



LONDON BOROUGH OF ENFIELD

**AGENDA FOR THE COUNCIL MEETING
TO BE HELD ON TUESDAY, 19TH MARCH, 2024
AT 7.00 PM**

**THE WORSHIPFUL THE MAYOR
AND COUNCILLORS OF THE
LONDON BOROUGH OF ENFIELD**

**Please
Reply to:**

Nicola Lowther
Governance Manager

Dear Councillor,

You are summoned to attend the meeting of the Council of the London Borough of Enfield to be held at the Civic Centre, Silver Street, Enfield on Tuesday, 19th March, 2024 at 7.00 pm for the purpose of transacting the business set out below.

Yours sincerely

Terry Osborne

Director Law & Governance

5. THE LOCAL PLAN (Pages 1 - 96)

Council is asked to agree the Local Plan.



London Borough of Enfield

Enfield Local Plan Habitats Regulations Assessment

Publication stage (Regulation 19 consultation)

Draft final report
Prepared by LUC
December 2023

London Borough of Enfield

Enfield Local Plan Habitats Regulations Assessment

Publication stage (Regulation 19 consultation)

Project Number
11450

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Chapter 1

Introduction

Background and context to this report

1.1 Enfield Council has commissioned LUC to undertake a Habitats Regulations Assessment (HRA) of its Local Plan for the London Borough of Enfield (LBE).

1.2 The purpose of this HRA Report is to determine whether the new Local Plan is likely to have significant effects on or, adverse effects on the integrity of, any sites designated as Special Protection Areas (SPAs), Special Areas of Conservation (SACs), or Ramsar sites.

Background to the preparation of the Enfield Local Plan

1.3 Enfield Council has produced a new Local Plan to set the framework for development in the borough over the next 15 years. The new Local Plan will replace the Core Strategy (2010), the Development Management Document (2014) and several Area Action Plans. The new Local Plan will be in accordance with the London Plan, which was adopted in March 2021.

1.4 The Local Plan will help to identify development needs, and any areas within London Borough of Enfield which need improvement or protection from future development. The Local Plan will be vital in influencing the determination of planning applications and guiding of investment across the Borough.

1.5 The Local Plan is currently at the Regulation 19 stage of preparation and this HRA has assessed the Publication Version of the Local Plan.

The requirement to undertake Habitats Regulations Assessment of Development Plans

1.6 The requirement to undertake HRA of development plans was confirmed by the amendments to the Habitats Regulations published for England and Wales in 2007¹; the currently applicable version is the Habitats Regulations 2017²,

¹ The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007 (2007) SI No. 2007/1843. TSO (The Stationery Office), London.

² The Conservation of Habitats and Species Regulations 2017 (2017) SI No. 2017/1012, as amended by The Conservation of Habitats and

Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579), TSO (The Stationery Office), London.

as amended. When preparing a development plan, Enfield Council is therefore required by law to carry out an HRA. Enfield Council can commission consultants to undertake HRA work on its behalf and this (the work documented in this report) is then reported to and considered by Enfield Council as the 'competent authority'. Enfield Council will consider this work and would usually only progress a Plan if it considers that the Plan will not adversely affect the integrity (as defined in the Appropriate Assessment section below) of any 'European site (defined in footnote 4)'. The exception to this would be where 'imperative reasons of overriding public interest' can be demonstrated (discussed further below). The requirement for authorities to comply with the Habitats Regulations when preparing a Plan is also noted in the Government's online Planning Practice Guidance³ (PPG).

1.7 HRA refers to the assessment of the potential effects of a development plan on one or more sites afforded the highest level of protection in the UK: SPAs and SACs. These were classified under European Union (EU) legislation but, since 1 January 2021, are protected in the UK by the Habitats Regulations 2017² (as amended). Although the EU Directives from which the UK's Habitats Regulations originally derived are no longer binding, the Regulations still make reference to the lists of habitats and species that the sites were designated for, which are listed in annexes to the EU Directives:

- SACs are designated for particular habitat types (specified in Annex 1 of the EU Habitats Directive⁴) and species (Annex II). The listed habitat types and species (excluding birds) are those considered to be most in need of conservation at a European level. Designation of SACs also has regard to the threats of degradation or destruction to which the sites are exposed and, before EU exit day, to the coherence of the 'Natura 2000' network of European sites. After EU exit day, regard is had to the importance of such sites for the coherence of the UK's 'national site network'.
- SPAs are classified for rare and vulnerable birds (Annex I of the EU Birds Directive⁵), and for regularly occurring migratory species not listed in Annex I.

1.8 The term 'European sites' was previously commonly used in HRA to refer to 'Natura 2000' sites⁶ and Ramsar

sites (international designated under the Ramsar Convention). However, a Government Policy Paper⁷ on changes to the Habitats Regulations 2017 post-Brexit states that:

- Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new 'national site network'.
- The national site network includes existing SACs and SPAs; and new SACs and SPAs designated under these Regulations.
- Designated Wetlands of International Importance (known as Ramsar sites) do not form part of the national site network. Many Ramsar sites overlap with SACs and SPAs and may be designated for the same or different species and habitats.

1.9 Although Ramsar sites do not form part of the new national site network, Government Guidance⁸ states that:

"Any proposals affecting the following sites would also require an HRA because these are protected by government policy:

- proposed SACs
- potential SPAs
- Ramsar sites - wetlands of international importance (both listed and proposed)
- areas secured as sites compensating for damage to a European site."

1.10 Furthermore, the NPPF⁹ and practice guidance¹⁰ currently state that competent authorities responsible for carrying out HRA should treat Ramsar sites in the same way as SACs and SPAs.

1.11 The legislative requirement for HRA does not apply to other nationally designated wildlife sites such as Sites of Special Scientific Interest or National Nature Reserves.

1.12 For simplicity, this report uses the term 'European site' to refer to all types of designated site for which Government guidance¹¹ requires an HRA.

