

Habitats Regulations Assessment of the Draft Dacorum Borough Council Local Plan

Emerging Strategy for Growth 2020-2038

May 2021



LEPUS CONSULTING
LANDSCAPE, ECOLOGY, PLANNING & URBAN SUSTAINABILITY

Habitats Regulations Assessment of the Draft Dacorum Borough Council Local Plan

Emerging Strategy for Growth 2020 – 2038

LC 677	Document Control Box
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Abbreviations

AA	Appropriate Assessment
AADT	Annual Average Daily Traffic
ALS	Abstraction Licence Strategy
APIS	Air Pollution Information System
CAMS	Catchment Abstraction Management Strategy
CJEU	Court of Justice of the European Union
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
DTA	David Tyldesley and Associates
EEC	European Economic Community
EU	European Union
EUNIS	European Nature Information System
ha	Hectares
HDV	Heavy Duty Vehicles
HRA	Habitats Regulations Assessment
IRZ	Impact Risk Zone
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
km	Kilometre
LPA	Local Planning Authority
LSE	Likely Significant Effect
m	Metre
N	Nitrogen
NE	Natural England
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
OAHN	Objectively Assessed Housing Need
PRoW	Public Right of Way
RBMP	River Basin Management Plan
SAC	Special Area of Conservation
SIP	Site Improvement Plan
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest

SuDS	Sustainable Urban Drainage
UK	United Kingdom
WwTW	Waste Water Treatment Works
WCS	Water Cycle Study
WFD	Water Framework Directive
WRMP	Water Resource Management Plan

1 Introduction

1.1.1 Dacorum Borough Council (referred to hereafter as the Council) are currently preparing a new Local Plan which will provide a planning strategy for the Borough up to 2038. The new Local Plan will incorporate strategic policies, development management policies and site allocations into a single document, replacing those in the Core Strategy (adopted September 2013)¹, the Site Allocations DPD (adopted July 2017)² and the ‘saved’ parts of the Dacorum Borough Local Plan 1991-2011 (adopted May 2004)³.

1.1.2 Lepus Consulting has prepared this report to inform the Habitats Regulations Assessment (HRA) of the Dacorum Local Plan (referred to hereafter as the ‘Local Plan’) on behalf of the Council. The Local Plan will cover the period from 2020 – 2038 and extends across the whole of the Council area (referred to hereafter as the ‘Plan area’).

1.1.3 This report is structured as follows:

- Chapter 1: Introduction;
- Chapter 2: Local Plan;
- Chapter 3: The HRA Process;
- Chapter 4: Methodology;
- Chapter 5: Impact Pathways;
- Chapter 6: European Sites;
- Chapter 7: Local Plan Screening;
- Chapter 8: HRA: Next Steps; and
- Chapter 9: Conclusions.

1.2 Purpose of this report

1.2.1 The HRA has been prepared in accordance with the Conservation of Habitats and Species Regulations 2017 (as amended)⁴, known as the Habitats Regulations. When preparing development plan documents, councils are required by law to carry out an HRA. The requirement for authorities to comply with the Habitats Regulations when preparing a Local Plan is also noted in the Government’s online planning practice guidance⁵.

¹ Dacorum Borough Council. Core Strategy 2006 – 2031. Adopted 25th September 2013.

² Dacorum Borough Council. Site Allocation 2006 – 2031. Adopted 12th July 2017.

³ Dacorum Borough Council. Local Plan 1991 - 2011. Adopted 21st April 2004.

⁴ The Conservation of Habitats and Species Regulations 2017 SI No. 2017/1012, TSO (The Stationery Office), London. Available at: <https://www.legislation.gov.uk/uksi/2017/1012/contents> [Date Accessed: 29/01/21] as amended by the The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Available at: <https://www.legislation.gov.uk/ukdsi/2019/9780111176573> [Date Accessed: 29/01/21]

⁵ Ministry of Housing, Communities and Local Government (July 2019) Planning Practice Guidance Note, Appropriate Assessment, Guidance on the use of Habitats Regulations Assessment

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- 1.2.2 The most effective way to deliver the outputs of HRA is to ensure that it is incorporated into the plan-making process as early as possible. This allows adverse impacts to be avoided in the first instance through strategic planning of options or, where this is not possible, effective mitigation. Mitigation measures can then be designed to avoid, cancel or reduce significant effects following the mitigation hierarchy. Such measures may take the form of guiding principles and policy requirements, drawing on existing best practice. Should mitigation not be possible there may be a need to consider alternatives which may require some more complex changes to a plan.
- 1.2.3 Regular contact with the plan-making team is essential to ensure that the planning and HRA processes run alongside each other effectively and iteratively. This will ensure that the plan making team has plenty of time to respond to and incorporate the findings of the HRA process.
- 1.2.4 The purpose of this report is therefore to provide HRA guidance and advice to the Council at the early stages of Local Plan preparation. This HRA report aims to identify European sites that will be considered in the HRA process through application of a ‘source-pathway-receptor’ model. In addition, key constraints and opportunities at European sites and likely pathways of impact from the Local Plan are set out. A formal HRA screening assessment of the Draft Dacorum Local Plan: Emerging Strategy for Growth 2020 - 2038 (November 2020) has also been undertaken. Finally, this report highlights methodologies that will be taken forward in the next steps of the HRA process.

2 Local Plan

2.1 Dacorum Local Plan Review

2.1.1 The Council is currently undertaking a review of the Local Plan due to the date of the existing policies (many of which are more than five years old) and changes to the planning system since their adoption. The review also takes into consideration an emerging technical evidence base, national legislation and revisions to the National Planning Policy Framework (NPPF)⁶ and National Planning Practice Guidance (NPPG)⁷. In addition, the Inspector at the Core Strategy examination identified that, whilst the Council adopted the Core Strategy in 2013 and Site Allocations Document in 2017, a partial review of Dacorum’s plan was necessary to consider household projections, the role and function of the Green Belt affecting Dacorum, including long term boundaries and the potential to identify safeguarded land beyond 2031; and more significantly the role that effective co-operation with local planning authorities could play in meeting any housing needs arising from Dacorum. This element will include St Albans district and relevant areas lying beyond the Green Belt.

2.1.2 Once adopted the Local Plan will:

- Allocate land for new development;
- Designate land for protection, safeguarding, or where specific policies apply;
- Contain ‘development management’ policies that will be used to determine whether planning applications submitted to the Council should be granted permission; and
- Be supported by a Policies Map that will show allocations and designations.

2.2 Background to the Local Plan development

2.2.1 In November 2017 the Council published the Issues and Options consultation seeking comments on key issues facing the Borough.

2.2.2 The Emerging Strategy for Growth (2020 - 2038) was published for consultation between November 2020 and February 2021. This provided an opportunity for the local community, other stakeholders and developers to provide feedback on the emerging approach to development.

2.3 Local Plan policies and allocations

2.3.1 The policies that form the current version of the Local Plan (The Emerging Strategy for Growth (2020 - 2038)) sit under a number of themes as follows:

- Vision, strategic objectives;
- The Sustainable Development strategy;

⁶ Ministry of Housing, Communities & Local Government (2019) National Planning Policy Framework. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Date Accessed: 05/01/21]

⁷ National Planning Practice Guidance. Available at: <https://www.gov.uk/government/collections/planning-practice-guidance> [Date Accessed: 05/01/21]

- Guiding Development;
- Delivery Strategies; and
- Proposals and sites.

3 The HRA process

3.1 Overview

3.1.1 The HRA process assesses the potential effects of a plan or project on the conservation objectives of European sites designated under the Habitats⁸ and Birds⁹ Directives. These sites form a system of internationally important sites throughout Europe known collectively as the ‘Natura 2000 Network’. In line with the Habitats Regulations, UK sites which were part of the Natura 2000 Network before leaving the EU, have become part of the National Site Network. The Habitats Regulations¹⁰ provide a definition of a European site¹¹ at Regulation 8 as follows:

- A Special Area of Conservation (SAC);
- A Site of Community importance which has been placed on the list referred to in the third sub-paragraph of Article 4(2) of the Habitats Directive (list of sites of Community importance) before exit day¹²;
- An area classified before exit day, pursuant to Article 4(1) or (2) of the old Wild Birds Directive or the new Wild Birds Directive (classification of Special Protection Areas (SPA) or classified after exit day under the retained transposing regulations; or
- A site which before exit day has been proposed to the European Commission in accordance with Article 4(1) of the Habitats Directive, until such time as—
 - i. the site is designated as a special area of conservation under regulation 12 or under a corresponding provision in the other retained transposing regulations; or
 - ii. the appropriate authority gives the appropriate nature conservation body notice of its intention not to designate the site, setting out the reasons for its decision, in accordance with regulation 141A(3).

3.1.2 In addition, policy in England and Wales notes that the following sites should also be given the same level of protection as a ‘European site’¹³:

- A potential SPA (pSPA);

⁸ Official Journal of the European Communities (1992). Council Directive 92 /43 /EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

⁹ Official Journal of the European Communities (2009). Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds.

¹⁰ Conservation of Habitats and Species Regulations 2017 SI No. 2017/1012, TSO (The Stationery Office), London. Available at: <https://www.legislation.gov.uk/ukxi/2017/1012/contents> [Date Accessed: 29/01/21] as amended by the The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Available at: <https://www.legislation.gov.uk/ukdsi/2019/978011176573> [Date Accessed: 29/01/21]

¹¹ The term European site is taken here to include both European sites and European marine sites.

¹² Exit day from the European Union.

¹³ Ministry of Housing, Communities & Local Government (2019). National Planning Policy Framework. Para 176. Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf [Date Accessed: 05/01/21]

- A possible / proposed SAC (pSAC);
- Listed and proposed Ramsar Sites; and
- In England, sites identified or required as compensation measures for adverse effects on statutory European sites, pSPA, pSAC and listed or proposed Ramsar sites.

3.1.3 This report refers to both statutory sites and sites protected through national policy as a European site. Regulation 63 of the Habitats Regulations notes a competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project, must make an appropriate assessment of the implications of the plan or project for that site in view of its site conservation objectives. These tests are referred to collectively as a Habitats Regulations Assessment (HRA).

3.1.4 HRA applies to plans or projects which are likely to have a significant effect on a European site (either alone or in combination with other plans or projects), and / or not directly connected with or necessary to the management of that site.

3.1.5 There is no set methodology or specification for carrying out and recording the outcomes of the assessment process. The Habitats Regulations Assessment Handbook, produced by David Tyldesley Associates (referred to hereafter as the ‘DTA Handbook’), provides an industry recognised good practice approach to HRA. The DTA Handbook, and in particular ‘Practical Guidance for the Assessment of Plans under the Regulations’¹⁴, which forms part F, has therefore been used to prepare this report, alongside reference to Government Guidance on Appropriate Assessment¹⁵. The DTA Handbook is used by Natural England, the Government’s statutory nature conservation organisation and is widely considered to be an appropriate basis for the HRA of plans.

3.1.6 A step-by-step guide to the methodology adopted in this assessment, as outlined in the DTA Handbook, is illustrated in **Figure 3.1**. In summary, the four key stages of the HRA process are as follows:

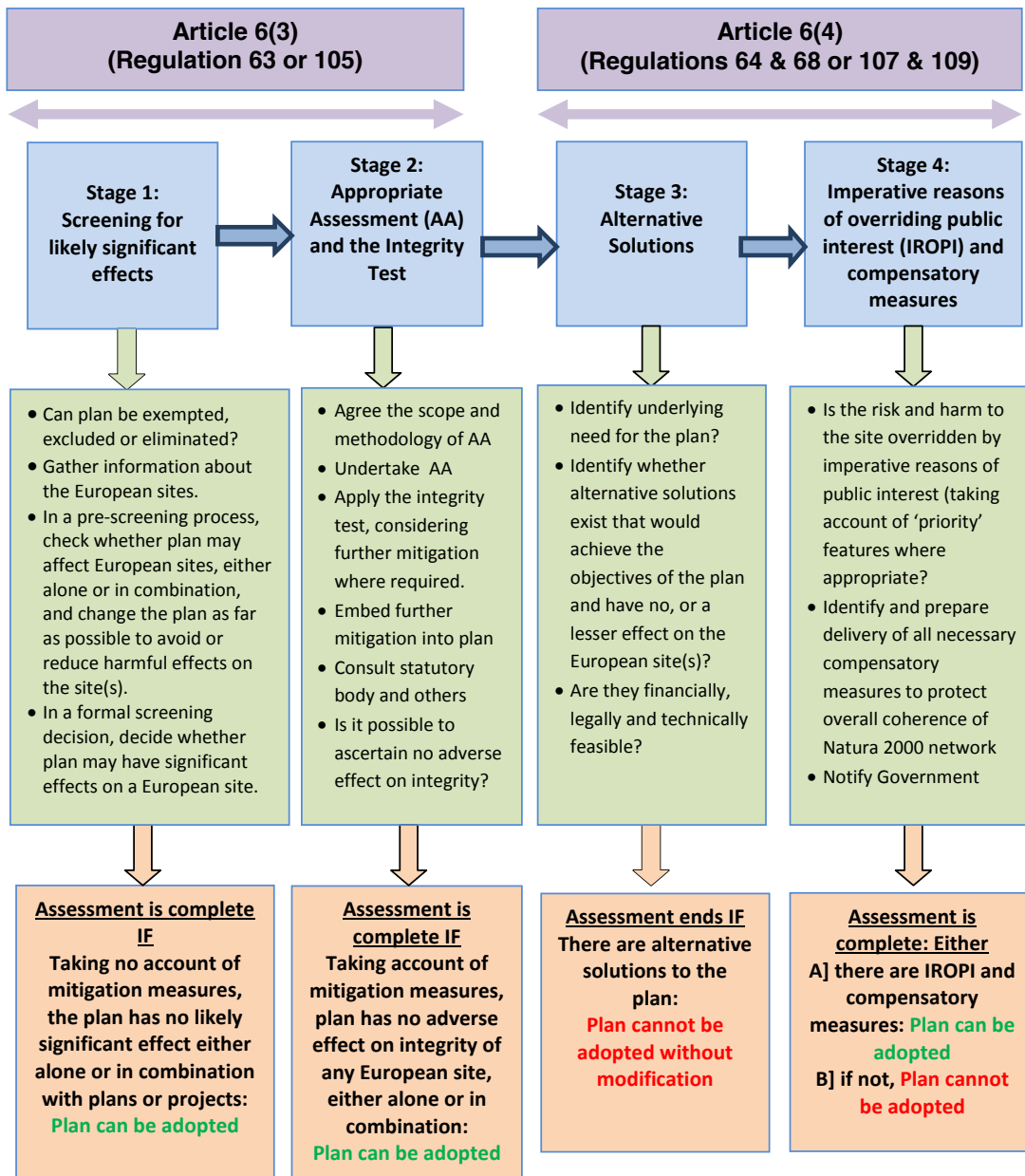
- **Stage 1. Screening:** Screening to determine if the Local Plan would be likely to have a significant effect on a European site. This stage comprises the identification of potential effects associated with the Local Plan on European sites and an assessment of the likely significance of these effects.
- **Stage 2. Appropriate Assessment and the ‘Integrity Test’:** Assessment to ascertain whether or not the Local Plan would have a significant adverse effect on the integrity of any European site to be made by the Competent Authority (in this instance Dacorum Borough Council). This stage comprises an impact assessment and evaluation in view of a European site’s conservation objectives. Where adverse impacts on site integrity are identified, consideration is given to alternative options and mitigation measures which are tested.
- **Stage 3. Alternative solutions:** Deciding whether there are alternative solutions which would avoid or have a lesser effect on a European site.

¹⁴ Tyldesley, D., and Chapman, C. (2013) The Habitats Regulations Assessment Handbook (September) (2013) edition UK: DTA Publications Limited. Available at: www.dtapublications.co.uk

¹⁵ Government Guidance on Appropriate Assessment. July 2019. Guidance on the use of Habitats Regulations Assessment. Available at: <https://www.gov.uk/guidance/appropriate-assessment>

- **Stage 4. Imperative reasons of overriding public interest and compensatory measures:** Considering imperative reasons of overriding public interest and securing compensatory measures.

Outline of the four-stage approach to the assessment of plans under the Habitats Regulations



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Figure 3.1: Stages in the Habitats Regulations Assessment process¹⁶

¹⁶ Tyldesley, D., and Chapman, C. (2013) *The Habitats Regulations Assessment Handbook* (October) (2018) edition UK: DTA Publications Limited. Available at: www.dtapublications.co.uk

3.2 Previous HRA work

3.2.1 The Local Plan review is well-progressed having been subject to two stages of formal public consultation. The Council’s current local development plan is made up of the Core Strategy and Site Allocations DPDs, both of which were supported by HRAs completed in 2008 and 2011.

3.2.2 **Table 3.1** provides a summary of published HRA work that was undertaken to support the Core Strategy.

Table 3.1: Summary of previous HRA assessment work

HRA Report	Summary of findings
Dacorum Core Strategy Habitats Regulations Assessment: Summary Report. September 2011 Halcrow Group Ltd	

3.2.3 In order to inform the development of the Local Plan a topic paper has been prepared by the Council for the Chiltern Beechwoods SAC¹⁷.

¹⁷ Topic Paper for the Chiltern Beechwoods SAC. Dacorum Local Plan (2020 – 2038). Emerging Strategy for Growth. November 2020.

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- 3.2.4 Natural England provided advice under its Discretionary Advice Service (DAS) on 29 November 2018 in respect of the Chilterns Beechwoods SAC in relation to the Dacorum Plan area. The topics of recreational pressure and air quality were highlighted as key issues to consider within the HRA.
- 3.2.5 On 03 March 2020 Natural England provided further formal advice under DAS. This advice highlighted the requirement for the HRA to demonstrate clear evidence of recreational pressure within the Chilterns Beechwoods SAC before progressing to possible mitigation options. They noted, if recreational pressure is anticipated to be an issue, a visitor survey as a necessary evidence document for the Plan and HRA may be required. In terms of air quality impacts, Natural England referred to the screening thresholds and the requirement to take into consideration relevant case law. Natural England advised that growth scenarios be screened in relation to their distance from European sites, stating a 10km zone, and noting the relevance of Sites of Special Scientific Interest (SSSI) Impact Risk Zone (IRZ) information. They noted that strong Green Infrastructure and Biodiversity Net Gain strategies should be developed and underpinned by supplementary planning documents. They also highlighted their expectation that individual allocation policies would also capture the delivery of these issues with specific context.

4 Methodology

4.1 HRA Guidance

4.1.1 As noted above, the application of HRA to land-use plans is a requirement of the Habitats Regulations (as amended), the UK's transposition of European Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). HRA applies to plans and projects, including all Local Development Documents in England and Wales.

4.1.2 This report has been informed by the following guidance:

- Planning Practice Guidance: Appropriate Assessment¹⁸; and
- The Habitat Regulations Assessment Handbook - David Tyldesley and Associates (referred to hereafter as the DTA Handbook), 2013 (in particular Part F: '*Practical Guidance for the Assessment of Plans under the Regulations*').

4.2 HRA methodology

4.2.1 HRA is a rigorous precautionary process centred around the conservation objectives of a European site's qualifying interests. It is intended to ensure that designated European sites are protected from impacts that could adversely affect their integrity. A step-by-step guide to this methodology is outlined in the DTA Handbook and has been reproduced in **Figure 3.1**.

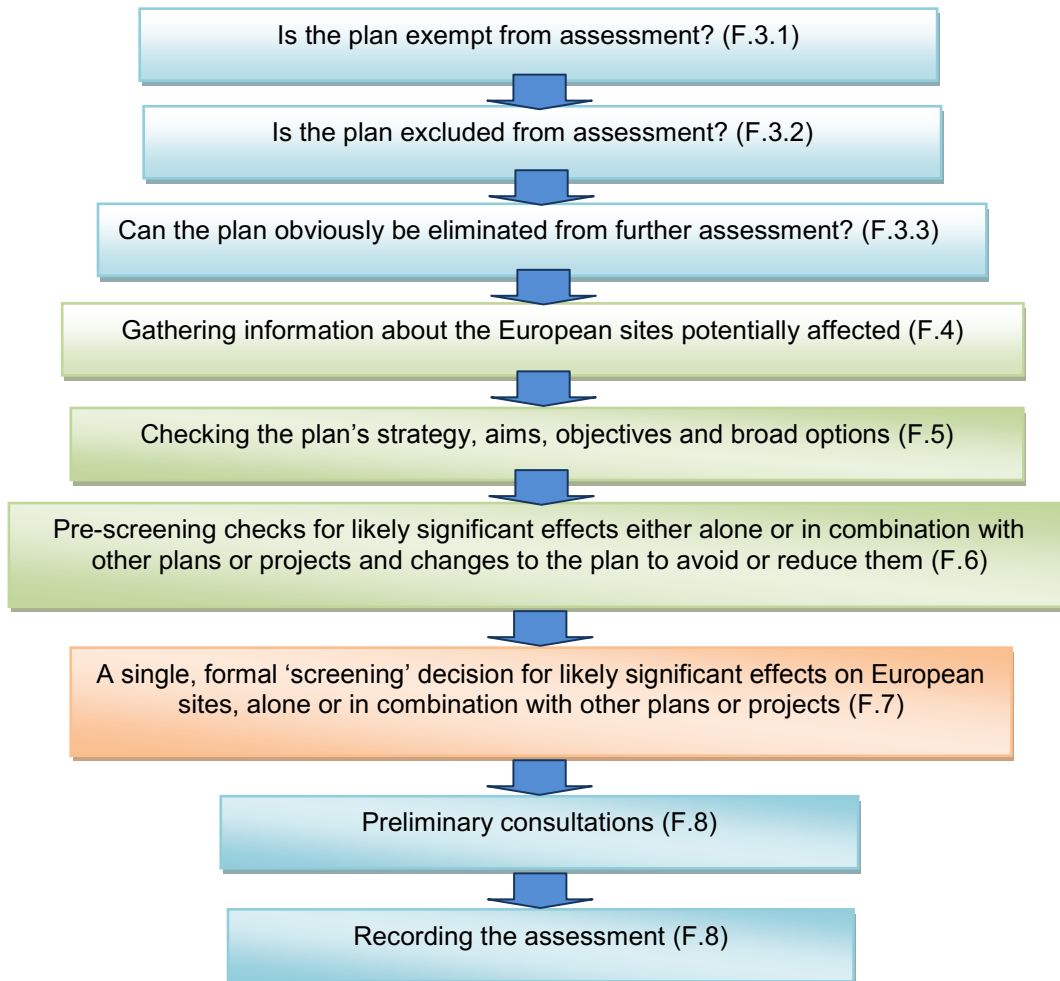
4.3 Stage 1: Screening for likely significant effects

4.3.1 The first stage in the HRA process comprises the screening stage. This process identifies likely significant effects (LSEs) of a plan or project upon a European site, either alone or in combination with other plans or projects. This stage considers the potential 'significance' of adverse effects. Where elements of the plan will not result in an LSE on a European site these may be screened out and not considered in further detail in the process.

4.3.2 The screening stage follows a number of steps which are outlined in **Figure 4.1**.

¹⁸ Ministry of Housing, Communities and Local Government (July 2019) Planning Practice Guidance Note, Appropriate Assessment, Guidance on the use of Habitats Regulations Assessment

Outline of the steps in stage 1, the whole of the screening process



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Figure 4.1: Outline of steps in stage 1; the whole screening process.

- 4.3.3 Pre-screening the components of a plan at the early stage of the plan making process helps to minimise or avoid LSEs upon any European site and as such improve the plan. The pre-screening process uses a number of evaluation codes to summarise whether or not a plan component is likely to have LSEs alone or in-combination, see **Table 4.1**, and inform the formal screening decision.

Table 4.1: Assessment and reasoning categories from Part F of the DTA Handbook

Assessment and reasoning categories from Chapter F of The Habitats Regulations Assessment Handbook (DTA Publications, 2013):

- A. General statements of policy / general aspirations.
- B. Policies listing general criteria for testing the acceptability / sustainability of proposals.
- C. Proposal referred to but not proposed by the plan.
- D. General plan-wide environmental protection / site safeguarding / threshold policies
- E. Policies or proposals that steer change in such a way as to protect European sites from adverse effects.
- F. Policies or proposals that cannot lead to development or other change.
- G. Policies or proposals that could not have any conceivable or adverse effect on a site.
- H. Policies or proposals the (actual or theoretical) effects of which cannot undermine the conservation objectives (either alone or in combination with other aspects of this or other plans or projects).
- I. Policies or proposals with a likely significant effect on a site alone.
- J. Policies or proposals unlikely to have a significant effect alone.
- K. Policies or proposals unlikely to have a significant effect either alone or in combination.
- L. Policies or proposals which might be likely to have a significant effect in combination.
- M. Bespoke area, site or case-specific policies or proposals intended to avoid or reduce harmful effects on a European site.

4.4 What is a Likely Significant Effect?

- 4.4.1 HRA screening provides an analysis of LSEs identified during the HRA screening process. It considers the nature, magnitude and permanence of potential effects in order to inform the plan making process.
- 4.4.2 The DTA Handbook guidance provides the following interpretation of LSEs:
- 4.4.3 *“In this context, ‘likely’ means risk or possibility of effects occurring that cannot be ruled out on the basis of objective information. ‘Significant’ effects are those that would undermine the conservation objectives for the qualifying features potentially affected, either alone or in combination with other plans or projects... even a possibility of a significant effect occurring is sufficient to trigger an ‘appropriate assessment’”¹⁹.*
- 4.4.4 With reference to the conservation status of a given species in the Habitats Regulations, the following examples would be considered to constitute a significant effect:
- Any event which contributes to the long-term decline of the population of the species on the site;
 - Any event contributing to the reduction, or to the risk of reduction, of the range of the species within the site; and
 - Any event which contributes to the reduction of the size of the habitat of the species within the site.

¹⁹Tyldesley, D. (2013) The Habitats Regulations Assessment Handbook – Chapter F. DTA Publications

- 4.4.5 Rulings from the 2012 ‘Sweetman’²⁰ case provide further clarification:
- 4.4.6 *“The requirement that the effect in question be ‘significant’ exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill”.*
- 4.4.7 Therefore, it is not necessary for the Council to show that the Local Plan will result in no effects whatsoever on any European site. Instead, the Council is required to show that the Local Plan, either alone or in-combination with other plans and projects, will not result in an effect which undermines the conservation objectives of one or more qualifying features.
- 4.4.8 Determining whether an effect is significant requires careful consideration of the environmental conditions and characteristics of the European site in question, as per the 2004 ‘Waddenzee’²¹ case:
- 4.4.9 *“In assessing the potential effects of a plan or project, their significance must be established in the light, inter alia, of the characteristics and specific environmental conditions of the site concerned by that plan or project”.*

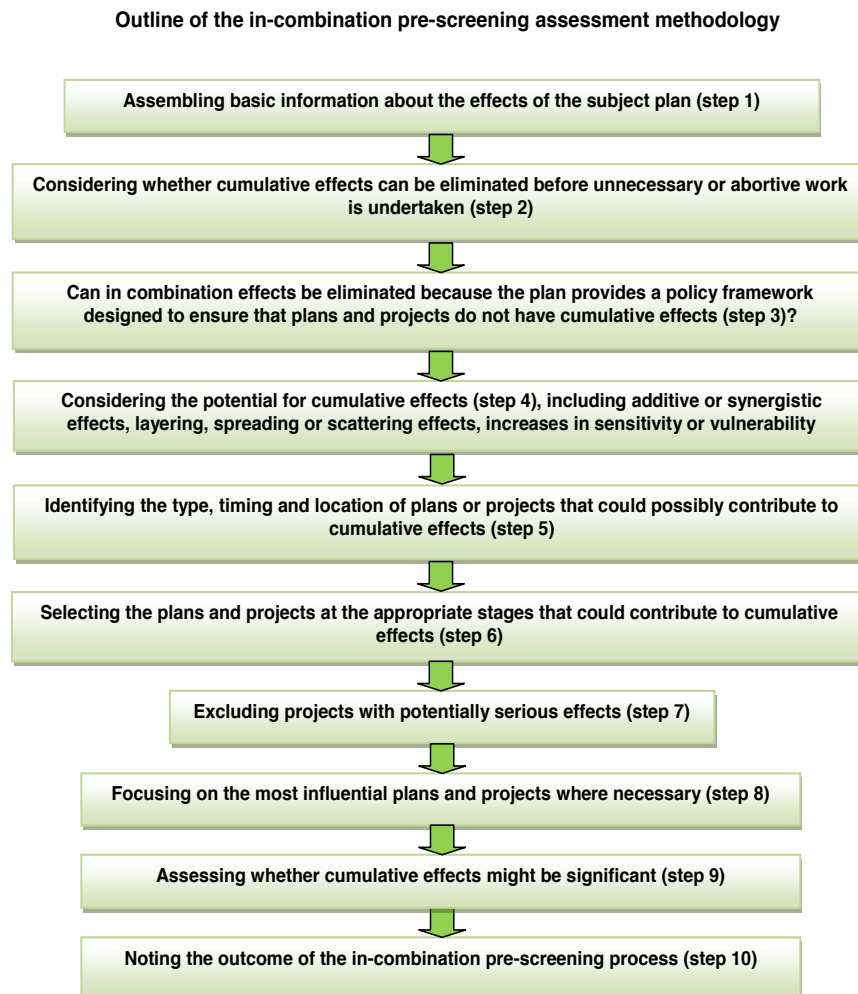
4.5 In-combination effects

- 4.5.1 As well as considering the LSEs of the Local Plan policies alone on European sites at the screening stage, it is also necessary to consider whether the effects of the policies in-combination with other plans and projects would combine to result in an LSE on any European site. It may be that the Local Plan alone may not have a significant effect but could have a residual effect that may contribute to in-combination effects on a European site.
- 4.5.2 The DTA Handbook²² notes that *“where an aspect of a plan could have some effect on the qualifying feature(s) of a European site, but that aspect of the plan alone are unlikely to be significant, the effects of that aspect of the plan will need to be checked in combination firstly, with other effects of the same plan, and then with the effects of other plans and projects”.*
- 4.5.3 As such an in-combination assessment has been undertaken as part of the HRA process at both the screening stage (where no LSE are considered possible alone but in-combination effects are likely) and will be undertaken at the appropriate assessment stage (where, following appropriate assessment and mitigation, an insignificant adverse effect is still likely which has the potential to act in-combination with other plans and projects).
- 4.5.4 The in-combination assessment presented in Chapter F of the DTA Handbook comprises a ten-step approach as illustrated in **Figure 4.2** below.

