary principle the issue is expected to be taken forward for further consideration in an HRA appropriate assessment should it be required following screening. Additional transport modelling will likely be required following consultation and any outputs from that work will go on to inform the next steps for the HRA as required.

5. Next steps

5.1 DBC are in the process of commissioning expert consultants to progress the HRA work for the draft Local Plan, initially involving the development of a Screening Report. They will draw upon existing evidence prepared to date, a summary of which is presented in this Topic Paper.

5.2 DBC will be guided by a methodology prepared by the consultants and reviewed by Natural England to ensure the correct processes are undertaken. At present, DBC expect that the following elements may be important:

- Evidence of what are the current issues and whether significant harm is happening at present. We expect an on-site condition assessment/survey to be undertaken early on. This should identify where the special protected features are located on the site, the extent and location of damage to these features, their likely cause and whether different management processes would assist in limitation of/avoidance of this damage. This will be supported by on-site photography. This helps provide a current scientific baseline and will also clarify the scope of the next steps/ if further work is needed.
- If required, a carrying capacity of existing open spaces in the area will be undertaken to understand if they can cope with current levels or any likely additional levels of visitors, especially if we aim to enhance these spaces in an attempt to divert some specific types of recreational pressures away from Ashridge Estate.
- If required, quantify how much of an impact the additional homes proposed in the plan is likely to result in and to determine if this is a matter that needs to be addressed through mitigation measures/policy requirements in the Local Plan. This stage could conclude no further work is necessary.
- If required, visitor surveys to understand how far visitors travel to assist with how many neighbouring authorities require to be involved in the process going forwards (if Zones of Influence are generated).
- Consideration of air quality impacts on roads nearest to the Chilterns Beechwoods SAC. This may require additional air quality modelling to be undertaken.

5.3 The consultants will also give further consideration to the in-combination effects arising from other plans and projects in the area, which we believe to be:

- Vale of Aylesbury Local Plan (now part of Buckinghamshire Council)
- Other new/emerging Local Plans for Buckinghamshire Council
- St Albans Local Plan
- Central Bedfordshire Local Plan
- Adopted site allocations/recent planning applications
- LA1 Marchmont Farm (subject to a separate project level HRA)
- LA3 West of Hemel
- LA5 West of Tring
- Other Major speculative applications within (or adjacent to) Dacorum

- 5.4 The Council will continue to engage with a wide range of stakeholders as work progressed on the HRA and Appropriate Assessment. When finalised in due course, the HRA will be an important piece of evidence that will inform the final strategy of the Local Plan, including what mitigation, if any, is necessary to ensure that no significant adverse effects will occur at the Chilterns Beechwoods SAC and other designated sites as a result of growth proposed in the emerging Local Plan.
- 5.5 The Council are currently considering a range of potential mitigation measures, should the HRA , many of which are already presented in the draft Local Plan for consultation. These include:
- The delivery of Suitable Alternative Natural Green Space (SANG) on a number of proposed allocations; and
 - Contributions towards the delivery of Strategic Access Management and Monitoring (SAMM), with detail on particular elements of this to be set out in a future Supplementary Planning Document.
- 5.6 The Council would welcome any additional evidence in relation to the Chilterns Beechwoods SAC that may be available and which could assist in informing the various stages of the HRA.

6. Other Supporting Documents

- 6.1 This topic paper is supported by a number of additional documents and appendices which set out in more detail the evidence compiled by Dacorum Borough Council to date. These are:
- Topic Paper for the Chilterns Beechwoods SAC: A summary/overview of available evidence
 - Appendices to the Topic Paper for the Chilterns Beechwoods SAC: A summary/overview of available evidence