³ <https://www.gov.uk/guidance/appropriate-assessment>

⁴ Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive')

⁵ Directive 2009/147/EC of 30 November 2009 on the conservation of wild birds (the 'Birds Directive')

⁶ The network of protected areas identified by the EU: https://ec.europa.eu/environment/nature/natura2000/index_en.htm

⁷ Defra and Natural England (2021) Guidance - Habitats regulations assessments: protecting a European site, <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>

⁸ <https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017>

⁹ NPPF para 176, available from <https://www.gov.uk/guidance/national-planning-policy-framework>

¹⁰ The HRA Handbook, Section A3. David Tyldesley & Associates, a subscription based online guidance document: <https://www.dtapublications.co.uk/handbook/European>

¹¹ Defra and Natural England (2021) Guidance - Habitats regulations assessments: protecting a European site, <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>

1.13 The overall purpose of an HRA is to conclude whether or not a proposal or policy, or a whole development plan would adversely affect the integrity of the European site in question. This is judged in terms of the implications of the plan for a site's 'qualifying features' (i.e. those Annex I habitats, Annex II species, and Annex I bird populations for which it has been designated). Significantly, HRA is based on the precautionary principle. Where uncertainty or doubt remains, an adverse effect should be assumed.

Stages of HRA

1.14 The HRA of development plans is undertaken in stages (as described below) and should conclude whether or not a proposal would adversely affect the integrity of the European site in question.

1.15 LUC has been commissioned by Enfield Council to carry out HRA work on the Council's behalf, and the outputs will be reported to and considered by Enfield Council, as the competent authority, before adopting the Plan.

1.16 The HRA also requires close working with Natural England as the statutory nature conservation body¹² in order to obtain the necessary information, agree the process, outcomes and mitigation proposals. The Environment Agency, while not a statutory consultee for the HRA, is also in a strong position to provide advice and information throughout the process as it is required to undertake HRA for its existing licences and future licensing of activities.

Requirements of the Habitats Regulations

1.17 In assessing the effects of a Local Plan in accordance with Regulation 105 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations'), there are potentially two tests to be applied by the competent authority: a 'Significance Test' followed, if necessary, by an Appropriate Assessment, which would inform the 'Integrity Test'. The relevant sequence of questions is as follows:

- Step 1: Under Reg. 105(1)(b), consider whether the plan is directly connected with or necessary to the management of the sites. If not, proceed to Step 2.
- Step 2: Under Reg. 105(1)(a) consider whether the plan is likely to have a significant effect on a European site, either alone or in combination with other plans or

projects (the 'Significance Test'). If yes, proceed to Step 3.

1.18 [Steps 1 and 2 are undertaken as part of Stage 1: HRA Screening, shown in **Table 1.1**.]

- Step 3: Under Reg. 105(1), make an Appropriate Assessment of the implications for the European site in view of its current conservation objectives (the 'Integrity Test'). In so doing, it is mandatory under Reg. 105(2) to consult Natural England, and optional under Reg. 105(3) to take the opinion of the general public.

1.19 [This step is undertaken during Stage 2: Appropriate Assessment, shown in **Table 1.1**.]

- Step 4: In accordance with Reg. 105(4), but subject to Reg. 107, give effect to the land use plan only after having ascertained that the plan would not adversely affect the integrity of a European site.

1.20 [This step follows Stage 2 where a finding of 'no adverse effect' is concluded. If this finding cannot be made, the HRA proceeds to Step 5 as part of Stage 3, shown in **Table 1.1**.]

- Step 5: Under Reg. 107, if Step 4 is unable to rule out adverse effects on the integrity of a European site and no alternative solutions exist then the competent authority may nevertheless agree to the plan or project if it must be carried out for 'imperative reasons of overriding public interest' (IROPI).

1.21 [This step is undertaken during Stage 3: Assessment where no alternatives exist and adverse impacts remain taking into account mitigation shown in **Table 1.1**.]

Typical Stages

Table 1.1 summarises the stages and associated tasks and outcomes typically involved in carrying out a full HRA of a development plan, based on various guidance^{13,14,15}.

¹² Regulation 5 of the Habitats Regulations 2017.

¹³ UK Government Planning Practice Guidance, available from <https://www.gov.uk/guidance/appropriate-assessment>

¹⁴ European Commission (2001) Assessment of plans and projects significantly affecting European Sites. Methodological guidance on

the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC

¹⁵ The HRA Handbook. David Tyldesley & Associates, a subscription based online guidance document: <https://www.dtapublications.co.uk/handbook/European>

Table 1.1: Stages in HRA

Stage	Task	Outcome
Stage 1: HRA Screening	<p>Description of the development plan and confirmation that it is not directly connected with or necessary to the management of European sites.</p> <p>Identification of potentially affected European sites and their conservation objectives¹⁶.</p> <p>Review of other plans and projects.</p> <p>Assessment of likely significant effects of the development plan alone or in combination with other plans and projects, prior to consideration of avoidance or reduction ('mitigation') measures¹⁷.</p>	<p>Where effects are unlikely, prepare a 'finding of no significant effect report'.</p> <p>Where effects judged likely, or lack of information to prove otherwise, proceed to Stage 2.</p>
Stage 2: Appropriate Assessment (where Stage 1 does not rule out likely significant effects)	<p>Information gathering (development plan and data on European sites¹⁸).</p> <p>Impact prediction.</p> <p>Evaluation of development plan impacts in view of conservation objectives of European sites.</p> <p>Where impacts are considered to directly or indirectly affect qualifying features of European sites, identify how these effects will be avoided or reduced ('mitigation').</p>	<p>Appropriate Assessment report describing the plan, European site baseline conditions, the adverse effects of the plan on the European site, how these effects will be mitigated through, firstly, avoidance, and secondly, reduction including the mechanisms and timescale for these mitigation measures.</p> <p>If effects remain after all alternatives and mitigation measures have been considered proceed to Stage 3.</p>
Stage 3: Assessment where no alternatives exist and adverse impacts remain taking into account mitigation	<p>Identify and demonstrate 'imperative reasons of overriding public interest' (IROPI).</p> <p>Demonstrate no alternatives exist.</p> <p>Identify potential compensatory measures.</p>	<p>This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.</p>

1.22 It is normally anticipated that an emphasis on Stages 1 and 2 of this process will, through a series of iterations, help ensure that potential adverse effects are identified and eliminated through the inclusion of mitigation measures designed to avoid or reduce effects. The need to consider alternatives could imply more onerous changes to a plan document. It is generally understood that so called 'imperative reasons of overriding public interest' (IROPI) are likely to be justified only very occasionally and would involve engagement with the Government.