²⁰ Source: EC Case C-258-11 Reference for a Preliminary Ruling, Opinion of Advocate General Sharpston ‘Sweetman’ delivered on 22nd November 2012 (para 48)

²¹ Source: EC Case C-127/02 Reference for a Preliminary Ruling ‘Waddenzee’ 7th Sept 2004 (para 48)

²² Tyldesley, D. (2013) The Habitats Regulations Assessment Handbook – Chapter F. DTA Publications.



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Figure 4.2: *Outline of the in-combination pre-screening assessment methodology*

4.5.5 Plans and projects which are considered to be of most relevance to the in-combination assessment of the Local Plan include those that have similar impact pathways. These include those plans that have the potential to increase development in the HRA study area. In addition, other plans and projects with the potential to increase traffic across the study area which may act in-combination with the Local Plan, such as transport, waste and mineral plans and projects, have also been taken into consideration. Plans which allocate water resources or are likely to influence water quality in the study area have been considered. Finally, neighbouring authority local plans which may increase development related public access and disturbance pressures at European sites have also been considered.

4.5.6 The following points describe how in-combination effects have been taken into account in the HRA at screening / how they will be taken into consideration at appropriate assessment.

- Air quality LSEs on all European sites within the HRA study area in-combination with the Local Plan will be taken into consideration within the traffic modelling. This includes current and future growth within the Plan and wider area.
- Consideration of in-combination impacts upon water quality and water quantity.

- Consideration of recreational in-combination effects.

4.5.7 The assessment of potential in-combination effects has not resulted in additional impact pathways being screened in, however, a number of links between other plans and projects and the Local Plan have been identified.

4.5.8 The following neighbouring local authorities' local plans and other relevant plans and projects and their HRA work have been reviewed as part of this assessment.

- Buckinghamshire Council²³;
- St Albans City and District;
- Central Bedfordshire;
- Three Rivers District;
- Luton District;
- Watford District;
- Hertsmere District;
- Hertfordshire County Council;
- Thames River Basin Management Plan;
- Thames Water;
- Affinity Water; and
- Chilterns Area of Outstanding Natural Beauty.

4.5.9 Traffic and roads represent a cross boundary issue. On 20th March 2017 a high court ruling²⁴ found that traffic increases and subsequent air pollution on roads within 200m of a European site also requires an in-combination approach that considers the development of neighbouring and nearby authorities (**Box 1**).

²³ Buckinghamshire Council was created on 1st April 2020 and became the local planning authority for the area previously covered by four local planning authorities, namely Aylesbury Vale District Council, Chiltern District Council, South Bucks District Council and Wycombe District Council, and Buckinghamshire County Council.

²⁴ Wealden District Council & Lewes District Council before Mr Justice Jay. Available at: <http://www.bailii.org/ew/cases/EWHC/Admin/2017/351.html> [Date Accessed: 27/01/21]

Box 1: The Wealden Case (March 2017)

On 20th March 2017 a high court ruling found that traffic increases and subsequent air pollution on roads within 200m of an EU site also requires an in-combination approach that considers the development of neighbouring and nearby authorities. This is because projects and plans that increase road traffic flow have a high likelihood of acting together, or 'in-combination', with other plans or projects that would also increase traffic on the same roads. If the combined effects of borough's development will lead to increases of traffic of more than 1,000 cars a day, further consideration of the issue is required. This would be through traffic and air quality modelling.

It is therefore necessary to consider the potential impact of the Local Plan on roads within 200m of each EU site both alone and in-combination with relevant plans and projects.

4.5.10 The approach outlined above for an in-combination effects assessment is compliant with the Wealden Judgement.

4.6 Consideration of mitigation measures

4.6.1 The European Court Judgement on the interpretation of the Habitats Directive in the case of People Over Wind and Sweetman vs Coillte Teoranta (Case C-323/17²⁵) determined that mitigation measures are only permitted to be considered as part of an appropriate assessment (**Box 2**).

Box 2: The Sweetman Case (April 2018)

A recent decision by the Court of Justice of the European Union (CJEU) People Over Wind and Sweetman v Coillte Teoranta (C-323/17) (from here on known as the 'Sweetman Case') has important consequences for the HRA process in the UK.

In summary, the ruling reinforces the position that if an LSE is identified during the HRA screening process it is not appropriate to incorporate mitigation measures to prevent the LSE at this stage. An appropriate assessment (AA) of the potential effects and the possible avoidance or mitigation measures must be undertaken. The 're-screening the Plan after mitigation has been applied' is no longer an option which would be legally compliant:

"Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site."

4.6.2 In light of the above, it is necessary to further define mitigation measures. The DTA Handbook notes that there are two types of measures as follows:

- *"Measures intended to avoid or reduce harmful effects on a European site; or*
- *Features or characteristics of a plan which are essential in defining the nature, scale, location, timing, frequency or duration of the plan's proposals, or they may be inseparable aspects of the plan, without which an assessment of the plan could not properly be made, in the screening decision, even though these features or characteristics may incidentally have the effect of avoiding or reducing some or all of the potentially adverse effects of a plan".*

²⁵ InfoCuria (2018) Case C-323/17. Available at:

<http://curia.europa.eu/juris/document/document.jsf?docid=200970&doclang=EN> [Date Accessed: 27/01/20]

4.6.3 The HRA screening process undertaken for the Local Plan has not taken account of incorporated mitigation or avoidance measures that are intended to avoid or reduce harmful effects on a European site when assessing the LSE of the Local Plan on European sites. These are measures, which if removed (i.e. should they no longer be required for the benefit of a European site), would still allow the lawful and practical implementation of a plan.

4.7 Stage 2: Appropriate Assessment and Integrity Test

4.7.1 Stage 2 of the HRA process comprises the appropriate assessment and integrity test. The purpose of the appropriate assessment (as defined by the DTA Handbook) is to *“undertake an objective, scientific assessment of the implications for the European site qualifying features potentially affected by the plan in light of their consideration objectives and other information for assessment”*.

4.7.2 As part of this process decision makers should take account of the potential consequences of no action, the uncertainties inherent in scientific evaluation and should consult interested parties on the possible ways of managing the risk, for instance, through the adoption of mitigation measures. Mitigation measures should aim to avoid, minimise or reduce significant effects on European sites. Mitigation measures may take the form of policies within the Local Plan or mitigation proposed through other plans or regulatory mechanisms. All mitigation measures must be deliverable and able to mitigate adverse effects for which they are targeted.

4.7.3 The appropriate assessment will present information in respect of all aspects of the Local Plan and ways in which it could, either alone or in-combination with other plans and projects, affect a European site.

4.7.4 The plan-making body (as the Competent Authority) must then ascertain, based on the findings of the appropriate assessment, whether the Local Plan will adversely affect the integrity of a European site either alone or in-combination with other plans and projects. This is referred to as the Integrity Test.

4.8 Dealing with uncertainty

4.8.1 Uncertainty is an inherent characteristic of HRA, and decisions can be made only on currently available and relevant information. This concept is reinforced in the 7th September 2004 ‘Waddenzee’ ruling²⁶:

4.8.2 *“However, the necessary certainty cannot be construed as meaning absolute certainty since that is almost impossible to attain. Instead it is clear from the second sentence of Article 6(3) of the habitats directive that the competent authorities must take a decision having assessed all the relevant information which is set out in particular in the appropriate assessment. The conclusion of this assessment is, of necessity, subjective in nature. Therefore, the competent authorities can, from their point of view, be certain that there will be no adverse effects even though, from an objective point of view, there is no absolute certainty”*.

²⁶EC Case C-127/02 Reference for a Preliminary Ruling ‘Waddenzee’ 7th September 2004 Advocate General’s Opinion (para 107)

4.9 The Precautionary Principle

4.9.1 The HRA process is characterised by the precautionary principle. This is described by the European Commission as being:

4.9.2 *“If a preliminary scientific evaluation shows that there are reasonable grounds for concern that a particular activity might lead to damaging effects on the environment, or on human, animal or plant health, which would be inconsistent with protection normally afforded to these within the European Community, the Precautionary Principle is triggered”.*

5 Impact Pathways

5.1 Introduction

5.1.1 It is important to understand how the Plan may affect a European site in order to determine LSEs. Consideration must first be given to potential links or causal connections between the effects of the Plan and European sites. This section therefore identifies potential impact pathways.

5.2 European site Information

5.2.1 SSSIs are protected areas in the United Kingdom designated for conservation. SSSIs are the building blocks of site-based nature conservation in the UK. A SSSI will be designated based on the characteristics of its fauna, flora, geology and/or geomorphology. Whilst typically analogous in ecological function, the reasons for its designation can be entirely different to those for which the same area is designated as a SAC, SPA or Ramsar.

5.2.2 Natural England periodically assesses the conservation conditions of each SSSI unit, assigning it a status. SSSIs located either entirely or partially within the European sites considered in this report are listed in **Appendix B** along with their current conservation status. The conservation status of each SSSI highlights any SAC/SPA that is currently particularly vulnerable to threats/pressures. Conservation status is defined as follows:

- Favourable;
- Unfavourable – recovering;
- Unfavourable – no change; or
- Unfavourable – declining.

5.2.3 SSSI units in either an ‘Unfavourable – no change’ or ‘Unfavourable – declining’ condition indicate that the European site may be particularly vulnerable to certain threats or pressures. It is important to remember that the SSSI may be in an unfavourable state due to the condition of features unrelated to its European designation. However, it is considered that the conservation status of SSSI units that overlap with European designated sites offer a useful indicator of habitat health at that location.

5.2.4 Natural England defines zones around each SSSI which may be at risk from specific types of development, these are known as Impact Risk Zones (IRZ). These IRZs are “a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts. The IRZs also cover the interest features and sensitivities of European sites, which are underpinned by the SSSI designation and “Compensation Sites”, which have been secured as compensation for impacts on Natura 2000/Ramsar sites”²⁷. The location of IRZs has been taken into consideration in this assessment as they provide a useful guide as to the location of functionally linked land and likely vulnerabilities to development proposed within the Local Plan.

5.3 European sites within HRA study area

5.3.1 Each site of European importance has its own intrinsic qualities, besides the habitats or species for which it has been designated, that enables the site to support the ecosystems that it does. An important aspect of this is that the ecological integrity of each site can be vulnerable to change from natural and human induced activities in the surrounding environment (known as pressures and threats). For example, sites can be affected by land use plans in a number of different ways, including direct land take for new development, pollution depending on land use type (e.g. noise, water or light), or increased pressure from a rising population in a particular area.

5.3.2 An intrinsic quality of any European site is its functionality at the landscape ecology scale. This refers to how the site interacts with the zone of influence of its immediate surroundings, as well as the wider area. This is particularly the case where there is potential for developments resulting from a land use plan to generate water or air-borne pollutants, use water resources or otherwise affect water levels. Adverse effects may also occur via impacts to mobile species occurring outside a designated site, but which are qualifying features of the site. For example, there may be effects on protected birds that use land outside the designated site for foraging, feeding, roosting or other activities.

5.3.3 There is no guidance that defines the study area for inclusion in HRA. Planning Practice Guidance for Appropriate Assessment (listed above) indicates that:

5.3.4 *“The scope and content of an appropriate assessment will depend on the nature, location, duration and scale of the proposed plan or project and the interest features of the relevant site. ‘Appropriate’ is not a technical term. It indicates that an assessment needs to be proportionate and sufficient to support the task of the competent authority in determining whether the plan or project will adversely affect the integrity of the site”.*

5.3.5 Therefore, in order to determine a study area for the HRA, consideration has been given to the nature and extent of potential impact pathways from the Local Plan and their relationship to European sites.

²⁷ Natural England (2019) Natural England’s Impact Risk Zones for Sites of Special Scientific Interest User Guidance. Available at: https://magic.defra.gov.uk/Metadata_for_magic/SSSI%20IRZ%20User%20Guidance%20MAGIC.pdf [Date Accessed: 27/01/21]

- 5.3.6 The following impact pathways represent potential processes through which the Local Plan may interact with a European site and therefore have the potential to result in a likely significant effect.
- Air quality;
 - Hydrological change (water quality and water quantity);
 - Habitat loss and fragmentation (including loss of functionally linked land or impacts upon mobile species); and
 - Public access and disturbance (to include urbanisation effects and recreational disturbance).

5.4 Air quality

- 5.4.1 Air pollution can affect a European site if it has an adverse effect on its features of qualifying interest. The main mechanisms through which air pollution can have an adverse effect is through eutrophication (nitrogen), acidification (nitrogen and sulphur) and direct toxicity (ozone, ammonia and nitrogen oxides)²⁸. Deposition of air pollutants can alter the soil and plant composition and species which depend upon these.
- 5.4.2 Excess atmospheric nitrogen deposition within an ecosystem or habitat can disrupt the delicate balance of ecological processes interacting with one another. As the availability of nitrogen increases in the local environment, some plants that are characteristic of that ecosystem may become competitively excluded in favour of more nitrophilic plants. It also upsets the ammonium and nitrate balance of the ecosystem, which disrupts the growth, structure and resilience of some plant species.
- 5.4.3 Excess nitrogen deposition often leads to the acidification of soils and a reduction in the soils' buffering capacity (the ability of soil to resist pH changes). It can also render the ecosystem more susceptible to adverse effects of secondary stresses, such as frost or drought, and disturbance events, such as foraging by herbivores.
- 5.4.4 As an attempt to manage the negative consequences of atmospheric nitrogen deposition, 'critical loads' have been established for ecosystems in Europe. Each European site is host to a variety of habitats and species, the features of which are often designated a critical load for nitrogen deposition. The critical loads of pollutants are defined as a:
- 5.4.5 *"...quantitative estimate of exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge"*²⁹.

²⁸ APIS (2016) Ecosystem Services and air pollution impacts. Available at: <http://www.apis.ac.uk/ecosystem-services-and-air-pollution-impacts>. [Date Accessed: 28/01/21]

²⁹ UNECE (date unavailable) ICP Modeling and Mapping Critical loads and levels approach. Available at: <http://www.unece.org/env/lrtap/WorkingGroups/wqe/definitions.html> [Date Accessed: 28/01/21]

- 5.4.6 Natural England's advice on the assessment of air quality impacts under the Habitats Regulations states that consideration should be given to the risk of road traffic emissions associated with a Local Plan³⁰. This advice states that an assessment of the risks from road traffic emissions can be expressed in terms of the average annual daily traffic flow (AADT as a proxy for emissions). The use of the AADT screening threshold is advocated by Highways England in their Design Manual for Roads and Bridges (DMRB). This screening threshold is intended to be used as a guide to determine whether a more detailed assessment of the impact of emissions from road traffic is required. This non-statutory or guideline threshold is based on a predicted change of daily traffic flows of 1,000 AADT or more (or heavy-duty vehicle flows on motorways (HDV) change by 200 AADT or more).
- 5.4.7 The AADT thresholds do not themselves imply any intrinsic environmental effects and are used solely as a trigger for further investigation. Widely accepted environmental benchmarks for imperceptible impacts are set at 1% of the critical load or level, which is considered to be roughly equivalent to DMRB thresholds for changes in traffic flow of 1,000 AADT and for HDV of 200 AADT. This has been confirmed by modelling using the DMRB Screening Tool that used average traffic flow and speed figures from the Department for Transport (DfT) data to calculate whether the NO_x outputs could result in a change of >1% of critical load / level on different road types. A change of >1,000 AADT on a road was found to equate to a change in traffic flow which might increase emissions by 1% of the Critical Load or Level and might consequentially result in an environmental effect nearby (e.g. within 10 metres of roadside).
- 5.4.8 The AADT thresholds and 1% of critical load/level are considered by Natural England to be suitably precautionary as any emissions below this level are widely considered to be imperceptible and, in the case of AADT, undetectable through the DMRB model. There can, therefore, be a high degree of confidence in its application to screen for risks of an effect.

³⁰ Natural England (2018) Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations (NEA001). Available at: <http://publications.naturalengland.org.uk/publication/4720542048845824> [Date Accessed: 28/01/21]

5.4.9

It is widely accepted that the effects of air pollutants from road transport decrease with distance from the source of pollution i.e. the road carriageway^{31,32,33}. The DfT in their Transport Analysis Guidance (TAG) consider that, “beyond 200m from the link centre, the contribution of vehicle emissions to local pollution levels is not significant”³⁴. This is illustrated in **Figure 5.1**. This statement is supported by Highways England and Natural England based on evidence presented in a number of research papers^{35,36}. However, it is also noted that effects can, in some circumstances, occur beyond 200m.

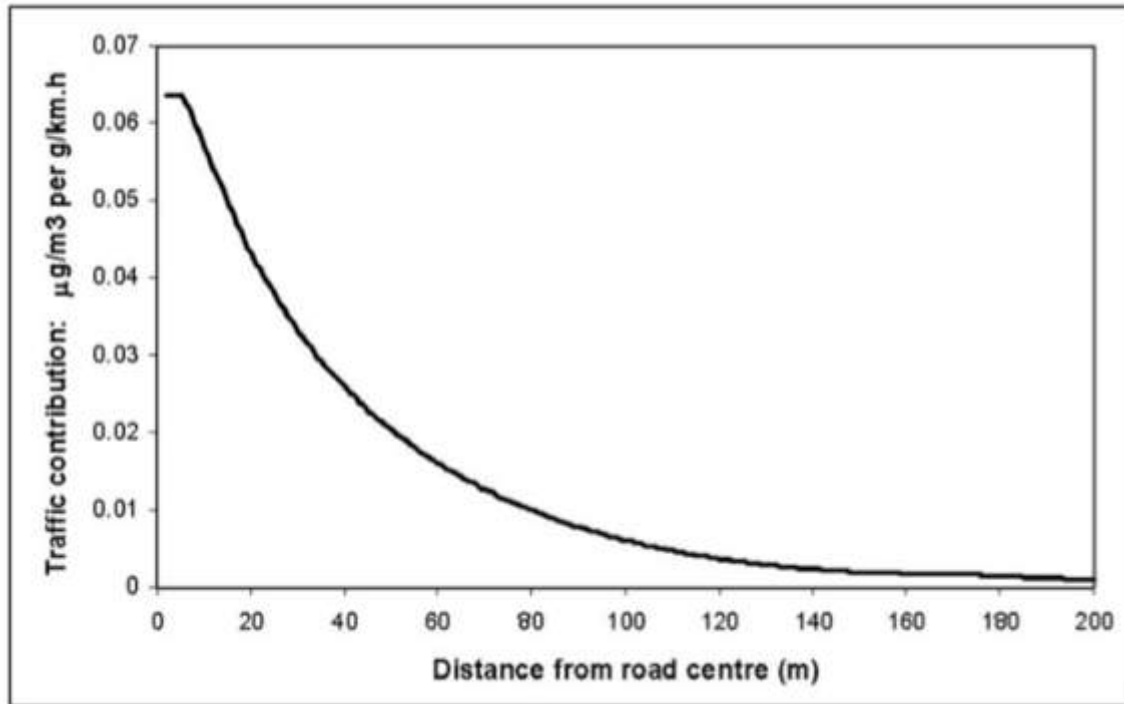


Figure 5.1: Traffic contribution to pollution concentration at different distances from road centre

5.4.10

Advice from Natural England³⁷ states that a four-step process for screening if there will be an LSE from air pollution should be adopted as follows:

³¹ The Highways Agency, Transport Scotland, Welsh Assembly Government, The Department for Regional Development Northern Ireland (2007) Design Manual for Roads and Bridges, Volume 11, Section 3, Part 1: Air Quality.

³² Natural England (2016) The ecological effects of air pollution from road transport: an updated review. Natural England Commissioned Report NECR 199.

³³ Bignal, K., Ashmore, M. & Power, S. (2004) The ecological effects of diffuse air pollution from road transport. English Nature Research Report No. 580, Peterborough.

³⁴ Department for Transport (2015) TAG UNIT A3 Environmental Impact Appraisal. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/487684/TAG_unit_a3_envir_imp_a_pp_dec_15.pdf [Date Accessed: 14/09/20]

³⁵ Bignal, K., Ashmore, M & Power, S. (2004) The ecological effects of diffuse air pollution from road transport. English Nature Research Report No. 580, Peterborough.

³⁶ Ricardo-AEA (2016) The ecological effects of air pollution from road transport: an updated review. Natural England Commissioned Report No. 199.

³⁷ Natural England (2018). Natural England’s approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations. Version June 2018.

- **Step 1:** Does the proposal give rise to emissions which are likely to reach a European site? As noted above, distance-based criteria have been established by Natural England and Highways England to determine the likely impact of air pollution from a road source on a European site. This distance was taken as 200m for the purposes of this assessment and it has been assumed that roads forming part of the strategic road network (motorways, 'A' roads and 'B' roads) are likely to experience the most significant increases in vehicle traffic as a result of development (i.e. greater than 1,000 AADT). These roads therefore form the focus of the screening assessment at this stage in the HRA process.
- **Step 2:** Are the qualifying features of sites within 200m of a road sensitive to air pollution? The sensitivity of qualifying features has been determined following a review of broad category and site relevant information which in some cases required site surveys.
- **Step 3:** Could the sensitive qualifying features of the site be exposed to emissions?
- **Step 4:** Application of screening thresholds:
 - **Step 4a:** Apply the thresholds alone. Where a proposal is considered to have an LSE because it breaches the screening threshold alone it should go through to an appropriate assessment 'alone'. There is no need to consider the potential for in-combination effects at the screening step as an appropriate assessment is needed in any event. If the predicted change in traffic flow is less than 1,000 AADT (or the level of emissions is <1% of the critical load/level), the associated emissions are not likely to have a significant effect alone, but the risk of in-combination effects should be considered further.
 - **Step 4b:** Apply the threshold in-combination with emissions from other road traffic plans and projects. Where a proposal is below the screening threshold 'alone' (step 4a), step 4b must be considered to apply the same screening threshold 'in-combination'.
 - **Step 4c:** Apply the threshold in-combination with emissions from other non-road plans and projects. Consider non-road plans and projects to recognise in-combination effects from other pollution sources.

5.4.11

Consideration of the screening thresholds set out above must be applied for both the Local Plan alone and in-combination with other plans and projects. This is because any increase in traffic flows may lead to in-combination effects on a European site. Vehicle movements generated by different plans and projects are likely to increase the traffic on the same roads. This approach is compliant with the Wealden Judgement which determined that traffic and roads are a cross boundary issue (see **Box 1**). If the combined effects of the borough's development will lead to increases of traffic of more than 1,000 AADT or if air quality modelling data indicates that there is going to be an increase in deposition loads of more than 1% on background levels; an LSE is anticipated.

- 5.4.12 It is noted that such an exceedance of thresholds does not imply that an adverse effect on site integrity will definitely occur, only that further, more detailed, assessment of air quality impacts must be undertaken (through the HRA Appropriate Assessment). This would take into consideration other relevant factors associated with the European site specifically and Local Plan. It is noted, that the approach in the UK to the interpretation of exceedance of critical loads and levels differs from that which has been applied in some EU member states and in particular the Dutch Nitrogen Case³⁸. The Netherland's approach is different to that applied by Natural England, with the former regarding critical loads and levels as an environmental limit which cannot be exceeded, and the later regarding small increments in pollution as *de minimis* impacts even where critical loads and levels are already exceeded³⁹. It is noted that case law and emerging guidance may shape this approach, and this will be kept under review throughout the development of the Local Plan.
- 5.4.13 Data obtained from the Office for National Statistics highlights the most common destinations for journeys to work undertaken by car or van arising from Dacorum and those finishing in Dacorum⁴⁰ (**Figure 5.2**). It is noted that these figures do not include journeys to work that both start and end in Dacorum and that census data is due to be updated this year. The area over which these journeys are made is shown in **Figure 5.3**.

³⁸ Ruling of CJEU Coöperative Mobilisation case; Joined cases C-293/17 and C-294/17 (often referred to as the Dutch Nitrogen cases). C-293/17 and C-294/17 Judgment of the Court (Second Chamber) of 7 November 2018 in Coöperatie Mobilisation for the Environment UA and Vereniging Leefmilieu v College van gedeputeerde staten van Limburg and College van gedeputeerde staten van Gelderland. Requests for a preliminary ruling from the Raad van State.

³⁹ CIEEM (2021) Advice on Ecological Assessment of Air Quality Impacts. Chartered Institute of Ecology and Environmental Management. Winchester, UK.