Case law

1.23 This HRA has been prepared in accordance with relevant case law findings, including most notably the 'People following rulings from the Court of Justice for the European Union (CJEU).

1.24 The *People over Wind, Peter Sweetman v Coillte Teoranta* (April 2018) judgment ruled that Article 6(3) of the Habitats Directive should be interpreted as meaning that mitigation measures should be assessed as part of an Appropriate Assessment and should not be taken into account

¹⁶ Conservation objectives are published by Natural England for SACs and SPAs:

¹⁷ In line with the CJEU judgment in Case C-323/17 *People Over Wind v Coillte Teoranta*, mitigation must only be taken into consideration at this stage and not during Stage 1: HRA Screening.

¹⁸ In addition to SAC and SPA citations and conservation objectives, key information sources for understanding factors contributing to the integrity of the sites include (where available) conservation objectives supplementary advice and Site Improvement Plans prepared by Natural England: <http://publications.naturalengland.org.uk/category/5458594975711232>

at the screening stage. The precise wording of the ruling is as follows:

"Article 6(3) ...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 measures intended to avoid or reduce the harmful effects of the plan or project on that site."

1.25 In light of the above, the HRA screening stage does not rely upon mitigation measures to draw conclusions as to whether the Local Plan could result in likely significant effects on European sites, with any such measures being considered at the Appropriate Assessment stage as relevant.

1.26 This HRA also fully considers the *Holohan v An Bord Pleanala* (November 2018) judgement which stated that:

"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."

1.27 Similarly, effects on both qualifying and supporting habitats and species on functionally linked land (FLL) or habitat have been considered in the HRA, in line with the High

Court judgment in *RSPB and others v Secretary of State and London Ashford Airport Ltd* [2014 EWHC 1523 Admin] (paragraph 27), which stated that:

"There is no authority on the significance of the non-statutory status of the FLL. However, the fact that the FLL was not within a protected site does not mean that the effect which a deterioration in its quality or function could have on a protected site is to be ignored. The indirect effect was still protected. Although the question of its legal status was mooted, I am satisfied ... that while no particular legal status attaches to FLL, the fact that land is functionally linked to protected land means that the indirectly adverse effects on a protected site, produced by effects on FLL, are scrutinised in the same legal framework just as are the direct effects of acts carried out on the protected site itself. That is the only sensible and purposive approach where a species or effect is not confined by a line on a map or boundary fence. This is particularly important where the boundaries of designated sites are drawn tightly as may be the UK practice".

1.28 In undertaking this HRA, LUC has therefore considered the potential for effects on species and habitats, including those not listed as qualifying features, to result in secondary effects upon the qualifying features of European sites, including the potential for complex interactions and dependencies. In addition, the potential for offsite impacts, such as through impacts to functionally linked land, and or species and habitats located beyond the boundaries of European site, but which may be important in supporting the ecological processes of the qualifying features, has also been considered in this HRA.

1.29 In addition, the HRA takes into consideration the 'Wealden' judgement from the CJEU.

1.30 *Wealden District Council v Secretary of State for Communities and Local Government, Lewes District Council and South Downs National Park Authority* (2017) ruled that it was not appropriate to scope out the need for a detailed assessment for an individual plan or project based on the annual average daily traffic (AADT) figures detailed in the Design Manual for Roads and Bridges or the critical loads used by Defra or Environmental Agency without considering the in-combination impacts with other plans and projects.

1.31 In light of this judgement, the HRA therefore considers traffic growth based on the effects of development from the Local Plan in combination with other drivers of growth such as development proposed in neighbouring districts and demographic change.

1.32 The HRA also takes into account the *Grace and Sweetman* (July 2018) judgement from the CJEU which stated that:

“there is a distinction to be drawn between protective measures forming part of a project and intended avoid or reduce any direct adverse effects that may be caused by the project in order to ensure that the project does not adversely affect the integrity of the area, which are covered by Article 6(3), and measures which, in accordance with Article 6(4), are aimed at compensating for the negative effects of the project on a protected area and cannot be taken into account in the assessment of the implications of the project”.

“As a general rule, any positive effects of the future creation of a new habitat, which is aimed at compensating for the loss of area and quality of that habitat type in a protected area, are highly difficult to forecast with any degree of certainty or will be visible only in the future”

“A mitigation strategy may only be taken into account at AA (a.6(3)) where the competent authority is “sufficiently certain that a measure will make an effective contribution to avoiding harm, guaranteeing beyond all reasonable doubt that the project will not adversely affect the integrity of the area”

“Otherwise it falls to be considered to be a compensatory measure to be considered under a.6(4) only where there are “imperative reasons of overriding public interest”

1.33 The Appropriate Assessment of the Local Plan therefore only considers the existence of measures to avoid or reduce its direct adverse effects (mitigation) if the expected benefits of those measures are beyond reasonable doubt at the time of the assessment.

Previous HRA work

1.34 In 2009, HRA was undertaken to screen Enfield Council's current development plan, the Core Strategy (2010), and concluded that none of the policies were likely to have a significant adverse impact on European sites. Therefore, Appropriate Assessment was not considered necessary at that time. In 2013, a review was undertaken of the 2009 HRA screening, from which it was concluded that this baseline was still relevant and appropriate¹⁹.