⁴⁰ Office for National Statistics (2011) Location of usual residence and place of work by method of travel to work (2011 census data). Available at: <https://www.nomisweb.co.uk/census/2011/wu03uk/chart> and <https://www.nomisweb.co.uk/census/2011/wu03uk> [Date Accessed: 14/09/20]

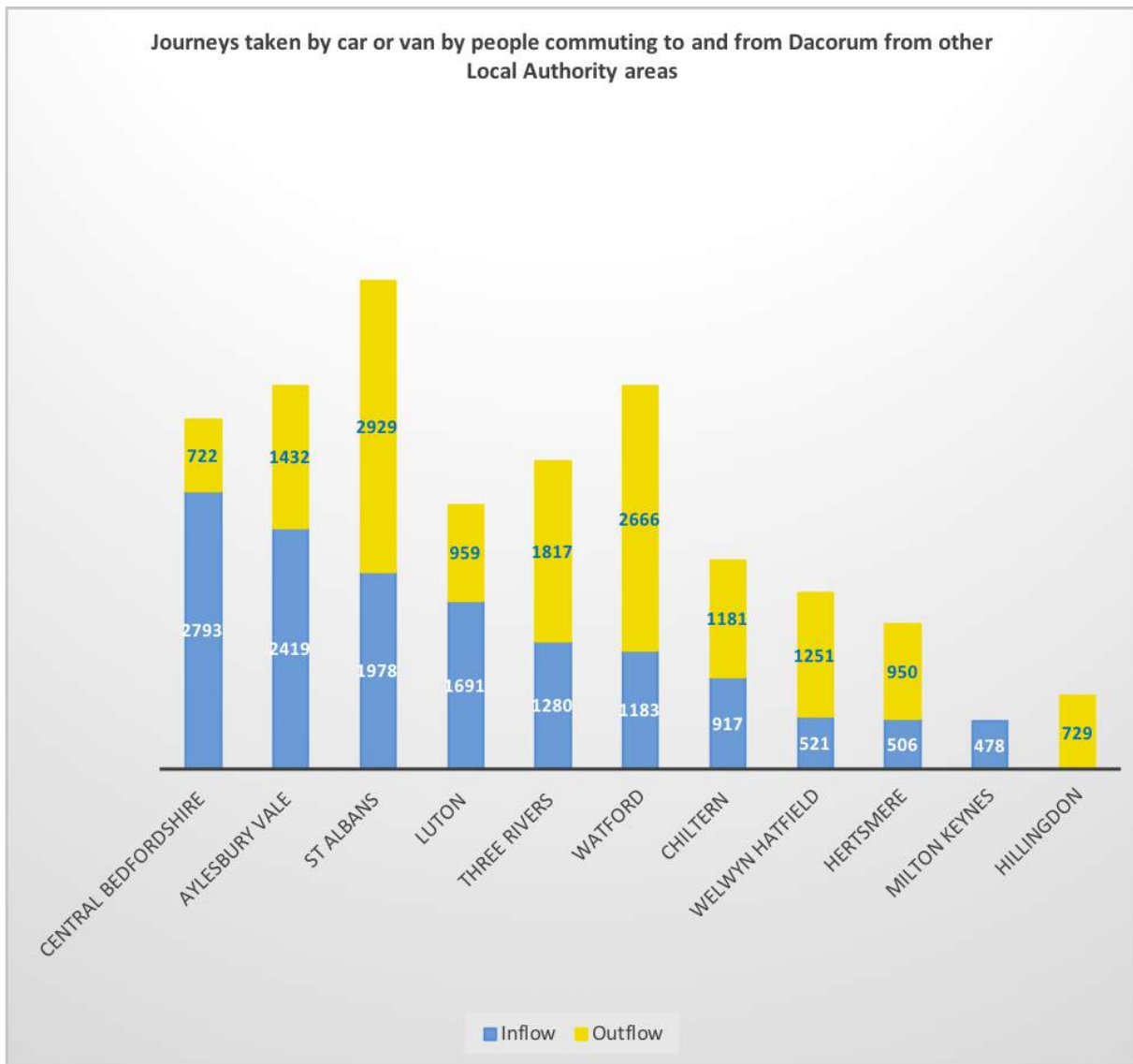


Figure 5.2: Inflow and outflow traffic data for Dacorum – popular destinations for journeys to work by car and van only

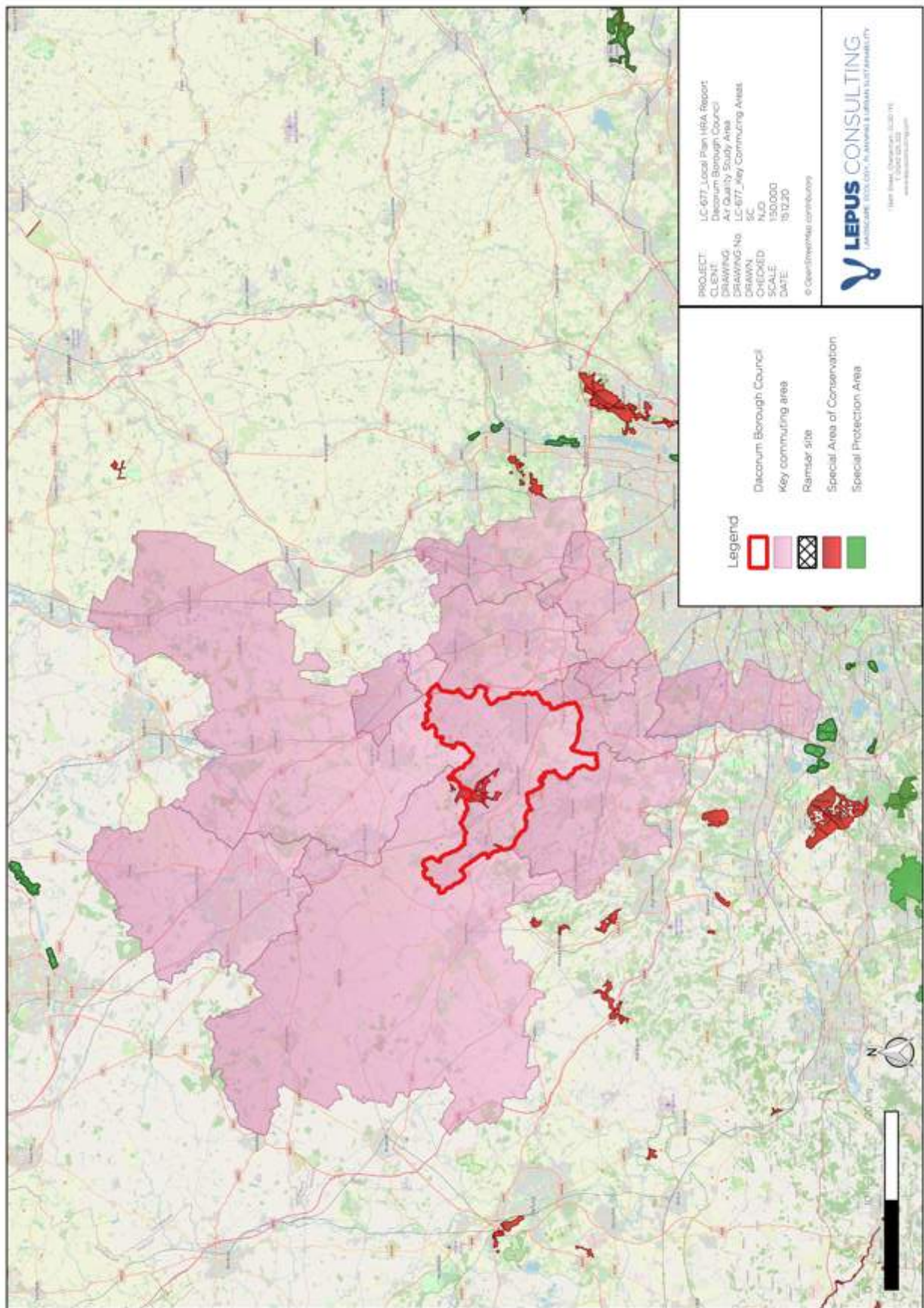


Figure 5.3: National Statistic commuting areas for Dacorum (commuting to Dacorum and from Dacorum by car and van only)

- 5.4.14 National statistics commuting data provides an indication as to the key commuting areas to and from Dacorum via car and van. It is noted that these figures do not include journeys to work that both start and end in Dacorum, however it gives a good indication of travel patterns across the wider infrastructure network and how this relates to the location of European sites. It can be seen that there is only one European site located within this commuting area, the Chiltern Beechwoods SAC. It is noted that Wormley Hoddesdonpark Woods SAC is located immediately adjacent to this commuting area. Both sites will be considered in the HRA screening process in relation to air quality.
- 5.4.15 It is noted that a number of studies are being undertaken as part of the evidence base for the Local Plan which include an economic study and strategic housing marketing assessment. At the next stages of the HRA process, data associated with the Functional Economic Market Area (FEMA)⁴¹ and the Housing Market Area (HMA) will be taken into consideration.
- 5.4.16 All other European sites lie outside the key commuting area. As such, it is unlikely that changes in traffic flows, as a result of growth set out in the Local Plan, would result in LSEs due to changes in air quality at European sites outside this area. These sites will not be considered further in the HRA process in relation to air quality impacts.

5.5 Hydrology

- 5.5.1 Potential hydrological effects of urbanisation on European sites can be associated with an alteration in water balance and reduced water quality. Urban development can reduce catchment permeability and the presence of drainage networks may be expected to remove runoff from urbanised catchments. This may result in changes in run off rates from urbanised areas to European sites or watercourses which run through them. Water mains leakage, sewer infiltration and abstraction for water supply to meet demand may also affect the water balance.
- 5.5.2 In addition, urbanisation has the potential to reduce the quality of water entering a catchment during the construction of a development through processes such as sedimentation, accidental spillage of chemicals and materials. Water quality may also be reduced through effluent discharges and pollution as well as an increased water temperature.
- 5.5.3 Features for which a European site is designated are often sensitive to changes in water balances and water quality. Therefore, urbanisation affecting drainage streams which flow through, or groundwater sources which feed a European site has the potential to adversely affect the features for which it is designated.
- 5.5.4 The Plan area lies within the Thames river basin and predominantly within the River Colne management catchment. A small area to the north west of the Plan area, around Tring, is located within the Thames and Chilterns South management catchment.

⁴¹ Current evidence suggests that the FEMA covers Dacorum, Hertsmere, Three Rivers and Watford. It also recognises strong links with St Albans and London, and the importance of the M1/M25 as commuting corridors. Regeneris. 2016. South West Hertfordshire Economic Study. Available at: https://www.dacorum.gov.uk/docs/default-source/strategic-planning/south-west-herts-economy-study---february-2016.pdf?sfvrsn=a36f2f9e_0 [Date Accessed: 18/05/21]

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- 5.5.5 The River Gade, the River Bulbourne and The River Ver drain the majority of the Plan area and are tributaries of the River Colne. The River Colne is a tributary of the River Thames, joining it at Staines Upon Thames (south of the South West London Waterbodies SPA and Ramsar). The River Gade flows in a southerly direction from the Plan area, joining the River Colne to the west of Rickmansworth. The River Bulbourne flows in a southerly direction from the Plan area joining the River Gade to the immediate south of Hemel Hempsted. The River Ver joins the River Colne to the north east of Watford. Throughout the catchment and Plan area the Grand Union Canal interlinks with the Rivers Colne, Gade and Bulbourne (see **Figure 5.4**).
- 5.5.6 The watercourses draining the north western section of the Plan area, to the north of Tring, form the upper tributaries of the River Thame. The River Thame flows in a westerly direction from the Plan area joining the River Thames to the west of Shillingford in Oxfordshire (see **Figure 5.4**).

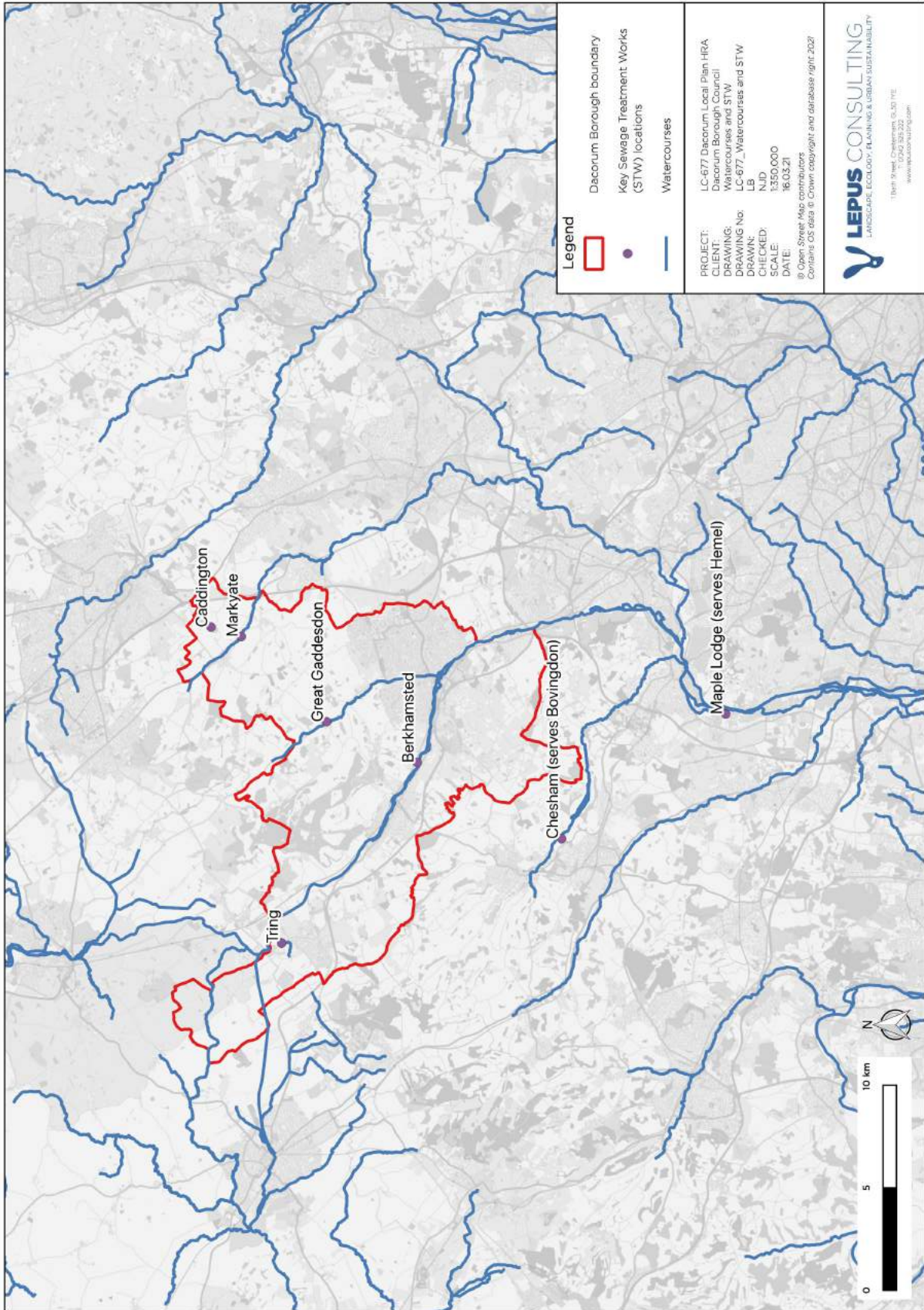


Figure 5.4: Watercourse and WWTWs in Plan and surrounding area

5.5.7 The majority of the rivers in the Colne catchment are susceptible to low flows due to low groundwater levels, which are increasingly exacerbated by drought conditions and abstractions⁴².

River Basin Management Planning

5.5.8 The Plan area lies within the Thames River Basin Management Plan (RBMP)⁴³ area. The Water Framework Directive (WFD) provides an indication of the health of the water environment and whether a water body is at good status or potential. This is determined through an assessment of a range of elements relating to the biology and chemical quality of surface waters and quantitative and chemical quality of groundwater. To achieve good ecological status or potential, good chemical status or good groundwater status every single element assessed must be at good status or better. If one element is below its threshold for good status, then the whole water body's status is classed below good. Surface water bodies can be classed as high, good, moderate, poor or bad status.

5.5.9 The WFD sets out areas which require special protection. These include areas designated for *“the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection including relevant Natura 2000 sites designated under Directive 92/43/EEC (the Habitats Directive) and Directive 79/409/EEC (the Birds Directive)”*⁴⁴.

5.5.10 The Thames RBMP provides a framework for protecting and enhancing the benefits provided by the water environment. To achieve this, and because water and land resources are closely linked, it also informs decisions on land-use planning. It provides strategic level policy guidance in relation to baseline classification of water bodies, statutory objectives for protected areas and water bodies and a summary of measures to achieve statutory protection.

5.5.11 An HRA was prepared alongside the development of the Thames RBMP⁴⁵. This HRA identified potential hazards associated with implementation of measures set out within in the RBMP. These hazards were noted to be associated with the types of measures that are related to each significant water management issue. The level of detail of the RBMP did not allow detailed consideration of effects on individual European sites. However, at the strategic level of the RBMP, the assessment undertaken allowed confidence that the measures could go ahead without harm to European sites, subject to more detailed scrutiny of mitigation options at the lower tier plan or project level through adoption of project level HRA. It therefore concluded that, at the strategic plan level, when taking into consideration the range of potential mitigation options available, the RBMP is not likely to have any significant effects on any European sites, alone or in combination with other plans or projects.

⁴² Hyder. 2010. Dacorum Borough Council, St Albans City and District Council, Three Rivers District Council, Watford Borough Council, Welwyn Hatfield Borough Council. Water Cycle Study. Scoping Study. Final Report.

⁴³ Defra and Environment Agency. December 2016. Thames River Basin District – River Basin Management Plan.

⁴⁴ Official Journal of the European Communities (2000) Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy. Available at: https://eur-lex.europa.eu/resource.html?uri=cellar:5c835afb-2ec6-4577-bdf8-756d3d694eeb.0004.02/DOC_1&format=PDF [Date Accessed: 28/01/21]

⁴⁵ Environment Agency. 2015. River basin management plan for the Thames River Basin District Habitats Regulations Assessment Updated December 2015

Water Resource Planning

- 5.5.12 It is a statutory requirement that every five years water companies produce and publish a Water Resources Management Plan (WRMP). The WRMP demonstrates long term plans to accommodate the impacts of population growth, drought, environmental obligations and climate change uncertainty in order to balance supply and demand. The following WRMPs have been reviewed as part of this HRA.
- Affinity Water – Water Resource Management Plan 2020 - 2080⁴⁶; and
 - Thames Water – Final Water Resource Management Plan 2019⁴⁷.
- 5.5.13 The majority of the Plan area is supplied by Affinity Water, with Tring being supplied by Thames Water. The Plan area is underlain by a chalk aquifer (a major store of the UK’s groundwater resources). The study area is supplied via a number of groundwater abstractions from the underlying chalk aquifer and the import of treated water from Anglian Water Services’ (AWS) Ruthamford Water Resource Zone (WRZ) and a water treatment works (WTW) on the River Thames⁴⁸.
- 5.5.14 Water companies divide their supply into Water Resource Zones (WRZs). The majority of the Plan area is located within the Affinity Water Central area and its Misbourne and Colne WRZs. Tring is supplied from the Thames Water Slough, Wycombe and Aylesbury WRZ.
- 5.5.15 The Affinity Water Central region obtains approximately 60% of water supply from groundwater sources. The remaining 40% is abstracted from surface water sources on the River Thames or is imported from neighbouring water companies⁴⁹.
- 5.5.16 The WRMP for Affinity Water notes that in the Central region, as a result of planning to reduce abstraction from Chalk catchments and to improve resilience to drought events, a shortfall in supply under drought conditions is forecast by 2025 which is likely to increase by 2080. The WRMP notes that available water supplies continue to fall throughout this time due to the impacts of climate change and demand increases from population growth. There is no direct supply of water in the Central WRZ, instead Affinity Water rely on infrastructure to import of water from other water companies.
- 5.5.17 The WRMP sets out a number of solutions to meet the deficit in the Central WRZ. This includes demand management and a reduction in leakages. In the longer term Affinity Water propose to develop large strategic supply schemes in collaboration with other water companies to increase capacity including the use of the Canal & River Trust reservoir in Brent, internal transfers, joint development of a South East Strategic Reservoir option with Thames Water in 2038 and the development of a Grand Union Canal import option which will involve the use of treated waste water.

⁴⁶ Affinity Water. 2020. Water Resources Management Plan 2020 - 2080.

⁴⁷ Thames Water. Water Resource Management Plan 2019.

⁴⁸ Hyder. 2010. Dacorum Borough Council, St Albans City and District Council, Three Rivers District Council, Watford Borough Council, Welwyn Hatfield Borough Council. Water Cycle Study. Scoping Study. Final Report.

⁴⁹ Affinity Water. 2020. Water Resources Management Plan 2020 - 2080.

- 5.5.18 The Affinity Water WRMP was supported by an HRA⁵⁰. This process identified two options with potential to have an LSE upon the South West London Waterbodies SPA and Ramsar, and which required further consideration through an Appropriate Assessment. Following consideration of mitigation measures the HRA concluded that that there would be no adverse effect upon the integrity of the SPA or Ramsar either alone or in-combination.
- 5.5.19 Thames Water's water supplies are derived from a combination of surface (river) water and groundwater. The WRMP notes that approximately 80% of the water comes from surface waters (the River Thames and the River Lee) and is stored in reservoirs before being treated and put into supply, with the remainder taken from groundwater. Thames Water also have a desalination plant located in east London that can be used to provide water in periods leading up to and during drought. The WRMP notes that in the Thames Valley 70% of the water comes from groundwater sources⁵¹.
- 5.5.20 The Thames Water WRMP presents an assessment of supply-demand position for each of their WRZs. This forecasts a supply-demand deficit in the Slough, Wycombe and Aylesbury WRZ by 2044/45 to increase by 2099/2100. This deficit is noted to be primarily caused by population growth.
- 5.5.21 The WRMP sets out a number of solutions to meet this deficit. For the Slough, Wycombe and Aylesbury WRZ these solutions include demand management, smart metering, inter-zonal raw water transfer from Swindon and Oxfordshire to Slough Wycombe and Aylesbury, targeted leak reduction and the delivery of a South East Strategic Reservoir Option. The WRMP confirms that with these measures security of supply is maintained through the planning period and removes the forecast baseline supply-demand deficit.
- 5.5.22 The Thames Water WRMP was supported by an HRA⁵². This identified seven options for their preferred programme of water delivery as likely to have a significant effect upon a European site. These were considered in more detail through an Appropriate Assessment, which confirmed that when taking into consideration mitigation measures, none of the options would have an adverse effect on the integrity of any European site. The WRMP includes measures to maintain a supply-demand balance while addressing the need to deliver sustainable abstraction from water bodies. It notes that abstraction should be offset by demand management measures and/or measures to address unsustainable abstractions and therefore there will not be a significant decrease in water levels in the reservoirs that form European sites or their off-site functional habitat.
- Water Abstraction**
- 5.5.23 The Environment Agency prepare an Abstraction Licensing Strategy (ALS) for each sub-catchment within a river basin through their Catchment Abstraction Management Strategy (CAMS) process. Licences are issued in accordance with this. The ALS sets out how water resources are managed in different areas of England and contributes to the implementation of the WFD requirements.

⁵⁰ AECOM. 2020. Technical Report: 4.12. Habitats Regulations Assessment.

⁵¹ Thames Water. Water Resource Management Plan 2019.

⁵² Ricardo Energy & Environment. 2019. Final Water Resource Management Plan 2019. Appendix C. Habitats Regulations Assessment.

- 5.5.24 The ALS reports provide information on the resources available and what conditions might apply to new licences. The licences require abstractions to stop or reduce when a flow or water level falls below a specific threshold, as a restriction to protect the environment and manage the balance between supply and demand for water users. Thresholds are usually defined by flow percentiles which can be calculated using gauged daily flow data, where for example Q10 is the flow exceeded or equalled for 10% of the time⁵³. The CAMS process is published in a series of ALSs for each river basin. The Plan area lies within the Colne⁵⁴ and the Thames ALS areas⁵⁵. The ALS are important in terms of the WRMP as this helps to determine the current and future pressures on water resources and how the supply and demand will be managed by the relevant water companies. This ensures that sufficient flow conditions and / or water levels are maintained at environmental receptors, including European sites.
- 5.5.25 Any water abstraction and discharge required to support growth in the Local Plan would be regulated through the Environmental Permit regime which is administered by the Environment Agency. As noted above, this takes account of environmental impacts including those on European sites and ensures that the requirements of the WFD are met.
- 5.5.26 In addition, Thames Water and Affinity Water are able to demonstrate sufficient supply options to ensure no adverse effect at a European site as a result of water quantity or a commitment to adopt suitable alternative options.

⁵³ Water resource availability is calculated at four different flows, Q95 (the flow of a river which is exceeded on average for 95% of the time i.e. low flow), Q70, Q50, and Q30. Q30 is the flow of a river which is exceeded on average for 30% of the time.

⁵⁴ Environment Agency. 2019. Colne Abstraction Licensing Strategy.

⁵⁵ Environment Agency. 2019. Thames Abstraction Licensing Strategy.

Wastewater Treatment

- 5.5.27 Thames Water collect wastewater from the Plan area through a network of foul and surface water sewers, and convey this wastewater to a number of wastewater treatment works (WwTW) – see **Figure 5.4**. Growth set out in the Local Plan is likely to result in the requirement for infrastructure upgrades to meet wastewater treatment capacity. Ongoing dialogue will be required with Thames Water as the plan develops to ensure demand can be achieved. Thames Water’s response to the Issues and Options consultation in 2017 indicated that to accommodate growth, upgrades would be required at Berkhamsted Sewage Treatment Works (STW), Maple Lodge STW and / or Blackbirds STW⁵⁶. The South West London Waterbodies SPA and Ramsar site are located downstream of the Plan area. These sites are sensitive to changes in water quality and have the potential to be sensitive to changes in water quality due to increased discharges from WwTW as a result of future growth in the Plan area.
- 5.5.28 On the basis of the above review of hydrology desk based information, the impact of Local Plan growth on hydrology at the Chilterns Beechwoods SAC, South West London Waterbodies SPA and South West London Waterbodies Ramsar sites will be considered further in the HRA process.

5.6 Habitat fragmentation and loss

- 5.6.1 Whilst the Local Plan will not result in the direct loss of designated European site habitat, there is potential for it to result in the loss of habitat outside a European site. Supporting habitat, also referred to as functionally linked habitat⁵⁷, may be located some distance from a European site. The fragmentation of habitats through the loss of connecting corridors would have the potential to hinder the movement of qualifying species.
- 5.6.2 As part of the assessment to date a detailed desk study has been undertaken to identify areas of functionally linked habitat. This drew on Natural England SSSI IRZ data, IUCN data, magic, priority habitat inventory data and aerial photography.
- 5.6.3 The CJEU ruling in the Holohan case (C-461/17⁵⁸) confirmed that appropriate assessment should: (i) catalogue (i.e. list) all habitats and species for which the site is protected and (ii) include in its assessment other (i.e. non-protected) habitat types or species which are on the site and habitats and species located outside of the site if they are necessary to the conservation of the habitat types and species listed for the protected area (**Box 3**).

⁵⁶ Thames Water. 2017. Maple Lodge STW and Blackbirds STW Position Statement.

⁵⁷ “The term ‘functional linkage’ refers to the role or ‘function’ that land or sea beyond the boundary of a European site might fulfil in terms of ecologically supporting the populations for which the site was designated or classified. Such land is therefore ‘linked’ to the European site in question because it provides an important role in maintaining or restoring the population of qualifying species at favourable conservation status”. Source: Natural England. 2016. Commissioned Report. NECR207. Functional linkage: How areas that are functionally linked to European sites have been considered when they may be affected by plans and projects - a review of authoritative decisions.

⁵⁸ EUR-Lex (2018) Case C-461/17. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62017CJ0461&from=EN> [Date Accessed: 27/01/21]

Box 3: Holohan v An Bord Pleanala (November 2018)

“Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that an ‘appropriate assessment’ must, on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site.

Article 6(3) of Directive 92/43 must be interpreted as meaning that the competent authority is permitted to grant to a plan or project consent which leaves the developer free to determine subsequently certain parameters relating to the construction phase, such as the location of the construction compound and haul routes, only if that authority is certain that the development consent granted establishes conditions that are strict enough to guarantee that those parameters will not adversely affect the integrity of the site.

Article 6(3) of Directive 92/43 must be interpreted as meaning that, where the competent authority rejects the findings in a scientific expert opinion recommending that additional information be obtained, the ‘appropriate assessment’ must include an explicit and detailed statement of reasons capable of dispelling all reasonable scientific doubt concerning the effects of the work envisaged on the site concerned”.

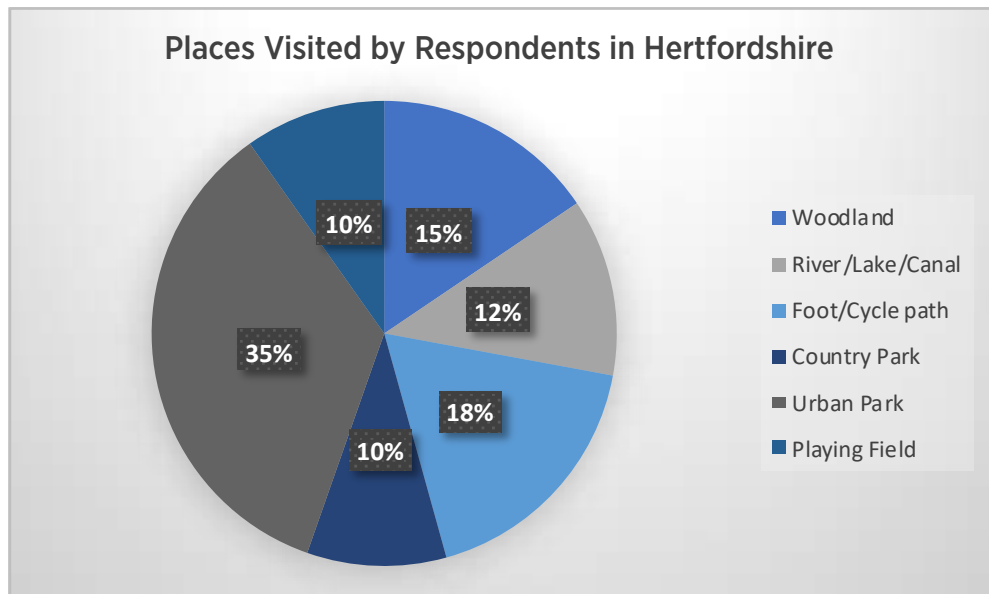
- 5.6.4 The HRA fully considers the potential for effects on species and habitats. This includes those not listed as a qualifying feature for the European site, but which may be important to achieving its conservation objectives. This ensures that the functional relationships underlying European sites and the achievement of their conservation objectives are adequately understood.
- 5.6.5 Areas of potentially functionally linked habitat likely to be lost to development have been determined. These parcels of land were then analysed in the context of their potential to provide suitable habitat to support the qualifying features of the relevant European sites. Where suitable habitat was identified, its potential to provide an important role in maintaining or restoring the qualifying features at a favourable conservation status has been taken into consideration.
- 5.6.6 The Chilterns Beechwoods SAC is the only European site which is located within and adjacent to the Plan area. Only two components of the SAC lie within the Plan area. These components are coincident with Tring Woodlands SSSI and Ashridge Commons and Woods SSSI. There are no other European sites located within close proximity to the Plan area and no functionally linked habitat to any other European site within the Plan area. As such the HRA process will focus on the Chiltern Beechwoods SAC only in relation to habitat loss and fragmentation impacts.