1.35 HRA work on the emerging Local Plan began in May 2020 with an HRA Scoping Report (contained within the Integrated Impact Assessment Scoping Report²⁰) that was produced by AECOM and set out the proposed HRA methodology, identified European sites that could potentially be affected by the Local Plan and identified other plans and programmes that could have in-combination effects with the Local Plan.

1.36 AECOM's Scoping Report concluded that the main issues that would need to be the focus of HRA, were recreation pressure / disturbance and air pollution at Epping Forest SAC, Lee Valley SPA/Ramsar and Wormley Hoddesdonpark Woods SAC. AECOM considered that the effects at Epping Forest SAC would be more likely to be significant than at the other sites, and concluded that water resource and quality impacts could be scoped out of the HRA.

1.37 In June 2021, LUC produced a HRA report to accompany the Regulation 18 (Reg.18) consultation version of the Local Plan. The HRA concluded that no adverse effect on the integrity of the European sites were expected, providing that recommended policy amendments were incorporated, and subject to the outcomes of further work on traffic and air quality assessment, and development of the borough's recreation mitigation strategy. This HRA builds on and updates the information gathered at the scoping and Reg.18 stages, and takes into account comments received during the Reg.18 consultation.

Structure of this report

1.38 This chapter (**Chapter 1**) has introduced the requirement to undertake HRA of the Local Plan. The remainder of the report is structured as follows:

- **Chapter 2: Enfield Local Plan** summarises the content of the Regulation 19 Publication Local Plan, which is the subject of this report.
- **Chapter 3: Approach to HRA** sets out the broad approach followed and the specific tasks undertaken during the screening and Appropriate Assessment stages of the HRA.
- **Chapter 4: HRA Screening** describes the findings of the screening stage of the HRA.
- **Chapter 5: Appropriate Assessment** describes the findings of the Appropriate Assessment stage of the HRA.

¹⁹ <https://new.enfield.gov.uk/services/planning/adopted-supplementary-planning-documents/planning-policy-information-local-plan-appropriate-assessment-screening.pdf>

²⁰ AECOM (2020) New Enfield Local Plan 2041: Integrated Impact Assessment – Scoping Report May 2020, <https://new.enfield.gov.uk/services/planning/integrated-impact-assessment-scoping-report-2020-planning.pdf>

- **Chapter 6: Conclusions and next steps** summarises the HRA conclusions and describes the next steps to be undertaken.

Chapter 2

Enfield Local Plan

Characteristics of the Local Plan relevant to the HRA

2.1 The Local Plan sets out the vision and objectives for the future of Enfield up to 2041, and considers housing and employment needs. It allocates sites for housing, employment and other forms of development and sets out development management policies for the Borough up to 2041

2.2 The Local Plan's vision is that:

“By 2041, Enfield will be a place of growing opportunity for future generations: a green lung of London and a place where new homes, particularly family and affordable housing and the availability of new employment opportunities are catalysts for the thriving of all our communities.

Inclusive housing growth will be accommodated across the Borough, including in two new communities at Crews Hill and Chase Park, ensuring delivery of a mix of housing types and tenures, each thoughtfully curated to meet the varied needs of both existing and new residents

Our commitment to the generation of new employment floorspace will be delivered within town centres, existing employment areas and new locations in the northern and eastern fringes of the Borough. This will amplify the existing strengths of our local economy and supporting the growth of new economic sectors. Our main town centres at Enfield Town, Angel Edmonton, Edmonton Green, Palmers Green, New Southgate and Southgate will be diverse, vibrant and inclusive.

Disparities between the eastern and western parts of the Borough will be reduced through the delivery of high quality new infrastructure, improved road safety, an uplift in employment floorspace provision and an array of environmental enhancements. Borough-wide we will embrace biophilic design principles, weaving together new development into a tapestry of enhanced blue-green networks seamlessly connecting our residents through the promotion of walking and cycling.

We shall be recognised as:

A nurturing place – A place that provides everyone, including children and young people with the ingredients for a good life. By accommodating growth throughout the

Borough, we will ensure the delivery of high quality and affordable homes, complemented by a tapestry of employment opportunities, improved community facilities, road safety and excellent educational, leisure and cultural experiences. This progressive approach to growth will be used to address spatial disparities, generating prospects for improved outcomes for all.

A deeply green place – A place where enhanced green open spaces and waterways permeate shall traverse the urban fabric, seamlessly connecting the wild places in the rural stretches with accessible pockets of nature and localised food production. Improved biodiversity, greener urban environments, and better air and water quality shall deliver places where residents lives are enriched with nature. We are committed to successfully addressing the climate crisis through an effective blend of mitigation and adaptation, delivering sustainable buildings and transport solutions, and effectively managing flood risk. We will be a Borough that is carbon neutral with the aim to use land and materials efficiently.

The workshop of London – A place where new spaces for logistics and manufacturing shall give impetus to job creation, leveraging Enfield's strategic position within the UK Innovation Corridor. The expansion of employment floorspace will be delivered in town centres and on established and new industrial locations, where enhanced links with the Borough's green networks will help nurture vibrant and attractive places for business growth. We will establish a range of workspaces to cater to the varied needs of a diverse economy, including spaces for homeworking, start-ups, small and medium enterprises, and the vibrant creative and maker economy. Enfield's hot house of creativity will be harnessed to enrich our industrial heartlands and diversify our town centres.

A distinct and leading part of London – A place of safe growing neighbourhoods whose unique character, heritage and natural settings are celebrated, with new development thoughtfully aligned to sustain beautiful places. By underpinning growth with essential infrastructure and enhanced blue and green networks, emerging developments will serve to elevate both town and country landscapes. Enfield will be a place that is at the forefront of London, offering unparalleled access to nature, intergenerational communities and an unmatched quality of life."