5.7 Public access and disturbance

- 5.7.1 Public access and disturbance can take a number of forms. Physical disturbance as a result of urbanisation may include damage to habitats through erosion, troubling of grazing stock, causing changes in behaviour to animals such as birds at nesting and feeding sites, spreading invasive species, litter and fly-tipping, tree climbing, wildfire and arson, noise and light pollution and vandalism. Typically, disturbance of habitat and species is the unintentional consequence of people’s presence which can impact breeding success and survival.
- 5.7.2 In order to better understand the way in which people interact with recreational resource in the local area a review has been undertaken of Natural England’s Monitor of Engagement with the Natural Environment (MENE) Survey (undertaken since 2009) and the more recent People in Nature Survey which replaces this.

5.7.3 The MENE surveys aimed to analyse trend data to see how people use and experience the natural environment. The outputs from this survey data can be viewed on a county basis. A detailed review of data for Hertfordshire is presented in the Dacorum Borough Council Chilterns Beechwoods Topic Paper which was prepared in support of the draft Dacorum Local Plan: Emerging Strategy for Growth 2020-2038. This data shows that across Hertfordshire 46.97% of respondents visit the countryside for recreational purposes. **Figure 5.4** provides a breakdown of the places visited which illustrates that the most popular place to visit is an urban park (35%), followed by foot/cycle path (18%) and woodlands (15%).

Figure 5.5: Places visited by respondents who reside in Hertfordshire who took part in the MENE survey⁵⁹



5.7.4 The data indicates that over two thirds (61.8%) of respondents who are resident in Hertfordshire travel to their destination by foot, with 30.12% travelling by car/van. Almost half (41.24%) travel less than one mile to reach their destination, with a further quarter (25.13%) noting that they travel between 1 and 2 miles. The most popular response respondents gave for accessing the natural environment was for exercise and health reasons.

⁵⁹ Natural England. MENE Survey Data Available at: <https://defra.maps.arcgis.com/apps/MapSeries/index.html?appid=2f24d6c942d44e81821c3ed2d4ab2ada> [Date Accessed: 18/01/21]

- 5.7.5 Natural England's People and Nature Survey was launched in April 2020. It comprises online questionnaires and follows on from the MENE surveys. Emerging data indicates that since April 2020 over half of adults surveyed (64%) had spent time outside in green and natural spaces in the previous 14 days. This trend was seen to continue until the autumn which corresponded to increased COVID-19 cases and the national lockdown. Overall, the data indicates an increasing trend of adults spending time outside when compared to pre-COVID-19 data. Urban green space was the most visited of all green and natural spaces, with 51% of respondents visiting these areas during November 2020. Other popular destinations included the countryside (31%), woods (32%), rivers, lakes and canals (27%) and beaches (23%) in the previous survey month⁶⁰.
- 5.7.6 In the UK, public access and disturbance threats have been considered in terms of buffer distances and zones. Buffers are determined through analysis of visitor and recreational survey data and baseline European site information. The broad principle of buffers is one component of the HRA screening process for public access and disturbance. This process also takes into consideration other factors such as recreational management at sites, proximity to settlements and existing / proposed recreational resource. It also recognises that European sites are designated for different site-specific qualifying features which may not reflect those for which other European sites have been designated.
- 5.7.7 Components of the Chilterns Beechwoods SAC are located within and adjacent to the Plan area. There is potential therefore for recreational impacts, and the SAC will be considered further in the HRA process.
- 5.7.8 Burnham Beeches SAC is located approximately 13km to the south east of the Plan area. The Burnham Beeches Special Area of Conservation Management and Monitoring Strategy Supplementary Planning Document (SPD) was adopted in November 2020⁶¹. It sets out a presumption against development within 500m of Burnham Beeches SAC and mitigation which is required for development within 5.6km (the recreational impact zone of influence). Given the distance of Burnham Beeches SAC from the Plan area, outside the 5.6km recreational zone of influence, public access and disturbance impacts at this European site are not considered likely and will not be considered further in the HRA process.
- 5.7.9 Urbanisation effects relate to issues where development is close to a European site boundary. These effects often include impacts such as cat predation, lighting, fly tipping, noise and vandalism. Urbanisation impacts are particularly relevant for allocations that are proposed within close proximity of a European site's designated boundary. As noted above, components of the Chilterns Beechwoods SAC are located within and adjacent to the Plan area. Urbanisation impacts associated with development set out in the Local Plan will therefore be addressed further in the screening exercise.

⁶⁰ Natural England. 2020. People in Nature Survey Monthly Interim Indicators for November 2020. Available at: <https://www.gov.uk/government/collections/people-and-nature-survey-for-england>

⁶¹ Chiltern District Council. 2020. Burnham Beeches Special Area of Conservation Management and Monitoring Strategy SPD. <https://www.chiltern.gov.uk/burnhambeeches>

5.8 European sites in the HRA study area

5.8.1 The European sites which will be looked at further in the HRA process, taking into consideration impact pathways described above, previous HRA work undertaken, consultation responses received on the HRA process and Local Plan from Natural England include the following:

- Chilterns Beechwoods SAC;
- Wormley Hoddesdonpark Woods SAC;
- South West London Waterbodies SPA; and
- South West London Waterbodies Ramsar.

5.8.2 The location of each European site is illustrated in **Figure 5.5**.

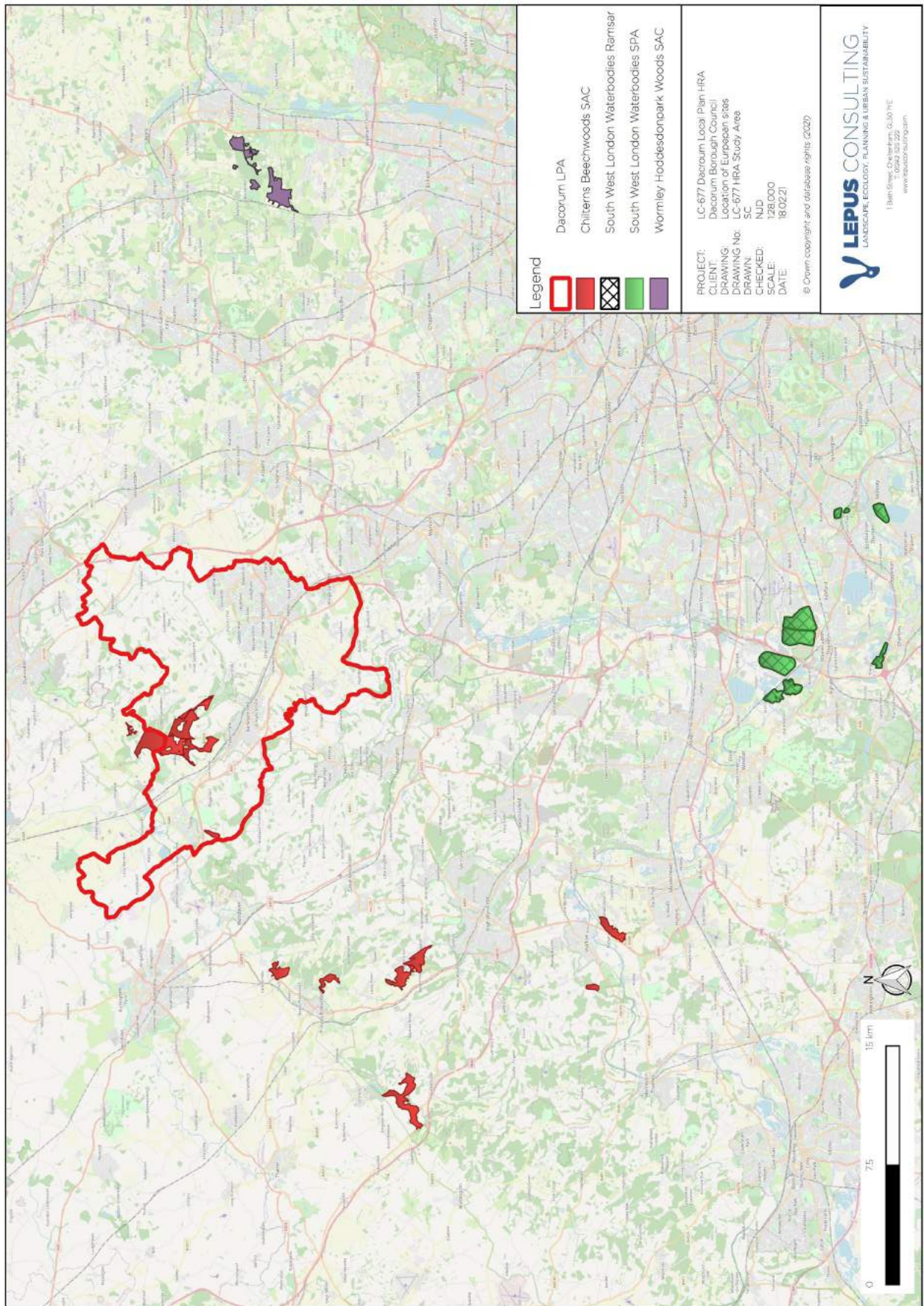


Figure 5.6: European sites to be considered in the HRA Screening Exercise

5.9 Threats and pressures

- 5.9.1 Threats and pressures to which each of these European sites are vulnerable have been identified through reference to data held by the JNCC on Natura 2000 Data Forms, Ramsar Information Sheets and Site Improvement Plans (SIPs). This information provides current and predicted issues at each European site. Threats and pressures which are likely to be impacted by the Local Plan at each European site are provided at **Appendix C**.
- 5.9.2 Supplementary advice notices prepared by Natural England provide more recent information on threats and pressures upon European sites than SIPs. Additional threats flagged up by supplementary advice notices which may be impacted by the Local Plan have also been identified (**Appendix C**).
- 5.9.3 A number of similar threats and pressures have been considered together, for instance ‘recreation’ is considered under ‘public access and disturbance’. A number of threats and pressures are considered to be beyond the scope of the potential impacts of Local Plan. These threats and pressures have not been included in this assessment having been scoped out.
- 5.9.4 **Table 5.1** below provides a summary of all identified threats and pressures for each European site identified through professional judgement and site-specific knowledge and through a review of SIPs, Natural England’s supplementary advice and a review of advice received from Natural England. **Appendix A** presents the list of qualifying features of each European site identified within the relevant SIP as being vulnerable to each of the threats and pressures.

Table 5.1: Pressures and threats for Qualifying Features of European sites that may potentially be affected by the Local Plan

		Chilterns Beechwoods SAC ⁶²	South West London Waterbodies SPA ⁶³	South West London Waterbodies Ramsar ⁶⁴	Wormley Hoddensdonpark Woods SAC ⁶⁵
Threats	Air pollution	H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites), H9130 Beech forests Plan on neutral to rich soils, S1083 <i>Lucanus cervus</i> Stag beetle			H9160 Oak-hornbeam forests
	Habitat loss and fragmentation	S1083 Stag beetle			
	Public access / disturbance	H9130 Beech forests Plan on neutral to rich soils S1083 Stag beetle			
	Hydrological changes (to include water supply and water quality)	H9130 Beech forests Plan on neutral to rich soils	A051 <i>Anas strepera</i> Gadwall (Non-breeding)	A051 <i>Anas strepera</i> Gadwall (Non-breeding)	

⁶² Natural England (2015) Chiltern Beechwoods SAC Site Improvement Plan. <http://publications.naturalengland.org.uk/file/5908864568393728> [Date Accessed: 11/01/21].

⁶³ Natural England. 2014. Site Improvement Plan. South West London Waterbodies SPA. <http://publications.naturalengland.org.uk/file/5135484288237568> [Date Accessed: 11/01/21].

⁶⁴ JNCC. 2008. Information Sheet on Ramsar Wetlands. South West London Waterbodies Ramsar. <https://jncc.gov.uk/jncc-assets/RIS/UK11065.pdf> Date Accessed: 11/01/21].

⁶⁵ Natural England (2015) Wormley Hoddensdonpark Woods SAC Site Improvement Plan. <http://publications.naturalengland.org.uk/file/6541134543192064> [Date Accessed: 11/01/21].

			A056. <i>Anas clypeata</i> Northern Shoveler (Non-breeding) ⁶⁶	A056. <i>Anas clypeata</i> Northern Shoveler (Non-breeding) ⁶⁷	
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⁶⁶ Natural England. 2018. Supplementary Advice on Conserving and Restoring Site Features. South West London Waterbodies SPA. <http://publications.naturalengland.org.uk/file/5893345162821632> [Date Accessed: 14/09/20].

⁶⁷ Natural England. 2018. Supplementary Advice on Conserving and Restoring Site Features. South West London Waterbodies SPA. <http://publications.naturalengland.org.uk/file/5893345162821632> [Date Accessed: 14/09/20].

6 European Sites

6.1 Introduction

6.1.1 Following identification of impact pathways, it is necessary to gather information on the qualifying features of each European site. This data can then be used to understand how the Local Plan has the potential to affect these features and result in LSEs.

6.2 Chilterns Beechwoods SAC

6.2.1 The Chilterns Beechwoods SAC comprises a number of components of woodland which represent a range of semi natural woodlands dominated by beech (*Fagus sylvatica*). These sites are scattered throughout the Chilterns Area of Outstanding Natural Beauty (AONB), with the exception of Bisham Woods SSSI. Due to the different locations of each component of the SAC, the underlying geology, topology and site conditions varies at each.

6.2.2 The SAC is designated for two qualifying habitats; semi-natural dry grasslands and scrubland facies and Beech forests on neutral to rich soils, with its qualifying species being the stag beetle (*Lucanus cervus*) (**Appendix A**). Two components of the SAC lie within the Plan area with a number of other components of the SAC located in the surrounding area.

6.2.3 **Table 6.1** provides a summary of the SSSI components which are coincident with the SAC and their distance from the Plan area, these are also illustrated on **Figure 6.1**.

Table 6.1: SSSI components which are coincident with the Chilterns Beechwoods SAC

SSSI sites which are coincident with and together constitute the Chilterns Beechwoods SAC	Distance from Plan area
Ashridge Commons and Woods SSSI	
Aston Rowant Woods SSSI	
Bisham Woods SSSI	
Bradenham Woods, Park Wood & The Coppice SSSI	
Ellesborough and Kimble Warrens SSSI	
Hollowhill and Pullingshill Wood SSSI	
Naphill Common SSSI	
Tring Woodlands SSSI	
Windsor Hill SSSI	

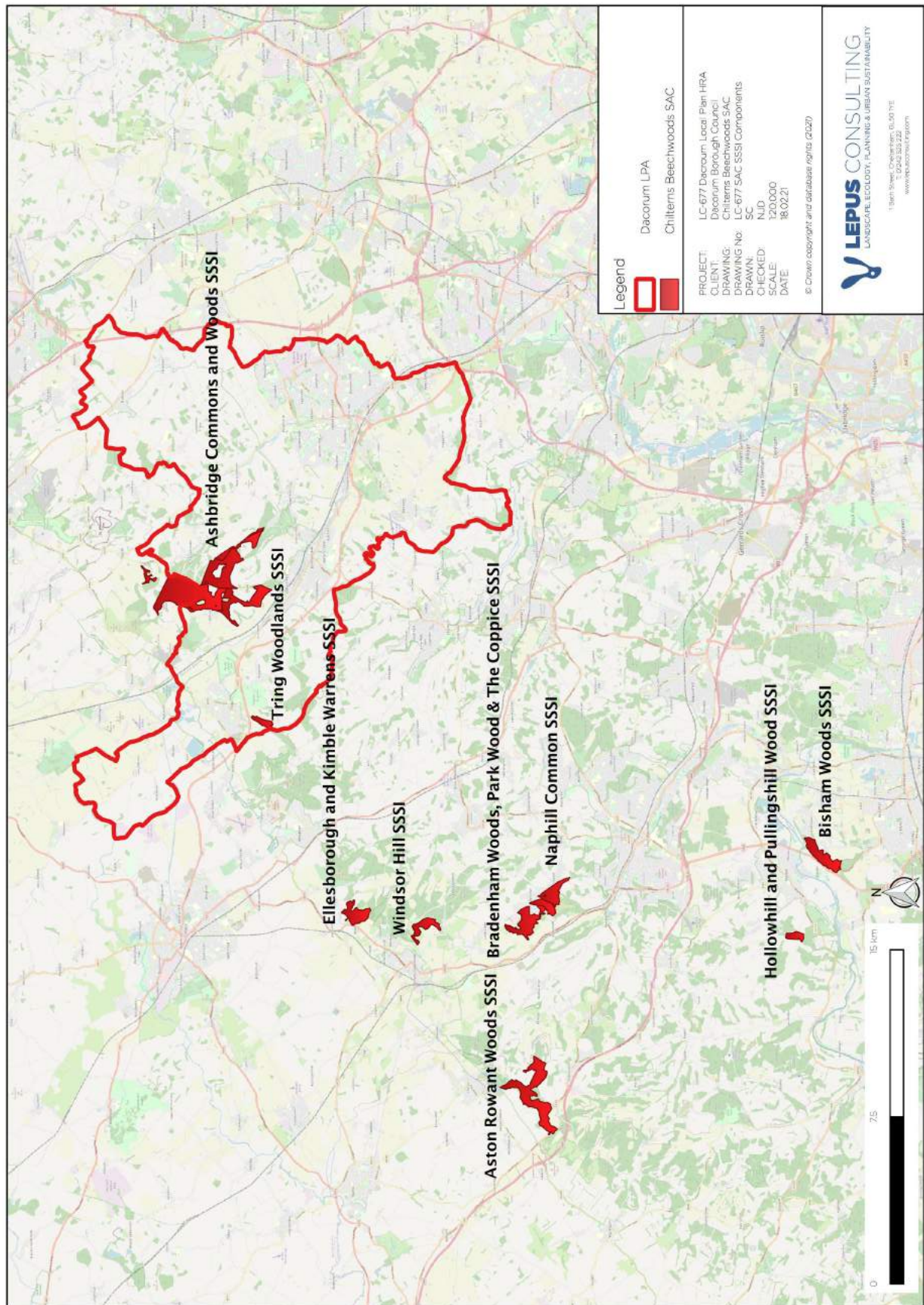


Figure 6.1: Location of Chilterns Beechwoods SAC and constituent SSSIs

- 6.2.4 Due to the varying locations of each component of the SAC the underlying soils also vary. As a result each of the National Vegetation Classification (NVC) woodland classification types⁶⁸ in which beech is a major component feature across the components of the SAC. These include:
- W12 *Fagus sylvatica* – *Mercurialis perennis* woodland;
 - W14 *Fagus sylvatica* – *Rubus fruticosus* woodland; and
 - W15 *Fagus sylvatica* – *Deschampsia flexuosa* woodland.
- 6.2.5 The SAC also supports a number of rare plants with restricted distribution including coralroot bittercress (*Cardamine bulbifera*), southern woodrush (*Luzula forsterii*), red helleborine (*Cephalanthera rubra*) and lesser hairy-brome (*Bromus benekenii*). The Chilterns Beechwoods represent a stronghold for one of the UK's rarest plants, ghost orchid (*Epipogium aphyllum*). Another notable feature is the prominence of box (*Buxus sempervirens*) at Ellesborough and Kimble Warrens SSSI⁶⁹.
- 6.2.6 Dry grasslands and scrublands on chalk or limestone form a qualifying habitat of the SAC. This is associated with thin, well-drained, lime-rich soils associated with chalk and limestone. Within the SAC these are restricted and found at the Windsor Hill SSSI and Ellesborough and Kimble Warrens SSSI components of the SAC. These support a diversity of grasses and scarce invertebrates⁷⁰.
- 6.2.7 The qualifying species of the SAC is the stag beetle (*Lucanus cervus*). This species is saproxylic and therefore reliant on dead and decaying wood for the larval stages of its lifecycle. Deadwood habitat is found within the SAC in the form of fallen branches and tree stumps. Records indicate the beetle has been recorded at the Bisham Woods SSSI and Hollowhill and Pullingshill Woods SSSI components of the SAC⁷¹. This represents the northern range of the beetle.
- 6.2.8 Natural England's Site Improvement Plan (SIP)⁷² notes that the SAC is vulnerable to a number of threats and pressures (see **Appendix C**). Those of relevance to the Local Plan include public access and disturbance (the stag beetle) and air pollution, in particular from atmospheric nitrogen deposition (all qualifying features). Natural England's Supplementary Advice notes that hydrology is a threat at the SAC. The Supplementary Advice also notes that artificial illumination is a concern for the beech woodland as it can disrupt natural cycles⁷³.

⁶⁸ Rodwell, J.S. (ed.) 1991. British Plant Communities. Volume 1. Woodlands and scrub. Cambridge University Press.

⁶⁹ Natural England (2019) Chiltern Beechwoods SAC Conservation Objectives Supplementary Advice. <http://publications.naturalengland.org.uk/file/5422856020426752> [Date Accessed: 11/01/21].

⁷⁰ Natural England (2019) Chiltern Beechwoods SAC Conservation Objectives Supplementary Advice. <http://publications.naturalengland.org.uk/file/5422856020426752> [Date Accessed: 11/01/21].

⁷¹ Natural England (2019) Chiltern Beechwoods SAC Conservation Objectives Supplementary Advice. <http://publications.naturalengland.org.uk/file/5422856020426752> [Date Accessed: 11/01/21].

⁷² Natural England (2015) Chiltern Beechwoods SAC Site Improvement Plan. <http://publications.naturalengland.org.uk/file/5908864568393728> [Date Accessed: 11/01/21].

⁷³ Natural England (2019) Chiltern Beechwoods SAC Conservation Objectives Supplementary Advice. <http://publications.naturalengland.org.uk/file/5422856020426752> [Date Accessed: 11/01/21].

Air Quality

- 6.2.9 As shown in **Figure 5.3**, two components of the SAC lie within the Dacorum key commuting area. These components are coincident with Tring Woodlands SSSI and Ashridge Commons and Woods SSSI.
- 6.2.10 A number of other components of the SSSI are located outside this key commuting area. A review of SSSI IRZ data for these other components of the SAC indicates that no IRZ falls within the Dacorum key commuting zone in relation to traffic related air pollution⁷⁴. As such other components of the SAC will not be considered further in the HRA process in relation to air quality impacts.
- 6.2.11 Natural England’s Site Improvement Plan⁷⁵ and Supplementary Advice⁷⁶ indicate that the qualifying features of the Chilterns Beechwoods SAC are sensitive to changes in air quality and in particular atmospheric nitrogen deposition. As set out in **Section 3.2**, the Council has undertaken extensive consultation with Natural England through the plan making process to date. Natural England has noted in all advice provided that air quality should be a key topic for consideration in the HRA process.
- 6.2.12 **Table 6.2** summarises the critical levels and current deposition at the Chilterns Beechwoods SAC. All data has been taken from the Air Pollution Information System (APIS)⁷⁷.

⁷⁴ SSSI IRZ data requires the consideration of agricultural and industrial emissions to be considered only from the SSSI components which are located outside the commuting area. The Local Plan will not result in a change / development associated with agricultural / industrial emissions.

⁷⁵ Natural England. 2015. Chilterns Beechwoods SAC Site Information Plan. Available at: <http://publications.naturalengland.org.uk/file/5908864568393728> [Date Accessed: 15.12.21].

⁷⁶ Natural England. 2019. Chilterns Beechwoods SAC Conservation Objectives Supplementary Advice. Available at: <http://publications.naturalengland.org.uk/file/5422856020426752> [Date Accessed: 15.12.21].

⁷⁷ Air Pollution Information Systems (2017) Site relevant critical loads, available at: <http://www.apis.ac.uk/src/select-a-feature?site=UK9012171&SiteType=SPA&submit=Next> [Date Accessed: 14/01/21]

Table 6.2: Nitrogen deposition Critical Loads of the Chilterns Beechwoods SAC

Qualifying features	Relevant Nitrogen Critical Load Class	Empirical Critical Load (kg N/ha/yr)	Current Nitrogen Deposition (kg N/ha/yr)	Source attribution Local contributions to nitrogen deposition
<i>Asperulo-Fagetum</i> beech forests (H9130)				Livestock: 26% Road transport: 14% Other transport: 14% Others: 13%
Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) (H6210)				Fertiliser: 11% Non-agricultural (non-abatable): 9% Europe import: 9% Non-agricultural (non-abatable): 4%
<i>Lucanus cervus</i> - Stag beetle (S1083)				

6.2.13 Nitrogen deposition currently exceeds the 10-20 kg/ha/yr critical load for beech and deciduous woodland at an average of 23.9 kg/ha/yr. In addition, the lower range of the critical load for semi-natural dry grasslands and scrubland facies on calcareous substrates is exceeded with an average current deposition of 16.7 kg/ha/yr. A review of source attribution data indicates that agriculture represents the dominant source of nitrogen deposition followed by transport.

6.2.14 The B4506 runs through the centre of the Ashridge Commons and Woods SSSI component of the Chilterns Beechwoods SAC (See **Figure 6.2**). The A41 runs to the north of the Tring Woodlands SSSI component of the Chilterns Beechwoods SAC and lies within 200m (See **Figure 6.3**). In addition, a number of minor local roads are also present within 200m of both components of the SAC.

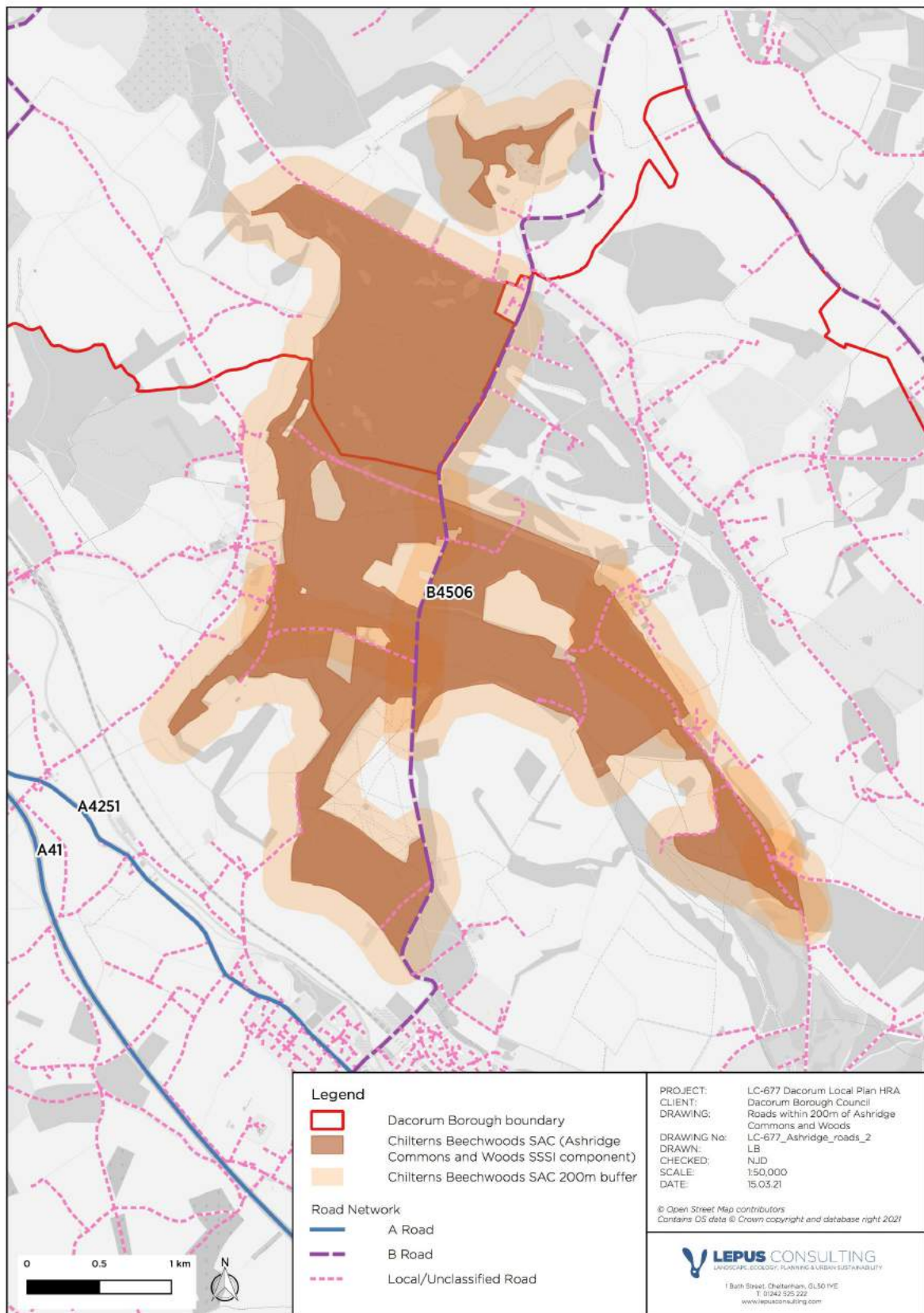


Figure 6.2: Road links within 200m of the Chilterns Beechwoods SAC: Ashridge Commons and Woods SSSI Component

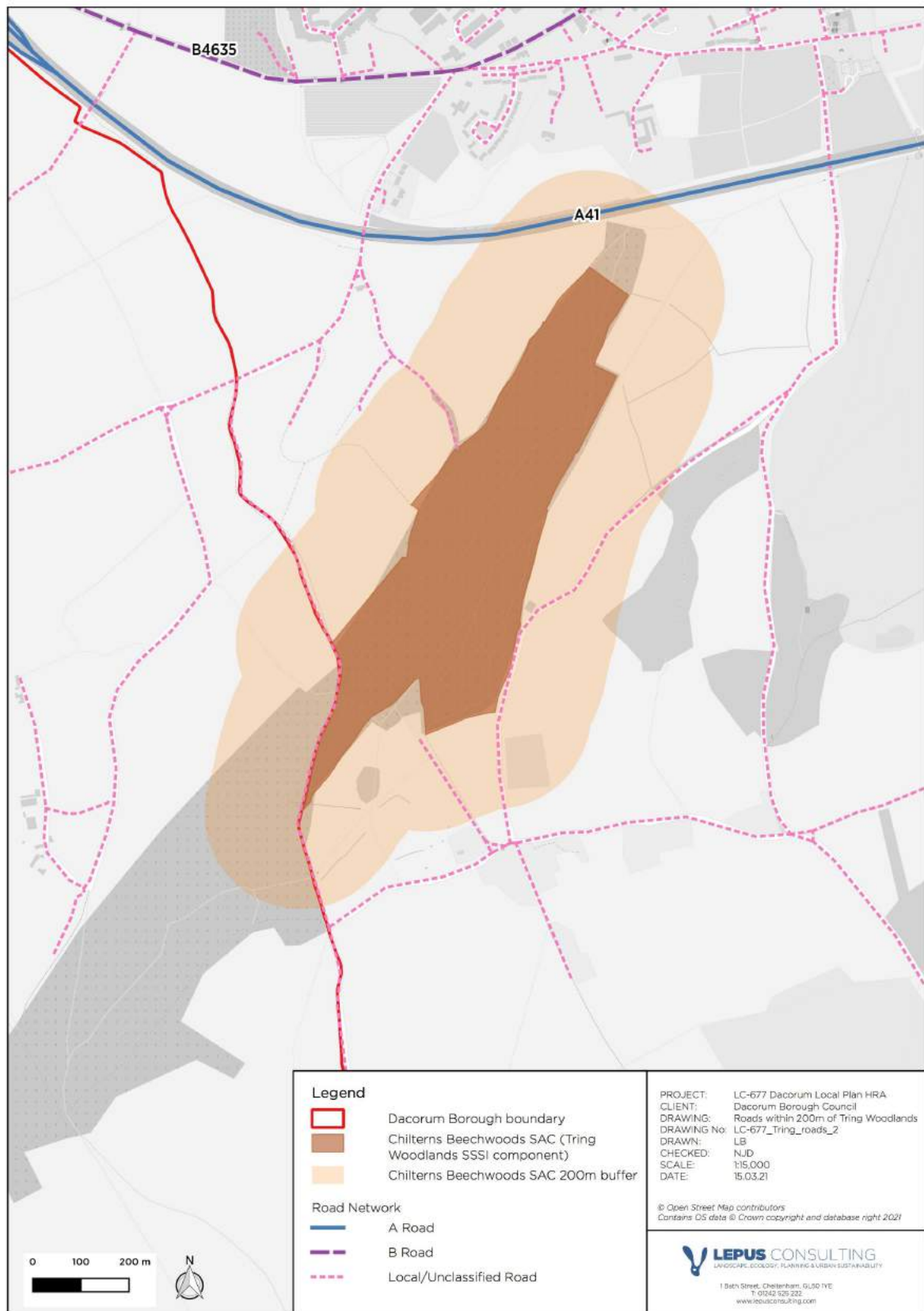


Figure 6.3: Road links within 200m of the Chilterns Beechwoods SAC: Tring Woodlands SSSI Component

- 6.2.15 Traffic data for base year traffic flows (2014) in and around Dacorum has been extracted from the County Transport COMET model for strategic road links within 200m of these components of the Chilterns Beechwood SAC. This data does not forecast plan growth but gives a good indication of the most common origin and destinations for vehicles on these routes. It suggests that key destination / origin areas are Aylesbury, Hemel Hempstead, the M25 at Junction 20 and Watford. All these areas are located within the air quality study area and reflect national statistics commuting data shown in **Figure 5.3**.
- 6.2.16 At the time of writing, detailed traffic modelling to reflect the current strategy of growth for Dacorum was not available. As such this HRA Report focuses on determining whether there are roads located within 200m of a European site which may result in increased traffic flows as a consequence of Local Plan growth. In addition, it identifies whether these European sites that are sensitive to changes in air quality.
- 6.2.17 This screening exercise will be updated once detailed traffic modelling data is available to allow LSEs due to changes in air quality to be screened using AADT data following Natural England's methods⁷⁸. A detailed screening of traffic data will highlight the requirement for any further, more detailed, work which may be needed to determine the effect of the Local Plan on air quality at European sites (alone and in-combination).
- 6.2.18 Given the location of the Chilterns Beechwood SAC (components coincident with Tring Woodlands SSSI and Ashridge Commons and Woods SSSI) within the Plan area and key commuting zone, the sensitivity of the SAC to changes in air quality and the presence of strategic road links within 200m of the SAC, LSEs due to changes in air quality are considered possible. **These components of the Chilterns Beechwoods SAC will therefore be considered further in the HRA process in terms of air quality.**
- Hydrology**
- 6.2.19 The River Gade runs approximately 2.7km to the east of Ashridge Commons and Woods SSSI's with the Grand Union Canal located approximately 470m to its south west. Tring Woods SSSI is located approximately 2.9km from the Grand Union Canal which runs to its north east. A review of the Environment Agency's Flood Zone 2 mapping data shows that the SAC is not coincident with a flood zone. These components of the SAC are not hydrologically connected to surface water features and will not be affected by changes in discharges at WwTW associated with Local Plan growth.

⁷⁸ Natural England (2018) Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations (NEA001). Available at: <http://publications.naturalengland.org.uk/publication/4720542048845824> [Date Accessed: 28/01/21]

- 6.2.20 Natural England’s Supplementary Advice notes that hydrology is a threat at the SAC. This is particularly relevant to the beech woodland where there is a need to maintain natural hydrological processes to provide the conditions necessary to sustain this feature. Natural England’s Supplementary Advice states that *‘changes in source, depth, duration, frequency, magnitude and timing of water supply can have significant implications for the assemblage of characteristic plants and animals present. Where the feature is directly over free- draining chalk soils hydrology is less likely to be an issue of concern but where the woodland is developed over clay-rich soils surface water flow may be impeded and vulnerable to effects such as groundwater pollution and drainage. Beech trees are shallow-rooted and can be particularly susceptible to damage as a result of changes in water level, both increases and decreases.’*
- 6.2.21 The SSSI site citations indicate that Tring Woodlands SSSI lies at the eastern end of the Chilterns on the steep north-west facing Middle Chalk escarpment, and extends onto the plateau capped by claywith-flints. Ashridge Commons and Woods SSSI is situated towards the northern end of the Chilterns escarpment on wet, acidic Claywith-Flints plateau soils and more base rich flinty chalks of the scarp slopes⁷⁹.
- 6.2.22 Due to their location on the Chilterns escarpment, both sites are likely to have a deep unsaturated zone which is located a long way from the groundwater table. In addition, these sites are not fed by any major watercourses. It is therefore likely that these two components of the SAC will not be at risk from abstractions or discharges to the water environment, however further evidence is required to rule out such impacts.
- 6.2.23 Another route of hydrological impact is surface run off from development sites directly to designated habitat. The distance of each allocation proposed in the current version of the Local Plan from the SAC is set out in **Appendix F**. The closest allocation to the SAC is Bk07 - Lock Field Northchurch. This allocation is located over 450m from the Ashridge Commons and Woods SSSI component. The impact of growth areas on water quality due to surface run off is therefore not likely to have a significant effect upon the SAC. The proximity of allocations to the SAC will however be kept under review as the Local Plan develops. **The Chilterns Beechwoods SAC will therefore be considered further in the HRA process in terms of hydrology impacts.**
- Habitat Loss and Fragmentation***
- 6.2.24 A review of each draft Local Plan allocation in relation to the SAC is provided in **Appendix F**. This shows that the Local Plan will not result in the direct loss of any habitat within the designated boundary of the SAC. In addition, a review of existing land uses indicates that there will be no loss of functionally linked habitat. Given the location of the SAC within the Plan area, this topic will be kept under review where the location of future growth/allocations may be subject to change. **The Chilterns Beechwoods SAC will therefore be considered further in the HRA process in terms of habitat fragmentation and loss impacts.**

⁷⁹ Natural England. 1972. Ashridge Commons and Woods SSSI Citation. Available at: <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1000452.pdf> [Date Accessed: 14/01/21].

Public Access and Disturbance

- 6.2.25 Public access and disturbance threats at the SAC are noted in Natural England’s SIP to be related to increased visitor pressures and disturbance on the stag beetle. Natural England’s Supplementary Advice notes that, given its location within the Chilterns AONB, the Chilterns Beechwoods SAC has become a popular recreational destination for walking and cycling. Surveys undertaken by the Chilterns AONB indicated that in 2007 just over 55 million leisure visits were made to and within the Chilterns AONB⁸⁰, this figure is likely to have risen since these surveys were undertaken.
- 6.2.26 As set out in **Section 3.2**, the Council has undertaken extensive consultation with Natural England through the plan making process to date. Natural England has noted in all advice provided that recreational pressure at the Chilterns Beechwoods SAC should be a key topic for consideration in the HRA process.
- 6.2.27 As noted in **Section 5.7**, elsewhere in the UK, public access and disturbance threats have been considered in terms of buffer distances and zones. Urbanisation impacts are often experienced when development is located in close proximity of a designation boundary. For recreational impacts, buffers are defined by recreational survey data and are often dependent on a number of factors including the recreational draw of a site, accessibility and the availability of other recreational resource in an area. A bespoke recreational zone of influence is not currently available for the Chilterns Beechwoods SAC.
- 6.2.28 With the exception of the Bisham Woods SSSI, all components of the Chilterns Beechwoods SAC lie within the AONB. The Chilterns AONB Management Plan notes that 80,000 people live within the AONB and a further 1.6 million within 8km⁸¹. The Management Plan aims to attract visitors within 8km of the AONB. The Management Plan notes that this is the area over which visitors are predominantly drawn to the AONB as a whole.
- 6.2.29 Each of the components of the SAC vary in character with some being more accessible than others. With the exception of areas of the SAC which lie within the National Trust’s Ashridge and Bradenham Estates, components of the SAC are not promoted widely as recreational destinations. With the exception of the Ashridge and Bradenham Estates, access is limited and the sites which form the SAC are therefore likely to draw a more local patronage of visitors.
- 6.2.30 A review of Natural England’s SSSI Impact Risk Zone (IRZ) data indicates that none of the SAC components located outside the plan area have an IRZ which extends into or in close proximity to the Plan area.
- 6.2.31 There are two components of the Chilterns Beechwoods SAC located within the 8km radius of the Plan area (the distance from which visitors are drawn to the AONB); Ashridge Commons and Woods SSSI and Tring Woodlands SSSI.

⁸⁰ The Chilterns AONB. 2007. Chilterns AONB Visitor Survey. Available at: https://www.chilternsaonb.org/uploads/files/ConservationBoard/Chilterns_AONB_Visitor_Survey_2007.pdf [Date Accessed: 25/01/21]

⁸¹ Lepus Consulting. March 2021. Dacorum Local Plan. HRA Desk Study and Site Walkover Survey. Chilterns Beechwoods SAC: Ashridge Commons and Woods SSSI and Tring Woodlands SSSI.

- 6.2.32 A desk study and site walkover of the components of the Chilterns Beechwoods SAC which are coincident with Ashridge Commons and Woods SSSI and Tring Woodlands SSSI was undertaken by Lepus Consulting⁸². The purpose of this study was to inform the HRA screening assessment and help to guide more detailed assessment work that may be required as part of future stages of the HRA process (Stage 2 – appropriate assessment).
- 6.2.33 This study identified existing impacts associated with recreation and high visitor numbers as Ashridge Commons and Woods. The walkover identified a range of possible causes. Factors included, but were not limited to: land management, promotion of the site, distribution of the paths, demand for recreation, types of recreational use, signage, restrictions (or lack of them), local population growth and environmental conditions.
- 6.2.34 It was possible to quantify some of the threats and pressures at Ashridge. These included:
- Erosion of rights of way and promoted routes, footpath widening and braiding of footpaths to avoid muddy areas;
 - Informal paths taken within the woodland (made by walkers or cyclists);
 - Compaction and erosion of soil around tree roots;
 - Den building;
 - Fire damage from BBQs or fire pits;
 - Grazing by deer and damage by squirrel;
 - Ash die back; and
 - Damage caused by unofficial car parking on the verges of Monument Drive.
- 6.2.35 The study noted that the Tring Woodlands SSSI component of the SAC is much less accessible with limited formal parking options and poor signage. Its location on the Chilterns escarpment means the site’s topography is steep, which results in a challenging walk in places for users. As a result, the walkover survey indicated that signs of existing recreational impact were limited.
- 6.2.36 A selection of photographs taken to illustrate this recreational pressure at these components of the SAC is provided at **Appendix G**.
- 6.2.37 The Local Plan will deliver new growth in the Plan area to 2038 with key areas of growth focused around Tring, Berkhamsted and Hemel Hempstead. **Appendix F** provides a review of all allocations and notes their distance from the Chilterns Beechwoods SAC. It can be seen that one allocation (Bk07 - Lock Field Northchurch for approx. 60 dwellings) is located within 500m of the SAC at Ashridge. A number of larger growth areas are located within Berkhamsted (for example Bk01 - South of Berkhamsted for approx. 850 dwellings). A number of key growth areas are focussed in Tring to the north of the A41, with the larger of these allocations located at their closest point approx. 1.3 km to the north east of the SAC at Tring Woodlands (Dunsley Farm (Tr01) approx. 400 dwellings. East of Tring (Tr03) approx. 1400 dwellings. New Mill (Tr02) approx. 400 dwellings, see **Appendix F**). No allocation is located within 500m of the Tring Woodlands component of the SAC.

⁸² Chilterns Conservation Board. 2019. Chilterns Area of Outstanding Natural Beauty Management Plan 2019 – 2024.

6.2.38 Any increase in development as a result of the Local Plan has the potential to increase visitors to these components of the SAC and add to existing recreational pressures. **LSEs of the Local Plan upon this component of the Chilterns Beechwoods SAC in terms of public access and disturbance impacts will therefore be considered further in the HRA process.**

6.3 Wormley Hoddesdonpark Woods SAC

6.3.1 Wormley Hoddesdonpark Woods SAC comprises an area of woodland which predominantly lies on London clay⁸³. The largest areas of the site are dominated by sessile oak (*Quercus petraea*) and hornbeam (*Carpinus betulus*), with areas of pedunculate oak (*Quercus robur*) and hornbeam.

6.3.2 The SAC is designated for one qualifying habitats; Sub-Atlantic and medio-European oak or oak-hornbeam forests of the *Carpinion betuli*, Oak- hornbeam forests (**Appendix A**)⁸⁴. The SAC is located approximately 21.8km to the east of the Plan area. **Appendix B** provides a summary of the SSSI components which are coincident with the SAC; Wormley Hoddesdonpark Woods South SSSI and Wormley Hoddesdonpark Woods North SSSI.

6.3.3 As noted in **Section 5.4** national statistics commuting data provides an indication as to the key commuting areas to and from Dacorum via car and van. Wormley Hoddesdonpark Woods SAC is located immediately adjacent to this commuting area and as such is included in the HRA study area for air quality impacts.

Air Quality

6.3.4 Wormley Hoddesdonpark Woods SAC, and in particular the component of the SAC that is coincident with the Wormley Hoddesdonpark Woods South SSSI, is located immediately adjacent to the commuting area. The SIP for the SAC indicates that it is sensitive to changes in air quality⁸⁵. A review of mapping data indicates that, there are no strategic road links within 200m of this component of the SAC. As such no likely significant effects due to a change in air quality from the Local Plan are expected at this SAC.

6.3.5 **This SAC will therefore not be considered further in the HRA process in terms of air quality impacts.**

6.4 South West London Waterbodies SPA

6.4.1 The South West London Waterbodies SPA comprises a series of embanked water supply reservoirs and former gravel pits which support a range of man-made and semi-natural still, open-water habitats. The complex is situated to the west of London on the broad floodplain of the River Thames and is located within the Environment Agency's Flood Zone 2 mapping area.

⁸³ Natural England. 2019. Supplementary advice on the conserving and restoring site features. Wormley Hoddesdonpark Woods SAC. Available at: <http://publications.naturalengland.org.uk/file/6742166290563072> [Date Accessed: 21/01/21].

⁸⁴ Natural England. 2018. Wormley Hoddesdonpark Woods SAC Conservation Objectives. Available at: <http://publications.naturalengland.org.uk/file/4515961222987776> [Date Accessed: 21/01/21].

⁸⁵ Natural England. 2015. Wormsley-Hoddesdonpark Woods SAC Site Information Plan. Available at: <http://publications.naturalengland.org.uk/file/6541134543192064> [Date Accessed: 15.12.20].

6.4.2 The SPA is designated for the internationally important non-breeding numbers of Gadwall (*Anas strepera*) and Shoveler (*Anas clypeata*) that the waterbodies support (**Appendix A**). This SPA is included in the HRA due to its location downstream of the Plan area and potential hydrological links. Natural England's Supplementary Advice⁸⁶ indicates that South West London Waterbodies SPA is vulnerable to hydrology impacts.

Hydrology

6.4.3 Water quality and quantity have been identified as a threat to the Gadwall and Shoveler qualifying features of the South West London Waterbodies SPA and Ramsar. Of particular concern is chemical or physical pollutants which negatively impact the natural flora and fauna of the waterbodies and are likely to be damaging to the value of the sites as a habitat for Gadwall and Shoveler. Poor water quality may significantly reduce habitat quality and also reduce food availability for the qualifying features. The SIP for South West London Waterbodies SPA and Ramsar notes that water quality is determined by "a range of factors including the quality of groundwater supply, water quality in feeder streams, the quantity of aquatic plants present, the amount of mixing taking place in the water column and the amount of disturbance of accumulated sediment taking place, as well as inputs from surrounding vegetation (particularly trees) and nutrients in rainfall"⁸⁷. Water supply and management of water levels are also important considerations.

6.4.4 The Plan area lies within the Thames river basin and predominantly within the River Colne management catchment. The River Gade, the River Bulbourne and the River Ver which drain the majority of the Plan area form tributaries of the River Colne. The River Colne flows in a southerly direction from the Plan area in between a number of components of the South West London Waterbodies SPA (those coincident with Wraysbury Reservoir SSSI, Staines Moor SSSI, Wraysbury and Hythe End Gravel Pits SSSI and Wraysbury No. 1 Gravel Pit SSSI). At its closest point the River Colne located within 200m of the SPA, before joining the River Thames.

6.4.5 Wraysbury Reservoir SSSI is an artificially embanked reservoir constructed around 1970. Consultation with Natural England and a review of aerial photography indicates that this reservoir is managed by Thames Water.

6.4.6 Staines Moor SSSI is part of the Colne Valley Regional Park, a 27,000 acre park managed by the Community Interest Company (CIC). The objectives of the CIC include safeguarding, conserving and enhancing the local landscape, countryside and biodiversity of the Park. This SSSI comprises three waterbodies; the two reservoirs which comprise Staines Moor Reservoir, and a third which comprises St George VI Reservoir, each of which is managed by Thames Water.

⁸⁶ Natural England. 2018. Supplementary Advice on Conserving and Restoring Site Features. South West London Waterbodies SPA. <http://publications.naturalengland.org.uk/file/5893345162821632> [Date Accessed: 11/01/21].

⁸⁷ Natural England. 2014. Site Improvement Plan. South West London Waterbodies SPA. <http://publications.naturalengland.org.uk/file/5135484288237568> [Date Accessed: 11/01/21].

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- 6.4.7 Wraysbury and Hythe End Gravel Pits SSSI comprise a mosaic of open water, islands, grassland, scrub and woodland within an area of former gravel extraction. It comprises a number of lakes under various ownerships. Consultation with Natural England indicates that Wraysbury No.2 Gravel Pit SSSI is under the same ownership as Wraysbury No 1. Gravel Pit SSSI (RK Leisure). Natural England noted that the southern lake, known as Silverwings, is owned and managed by Affinity Water. It offers facilities for a private sailing club (Silverwings Sailing Club).
- 6.4.8 Wraysbury No.1 Gravel Pit SSSI is a lowland lake that was excavated in the 1950s and is now almost fully mature, with most of the lake margins dominated by trees and scrub. Consultation with Natural England indicates that this lake is privately owned by RK Leisure for fishing.
- 6.4.9 The Colne ALS notes that there are two water dependent European sites within the catchment; The South West London Waterbodies SPA and South West London Waterbodies Ramsar site.
- 6.4.10 The South West London Waterbodies SPA and Ramsar are considered to be potentially hydrologically linked to the Plan area via the River Colne, as the European designated sites are located downstream of the Plan area and within the same operational water catchment zones. Growth set out in the Local Plan will result in increased discharges to WWTWs. The ability of these WWTWs to accommodate demand from the Local Plan and ensure that the objectives of the WFD within the River Colne and River Thames are met is currently unknown. **Therefore, this site will be considered further in the HRA process in terms of hydrology.**

6.5 South West London Waterbodies Ramsar

- 6.5.1 As with the South West London Waterbodies SPA, the South West London Waterbodies Ramsar site is designated for the internationally important non-breeding numbers of Gadwall and Shoveler. The above SPA screening conclusions (**Section 6.4**) also apply to the Ramsar designation. **Therefore, this site will be considered further in the HRA process in terms of hydrology.**

7 Local Plan Screening

7.1 Policy pre-screening checks

7.1.1 Each policy of the Emerging Strategy for Growth 2020 - 2038 has been appraised against the HRA pre-screening criteria (see **Table 4.1**), taking into consideration case law and best practice. **Appendix E** provides the output of this pre-screening exercise. It is noted that this screening exercise may need to be updated as the local planning develops and policies are refined, with a final screening undertaken of the Publication Version of the Local Plan at Regulation 19.

7.1.2 It is concluded that LSEs, either from the Local Plan alone or in- combination with other plans or projects, could be screened out for most policies. This is because the policies fell into the following categories (see **Table 4.1** for a description of each category):

- Category A: General statements of policy / general aspirations;
- Category B: Policies listing general criteria for testing the acceptability / sustainability of proposals;
- Category D: Environmental protection / site safeguarding; and
- Category F: Policies or proposals that cannot lead to development or other change.

7.1.3 A number of policies were however considered likely to have an LSE on the basis of this assessment. The following LSEs will be explored in the appropriate assessment (Stage 2 of the HRA process) in more detail. **Table 7.1** provides a summary of policies that have been screened in.

Table 7.1: Summary of pre-screened policies

Policy Number	Policy Name	Pre Screening Category
SP2		
SP4		
SP5		
SP6		
DM11		
DM14		
DM31		
DM32		

Policy Number	Policy Name	Pre Screening Category
SP15		
SP16		
SP17		
SP18		
SP19		
SP20		
SP21		
SP22		
SP23		
SP24		
SP25		
SP26		
SP27		
SP28		
SP30		

7.2 Allocation pre-screening checks

7.2.1 Housing, employment and retail site allocations have also been pre-screened individually at **Appendix F**. Again, it is noted that this pre-screening exercise may need to be updated as the local planning develops and allocations are refined, with a final screening undertaken of the Publication Version of the Local Plan at Regulation 19. LSEs have been screened in as follows:

- **Chilterns Beechwoods SAC** – focusing on components of the SAC which are coincident with Ashridge Commons and Woods SSSI and Tring Woodlands SSSI - air quality (in-combination), hydrology (in-combination), habitat loss and fragmentation (in-combination) and public access and disturbance LSEs (in-combination);

-
- **South West London Waterbodies SPA** – hydrology LSEs (in combination); and
 - **South West London Waterbodies Ramsar** – hydrology LSEs (in combination).

7.3 Screening Conclusion

- 7.3.1 On the basis of the policy and allocation pre-screening exercise it is concluded that the Local Plan will be screened in for Stage 2 appropriate assessment because, taking no account of mitigation measures that the plan may incorporate, it is considered that it is likely to have a significant effect on a European site.

8 HRA: Next Steps

8.1 Next Steps

8.1.1 The conclusion of the screening assessment was that the Local Plan will be screened in for further consideration in Stage 2 of the HRA process – appropriate assessment. The purpose of the appropriate assessment is to undertake an objective scientific assessment of the implications of the Local Plan upon the qualifying features of each European site in light of its conservation objectives.

8.1.2 Whilst scoping of an appropriate assessment is not a statutory requirement, it is best practice to set out the methods for the next stage of the HRA process to ensure that it is focused, and all parties agree on the methods adopted.

8.2 Recommendations for further work

8.2.1 **Tables 8.1 to 8.3** provide a summary of further work that is recommended to inform the assessment of impacts of the Local Plan on European sites where LSEs are possible.

Table 8.1: Recommendations for further work to inform the HRA process – Chilterns Beechwoods SAC

Recommendations: Chilterns Beechwoods SAC	
Air quality	
1	Traffic related air quality impacts will be considered in detail upon receipt of updated traffic modelling data. Thresholds will be applied to traffic data to determine likely significant air quality effects (alone and, where required, in-combination).
2	Should LSEs associated with air quality be identified, more detailed work may be required to better define air quality impacts. This may include a requirement for detailed air quality modelling and botanical surveys within 200m of affected road links. It should be noted that botanical surveys are seasonally constrained. The output of this work will inform mitigation that may be required to ensure no adverse impact on the integrity of the SAC occurs either alone or in-combination.
Hydrology	
3	Whilst the components of the SAC are considered to be at low risk of impacts from water abstraction it is recommended that the water companies and the Environment Agency (EA) be contacted in order to ensure that growth proposed in the Local Plan does not increase / affect abstractions from groundwater supplies which support the features of the SAC.
4	The location of Local Plan allocations in relation to the SAC, and the potential for surface water run-off, will be kept under review as the Plan develops. Recommendations set out in Appendix E will help ensure the protection of the water environment.
Public access and disturbance	
5	It is recommended that a recreational pressure survey and condition assessment be undertaken.
7	Visitor surveys are recommended at the SAC alongside parking transect surveys. This will provide data to understand how all users are interacting with the SAC, frequency of visits, origins of all user groups, footfall, parking pressures and routes taken whilst on site along with variations on a seasonal, weekly and daily basis.

8	It is recommended that an analysis be undertaken of growth set out in the Local Plan (alone and in-combination with other plans and projects) on future visitor numbers at the SAC.
9	Botanical surveys to identify the location and distribution of the SAC qualifying features and any habitat with potential to support qualifying features.
10	Depending on the output of the above work, further survey work may be required to inform the HRA appropriate assessment and mitigation that may be needed to ensure no adverse impact on the integrity of the SAC occurs alone or in-combination.
Other	
11	Council to consider policy recommendations contained in Appendix E of this report.

Table 8.2: Recommendations for further work to inform the HRA process – South West London Waterbodies SPA

Recommendations: South West London Waterbodies SPA	

Table 8.3: Recommendations for further work to inform the HRA process – South West London Waterbodies Ramsar

Recommendations: South West London Waterbodies Ramsar	
1	Council to engage with water companies and the EA to determine the potential for downstream impacts on water quality due to increased discharges at WWTWs as a result of Local Plan growth.
2	Recommendations set out in Appendix E will help ensure the protection of the water environment.

9 Conclusions

9.1.1 It is concluded that the Local Plan will be screened in for Stage 2 appropriate assessment because, taking no account of mitigation measures that the plan may incorporate, it is considered that it is likely to have a significant effect on a European site.

9.1.2 The following European sites have been screened into the HRA process and LSEs from the Local Plan, alone and in-combination, will be explored in further detail through an appropriate assessment (stage 2 of the HRA process):

- Chilterns Beechwoods SAC;
- South West London Waterbodies SPA; and
- South West London Waterbodies Ramsar.

9.2 Recommendations

9.2.1 Further work that will be required to inform a detailed appropriate assessment of the Local Plan on the integrity of European sites (stage 2 of the HRA process) is outlined in **Chapter 8**. This work will allow an assessment of the implications of the Local Plan (alone and in-combination) on the conservation objectives of each European site. It will be undertaken alongside the plan's development to ensure the outputs are incorporated as effectively as possible.