2.3 This vision sets out what Enfield will be by 2041 and is supported by 20 strategic objectives under four themes:

1. A nurturing place
2. Deeply green place
3. The workshop of London
4. A distinct and leading part of London

2.4 Further detail is provided by 40 strategic policies (including 11 place policies) and 57 development management policies across the following topics:

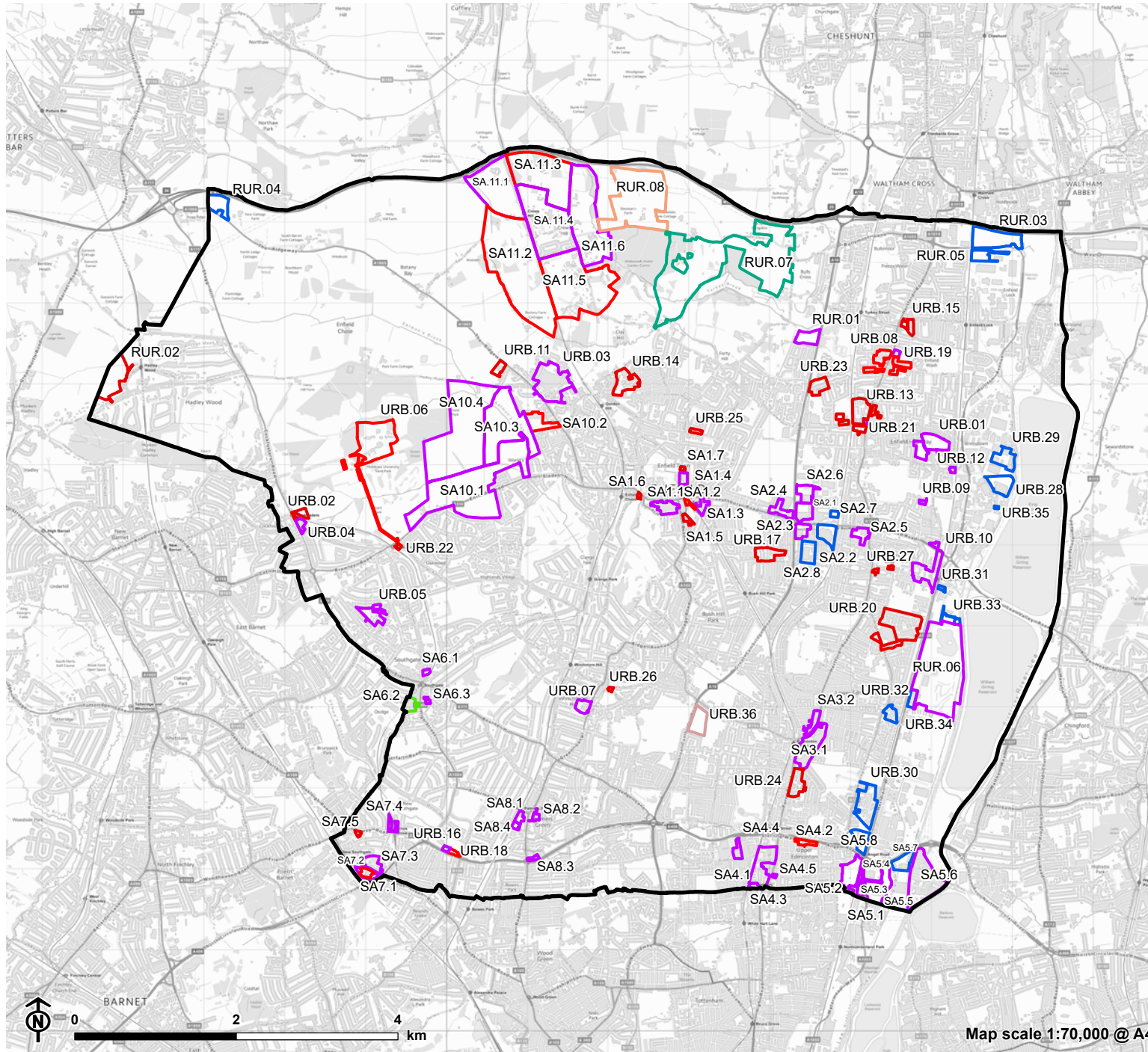
- Good growth in Enfield
- Places
- Sustainable Enfield
- Addressing equality and improving health and wellbeing
- Blue and green Enfield
- Design and character
- Homes for all
- Economy
- Town centres and high streets
- Rural Enfield
- Culture, leisure and recreation
- Movement and connectivity
- Environmental protection
- Delivering and monitoring

2.5 The plan contains a number of strategic ('SP') and development management ('DM') policies (organised by topic chapter, as above), and associated site allocations.

2.6 The Local Plan sets out the approach, with regards to the overall quantum of development detailed within Policy SP SS1: Spatial Strategy. Policy SP SS1 makes provision for at least 34,710 dwellings by 2041, with at least 35% (12,149 dwellings) to be affordable. In terms of employment growth, Policy SP SS1 will provide for a minimum of 304,000 sqm of net additional industrial and 40,000 sqm of net additional office floorspace.

2.7 The distribution of site allocations across the borough is shown in **Figure 2.1**.

Figure 2.1: Site allocations



- Enfield borough boundary
- Site allocation**
- Natural burial/ burial / crematorium
- Education
- Industrial
- Nature recovery / Sports, leisure and recreation
- Residential
- Residential and mixed-use

Chapter 3

Approach to HRA

Screening and Appropriate Assessment methodology

3.1 This section provides a detailed explanation of the approach taken in this HRA. The Reg.18 HRA built upon information gathered and presented by AECOM in the May 2020 HRA Scoping Report; and the Reg.19 HRA updates that previous work.

Screening Assessment

3.2 HRA Screening of the Local Plan has been undertaken in line with current guidance and seeks to meet the requirements of the Habitats Regulations. The Habitats Regulations require screening of land use plans to involve the stages outlined in **Table 3.1**.