9.2.2 The outputs of the appropriate assessment may result in the need to consider more detailed mitigation measures in order to ensure that the Local Plan has no adverse impact on the integrity of any European site.

9.3 Next steps

9.3.1 The purpose of this report is to ensure that the HRA forms an integral element of the plan-making process and that best practice is followed.

9.3.2 The HRA screening process will be revisited as part of the Regulation 19 stage of the plan making process if new policies emerge or existing policy proposals are modified following the Regulation 18 Local Plan consultation stage.

9.3.3 Further, more detailed, appropriate assessment will be undertaken to better define LSEs upon the Chilterns Beechwoods SAC and South West London Waterbodies SPA and South West London Waterbodies Ramsar. An HRA Report will then be prepared at the Regulation 19 stage of the plan making process to support the Council, as the Competent Authority, make the Integrity Test in terms of the HRA.

9.3.4 There is no formal statutory requirement for consultation with the statutory nature conservation body, Natural England, at this stage of the HRA process. It is however best practice to engage with Natural England (and other stakeholders) upon the outputs of the screening exercise and also upon the scope of the HRA appropriate assessment going forwards. This will ensure that all parties are in agreement with the direction of the HRA.

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- 9.3.5 The Regulation 19 HRA report (which will detail the outputs of Stages 1 and 2 of the HRA process) will be submitted to Natural England for formal consultation. The Council must 'have regard' to Natural England's representations under the provisions of Regulations 63(3) and 105(2) prior to making a final decision as to whether they will 'adopt' the conclusions set out within the final HRA report as their own.

Appendix A: European Site Conservation Objectives

Chiltern Beechwoods SAC¹

Conservation objectives:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species
- The structure and function (including typical species) of qualifying natural habitats
- The structure and function of the habitats of qualifying species
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- The populations of qualifying species, and
- The distribution of qualifying species within the site.

Qualifying Features:

H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia); Dry grasslands and scrublands on chalk or limestone

H9130. Asperulo-Fagetum beech forests; Beech forests on neutral to rich soils

S1083. *Lucanus cervus*; Stag beetle

South West London Waterbodies SPA²

Conservation objectives:

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.

Qualifying features:

A051 *Anas strepera*; Gadwall (Non-breeding)

A056 *Anas clypeata*; Northern shoveler (Non-breeding)

¹ Natural England (2018) Chiltern Beechwoods SAC Conservation Objectives. Available at: <http://publications.naturalengland.org.uk/file/4961243408629760> [Date Accessed: 11/01/21]

² Natural England (2019) South West London Waterbodies SPA Conservation Objectives. Available at: <http://publications.naturalengland.org.uk/file/5411059804667904> [Date Accessed: 11/01/21]

South West London Waterbodies Ramsar³

Ramsar sites do not have the Conservation Objectives in the same way as SPAs and SACs. Information regarding the designation of Ramsar sites is contained in INCC Ramsar Information Sheets. Ramsar Criteria are the criteria for identifying Wetlands of International Importance. The relevant criteria and ways in which this site meets the criteria are presented in the table below.

Ramsar Criterion	Justification for the application of each criterion	
6	Ramsar criterion 6 – species/populations occurring at levels of international importance.	
	Qualifying species/populations (as identified at designation): Species with peak counts in spring/autumn:	
	Northern shoveler, <i>Anas clypeata</i> , Northwest and Central Europe	397 individuals, representing an average of 2.6% of the GB population (5 year peak mean 1998/9- 2002/3)
	Species with peak counts in winter:	
Gadwall, <i>Anas strepera</i>	487 individuals, representing an average of 2.8% of the GB population (5 year peak mean 1998/9- 2002/3)	

Wormley Hoddesdonpark Woods SAC⁴

Conservation objectives:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- The extent and distribution of qualifying natural habitats
- The structure and function (including typical species) of qualifying natural habitats, and
- The supporting processes on which qualifying natural habitats rely

Qualifying Features:

H9160. Sub-Atlantic and medio-European oak or oak-hornbeam forests of the *Carpinion betuli*, Oak-hornbeam forests

³ JNCC. 2008. Information Sheet on Ramsar Wetlands. South West London Waterbodies <https://jncc.gov.uk/jncc-assets/RIS/UK11065.pdf> [Date Accessed: 11/01/21].

⁴ Natural England (2018) Wormley Hoddesdonpark Woods SAC Conservation Objectives. Available at: <http://publications.naturalengland.org.uk/file/4515961222987776> [Date Accessed: 11/01/21]

Appendix B: Site of Special Scientific Interest Condition Data

European Site	SSSI Name	No. of SSSI Units	Conservation Status of SSSI Units ¹	Reason for unfavourable status where applicable.
Chilterns Beechwoods SAC	Ashridge Commons and Woods SSSI	7	6 Favourable	n/a
			1 Unfavourable - recovering	The Hangings. Little management and signs of deer browsing.
	Tring Woodlands SSSI	1	1 Unfavourable - recovering	Below FC targets for temporary open space, regeneration targets and canopy composition.
South West London Waterbodies SPA and Ramsar	Knight & Bessborough Reservoirs SSSI	1	1 Favourable	n/a
	Kempton Park Reservoirs SSSI	2	2 Unfavourable - recovering	Infestation of the invasive plant <i>Crassula hemsii</i> (New Zealand Pygmyweed) is thought to be having adverse affects on feeding conditions for Gadwall.
	Staines Moor SSSI	6	4 Favourable	n/a
			1 Unfavourable - recovering	Investigation into the source of the inflow is still required to check water quality.
			1 Unfavourable - declining	Agriculture – inappropriate cutting/mowing and undergrazing. Lack of corrective works – inappropriate weed control.
	Thorpe Park No.1 Gravel Pit SSSI	1	1 Favourable	n/a
	Wraysbury and Hythe End Gravel Pits SSSI	6	6 Favourable	n/a
Wraysbury No.1 Gravel Pit SSSI	1	1 Favourable	n/a	

¹ Natural England. IRX <https://designatedsites.naturalengland.org.uk/>. Site condition data is provided for the SSSIs which legally underpin the European designation [Date Accessed: 20/01/21].

European Site	SSSI Name	No. of SSSI Units	Conservation Status of SSSI Units ¹	Reason for unfavourable status where applicable.
	Wraysbury reservoir SSSI	1	1 Favourable	n/a
Wormley-Hoddesdonpark Woods SAC	Wormley-Hoddesdonpark Wood South SSSI ²	6	1 Favourable	n/a

² Consideration is only given to the component of this SAC which is located within the Dacorum key commuter zone.

Appendix C: Threats and Pressures

Table C.1: Pressures and threats for European sites that may be affected by the Local Plan.

		Chiltern Beechwoods SAC ¹	South West London Waterbodies SPA ² and South West London Waterbodies Ramsar ³	Wormley Hoddensdonpark Woods SAC ⁴
Data from SIPs and Ramsar Information Sheets	Forestry and woodland management	H9130 Beech forests on neutral to rich soils		H9160 Oak-hornbeam forests
	Deer	H9130 Beech forests on neutral to rich soils		H9160 Oak-hornbeam forests
	Changes in species distributions	S1083 Stag beetle	A051(NB) Gadwall, A056(NB) Shoveler	
	Invasive species	H9130 Beech forests on neutral to rich soils	A051(NB) Gadwall, A056(NB) Shoveler	H9160 Oak-hornbeam forests
	Disease	H9130 Beech forests on neutral to rich soils		H9160 Oak-hornbeam forests

¹ Natural England (2015) Chiltern Beechwoods SAC Site Improvement Plan. <http://publications.naturalengland.org.uk/file/5908864568393728> [Date Accessed: 11/01/21].

² Natural England. 2014. Site Improvement Plan. South West London Waterbodies SPA. <http://publications.naturalengland.org.uk/file/5135484288237568> [Date Accessed: 11/01/21].

³ JNCC. 2008. Information Sheet on Ramsar Wetlands. South West London Waterbodies Ramsar. <https://jncc.gov.uk/jncc-assets/RIS/UK11065.pdf> [Date Accessed: 11/01/21].

⁴ Natural England (2015) Wormley Hoddensdonpark Woods SAC Site Improvement Plan. <http://publications.naturalengland.org.uk/file/6541134543192064> [Date Accessed: 11/01/21].

	Public access / disturbance	S1083 Stag beetle	A051(NB) Gadwall, A056(NB) Shoveler	H9160 Oak-hornbeam forests
	Air pollution	H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites), H9130 Beech forests Plan on neutral to rich soils, S1083 Stag beetle		
	Natural changes to site conditions		A051(NB) Gadwall, A056(NB) Shoveler	
	Fisheries: Fish stocking		A051(NB) Gadwall, A056(NB) Shoveler	
	Inappropriate weed control		A051(NB) Gadwall, A056(NB) Shoveler	
	Forestry and Woodland			H9160 Oak-hornbeam forests
	Illicit vehicles			H9160 Oak-hornbeam forests
Natural England Supplementary Advice	Air Quality		A051(NB) Gadwall, A056(NB) Shoveler	
	Hydrology	H9130 Beech forests on neutral to rich soils	A051(NB) Gadwall, A056(NB) Shoveler	

Ramsar Information Sheet	Illumination	H9130 Beech forests on neutral to rich soils		
		n/a	None reported	

Appendix D: In-Combination Assessment

Plans and Policies	Plan Status	Summary of housing/employment	HRA Output and Key Considerations
Buckinghamshire Council	Buckinghamshire Council was formed on the 1 st April 2020 and became the local planning authority for the area previously covered by four local planning authorities, namely Aylesbury Vale District Council, Chiltern District Council, South Bucks District Council and Wycombe District Council, as well as Buckinghamshire County Council who was responsible for Minerals and Waste Planning and school applications. Reference has been made to individual district Local Plans where available.		
Vale of Aylesbury Local Plan (VALP)	The VALP went to examination in 2018. Since then a number of main modifications have been prepared in response to the hearings and inspectors' findings.	The plan will deliver 20,600 new homes and 27 hectares (ha) of employment land.	<p>An HRA was undertaken in support of the VALP. This has been updated to reflect the most recent main modifications¹. This provides an update to the submission version of the HRA².</p> <p>The HRA addresses two issues in detail. Of relevance to this HRA, the VALP HRA of the Local Plan Submission identifies air quality and recreational impacts upon the Chilterns Beechwoods SAC and in particular the Tring Woodlands SSSI component. Air quality modelling was undertaken for the A41 where it passes within 200m of the SAC.</p> <p>With regards to recreational impacts the VALP HRA applied a 7km zone of influence in which to consider impacts based on the Thames Basin Heaths recreational work. Strong open space and natural green space policy wording for allocations within this 7km zone was included in the VALP to ensure no adverse recreational impacts upon the SAC.</p> <p>The air quality modelling concluded that the effects of the Local Plan as proposed to be Modified 2019 would not be significant with regard to annual mean NOx concentrations and nutrient and acid nitrogen deposition.</p> <p>Development (zone of influence to be further defined through visitor surveys at Stage 2 of the HRA - AA) has the potential to act in combination with the</p>

¹ Land Use Planning. 2020. Vale of Aylesbury Local Plan 2013-2033. Proposed Further Modifications Stage – Habitats Regulations Assessment Addendum.

² Land Use Planning. 2017. Vale of Aylesbury Local Plan 2017 Submission. Habitats Regulations Appraisal Report.

Plans and Policies	Plan Status	Summary of housing/employment	HRA Output and Key Considerations
			<p>Local Plan and create an LSE at the Chilterns Beechwoods SAC. This in-combination impact will be considered in more detail in the HRA process.</p> <p>The contribution of growth set out in the VALP to traffic flows in-combination with those generated by the Local Plan at the Chilterns Beechwoods SAC (upon strategic road links within 200m of the Tring Woodlands SSSI and Ashridge Commons and Woods SSSI components of the SAC) has the potential to have a LSE in-combination. Air quality impacts will be considered in more detail in the HRA process.</p> <p>The impact of growth in this plan area has the potential to act in-combination with growth in Dacorum and have an LSE. Consideration of hydrological impacts at downstream European sites will take an in-combination approach.</p>
Chiltern and South Buckinghamshire Local Plan	The Chiltern and South Bucks Local Plan 2036 was withdrawn on 21 October 2020.	Not applicable.	<p><u>Report to Inform the HRA of the Chiltern and South Bucks Local Plan (June 2019)</u>³</p> <p>Whilst the Chiltern and South Bucks Local Plan has now been withdrawn, an evidence base was collated as part of the HRA process which has informed current policy and which must be taken into consideration in the HRA for the Local Plan. This does not form mitigation but defines zones of influence. This includes the work undertaken in relation to Burnham Beeches SAC regarding hydrology and public access and disturbance impacts. Of particular note is the Burnham Beeches Hydrology Study⁴ and the Development Management Guidance Note for Hydrology at Burnham Beeches⁵ which identifies the hydrological catchment of relevance to Burnham Beeches. Also of note is the Burnham Beeches Special Area of Conservation Management and Monitoring</p>

³ Lepus Consulting (2019) Habitats Regulations Assessment of the Chiltern and South Bucks Local Plan. Available at: https://www.southbucks.gov.uk/media/13815/HRA-June-2019/pdf/HRA_June_2019.pdf?m=637063903392230000 [Date Accessed: 22/01/21]

⁴ Wallingford HdroSolutons Limited (2013). Burnham Beeches Hydrology Study.

⁵ South Buckinghamshire (2014). Development Management Guidance Note. Hydrology in Burnham Beeches. <http://www.southbucks.gov.uk/planning/policyguidance> [Date Accessed: 22/01/21].

Plans and Policies	Plan Status	Summary of housing/employment	HRA Output and Key Considerations
			<p>Strategy SPD which was prepared in response to the evidence base prepared as part of the HRA process⁶. This is supported by a detailed evidence base and sets a presumption against development within 500m of the SAC and a 5.6km the zone of influence for recreational impacts. Dacorum Local Plan area does not fall within either of these zones of influences and it can therefore be concluded that there is no functional hydrological or recreational linkage between the Plan area and Burnham Beeches SAC, and therefore LSEs are not possible.</p> <p>South Bucks is not located in the air quality zone of influence for the Chilterns Beechwoods SAC. Chiltern District is however located in the air quality zone of influence. The contribution of growth proposed in Chiltern District to traffic flows in-combination with those generated by the Local Plan at the Chilterns Beechwoods SAC (upon strategic road links within 200m of the Tring Woodlands SSSI and Ashridge Commons and Woods SSSI components of the SAC) has the potential to have an LSE in-combination. Air quality impacts at the Chilterns Beechwoods SAC will be considered in more detail in the HRA process.</p> <p>Development (zone of influence to be further defined through visitor surveys at Stage 2 of the HRA - AA) has the potential to act in combination with the Local Plan and create an LSE at the Chilterns Beechwoods SAC. This in-combination impact will be considered in more detail in the HRA process.</p> <p>The impact of growth in these plan areas has the potential to act in-combination with growth in Dacorum and have an LSE at downstream European sites. Consideration of hydrological impacts will take an in-combination approach.</p>

⁶ Chiltern District Council. 2020. Burnham Beeches Special Area of Conservation Management and Monitoring Strategy SPD. <https://www.chiltern.gov.uk/burnhambeeches>

Plans and Policies	Plan Status	Summary of housing/employment	HRA Output and Key Considerations
Wycombe District Local Plan ⁷	Wycombe District's Local Plan was adopted on 19 th August 2019.	<p>Existing Target:</p> <p>The housing need within Wycombe District is 13,200 homes for the period 2013-2033 (660 homes per year). Wycombe is proposing to accommodate 10,925 homes, with the 'unmet need' provided by Aylesbury Vale District Council.</p>	<p><u>Wycombe District Local Plan – Revised HRA (July 2018)^{8, 9}</u></p> <p>The Wycombe HRA does not include an assessment of either the Tring Woodlands SSSI or Ashridge Commons and Woods SSSI components of the Chilterns Beechwoods SAC, focusing instead on components within and adjacent to the Wycombe plan area. This was based on the distance of these two components from the plan area (11km and 7km respectively). The Appropriate Assessment focused on air quality and hydrology impacts.</p> <p>In terms of the Chilterns Beechwoods SAC consultation with the Environment Agency indicated that they are not at a particular risk from abstractions or discharges to water as they are on the Chilterns escarpments and as such have a deep unsaturated zone – they are a long way from the groundwater table and are not fed by any major watercourses. They are therefore at low risk of impact from water abstraction. In addition, drawing on a water infrastructure study prepared in support of the Local Plan, the HRA concluded that the WwTW were remote from the European sites under consideration and pathways of impact were unlikely. The Local Plan contained strong policies in relation to water protection and conservation of water resources. As such the HRA concluded that for all sites assessed, significant effects in relation to water quality and resources are unlikely.</p>

⁷ Wycombe District Council (2019) Wycombe District Local Plan – Adopted August 2019. Available at: <https://www.wycombe.gov.uk/uploads/public/documents/Planning/Adopted-Wycombe-local-plan/Wycombe-District-Local-Plan-Adopted-August-2019.pdf> [Date Accessed: 22/01/21]

⁸ Wycombe District Council (2018) Wycombe District Local Plan – Revised Habitats Regulations Assessment Report. Available at: <https://www.wycombe.gov.uk/uploads/public/documents/Planning/New-local-plan/WDLP-core-documents-2018/WDLP3A-Revised-Habitats-Regulations-Assessment-Screening-Report-July-2018.pdf> [Date Accessed: 22/01/21]

⁹ Wycombe District Council (2019) Wycombe District Local Plan – Revised Habitats Regulations Assessment Report. Available at: <https://www.wycombe.gov.uk/uploads/public/documents/Planning/New-local-plan/WDLP-core-documents-2018/WDLP3A-Revised-Habitats-Regulations-Assessment-Screening-Report-July-2018.pdf> [Date Accessed: 22/01/21]

Plans and Policies	Plan Status	Summary of housing/employment	HRA Output and Key Considerations
			<p>Air quality modelling was undertaken to inform an appropriate assessment air quality impacts. The HRA concluded that there would be no adverse impact on site integrity as a result of development set out in the plan.</p> <p>A detailed assessment of recreational impacts upon the Chilterns Beechwoods SAC was informed by strong policies on open space and green space and a potential new country park. This concluded no adverse effect on site integrity.</p> <p><u>HRA of the proposed Main Modifications (February 2019)</u>¹⁰</p> <p>This process indicated that the Main Modifications would not result in the identification of any new linking impact pathways beyond those which have previously been identified within preceding HRA work to support the development of the Plan.</p> <p>Development (zone of influence to be further defined through visitor surveys at Stage 2 of the HRA - AA) has the potential to act in combination with the Local Plan and create an LSE at the Chilterns Beechwoods SAC. This in-combination impact will be considered in more detail in the HRA process.</p> <p>The contribution of growth set out in Wycombe to traffic flows in-combination with those generated by the Local Plan at the Chilterns Beechwoods SAC (upon strategic road links within 200m of the Tring Woodlands SSSI and Ashridge Commons and Woods SSSI components of the SAC) has the potential to have an LSE in-combination. Air quality impacts will be considered in more detail in the HRA process.</p>

¹⁰ Wycombe District Council (2019) Habitats Regulations Assessment of the Proposed Main Modifications to the Wycombe District Local Plan. Available at: <https://www.wycombe.gov.uk/uploads/public/documents/Planning/New-local-plan/Local-plan-examination-2018/WDLP3C-Habitats-Regulations-Assessment-of-the-Proposed-Main-Modifications.pdf> [Date Accessed: 22/01/21]

Plans and Policies	Plan Status	Summary of housing/employment	HRA Output and Key Considerations
			The impact of growth in Wycombe has the potential to act in-combination with growth in Dacorum and have an LSE. Consideration of hydrological impacts at downstream European sites will take an in-combination approach.
City and District of St Albans District Local Plan ¹¹	The current adopted Local Plan is The District Local Plan Review 1994. The St Albans City and District Council - Local Plan 2020-2036 Publication Draft 2018 was withdrawn.	Policies regarding housing supply were deleted in July 2020.	An HRA was undertaken in support of the St Albans Local Plan in 2008 ¹² . This concluded that it would not be necessary to undertake a full Appropriate Assessment. It is recognised that this HRA was prepared before current legislation and guidance around HRA came into force. Given its location adjacent to the Plan area, St Albans will be contacted to determine development which may be coming forward which has the potential to act in-combination with the Local Plan in terms of air quality, recreational and hydrology impacts. It is considered that LSEs from the Local Plan in-combination with growth in St Albans have the potential to occur through these pathways of impact.
Central Bedfordshire Council	The Local Plan was submitted to the Government for examination in April 2018 ¹³	39,350 homes (up to 2035). This includes 23,528 homes that are already planned for or built and a proportion of	An HRA was prepared in 2018 in support of the plan ¹⁴ . Of relevance to the Local Plan HRA in-combination assessment, the Central Bedfordshire HRA considered the impact of recreational pressure and air quality impacts upon the Chilterns Beechwoods SAC.

¹¹ Halcrow. 2008. Study to Inform Appropriate Assessment (Screening Report). Available at: https://www.stalbans.gov.uk/sites/default/files/documents/publications/planning-building-control/planning-policy/examination-library/SP_SLP_ENV004HabitatRegulationAssessment2008_tcm15-54904.pdf [Date Accessed: 22/01/21]

¹² City and District of St Albans District Local Plan Review 1994. Adopted 30 November 1994. Saved and deleted policies version July 2020. Available at: <https://www.stalbans.gov.uk/sites/default/files/documents/publications/planning-building-control/district-local-plan-review-1994/District%20Local%20Plan%20Review%201994%20Saved%20and%20Deleted%20Policies%20Version%20July%2020201.pdf> [Date Accessed: 22/01/21]

¹³ Central Bedfordshire. 2018. Pre-Submission Local Plan 2015 – 2035. Available at: https://www.centralbedfordshire.gov.uk/migrated_images/pre-submission-local-plan-compressed-v2_tcm3-27081.pdf [Date Accessed: 22/01/21]

¹⁴ Enfusion. 2017. Habitats Regulations Assessment Screening Report.

Plans and Policies	Plan Status	Summary of housing/employment	HRA Output and Key Considerations
	and is now undergoing examination.	'unmet housing need' from Luton. 24,000 new jobs by 2035.	<p>In terms of air quality, given the strong contribution of policies in the plan and the location of allocations significant air quality impacts were considered unlikely.</p> <p>Taking into consideration policies in the plan which aim to improve open space provision the HRA concludes that significant recreational impacts would not be likely.</p> <p>Development (zone of influence to be further defined through visitor surveys at Stage 2 of the HRA - AA) has the potential to act in combination with the Local Plan and create an LSE at the Chilterns Beechwoods SAC. This in-combination impact will be considered in more detail in the HRA process.</p> <p>The contribution of growth set out in Central Bedfordshire to traffic flows in-combination with those generated by the Local Plan at the Chilterns Beechwoods SAC (upon strategic road links within 200m of the Tring Woodlands SSSI and Ashridge Commons and Woods SSSI components of the SAC) has the potential to have an LSE in-combination. Air quality impacts will be considered in more detail in the HRA process.</p> <p>The impact of growth in Central Bedfordshire has the potential to act in-combination with growth in Dacorum and have an LSE. Consideration of hydrological impacts at downstream European sites will take an in-combination approach.</p>
Three Rivers District Council	The Council is currently preparing a new Local Plan for Three Rivers which will provide the planning policies and proposals for		<p>A Habitat Regulation Assessment of the Core Strategy was undertaken in 2008. This focused on Burnham Beeches SAC only and concluded that no likely significant effects were likely to occur as a result of the strategy¹⁷.</p> <p>For the new Local Plan the Council noted that at this stage in its development it is not considered necessary to undertake a HRA. Instead, the process will be initiated during the development of the Local Plan Preferred Options¹⁸.</p>

17 Halcrow. 2008. Study to Inform the Appropriate Assessment. Available at: <https://www.threerivers.gov.uk/download?id=23299> [Date Accessed: 22/01/21].

18 Three Rivers District Council. 2017. Sustainability Appraisal Working Note. Available at: <https://www.threerivers.gov.uk/download?id=40507> [Date Accessed: 22/01/21]

Plans and Policies	Plan Status	Summary of housing/employment	HRA Output and Key Considerations
	<p>future sustainable growth in the District up to 2036¹⁵. The adopted Core Strategy for Three Rivers sets out the requirement to identify sufficient land for housing in the District to meet the Three Rivers housing target of 180 dwellings per year until 2026¹⁶.</p>		<p>Development proposed in neighbouring authority local plans has the potential to increase traffic movements in the surrounding area. When considered in-combination this has the potential to have a negative impact on air quality at European sites.</p> <p>Development (zone of influence to be further defined through visitor surveys at Stage 2 of the HRA - AA) has the potential to act in combination with the Local Plan and create an LSE at the Chilterns Beechwoods SAC. This in-combination impact will be considered in more detail in the HRA process.</p> <p>The contribution of growth set out in Three Rivers District to traffic flows in-combination with those generated by the Local Plan at the Chilterns Beechwoods SAC (upon strategic road links within 200m of the Tring Woodlands SSSI and Ashridge Commons and Woods SSSI components of the SAC) has the potential to have an LSE in-combination. Air quality impacts will be considered in more detail in the HRA process.</p> <p>The impact of growth in Three Rivers District has the potential to act in-combination with growth in Dacorum and have an LSE. Consideration of hydrological impacts at downstream European sites will take an in-combination approach.</p>
Luton Local Plan 2011 - 2031 ¹⁹	The Local Plan was adopted in November 2017.	Local Plan makes provision for 8,500 net	An integrated HRA and Strategic Environmental Assessment (SEA) was undertaken of the plan ²⁰ . In respect to the HRA this focused on the Chilterns

¹⁵ Three Rivers District Council. 2011. Core Strategy.

¹⁶ Three Rivers District Council. Core Strategy (2011). <https://www.threerivers.gov.uk/download?id=24372> [Date Accessed: 22/01/21].

¹⁹ Luton Borough Council. 2017. Luton Local Plan 2011 – 2031. Available at: <https://www.luton.gov.uk/Environment/Lists/LutonDocuments/PDF/Local%20Plan/adoption/Luton-Local-Plan-2011-2031-November-2017.pdf> [Date Accessed: 22/01/21]

²⁰ Urban Edge Environmental Consulting. 2016. Sustainability Appraisal of the Luton Local Plan. Sustainability Report on the Submission Local Plan. Available at: <https://www.luton.gov.uk/Environment/Lists/LutonDocuments/PDF/Local%20Plan/adoption/Luton-Local-Plan-2011-2031-sustainability-appraisal-report.pdf> [Date Accessed: 22/01/21]

Plans and Policies	Plan Status	Summary of housing/employment	HRA Output and Key Considerations
		additional dwellings over the plan period in the Borough. 69 hectares of employment development on Strategic Allocations.	<p>Beechwoods SAC. Given location from the plan area and new planning policies for Luton the HRA concludes that there were unlikely to be any significant effect on the beech woods; therefore, further consideration in terms of the HRA was not required.</p> <p>Development (zone of influence to be further defined through visitor surveys at Stage 2 of the HRA - AA) has the potential to act in combination with the Local Plan and create an LSE at the Chilterns Beechwoods SAC. This in-combination impact will be considered in more detail in the HRA process.</p> <p>The contribution of growth set out in Luton to traffic flows in-combination with those generated by the Local Plan at the Chilterns Beechwoods SAC (upon strategic road links within 200m of the Tring Woodlands SSSI and Ashridge Commons and Woods SSSI components of the SAC) has the potential to have an LSE in-combination. Air quality impacts will be considered in more detail in the HRA process.</p> <p>The impact of growth in Luton has the potential to act in-combination with growth in Dacorum and have an LSE. Consideration of hydrological impacts at downstream European sites will take an in-combination approach.</p>
Watford Borough Council	Watford's Final Draft Local Plan is currently out for consultation (ends 2 nd March 2021) ²¹	14,988 new homes 111,175sqm of office floorspace and 40,759sqm of industrial floorspace	An HRA has been prepared in support of this plan ²² . This focused on air quality impacts at Burnham Beeches SAC, Chilterns Beechwoods SAC and Wormley-Hoddesdonpark Woods SAC. For the Chilterns Beechwoods SAC the HRA relied on traffic modelling undertaken in support of the Dacorum Local Plan option work. The HRA concluded that any contribution to traffic along roads within 200m of the SACs as a result of the plan would be <i>de minimis</i> . It therefore concluded that the plan would not result in an adverse effect on the integrity of the Burnham Beeches SAC, the Chiltern Beechwoods

²¹ <https://watford.oc2.uk/document/40/1647#d1647>

²² ClearLead. 2021. Habitats Regulations Assessment. Available at: [https://watford.oc2.uk/docfiles/46/Habitats%20Regulations%20Assessment%20\(2021\).pdf](https://watford.oc2.uk/docfiles/46/Habitats%20Regulations%20Assessment%20(2021).pdf) [Date Accessed: 22/01/21]

Plans and Policies	Plan Status	Summary of housing/employment	HRA Output and Key Considerations
			<p>SAC or the Wormley-Hoddesdonpark Woods SAC either alone or in-combination with growth from neighbouring plans and projects.</p> <p>Development (zone of influence to be further defined through visitor surveys at Stage 2 of the HRA - AA) has the potential to act in combination with the Local Plan and create an LSE at the Chilterns Beechwoods SAC. This in-combination impact will be considered in more detail in the HRA process.</p> <p>The contribution of growth set out in Watford to traffic flows in-combination with those generated by the Local Plan at the Chilterns Beechwoods SAC (upon strategic road links within 200m of the Tring Woodlands SSSI and Ashridge Commons and Woods SSSI components of the SAC) has the potential to have an LSE in-combination. Air quality impacts will be considered in more detail in the HRA process.</p> <p>The impact of growth in Watford has the potential to act in-combination with growth in Dacorum and have an LSE. Consideration of hydrological impacts at downstream European sites will take an in-combination approach.</p>
Hertsmere Council New Local Plan	In process of preparing a New Local Plan. Issues and Options consultation and engagement on potential employment and housing site consultation completed.	500 homes per year.	<p>The development of the New Local Plan was supported by an HRA Scoping Report²³. This assessment used a 15km radius within which to identify European sites for consideration in the HRA process. These sites included; Wormley – Hoddesdonpark Woods SAC, Epping Forest SAC and Lee Valley SPA & Ramsar. It introduces the HRA process.</p> <p>Development (zone of influence to be further defined through visitor surveys at Stage 2 of the HRA - AA) has the potential to act in combination with the Local Plan and create an LSE at the Chilterns Beechwoods SAC. This in-combination impact will be considered in more detail in the HRA process.</p> <p>The contribution of growth set out in Hertsmere to traffic flows in-combination with those generated by the Local Plan at the Chilterns Beechwoods SAC (upon strategic road links within 200m of the Tring</p>

²³ Land Use Consultants. 2017. Habitats Regulation of the Hertsmere Local Plan – Scoping Report.

Plans and Policies	Plan Status	Summary of housing/employment	HRA Output and Key Considerations
			<p>Woodlands SSSI and Ashridge Commons and Woods SSSI components of the SAC) has the potential to have an LSE in-combination. Air quality impacts will be considered in more detail in the HRA process.</p> <p>The impact of growth in Hertsmere has the potential to act in-combination with growth in Dacorum and have an LSE. Consideration of hydrological impacts at downstream European sites will take an in-combination approach.</p>
Hertfordshire Country Council Local Transport Plan ²⁴	LTP 4 adopted	<p>LTP4 has a focus on improving sustainable modes of transport. The transport proposals are a mix of improvements in highways, passenger transport, walking and cycling. Key proposals include:</p> <ul style="list-style-type: none"> - Sustainable Travel Towns - An east west bus rapid transit scheme - A programme of A414 improvements including a Hertford Bypass. 	<p>An HRA was prepared in support of LTP4²⁵. This focused on LSEs due to rail improvements on the West Anglia Mainline, the potential A414 Rapid Bus Transit extension, and increases in traffic flows as a result of highway improvements and local growth at the following European sites:</p> <ul style="list-style-type: none"> • Lee Valley SPA / Ramsar: Air pollution, disturbance and physical loss of habitat • Wormley Hoddesdonpark Woods SAC: Air Pollution. <p>Given the insufficient level of detail available at the high level of assessment required for LPT4, the HRA noted the requirement to undertake detailed project level HRA on lower tier plans.</p> <p>On the basis of this it concluded that the LPT4 Strategy would not have an adverse effect on the integrity of the Natura 2000 network, either alone or in-combination with other plans and projects.</p> <p>The effect of the LTP proposals will be taken into consideration in the consideration of air quality effects as it is considered that there is potential for LSEs of the LTP in-combination with the Local Plan.</p>

²⁴ Hertfordshire County Council. 2018. Local Transport Plan 2018 – 2031.

²⁵ Land Use Consultants. 2017. Hertfordshire Local Transport Plan (LTP4) Strategy Habitats Regulations Assessment.

Plans and Policies	Plan Status	Summary of housing/employment	HRA Output and Key Considerations
Buckinghamshire's Local Transport Plan 4 (2016 – 2036) ²⁶	The fourth Local Transport Plan for Buckinghamshire was published in March 2016 (updated last in March 2020)	<p>The Local Transport Plan 4 (LTP4) sets out how transport can play its part in realising the Council's vision to make Buckinghamshire a great place to live and work. The Plan covers all types of transport and looks ahead to 2036</p> <p>The plan aims to strengthen the public transport provision and sustainable transport options across Buckinghamshire to the wider area. It does not allocate substantial land for new transport infrastructure, such as roads, that will affect any of the European sites by direct land take, but will promote small-scale improvements to achieve the LTP4 objectives.</p>	<p>An HRA was undertaken in March 2016 for LTP4²⁷. The HRA defers consideration of project specific HRA issues to lower tiers of the plan making process. The HRA concludes that “<i>the HRA of the LTP4 cannot reasonably assess the effects on European sites in a meaningful way</i>”, however for a number of policies it concludes no significant effect on European sites within its study area. Significant infrastructure improvements which may affect the European sites considered this in-combination assessment are set out below. Policies within LTP4 that focus on promoting sustainable transport options have informed this HRA and make a key contribution to achieving traffic reductions and hence future air quality improvements across the local area. Known traffic improvement schemes have been incorporated into the traffic modelling that has informed the air quality modelling that has been undertaken for the HRA.</p> <p>The effect of the LTP4 proposals will be taken into consideration in the consideration of air quality effects as it is considered that there is potential for LSEs of the LTP4 in-combination with the Local Plan.</p>

²⁶ Buckinghamshire County Council. Buckinghamshire's Local Transport Plan 4. March 2016 – 2036.

²⁷ WSP Parsons Brinckerhoff. 2016. Buckinghamshire Local Transport Plan 4. Habitats Regulations Assessment Screening Report.

Plans and Policies	Plan Status	Summary of housing/employment	HRA Output and Key Considerations
Hertfordshire Council Waste Development Framework	The Hertfordshire Waste Development Framework was adopted in November 2012 ²⁸ . This plan is currently under review with a consultation on the draft plan being undertaken between January and March 2021 ²⁹ .	The review version of the plan sets out a number of strategic sites required to meet current and future waste management in the County.	<p>An HRA is being undertaken alongside the preparation of the waste plan review³⁰. This includes an appropriate assessment of a number of LSEs including:</p> <ul style="list-style-type: none"> - Physical habitat loss, damage or fragmentation - Non-physical disturbance (noise, vibration and light) - Public access and disturbance - Air pollution (dust, industrial emissions and vehicle emissions) - Introduced species - Changes in water quality. <p>It focuses on a number of European sites including the Chilterns Beechwoods SAC, Wormley-Hoddesdonpark Woods SAC, Lee Valley, SPA/Ramsar, Epping Forest SAC, Burham Beeches SAC, Eversden and Wimpole Woods SAC and South West London Waterbodies SPA/Ramsar.</p> <p>The HRA concludes that across all European sites and for most of the assessed effects, there is sufficient evidence and/or there are sufficient policy safeguards in place to conclude no adverse effects on integrity as a result of the Waste Plan.</p> <p>The effect of the emerging Waste Plan proposals will be taken into consideration in the consideration in the HRA as it is considered that there is potential for LSEs of the Waste Plan in-combination with the Local Plan.</p>
Hertfordshire Council Minerals Local Plan	Hertfordshire's Minerals Plan was adopted in 2007. It is currently under review.	The Submission Version of the Plan sets out a number of policies and	The plan is supported by an HRA ³² which focused on LSEs identified for a number of policies. It includes an Appropriate Assessment which takes into consideration policies set out within the Plan. This focuses on loss of habitat,

²⁸ Hertfordshire Waste Development Framework. Waste Core Strategy and Development Management Document Plan Document 2011 – 2026. Adopted November 2012

²⁹ Hertfordshire County Council. 2021. Hertfordshire Waste Local Plan Consultation Draft 2021.

³⁰ Land Use Consultants. 2020. Hertfordshire Waste Local Plan (Regulation 18). Habitats Regulations Assessment Report.

³² Land Use Consultants. 2018. Hertfordshire Minerals Local Plan. Habitats Regulations Assessment

Plans and Policies	Plan Status	Summary of housing/employment	HRA Output and Key Considerations
	Consultation on the Regulation 19 Proposed Submission Version of the Plan took place in 2019 ³¹ .	specific sites for minerals abstraction.	<p>noise, vibration and light pollution, effects on water quality and quantity, air pollution. The HRA focused on the Lee Valley SPA / Ramsar, Epping Forest SAC and Wormley Hoddesdonpark Woods SAC. The Appropriate Assessment concluded that the MLP would not result in adverse effects as a result of physical loss of habitat (on-site and off-site), noise, vibration and light pollution and changes to water quantity and quality in relation to minerals development proposals that may come forward on non-allocated sites, or due to development of the allocations within the plan. In relation to air pollution effects the Appropriate Assessment concluded that the Plan would not result in adverse effects on the integrity of the European sites within 200m of roads that may be used by HDV traffic from the MLP allocations based on a number of assumptions.</p> <p>The effect of the emerging Mineral Plan proposals will be taken into consideration in the HRA as it is considered that there is potential for LSEs of the Minerals and Waste Plan in-combination with the Local Plan.</p>
Buckinghamshire Council Mineral and Waste Local Plan	The Minerals and Waste Local Plan (MWLP) was adopted in July 2019. It covers the period from 2016 to 2036 ³³ .	The Buckinghamshire MWLP forms the land use planning strategy for minerals and waste development within the administrative area of Buckinghamshire County. The MWLP will provide the basis for determining planning applications for,	<p>An HRA screening report was prepared in July 2017³⁴ for the MWLP. This concluded that there were no LSEs on any European site.</p> <p>A number of mineral and waste sites are proposed in the MWLP. The MWLP includes development principles and policies for the control and management of development to ensure that development does not result in unacceptable adverse impacts to water quality and resources, or from air emissions including dust. In addition, emissions and pollutants are subject to strict controls under the Pollution Prevention and Control Regulations. The MWLP policies support the minimisation and control of transportation movements and require mitigation of potentially adverse impacts.</p>

³¹ Hertfordshire County Council. 2019. Hertfordshire Minerals Local Plan. Proposed Submission. January 2019.

³³ Buckinghamshire County Council. 2019. Buckinghamshire Minerals and Waste Local Plan 2016 – 2036.

³⁴ Buckinghamshire County Council. July 2017. Habitat Regulations Screening. <https://www.buckscc.gov.uk/media/4511585/bmwlp-hra-screeningjuly17.pdf>

Plans and Policies	Plan Status	Summary of housing/employment	HRA Output and Key Considerations
		<p>or linked to, minerals and waste development in Buckinghamshire. The MWLP identifies proposed site specific allocations (for mineral extraction) and areas of focus (for waste management facilities). A total of six new sites have been proposed as allocations for mineral extraction, all for sand and gravel. In addition, 26 designations (areas of focus) for waste management use have been allocated.</p>	<p>Given the findings of the MWLP and the policies in place at waste and minerals sites the HRA concludes that ‘in-combination’ effects with the Local Plan are unlikely.</p> <p>The effect of the emerging Mineral and Waste Plan proposals will be taken into consideration in the HRA as it is considered that there is potential for LSEs of the Mineral and Waste Plan in-combination with the Local Plan.</p>
Chilterns Area of Outstanding Natural Beauty (AONB) Management Plan 2019 - 2024 ³⁵	Adopted	<p>This management plan contains a summary of the key issues facing the AONB and the management policies and actions needed to conserve it.</p>	<p>The management policies and actions contained in the AONB Management Plan will be taken into consideration in the assessment of recreational impacts in HRA process during the Appropriate Assessment. In addition, baseline information contained within the management plan will be considered in the HRA process.</p>

³⁵ Chilterns Conservation Board. Chilterns Area of Outstanding Natural Beauty 2019 – 2024: *Caring for the Chilterns forever and for everyone*. Available at: https://www.chilternsaonb.org/uploads/files/ConservationBoard/ManagementPlan/Chilterns_Management_Plan_2019-2024_Full.pdf [Date Accessed: 18/05/21]

Appendix E: Policy Pre-Screening Summary

Table E.1: Pre-screening summary of the Dacorum Local Plan policies

The assessment findings presented in this report provide a preliminary screening assessment which is proportionate to this stage of the plan making process and is intended to help shape and guide the plan’s development. A final HRA report will accompany the submission version of the Local Plan. If new policies emerge or existing policy proposals are modified following the Regulation 18 Local Plan consultation stage, they will be screened and presented in the final HRA report.

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
Borough Vision to 2038				
			Screened out.	
Sustainable Development in Dacorum				
Spatial Strategy for Growth				
SP2	Spatial Strategy for Growth	<p>This policy sets out growth for Dacorum over the plan period for housing, employment, retail and infrastructure. It also details growth that will take place within individual settlements. The impact of individual allocations alone has been screened for LSEs in Appendix F (screening of allocations).</p> <p>The cumulative impact of Local Plan growth has the potential to create LSEs at European sites as follows:</p> <ul style="list-style-type: none"> Possible LSEs in terms of air pollution are likely at the Chilterns Beechwoods SAC. 	Screened in.	

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
		<ul style="list-style-type: none"> Possible LSEs at the Chilterns Beechwoods SAC due to increased public access and disturbance. Possible LSEs due to hydrological changes at the South West London Waterbodies SPA and Ramsar and Chilterns Beechwoods SAC. <p>This policy is screened in under Category L (air quality, public access and disturbance and hydrology).</p>		
The Settlement Hierarchy				
SP3	The Settlement Hierarchy	<p>This policy sets out the settlement hierarchy for the Borough and identifies the areas where development will be focused. The policy does not trigger any development or change in itself and can therefore be screened out under Category F.</p>	Screened out.	
The Housing Strategy				
SP4	Delivering the Housing Strategy	<p>This policy sets out the number of homes to be delivered across the Borough. It splits this number across the settlements. It therefore triggers development. The impact of individual allocations alone has been screened for LSEs in Appendix F (screening of allocations).</p> <p>The cumulative impact of Local Plan growth has the potential to create LSEs at European sites as follows:</p> <ul style="list-style-type: none"> Possible LSEs in terms of air pollution are likely at the Chilterns Beechwoods SAC. Possible LSEs at the Chilterns Beechwoods SAC due to increased public access and disturbance. Possible LSEs due to hydrological changes at the South West London Waterbodies SPA and Ramsar and Chilterns Beechwoods SAC. <p>This policy is screened in under Category L (air quality, public access and disturbance and hydrology).</p>	Screened in.	
The Employment Strategy				
SP5	The Employment Strategy	<p>This policy sets out detailed areas and levels of employment growth across the Borough. It therefore triggers development. The impact of individual</p>	Screened in.	

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
		<p>allocations alone has been screened for LSEs in Appendix F (screening of allocations).</p> <p>The cumulative impact of Local Plan employment growth has the potential to create LSEs at European sites as follows:</p> <ul style="list-style-type: none"> • Possible LSEs in terms of air pollution are likely at the Chilterns Beechwoods SAC. • Possible LSEs due to hydrological changes at the South West London Waterbodies SPA and Ramsar and Chilterns Beechwoods SAC. <p>This policy is screened in under Category L (air quality and hydrology).</p>		
The Retail and Leisure Development Strategy				
SP6	Delivering the Retail and Leisure Strategy	<p>This strategy sets out specific details for retail and leisure growth. It therefore triggers development. The impact of individual allocations alone has been screened for LSEs in Appendix F (screening of allocations).</p> <p>The cumulative impact of Local Plan retail and leisure growth has the potential to create LSEs at European sites as follows:</p> <ul style="list-style-type: none"> • Possible LSEs in terms of air pollution are likely at the Chilterns Beechwoods SAC. • Possible LSEs due to hydrological changes at the South West London Waterbodies SPA and Ramsar and Chilterns Beechwoods SAC. <p>This policy is screened in under Category L (air quality and hydrology).</p>	Screened in.	
Delivering the Infrastructure to Support Growth				
SP7	Delivering Infrastructure	<p>This policy sets out the requirements for new development to provide adequate infrastructure. It does not in itself trigger any change or development. The policy is positive in nature, does not trigger any development or change and can therefore be screened out under Category F.</p>	Screened out.	<p>If required, this policy could set out requirements which would ensure that timescales required to deliver technological improvements at WwTW (to ensure the protection of water quality) are compatible with growth projections in the Local Plan.</p>

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
Neighbourhood Planning				
SP8	Neighbourhood Planning	This policy sets out the Council's requirements for Neighbourhood Plans. The policy is positive in nature, does not trigger any development or change and can therefore be screened out under Category B.	Screened out.	
Monitoring and Review				
SP9	Monitoring and Review	This policy sets out the Council's aspirations for monitoring and review. The policy is positive in nature, does not trigger any development or change and can therefore be screened out under Category A.	Screened out.	
Housing Delivery				
DM1	Mix of Housing	This policy sets out requirements for housing mix in new development. It does not trigger any development or change in itself and can therefore be screened out under Category F.	Screened out.	
DM2	Affordable Housing	This policy sets out requirements for affordable housing in new development. It does not trigger any development or change in itself and can therefore be screened out under Category F.	Screened out.	
DM3	Rural Exceptions	This policy sets out the criteria for rural exceptions for new development. It does not trigger any development or change in itself and can therefore be screened out under Category F.	Screened out.	
DM4	Agricultural and Forestry Workers Dwellings	This policy sets out the criteria for development of agricultural and forestry worker dwellings. It does not trigger any development or change in itself and can therefore be screened out under Category F.	Screened out.	
DM5	Conversions and Changes to Use of Housing	This policy sets out the criteria for conversions and changes of use to housing. It does not trigger any development or change in itself and can therefore be screened out under Category F.	Screened out.	
DM6	Residential Annexes	This policy sets out the criteria for new development in the form of residential annexes. It does not trigger any development or change in itself and can therefore be screened out under Category F.	Screened out.	
DM7	Houses of Multiple Occupation	This policy sets out the criteria for houses of multiple occupation. It does not trigger any development or change in itself and can therefore be screened out under Category F.	Screened out.	

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
DM8	Custom and Self Build Housing	This policy sets out the criteria for custom and self-build housing. It does not trigger any development or change in itself and can therefore be screened out under Category F.	Screened out.	
DM9	Housing for Older People	This policy sets out the criteria for housing for older people. It does not trigger any development or change in itself and can therefore be screened out under Category F.	Screened out.	
DM10	Accessible and Adaptive Homes	This policy sets out the criteria for developing accessible and adaptive homes. It does not trigger any development or change in itself and can therefore be screened out under Category F.	Screened out.	
DM11	Density of Development	<p>This policy sets out increased development densities which will be accepted in specific locations.</p> <p>The cumulative impact of Local Plan growth has the potential to create LSEs at European sites as follows:</p> <ul style="list-style-type: none"> • Possible LSEs in terms of air pollution are likely at the Chilterns Beechwoods SAC. • Possible LSEs at the Chilterns Beechwoods SAC due to increased public access and disturbance. • Possible LSEs due to hydrological changes at the South West London Waterbodies SPA and Ramsar and Chilterns Beechwoods SAC. <p>This policy is screened in under Category L (air quality, public access and disturbance and hydrology).</p>	Screened in.	
DM12	Nationally Described Space Standards	This policy sets out the criteria to achieve nationally described space standards in new development. It does not trigger any development or change in itself and can therefore be screened out under Category F.	Screened out.	
DM13	Existing Accommodation for Travelling Communities	This policy sets out the criteria to protect existing accommodation for travelling communities. It does not trigger any development or change in itself and can therefore be screened out under Category F.	Screened out.	
DM14	Gypsies and Travellers	This policy sets out provisions for nomadic and non-nomadic travellers in the Borough. It identifies new sites for development to meet gypsy and traveller needs (Growth Area HH21 and HH22). The impact of individual	Screened in.	

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
		<p>allocations alone has been screened for LSEs in Appendix F (screening of allocations).</p> <p>The cumulative impact of Local Plan housing growth (to include accommodation for gypsies and travellers) has the potential to create LSEs at European sites as follows:</p> <ul style="list-style-type: none"> • Possible LSEs in terms of air pollution are likely at the Chilterns Beechwoods SAC. • Possible LSEs at the Chilterns Beechwoods SAC due to increased public access and disturbance. • Possible LSEs due to hydrological changes at the South West London Waterbodies SPA and Ramsar and Chilterns Beechwoods SAC. <p>This policy is screened in under Category L (air quality, public access and disturbance and hydrology). This policy is screened in under Category I (air quality) and Category L (air quality, public access and disturbance and hydrology).</p>		
DM15	Residential Moorings	This policy sets out the criteria for creation of new residential moorings. It does not trigger any development or change in itself and can therefore be screened out under Category F.	Screened out.	
Employment Development				
DM16	General Employment Areas	This policy identifies general employment areas and sets out criteria against which development in these areas would be permitted. The policy in itself does not trigger development or change and can therefore be screened out under Category F.	Screened out.	
DM17	Other Office and Industrial Sites	This policy sets out areas where new office and industrial sites will be accepted and in what circumstances existing sites can be lost. The policy in itself does not trigger development or change and can therefore be screened out under Category F.	Screened out.	
DM18	Tourism	This policy sets out the criteria under which new tourism provision will be supported. The policy in itself does not trigger development or change and can therefore be screened out under Category F.	Screened out.	

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
Retailing and Other Town Centre Uses				
			Screened out.	
			Screened out.	
Climate Change and Sustainability				
SP10	Climate Change Mitigation and Adaption	This policy sets out requirements against which new development will be tested in its ability to contribute to climate change mitigation and adaption. This policy is positive in nature and provides general criteria for testing of sustainability proposals. It can therefore be screened out under Category B.	Screened out.	<p>This policy could set out the requirement for new development to adopt SuDS to manage the quality of surface runoff (rather than simply for the purposes of flood risk). Surface’ or ‘green’ drainage solutions should aid improvements in water quality, such as swales along hardstanding boundaries, or a more advanced reed bed system for larger sites.</p> <p>Opportunities could be identified to incorporate SuDS into open spaces and green infrastructure, to deliver strategic flood risk management and meet WFD water quality targets.</p> <p>Developers could include the design of SuDS at an early stage to maximise the benefits of such schemes.</p>

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
				<p>Opportunities for Natural Flood Management that include schemes aimed at reducing / managing runoff could be considered to reduce nutrient and sediment pollution.</p> <p>This policy could be enhanced by the inclusion of requirements in relation to water efficiency. The concept of water neutrality could be explored further with water companies and the Environment Agency. This has the potential to improve resilience to climate change.</p>
DM22	Sustainable Design and Construction	This policy sets out requirements for the sustainable design and construction of new development. This policy is positive in nature and provides general criteria for testing of sustainability proposals. It can therefore be screened out under Category B.	Screened out.	It is noted that this policy requires delivery of the more ambitious Building Regulations optional target of 110l/day, setting more stringent requirements for water usage.
DM23	Energy and Carbon Emissions Reductions in New Development	This policy sets out the requirements for new development to achieve emissions reductions. This policy is positive in nature and can therefore be screened out under Category B.	Screened out.	
DM24	Low Carbon Community Heat and Energy Networks	This policy sets out provision for decentralisation of heat and energy networks. This policy is positive in nature and can therefore be screened out under Category B.	Screened out.	
DM25	Stand Alone Renewable or Low Carbon Energy	This policy sets out stand-alone renewable or low carbon energy projects that will be supported. The policy in itself does not trigger development or change and can therefore be screened out under Category F.	Screened out.	

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
DM26	Carbon Offsetting	This policy sets out the circumstances where new development must contribute to the carbon offsetting fund. The policy in itself does not trigger development or change and can therefore be screened out under Category F.	Screened out.	
Environment and Biodiversity				
DM27	Landscape Character and Chilterns Area of Outstanding Natural Beauty	This policy sets out provision for the protection of Landscape Character and Chilterns AONB. The policy is positive in nature aiming to protect the historic and natural environment, does not trigger any development or change and can therefore be screened out under Category D.	Screened out.	
DM28	Protection of Sites	This policy sets out the hierarchy for the protection of sites including nature conservation sites. The policy is positive in nature aiming to protect the natural environment, does not trigger any development or change and can therefore be screened out under Category D.	Screened out.	
DM29	Protected Species and Priority Species and Habitats	This policy sets out the requirements to protect habitats of principal importance and the habitats of species of principal importance. The policy is positive in nature aiming to protect the natural environment, does not trigger any development or change and can therefore be screened out under Category D.	Screened out.	
DM30	Biodiversity Net Gain	This policy sets out the requirements of development to deliver biodiversity net gain. The policy is positive in nature aiming to protect the natural environment, does not trigger any development or change and can therefore be screened out under Category D.	Screened out.	CIEEM provides good guidance in relation to Biodiversity Net Gain ¹ . The Local Plan may benefit from incorporation of a policy on Green and Blue Infrastructure. This could be integrated to sustainable development policies and other

¹ CIEEM. 2016. Biodiversity Net Gain. Good Practice Principles. Available at: <https://cieem.net/resource/biodiversity-net-gain-good-practice-principles-for-development/> [Date Accessed: 26/01/21]

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
				<p>policies where ecosystem services can be provided. Policies may also benefit from integration with future Local Nature Recovery Networks. This would minimise impacts on and provide net gains for biodiversity, including establishing a coherent ecological network that is more resilient to current and future pressures (NPPF para 170(d)).</p> <p>Green and Blue Infrastructure could actively contribute towards and work alongside mandatory biodiversity net gain and future environmental net gain requirements and be underpinned by future Nature Recovery Networks.</p> <p>The Wildlife Trusts have provided advice on how Nature Recovery Networks can be embedded into Local Plans². In addition, the Wildlife Trusts (Gloucestershire Wildlife Trust) has developed a building with nature standard which is an accreditation scheme designed to enable developers to go beyond minimum standards³.</p>

² The Wildlife Trusts. 2020. Nature Recovery Network Handbook. Available at: https://www.wildlifetrusts.org/sites/default/files/2020-10/Nature_Recovery_Network_Handbook_LO_SINGLES.pdf [Date Accessed: 26/01/21]

³ Building with Nature. Available at: <https://www.buildingwithnature.org.uk/about> [Date Accessed: 26/01/21]

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
DM31	Chilterns Beechwoods Special Area of Conservation	This policy sets out bespoke mitigation intended to avoid or reduce harm to the Chilterns Beechwoods SAC. This policy is required to afford protection to the SAC and ensure the lawful implementation of the Local Plan. It will therefore be screened in for further assessment under Category M.	Screened in.	This policy may require an update in light of the findings of the HRA process.
DM32	Development on the Ashridge Estate	This policy sets out bespoke mitigation intended to avoid or reduce harm to the section of the Chilterns Beechwoods SAC which is within the boundary of the Ashridge Estate. This policy is required to afford protection to the SAC and ensure the lawful implementation of the Local Plan. It will therefore be screened in for further assessment under Category M.	Screened in.	This policy may require an update in light of the findings of the HRA process.
DM33	Protection and Enhancement of the River Character and Water Environment	This policy sets out requirements to safeguard the water environment and includes measure to ensure water quality is protected and the WFD requirements are achieved. The policy is positive in nature aiming to protect the natural environment, does not trigger any development or change and can therefore be screened out under Category D.	Screened out.	This policy may benefit from integration with green and blue infrastructure and future Local Nature Recovery Network.
DM34	Flood Risk and Protection	This policy sets out requirements in relation to flood risk. The policy is positive in nature aiming to protect the natural environment, does not trigger any development or change and can therefore be screened out under Category D.	Screened out.	With reference to SUDS, this policy may benefit from integration with green and blue infrastructure and future Local Nature Recovery Network.
DM35	Protection from Environmental Pollution	This policy sets out requirements in relation to the protection of the environment from air pollution, contaminated land water pollution, noise pollution and light pollution. The policy is positive in nature aiming to protect the natural environment, does not trigger any development or change and can therefore be screened out under Category D.	Screened out.	
DM36	Tree Retention and Protection	This policy sets out requirements to retain and protect trees. The policy is positive in nature aiming to protect the natural environment, does not trigger any development or change and can therefore be screened out under Category D.	Screened out.	
DM37	Landscaping on Development Sites	This policy sets out requirements for landscaping on development sites. The policy is positive in nature aiming to protect the natural environment, does not trigger any development or change and can therefore be screened out under Category D.	Screened out.	