Table 3.1: Stages of the HRA Screening

Regulation	Stage required by Regulation
Reg. 105(1)	1) Determine whether the plan is within the scope of the Habitats Regulations
	2) Determine whether the plan is of a type that could possibly have any (positive or negative) effect on a European site
	3) Determine whether the plan is directly connected with or necessary to the management of the European sites potentially affected
	4) Identify the European sites potentially adversely affected and their conservation objectives
	5) Determine whether the plan alone is likely to have a significant adverse effect on any European site
	6) Determine whether the plan is likely to have a significant adverse effect on any European site in combination with other plans or projects
Reg. 105(4 & 5)	7) Requires the information necessary to decide whether the plan would be likely to have a significant adverse effect on a European site, either alone or in combination with other plans or projects

3.3 Local Plans fall within the scope of the Habitats Regulations (screening stage 1) and Enfield Council is the competent authority with regards to screening the Local Plan. The methodology for the screening stages 2 to 6, along with the information required to determine whether the Local Plan is likely to have a significant effect (screening stage 7) is set out below and in **Chapter 4**.

3.4 **Chapter 4** and **Appendix B** provide the findings of the HRA screening of the Local Plan.

Identifying types of potential impact from the Local Plan

3.5 Development such as new homes, employment space and infrastructure that is associated with development plans has the potential to impact upon European sites in a variety of ways. The following potential impacts could arise as a result of the types of development provided for by a local plan:

- Physical loss of/damage to habitat;

- Non-physical disturbance (noise, vibration and light);
- Non-toxic contamination;
- Air pollution;
- Recreation pressure; and
- Changes to hydrology including water quality and quantity.

3.6 In this case, physical loss of habitat, non-toxic contamination and non-physical disturbance (noise, vibration and light pollution) are unlikely as there are no European sites within the borough of Enfield, although potential for effects on habitats within Enfield that are functionally linked to European sites are also considered.

3.7 For each of the Local Plan's policies, consideration is given to the type of development the policy could result in, impacts that could arise from that type of development, and then whether there is an impact pathway to any European sites sensitive to that impact, as described below. Where a policy provides for a range of scales of development, depending on the spatial option pursued, consideration is given to any difference in potential scale of impact.

3.8 All site allocations are considered by the HRA, to determine which groups of sites could contribute to the different types of impact (for example residential sites in proximity to European sites are more likely to contribute to recreation pressure).

Identifying European sites that may be affected and their conservation objectives

3.9 In order to begin the search of European sites that could potentially be affected by a development, it is established practice in HRA to consider sites within the local planning authority area covered by the plan, and other sites that may be affected beyond this area.

3.10 A distance of 15km from the boundary of the plan area is typically used in the first instance to identify European sites with the potential to be affected by the proposals within a development plan. Consideration is then given to whether any more distant European sites may be functionally connected to the plan area, for example through hydrological pathways or recreational visits by residents. The 15km distance has been agreed with Natural England for HRAs elsewhere and is considered precautionary.

3.11 The assessment also takes into account areas that may be functionally linked to the European sites (identified in Chapter 4). The term 'functional linkage' can be used to refer to the role or 'function' that land or other habitats beyond the boundary of a European site might fulfil in supporting the species populations for which the site was designated or classified. Such an area is therefore 'linked' to the site in question because it provides a (potentially important) role in maintaining or restoring a protected population at favourable conservation status.

3.12 While the boundary of a European site will usually be drawn to include key supporting habitat for a qualifying species, this cannot always be the case where the population for which a site is designated or classified is particularly mobile. Individuals of the population will not necessarily remain in the site all the time. Sometimes, the mobility of qualifying species is considerable and may extend so far from the key habitat that forms the SAC or SPA that it would be entirely impractical to attempt to designate or classify all of the land or sea that may conceivably be used by the species²¹. HRA therefore considers whether any nearby (or linked) European sites make use of functionally linked habitats, and the impacts that could affect those habitats.

3.13 Detailed information about each European site is provided in **Appendix A**, described with reference to Standard Data Forms for the SPAs and SACs, and Natural England's Site Improvement Plans²². Natural England's conservation objectives²³ and any supplementary advice on conserving and restoring site features for the SPAs and SACs have also been reviewed. All of the conservation objectives state that site integrity must be maintained or restored by maintaining or restoring the habitats of qualifying features, the supporting processes on which they rely, and populations of qualifying species.

3.14 Together, the text of the Local Plan and information on the European sites have been used to confirm that the plan is not directly connected to or necessary for the management of any of the sites (Screening stage 3).

Assessment of 'likely significant effects'

3.15 As required under Regulation 105 of the Conservation of Habitats and Species Regulations 2017²⁴ (as amended) (the 'Habitats Regulations'), an assessment has been undertaken of the 'likely significant effects' of the Plan. The assessment has been prepared in order to identify which policies or site

²¹ Chapman, C. & Tyldesley, D. 2016. 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. Natural England Commissioned Reports, Number 207

²² Obtained from the Natural England website (www.naturalengland.org.uk)

²³ Obtained from Natural England website

<http://publications.naturalengland.org.uk/category/6490068894089216>

²⁴ SI No. 2017/2012

allocations would be likely to have a significant effect on European sites.

3.16 Consideration has been given to the potential for the development proposed to result in significant effects of the types listed within paragraph 3.5.

Interpretation of ‘Likely Significant Effect’

3.17 Relevant case law helps to interpret when effects should be considered as a Likely Significant Effect (LSE), when carrying out HRA of a land use plan.

3.18 In the Waddenzee case²⁵, the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 102 in the Habitats Regulations), including that:

3.19 An effect should be considered ‘likely’, “if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site” (para 44). An effect should be considered ‘significant’, “if it undermines the conservation objectives” (para 48). Where a plan or project has an effect on a site “but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the site concerned” (para 47).

3.20 An opinion delivered to the Court of Justice of the European Union²⁶ commented that:

“The requirement that an 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.”

3.21 This opinion (the ‘Sweetman’ case) therefore allows for the authorisation of plans and projects whose possible effects, alone or in combination, can be considered ‘trivial’ or de minimis; referring to such cases as those “which have no appreciable effect on the site”. In practice such effects could be screened out as having no Likely Significant Effect; they would be ‘insignificant’.