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
DM38	Open Land	This policy sets out requirements for protection of open land in the Plan area. The policy is positive in nature aiming to protect the open space, does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
Managing Development in the Countryside				
SP11	Development in the Green Belt	This policy sets out requirements for protection of green belt and circumstances where limited development will be supported. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM39	Limited Infilling in Selected Small Villages in the Green Belt	This policy sets out a number of villages in which infilling will be granted and the criteria which would be applied. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM40	Bovingdon Airfield	This policy sets out circumstances where the Council will support the principle of filming, television and related production at Bovingdon Airfield. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
SP12	Development in the Rural Area	This policy sets out requirements for development in the rural area. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
Delivering Great Places				
SP13	Delivering High Quality Design	This policy sets out design aspirations for high quality design. The policy does not trigger any development or change and can therefore be screened out under Category B.	Screened out.	
DM41	Height of Buildings	This policy sets out design requirements for the height of buildings. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM42	Crime and Security	This policy sets out design requirements for new development to reduce the opportunity and fear of crime. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM43	Historic Environment	This policy sets out requirements to preserve and enhance the historic environment. The policy does not trigger any development or change and can therefore be screened out under Category D.	Screened out.	

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
DM44	Development Affecting Non-Designated Assets	This policy sets out requirements to identify and protect non designated assets. The policy does not trigger any development or change and can therefore be screened out under Category D.	Screened out.	
DM45	Heritage Assets with Archaeological Interest	This policy sets out requirements to protect heritage assets with archaeological interest. The policy does not trigger any development or change and can therefore be screened out under Category D.	Screened out.	
DM46	Conservation Areas	This policy sets out requirements to protect Conservation Areas. The policy does not trigger any development or change and can therefore be screened out under Category D.	Screened out.	
DM47	Listed Buildings	This policy sets out requirements to protect and enhance Listed Buildings. The policy does not trigger any development or change and can therefore be screened out under Category D.	Screened out.	
DM48	Advertisements	This policy sets out requirements in relation to advertisements. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM49	Canalside Environment and Residential Moorings	This policy sets out requirements in relation to the protection and promotion of the Grand Union Canal and its environment and the criteria for recreational moorings. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
Sustainable Transport and Connectivity				
DM50	Transport and Movement	This policy sets out how the Local Plan will support delivery of the Local Transport Plan 4 and help reduce reliance on the private car. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM51	Supporting and Protecting Land for Transport Interventions	This policy sets protects land for transport interventions as set out in the Sustainable Transport Strategies. The policy does not itself trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM52	Movement and Access	This policy sets out the requirement for development to minimise reliance on the private car and be supported by detailed transport studies. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM53	Walking and Cycling	This policy sets out the requirement for development to include provisions for and promote walking and cycling. The policy does not trigger any	Screened out.	

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
		development or change and can therefore be screened out under Category F.		
DM54	Passenger Transport	This policy sets out the requirement for development to meet the needs of passenger transport operators. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM55	Parking Provision – Residential	This policy sets out the requirements for new development in terms of residential parking provision. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM56	Parking Provision – Commercial	This policy sets out the requirements for new development in terms of commercial parking provision. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM57	Digital Communication	This policy sets out the requirements for new development to support new technology to allow digital communication. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM58	Mobile Communication	This policy sets out the requirements for new development in terms of the provision and improvement of new telecommunications infrastructure. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
Healthy Communities				
DM59	Health Facilities	This policy sets out provisions for new health facilities. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM60	Health Impact Assessment	This policy sets out the requirements in terms of Health Impact Assessments. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM61	Education	This policy sets out provisions for new education facilities. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM62	Sport and Leisure	This policy sets out requirements for the provision of new sports and leisure facilities. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
DM63	Open Space Provision	This policy sets out requirements to protect and provide sufficient open space. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM64	Sport and Leisure	This policy sets out requirements for the provision of community facilities. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
DM65	Community Stewardship and Management	This policy sets out requirements for the long-term management of new open space and community facilities. The policy does not trigger any development or change and can therefore be screened out under Category F.	Screened out.	
Delivery Strategies				
SP14	Delivering Hemel Garden Communities	This policy sets out the aspirations for Hemel Garden Communities. This policy sets out an aspiration for the area and is therefore screened out under Category B.	Screened out.	
SP15	Delivering Growth in Hemel Hempstead	These policies set out provisions for delivering new growth at the new growth locations. They identify the number of dwellings to be delivered in each area and associated allocations. They also identify renewal areas for employment development and associated allocations. The impact of individual allocations has been screened for LSEs in Appendix F (screening of allocations). These allocations form each of these growth areas. These policies, in combination, with other development set out in the Local Plan have the potential to result in potential LSEs at European sites.	Screened in.	
SP16	North and East of Hemel Hempstead Growth Areas		Screened in.	
SP17	Hemel Hempstead Town Centre		Screened in.	
SP18	Two Waters Opportunity Area		Screened in.	
SP19	Maylands Business Park		Screened in.	
SP20	Delivering Growth in Berkhamsted		Screened in.	
SP21	Delivering Growth in South Berkhamsted		Screened in.	
SP22	Delivering Growth in West Berkhamsted		<ul style="list-style-type: none"> Possible LSEs in terms of air pollution are likely at the Chilterns Beechwoods SAC. 	Screened in.

Policy Number	Policy Name	Pre Screening for LSE	Pre Screening Conclusion	Recommendations for Policy Enhancement
			Screened in.	
			Screened in.	
			Screened in.	
			Screened in.	
			Screened in.	
			Screened in.	
			Screened in.	

Appendix F: Allocations Pre-Screening Summary

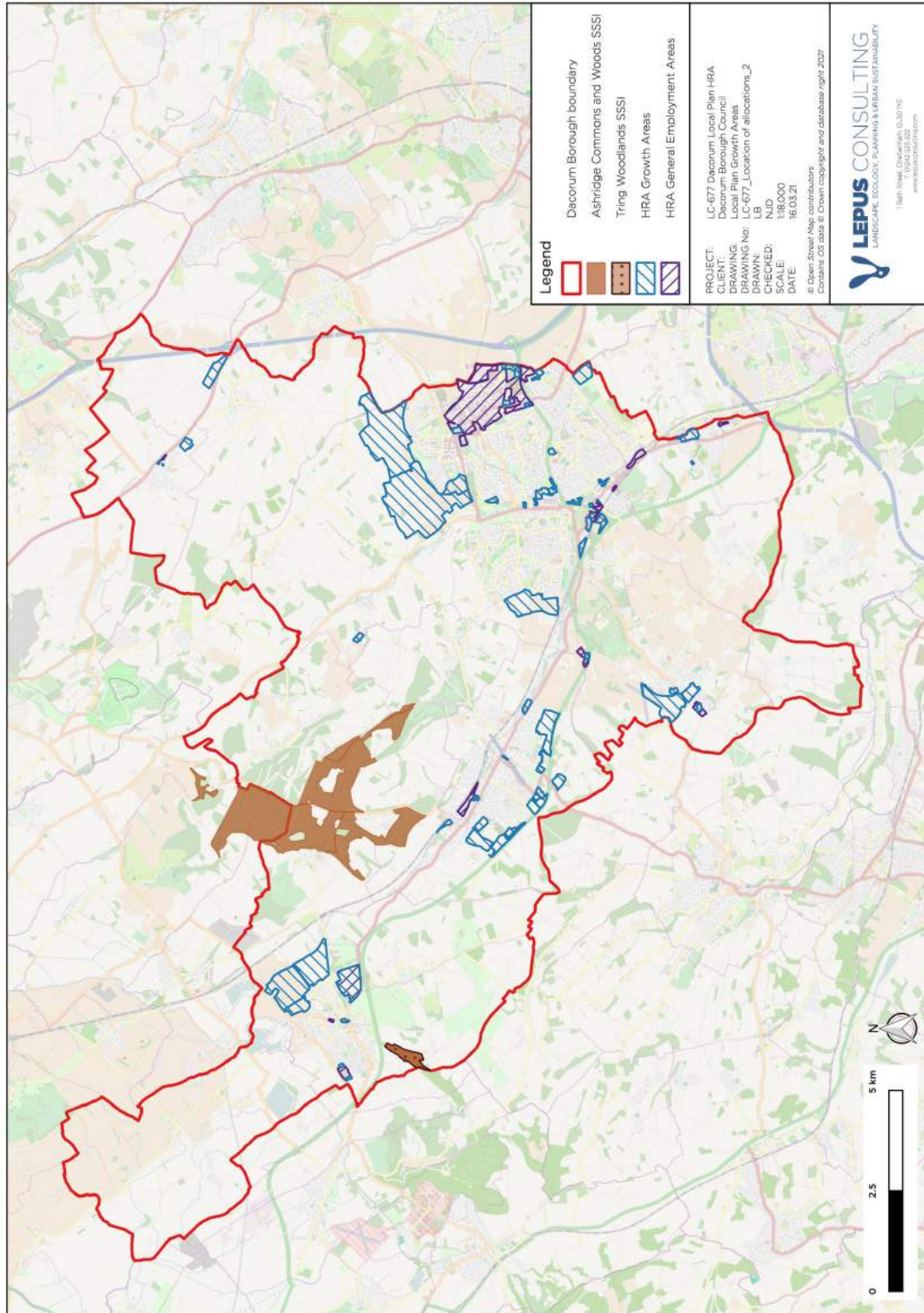


Figure F.1: Local Plan Growth Areas and General Employment Areas

Notes: The assessment findings presented in this report provide a preliminary screening assessment which is proportionate to this stage of the plan making process and is intended to help shape and guide the plan's development. A final HRA report will accompany the submission version of the Local Plan. If new policies emerge or existing policy proposals are modified following the Regulation 18 Local Plan consultation stage, they will be pre-screened and presented in the final HRA report.

Summary

Air Quality LSEs: All allocations have the potential to act in combination to increase traffic flows on the local road network. An increase in traffic related emissions has the potential to reduce air quality. The Chilterns Beechwoods SAC, and in particular the components underpinned by the Ashridge Common and Woods SSSI and Tring Woodlands SSSI are located within the commuter zone for Dacorum and air quality study area. Given the location of strategic road links within 200m of these components of the Chilterns Beechwoods SAC, the cumulative effect of these allocations acting together, and the in-combination effect of these allocations with other plans and projects (see Appendix D), it can be concluded there is the potential for LSE on air quality at the Chilterns Beechwoods SAC. Air quality impacts at all allocations have therefore been screened in under Category L.

Hydrology LSEs: All allocations have the potential to act in combination with one another to increase the quantity of water required for treatment at WWTWs. This may result in the deterioration of downstream water quality and increased water abstraction. Taking a precautionary approach, hydrology impacts from the combined effect of all developments together, acting in-combination with other plans and projects (see Appendix D), have the potential to result in LSEs at the South West London Waterbodies SPA and Ramsar and the Chilterns Beechwoods SAC. Hydrology impacts at all allocations have therefore been screened in under Category L.

Public access and disturbance: Recreation: All allocations have the potential to act in combination to increase recreational pressure upon the Chilterns Beechwoods SAC, and in particular the components underpinned by the Ashridge Common and Woods SSSI and Tring Woodlands SSSI. Further work will be undertaken as part of the HRA process to define a bespoke recreational zone of influence. Allocations will then be filtered on the basis of their location within this zone of influence. (as the plan develops). Taking a precautionary approach at this stage in the assessment, it is considered that all housing allocations within the Plan area have the potential to increase recreational pressures upon the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI and Tring Woodlands SSSI), both together, and when considered in-combination with other plans and projects which may increase growth locally (see Appendix D). Recreational impacts at all allocations have therefore been screened in under Category L.

The table below focuses on the screening of habitat loss / fragmentation and potential urbanisation LSEs in more detail.

Table F.1: Pre-screening summary of allocations in the Local Plan

Site No.	Site Name	Current site use	Area (ha)	Housing number / proposed employment use	Likely Significant Effects	Pre Screening conclusion
HH01	North Hemel (Phase 1)	Agricultural fields. Area of ancient woodland (in centre of site and on-site margin) to be retained.	212.2	1550 dwellings New school (primary and secondary) Country park Retail and community facilities Strategic corridor route	This allocation lies within approx. 92m from the River Gade. It is located approx. 4.1km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L and M.
HH02	North Hemel (Phase 2)	Agricultural fields	160.9	4000 dwellings Strategic corridor route Retail and community facilities New school (2x primary and 1x secondary)	This allocation lies within approx. 1.6km from the River Gade. It is located approx. 5.6km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L and M.
HH03	Hospital Site (previously MU/2)	Currently developed. Hospital site.	5.93	450 dwellings Primary school Public open space New / revised hospital hub	This allocation lies within approx. 184m from the River Gade. It is located approx. 5.8km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.

Site No.	Site Name	Current site use	Area (ha)	Housing number / proposed employment use	Likely Significant Effects	Pre Screening conclusion
HH04	Paradise / Wood Lane (previously MU/3)	Currently developed.	2.92	350 dwellings Ground floor employment Replacement food bank Public open space	This allocation lies within approx. 245m from the River Gade. It is located approx. 6.1km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH05	Market Square	Urban area	0.53	Retail mixed-development 130 dwellings upper floor	This allocation lies within approx. 17m from the River Gade. It is located approx. 5.7km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH06	Civic Centre Site	Urban area	0.86	200 dwellings Public open space	This allocation lies immediately adjacent to the River Gade. It is located approx. 5.5km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH07	NCP Car Park, Hillfield Road	Urban area	0.22	100 dwellings Retail and other town centre uses at ground level	This allocation lies within approx. 131m from the River Gade. It is located approx. 5.8km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH08	Station Gateway	Urban area	3.87	360 dwellings Regeneration of train station (and ancillary uses) and car park	This allocation lies within approx. 103m from the River Bulbourne and Grand Union Canal. It is located approx. 5.4km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH09	National Grid Lane	Urban area	3.41	400 dwellings Public open space	This allocation lies within approx. 40m from the River Bulbourne. It is located approx. 6km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.

Site No.	Site Name	Current site use	Area (ha)	Housing number / proposed employment use	Likely Significant Effects	Pre Screening conclusion
HH10	Symbio Place, Whiteleaf Road	Urban area	0.22	180 dwellings Public open space	This allocation lies within approx. 147m from the River Bulbourne. It is located approx. 6.5km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH11	Two Waters North	Urban area	2.83	350 dwellings Employment uses on first floor Public open space	This allocation lies within approx. 14m from the River Gade and immediately adjacent to the Grand Union Canal. It is located approx. 6.2km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH12	Two Waters / London Road	Green field in urban area	0.62	60 dwellings Public open space	This allocation lies within approx. 14m from the River Gade. It is located approx. 6.5km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH13	Frogmore Road	Urban area	1.17	170 dwellings Public open space	This allocation lies immediately adjacent to the River Gade and Grand Union Canal. It is located approx. 7.1km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH14	London Road	Urban area	0.1	10 dwellings	This allocation lies within approx. 72m from the River Gade. It is located approx. 6.7km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH15	Ebberns Road	Urban area	0.38	30 dwellings	This allocation lies within approx. 70m from the River Gade. It is located approx. 6.7km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.

Site No.	Site Name	Current site use	Area (ha)	Housing number / proposed employment use	Likely Significant Effects	Pre Screening conclusion
HH16	Two Waters Road / A41 Junction Employment Site	Green field adjacent to strategic road network	5.6	Employment: industrial, storage, distribution and office. 20,000 sqm gross internal floorspace	This allocation lies within approx. 252m from the River Bulbourne. It is located approx. 6.3km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation, habitat / loss fragmentation or public access and disturbance LSEs.	Screened in Category L.
HH17	Cupid Green Depot	Urban area	2.9	360 dwellings Public open space	This allocation lies within approx. 2.1km from the River Gade. It is located approx. 6.7km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH18	Kier Park	Urban area	1.0	250 dwellings 1,400 sqm office floorspace Public open space	This allocation lies within approx. 2.4km from the River Gade. It is located approx. 7.8km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH19	Wood Lane End	Urban area	1.88	160 dwellings Public open space	This allocation lies within approx. 2.5km from the River Gade. It is located approx. 7.7km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH20	Breakspear Way / Green Lane / Boundary Way, Maylands Gateway	Green field	6.6	Employment: offices, industrial, storage or distribution 48,000 sqm	This allocation lies within approx. 3.2km from the River Gade. It is located approx. 8.4km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation, habitat / loss fragmentation or public access and disturbance LSEs.	Screened in Category L.

Site No.	Site Name	Current site use	Area (ha)	Housing number / proposed employment use	Likely Significant Effects	Pre Screening conclusion
HH21	West Hemel Hempstead	Agricultural land	55.64	1,150 dwellings Community hub Primary school 7 gypsy and travellers pitches Public open space Extension to Shrubhill Common LNR	This allocation lies within approx. 169m of the Grand Union Canal and the River Bulbourne. It is located approx. 3.3km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH22	Marchmont Farm	Agricultural land	19.15	385 dwellings 5 gypsy and travellers pitches Public open space	This allocation lies within approx. 547m of the River Gade. It is located approx. 5.2km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH23	Old Town	Green field	2.71	90 dwellings Public open space	This allocation lies within approx. 217m of the River Gade. It is located approx. 5.3km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH24	Land at Turners Hill	Green field	0.7	60 dwellings Public open space	This allocation lies within approx. 509m of the River Gade. It is located approx. 6.4km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH25	Land to R/O St Margrets Way / Datchworth Turn	Green field	1.13	50 dwellings Public open space	This allocation lies within approx. 3.1km of the River Gade. It is located approx. 8.5km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.

Site No.	Site Name	Current site use	Area (ha)	Housing number / proposed employment use	Likely Significant Effects	Pre Screening conclusion
HH26	South of Green Lane	Green Field	2.03	80 dwellings Public open space	This allocation lies within approx. 3.1km of the River Gade. It is located approx. 8.5km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH27	Jarman Park – Out of Centre Retail Allocation	Park	2.0	Retail led development	This allocation lies within approx. 1.3km of the River Gade. It is located approx. 7.1km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
HH28	Bunkers Park – Crematorium application	Green field	12.3	Crematorium Public open space	This allocation lies within approx. 2.3km of the Grand Union Canal. It is located approx. 8.9km from the Chilterns Beechwoods SAC (Ashridge Commons and Woods SSSI). There are no urbanisation, habitat / loss fragmentation or public access and disturbance LSEs.	Screened in Category L.
Bk01	Land South of Berkhamsted	Agricultural field and some woodland	33.45	850 dwellings New community hub Primary School Public open space	This allocation lies within approx. 463m of the River Bulbourne. It is located approx. 2.9km from the Ashridge Commons and Woods SSSI and approx. 7.5km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L and M.
Bk02	British Film Institute	Developed land	3.2	90 dwellings Public open space	This allocation lies within approx. 1.2km of the River Bulbourne. It is located approx. 2.7km from the Ashridge Commons and Woods SSSI and approx. 7.0km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.

Site No.	Site Name	Current site use	Area (ha)	Housing number / proposed employment use	Likely Significant Effects	Pre Screening conclusion
Bk03	Haslam Playing Fields	Green field	6.56	150 dwellings Public open space	This allocation lies within approx. 1.2km of the River Bulbourne. It is located approx. 2.5km from the Ashridge Commons and Woods SSSI and approx. 6.6km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Bk04	Land between Hanburys and A41	Green field	4.67	70 dwellings Public open space Southern part of site to deliver new wildlife site	This allocation lies within approx. 1.4km of the River Bulbourne. It is located approx. 2.7km from the Ashridge Commons and Woods SSSI and approx. 6.6km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Bk05	Blegberry Gardens (land adjacent to)	Green field	3.5	80 dwellings Public open space	This allocation lies within approx. 1.7km of the River Bulbourne. It is located approx. 2.0km from the Ashridge Commons and Woods SSSI and approx. 5.8km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Bk06	East of Darrs Lane	Green field	22.73	200 dwellings Secondary school Public park	This allocation lies within approx. 300m of the River Bulbourne. It is located approx. 1.1km from the Ashridge Commons and Woods SSSI and approx. 5.3km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L and M.
Bk07	Lock Field Northchurch	Green field	2.2	60 dwellings Public open space	This allocation lies adjacent to the Grand Union Canal and approx. 79m of the River Bulbourne. It is located approx. 467m from the Ashridge Commons and Woods SSSI and approx. 5.3km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. Urbanisation effects are possible at the Ashridge Commons and Woods SSSI component of the SAC. There are no habitat / loss fragmentation LSEs.	Screened in Category L.

Site No.	Site Name	Current site use	Area (ha)	Housing number / proposed employment use	Likely Significant Effects	Pre Screening conclusion
Bk08	Rossway Farm (land between Shootersway and A41)	Green field	12.29	200 dwellings Public open space	This allocation lies within approx. 987m of the River Bulbourne. It is located approx. 1.8km from the Ashridge Commons and Woods SSSI and approx. 5.2km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Bk09	Bank Mill Lane	Green field	3.9	50 dwellings Public open space	The River Bulbourne runs through this site. It is located approx. 2.6km from the Ashridge Commons and Woods SSSI and approx. 8.8km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Bk10	Hanburys	Green field	1.8	40 dwellings Public open space	This allocation lies within approx. 1.2km of the River Bulbourne. It is located approx. 2.6km from the Ashridge Commons and Woods SSSI and approx. 6.9km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Bk11	Billet Lane (Jewson Site)	Urban developed site	0.78	40 dwellings Public open space	The River Bulbourne forms the site's southern boundary and the Grand Union Canal the northern boundary. It is located approx. 1.2km from the Ashridge Commons and Woods SSSI and approx. 6.4km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Bk12	Berkhamsted Civic Centre and Land to Rear of High Street	Urban developed site	0.4	Replacement Civic Centre 16 dwellings Other town uses	This allocation lies within approx. 159m of the River Bulbourne. It is located approx. 2.3km from the Ashridge Commons and Woods SSSI and approx. 7.6km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.

Site No.	Site Name	Current site use	Area (ha)	Housing number / proposed employment use	Likely Significant Effects	Pre Screening conclusion
Bk13	Gossoms End / Billet Lane	Undeveloped urban site	0.6	30 dwellings New foodstore	The River Bulbourne forms the site's northern boundary. It is located approx. 1.3km from the Ashridge Commons and Woods SSSI and approx. 6.4km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Tr01	Dunsley Farm	Agricultural fields	37.25	400 dwellings General employment area (5.4 ha) Primary school	This allocation lies within approx. 909m from the Grand Union Canal. It is located approx. 2.1km from the Ashridge Commons and Woods SSSI and approx. 1.3km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Tr02	New Mill	Agricultural fields	14.7	400 dwellings Public open space	This allocation lies within approx. 240m from the Grand Union Canal. It is located approx. 3.9km from the Ashridge Commons and Woods SSSI and approx. 2.1km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Tr03	East of Tring	Agricultural fields	119.1	1400 dwellings Neighbourhood Centre Primary and secondary school Public open space	Grand Union Canal runs along the site's north eastern boundary. It is located approx. 1.7km from the Ashridge Commons and Woods SSSI and approx. 2.2km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Tr04	Ickneild Way	Industrial site	1	50 dwellings	This allocation lies within approx. 798m from the Grand Union Canal. It is located approx. 4.8km from the Ashridge Commons and Woods SSSI and approx. 1.1km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.

Site No.	Site Name	Current site use	Area (ha)	Housing number / proposed employment use	Likely Significant Effects	Pre Screening conclusion
Tr05	Miswell Lane	Green field in urban area	0.64	24 dwellings Public open space	This allocation lies within approx. 831m from the Grand Union Canal. It is located approx. 4.5km from the Ashridge Commons and Woods SSSI and approx. 1.1km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Tr06	High Street / Brook Street	Town centre	0.95	Town centre retail	This allocation lies within approx. 1.2km from the Grand Union Canal. It is located approx. 3.4km from the Ashridge Commons and Woods SSSI and approx. 1km from Tring Woodlands SSSI components of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
KL01	Land adjacent to Coniston Road	Green field	0.33	10 dwellings Public open space	This allocation lies within approx. 652m from the Grand Union Canal. It is located approx. 9.1km from the Ashridge Commons and Woods SSSI component of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
KL02	Land at Rectory Farm	Green field and developed	8.37	200 dwellings Public open space	Grand Union Canal marks the site's eastern boundary. It is located approx. 9.2km from the Ashridge Commons and Woods SSSI component of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Bv01	Grange Farm	Agricultural field	10.11	150 dwellings Safeguarded land for primary school Public open space	This allocation lies within approx. 3.1km of the River Bulbourne. It is located approx. 6.9km from the Ashridge Commons and Woods SSSI component of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Bv02	Chesham Road and Molyneaux Avenue	Green field	1.9	40 dwellings Public open space	This allocation lies within approx. 2.7km of the River Bulbourne. It is located approx. 6.7km from the Ashridge Commons and Woods SSSI component of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.

Site No.	Site Name	Current site use	Area (ha)	Housing number / proposed employment use	Likely Significant Effects	Pre Screening conclusion
Mk01	South of London Road	Green field	6.25	150 dwellings	The River Ver runs through the site. It is located approx. 8.2km from the Ashridge Commons and Woods SSSI component of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Mk02	Corner of Hicks Road / High Street	Urban	0.1	13 dwellings	This allocation lies within approx. 96m of the River Ver. It is located approx. 8.2km from the Ashridge Commons and Woods SSSI component of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Mk03	Watling Street	Urban	0.23	20 dwellings Public open space	The River Ver runs through the site. It is located approx. 8.3km from the Ashridge Commons and Woods SSSI component of the Chilterns Beechwoods SAC. There are no urbanisation or habitat / loss fragmentation LSEs.	Screened in Category L.
Cy01	Upper Bourne End Lane / Stoney Lane (Bourne End Mills GEA Extension)	Green field	1.16	Employment (4,400 sqm)	This allocation lies approx. 17m to the south of the Bourne Gutter. It is located approx. 5.5km from the Ashridge Commons and Woods SSSI component of the Chilterns Beechwoods SAC. There are no urbanisation, public access of disturbance or habitat / loss fragmentation LSEs.	Screened in Category L.
Cy02	Bovington Brickworks	Developed	1.8	Employment (8,000 sqm)	This allocation lies approx. 3.5km to the south of the River Bulbourne. It is located approx. 7.2km from the Ashridge Commons and Woods SSSI component of the Chilterns Beechwoods SAC. There are no urbanisation, public access of disturbance or habitat / loss fragmentation LSEs.	Screened in Category L.

Site No.	Site Name	Current site use	Area (ha)	Housing number / proposed employment use	Likely Significant Effects	Pre Screening conclusion
Cy03	Watlington Street Tuck Shop, London Road, Flamstead	Agricultural fields and lorry park	16.2	New/enhanced lorry park	The River Ver runs through the site. It is located approx. 9.6km from the Ashridge Commons and Woods SSSI component of the Chilterns Beechwoods SAC. There are no urbanisation, public access of disturbance or habitat / loss fragmentation LSEs.	Screened in Category L.
Cy04	Haresfoot Campus	Field	7.95	School and leisure facilities	This allocation lies approx. 1.5km to the south of the River Bulbourne. It is located approx. 3.2km from the Ashridge Commons and Woods SSSI component of the Chilterns Beechwoods SAC. There are no urbanisation, public access of disturbance or habitat / loss fragmentation LSEs.	Screened in Category L.
Cy05	Amaravati Buddhist Monastery	Place of worship	3.0	Redevelopment / regeneration of place of worship	This allocation lies approx. 750m to the south west of the River Gade. It is located approx. 1.8km from the Ashridge Commons and Woods SSSI component of the Chilterns Beechwoods SAC. There are no urbanisation, public access of disturbance or habitat / loss fragmentation LSEs.	Screened in Category L.
Cy06	Bovington Airfield	Airfield	43.98	Film and television production	This allocation lies approx. 1.5km to the south of the Bourne Gutter. It is located approx. 5.6km from the Ashridge Commons and Woods SSSI component of the Chilterns Beechwoods SAC. There are no urbanisation, public access of disturbance or habitat / loss fragmentation LSEs.	Screened in Category L.

Appendix G: Selection of Site Walkover Photos¹

¹ The location of all photos contained in this appendix, and others relevant to the HRA, are contained in Appendices C and D of the Dacorum Borough Council HRA Desk Study and Site Walkover of the Chilterns Beechwoods SAC: Ashridge Commons and Woods SSSI and Tring Woodlands SSSI components. (Lepus, 2021).



Plate 1: The Ridgeway National Trail passes a southern entrance to Tring Woods. Limited opportunities for cars to park.



Plate 2: Public footpath travelling south along the eastern edge of Tring Woods.



Plate 3: Adverse effects of trampling along the Hertfordshire Long Distance Path through Rail Copse.



Plate 4: Evidence of fires along the Icknield Way Long Distance Path near Gryme's Dell.



Plate 5: Root damage and uncontrolled expanding footpath; Hertfordshire Long Distance Path through Rail Copse.

Habitat Regulations Assessments

Sustainability Appraisals

Strategic Environmental Assessments

Landscape Character Assessments

Landscape and Visual Impact Assessments

Green Belt Reviews

Expert Witness

Ecological Impact Assessments

Habitat and Ecology Surveys



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