3.22 The HRA screening assessment therefore considers whether the Local Plan policies could have likely significant effects either alone or in combination.

Screening assessment

3.23 A risk-based approach, involving the application of the precautionary principle, has been adopted in the assessment, such that a conclusion of ‘no significant effect’ has only been reached where it is considered unlikely, based on current knowledge and the information available, that a Local Plan policy or site allocation would have a significant effect on a European site.

3.24 A screening matrix has been prepared (**Appendix B**) that considers the potential for likely significant effects resulting from each policy in the Local Plan, and the site allocations that may contribute to each type of impact. A ‘traffic light’ approach has been used in the screening matrix to record the likely impacts of each policy on European sites and their qualifying habitats and species, using the colour categories shown below. Consideration was given to whether the policy will result in development and therefore could result in an impact on a European Site. The Local Plan contains site allocation policies which cover residential, employment and leisure use site allocations. These site allocations are within Policy SP H1: Housing development sites, Policy SP E1: Employment and growth and Policy SP CL4: Promoting sporting excellence. There are also policies centred around the eleven placemaking areas within the Local Plan, although some of these policies do not include site allocations.

Red	There are likely to be significant effects (Appropriate Assessment required).
Amber	There may be significant effects, but this is currently uncertain (Appropriate Assessment required).
Green	There are unlikely to be significant effects (Appropriate Assessment not required).

3.25 The site allocations have been screened separately using screening criteria that relate to each type of impact (see Table B.2 in Appendix B).

3.26 The screening assessment is conducted without taking mitigation (e.g. embedded in policy) into account, in accordance with the ‘People over Wind’ judgment.

3.27 For some types of impacts, the potential for likely significant effects has been determined on a proximity basis, using GIS data to determine the proximity of potential development locations to the European sites that are the subject of the assessment. However, there are many uncertainties associated with using set distances as there are

²⁵ ECJ Case C-127/02 “Waddenzee” Jan 2004.

²⁶ Advocate General’s Opinion to CJEU in Case C-258/11 Sweetman and others v An Bord Pleanala 22nd Nov 2012.

very few standards available as a guide to how far impacts will travel. Therefore, where assumptions have been made, these are set out in **Chapter 4**.

In-combination effects

3.28 Regulation 105 of the Habitats Regulations 2017 requires an Appropriate Assessment where “a land use plan is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is not directly connected with or necessary to the management of the site”. Therefore, the Screening assessment must consider whether any impacts identified from the Local Plan may combine with other plans or projects to give rise to significant effects in-combination.

3.29 Where the Local Plan is likely to have an effect on its own e.g. due to water pollution (due to impact pathways being present) but it is not likely to be significant, the in-combination assessment at Screening stage needs to determine whether there may also be the same types of effect from other plans or projects that could combine with the Local Plan to produce a significant effect. If so, this likely significant effect (e.g. water pollution) arising from the Local Plan in combination with other plans or projects, would then need to be considered through the Appropriate Assessment stage to determine if water pollution would have an adverse effect on integrity of the relevant European site. Where the screening assessment concludes that there is no impact pathway between development proposed in the Local Plan and the conditions necessary to maintain qualifying features of a European site, then there will be no in-combination effects to assess at the Screening or Appropriate Assessment stage. Where the screening assessment concludes that likely significant effects from the Local Plan alone cannot be ruled out, this potential effect is carried forward for more detailed consideration (including of in-combination effects) at the Appropriate Assessment stage and no consideration of in-combination effects is necessary at the Screening stage. This approach accords with recent guidance on HRA²⁷.

3.30 The in-combination assessment will focus on planned growth (including housing, employment, transport, minerals and waste) around the affected site, or along the impact corridor, for example, if impacts could arise as a result of changes to a waterway, then planned growth in local authorities along that waterway will be considered. Where relevant, any strategic projects in the area that could have in-combination effects with the Local Plan will also be identified and reviewed.

3.31 The online HRA Handbook suggests the following plans and projects may be relevant to consider as part of the in-combination assessment:

- Applications lodged but not yet determined, including refusals subject to an outstanding appeal or legal challenge;
- Projects subject to periodic review e.g. annual licences, during the time that their renewal is under consideration;
- Projects authorised but not yet started;
- Projects started but not yet completed;
- Known projects that do not require external authorisation;
- Proposals in adopted plans;
- Proposals in draft plans formally published or submitted for final consultation, examination or adoption.

3.32 The need for in-combination assessment also arises at the Appropriate Assessment stage, as discussed in the Appropriate Assessment section below.

Appropriate Assessment

3.33 Following the screening stage, if likely significant effects on European sites are unable to be ruled out, the plan-making authority is required under Regulation 105 of the Habitats Regulations to make an ‘Appropriate Assessment’ of the implications of the plan for European sites, in view of their conservation objectives. Appropriate Assessment should consider the impacts of the plan (either alone or in combination with other projects or plans) on the integrity of European sites with respect to their conservation objectives and to their structure and function. This will involve detailed consideration of plans and projects with the potential for in-combination effects, where relevant.

3.34 Where likely significant effects in-combination cannot be ruled out at the screening stage, the Appropriate Assessment will gather the information necessary to consider these, for example traffic data for air pollution, or housing provisions and major site allocations in neighbouring authorities for recreation pressure.

3.35 Appropriate Assessment will also identify potential mitigation measures where adverse effects on integrity cannot be ruled out.

²⁷ The HRA Handbook. David Tyldesley & Associates, a subscription based online guidance document [online] Available at: <https://www.dtapublications.co.uk/handbook/European>

Assessing the effects on site integrity

3.36 A site's integrity depends on it being able to sustain its 'qualifying features' (i.e. the habitats and species for which it has been designated) and to ensure their continued viability. The Holohan judgement also clarifies that effects on species and habitats not listed as qualifying features, but which could result in secondary effects upon the qualifying features of European sites also need to be considered. The Appropriate Assessment, if required, will build upon the information set out in **Appendix A** of this report, to consider the characteristics of supporting habitats and species that could be affected by impacts identified at the screening stage.

3.37 A high degree of integrity at a site is considered to exist where the potential to meet a site's conservation objectives is realised and where the site is capable of self-repair and renewal with a minimum of external management support.

3.38 A conclusion needs to be reached as to whether or not the Local Plan would adversely affect the integrity of a European site. Assessing effects on a site's integrity involves considering whether the predicted impacts of the Local Plan policies and/or sites (either alone or in combination) have the potential to:

- Cause delays to the achievement of conservation objectives for the site.
- Interrupt progress towards the achievement of conservation objectives for the site.
- Disrupt those factors that help to maintain the favourable conditions of the site.
- Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site.
- Cause changes to the vital defining aspects (e.g. nutrient balance) that determine how the site functions as a habitat or ecosystem.
- Change the dynamics of relationships that define the structure or function of the site (e.g. relationships between soil and water, or animals and plants).
- Interfere with anticipated natural changes to the site.
- Reduce the extent of key habitats or the population of key species.
- Reduce the diversity of the site.
- Result in disturbance that could affect the population, density or balance between key species.

- Result in fragmentation.
- Result in the loss of key features²⁸.

3.39 The conservation objectives for each SAC and SPA (**Appendix A**) are generally to maintain the qualifying features in favourable condition. Natural England does not define conservation objectives for Ramsar sites but these can often be inferred from those for co-located SAC or SPA features. The Site Improvement Plans for each site provide a high level overview of the issues (both current and predicted) affecting the condition of the designated features on the site(s) and outline the priority measures required to improve the condition of the features. Supplementary Advice to the Conservation Objectives is also available from Natural England which provides the ecological characteristics of designated species and habitats within a European Site. However, supplementary advice is not available for all European Sites. An Appropriate Assessment draws on these to help to understand what is needed to maintain the integrity of the European sites.

3.40 For each European site where an uncertain or likely significant effect is identified in relation to the Local Plan, the Appropriate Assessment sets out the potential impacts and makes a judgement (based on the information available) on whether the impact will have an adverse effect on the integrity of the site. Consideration is given to the potential for mitigation measures to be implemented that could reduce the likelihood or severity of the potential impacts such that there would not be an adverse effect on the integrity of the European site.

²⁸ Ibid.

Chapter 4

HRA Screening

Screening conclusions and whether Appropriate Assessment is required

4.1 The HRA screening of the Local Plan determined that Appropriate Assessment was required, as likely significant effects from the plan's policies and site allocations could not be ruled out through screening. The reasoning for this is explained below, in response to each screening stage (identified in **Table 3.1**).

4.2 **Appendix B** sets out the screening of each policy and site allocation in the Local Plan, and this chapter summarises the findings of that process.

Is the Local Plan of a type that could possibly have any (positive or negative) effect on a European site?

4.3 Yes; the Local Plan will result in several of the types of activity that could have impacts on European sites (see **Chapter 3**).

4.4 The Local Plan will result in new development (e.g. housing, employment and infrastructure), which will have associated impacts (e.g. changes to traffic distribution, types or distribution of recreation, water abstraction and discharge, light or noise).

Is the Local Plan directly connected with or necessary to the management of any European sites?

4.5 No; the Local Plan is not connected with or necessary to the management of any European sites.

Which European sites could be potentially adversely affected?

4.6 A number of European sites (Figure 4.1) have the potential to be adversely affected by the Local Plan due to their proximity and/or ecological connectivity to the Plan area and were therefore considered within this HRA.

4.7 There are no European sites within LBE. The following European sites are within 15km of the Plan area and were screened in:

- Epping Forest SAC (c.0.3km from LBE);
- Lee Valley SPA and Ramsar (c.0.7km from LBE); and
- Wormley Hoddesdonpark Woods SAC (c.3.8km from LBE).

4.8 No other European sites were considered to be functionally connected to the LBE.

Is the Local Plan alone likely to have a significant adverse effect on any European site?

4.9 Uncertain; likely significant effects from the Local Plan alone could not be ruled out at the screening stage in relation to functionally linked habitat, air pollution, recreation pressure, and water quantity and quality as discussed below (and presented in relation to each of the Local Plan policies and sites in **Appendix B**).

Physical damage and habitat loss

Physical damage and habitat loss (within European site)

4.10 Any development resulting from the Local Plan would take place within LBE. Therefore, only European sites within the boundary of the LBE would have potential to be affected by direct physical damage and habitat loss. Epping Forest SAC, Lee Valley SPA and Ramsar and Wormley Hoddesdonpark Woods SAC boundaries lie outside of LBE and could therefore be screened out from the assessment.

4.11 There is potential for habitat loss to occur in areas outside of European sites where that habitat contributes to maintaining the qualifying feature for which the European site is designated. Stag beetle is one of the qualifying features of Epping Forest SAC. This species relies on woodland, hedgerows, orchards, parks and gardens habitat that support deadwood features, and are known to have a limited dispersal of up to 2km²⁹. The closest point of the SAC is situated 0.3km from the LBE, however given the presence of Chingford Reservoir SSSI, which presents a physical barrier to the stag beetle between the LBE and the SAC, it was considered unlikely that stag beetle rely on suitable habitat in the LBE. Due to the absence of an impact pathway, the HRA Screening ruled out likely significant effects in relation to physical damage and habitat loss (within European site) on Epping

Forest SAC. This was therefore screened out of the Appropriate Assessment.

4.12 Wormley Hoddesdonpark Woods SAC does not support qualifying species that are reliant on offsite functional habitat in LBE. Due to the absence of an impact pathway, the HRA Screening ruled out likely significant effects in relation to physical habitat damage and loss on Wormley Hoddesdonpark Woods SAC. This was therefore screened out of the Appropriate Assessment.

Physical damage and habitat loss (at functionally linked habitat)

4.13 There is potential for habitat loss to occur in areas outside of European sites where that habitat contributes to maintaining the qualifying feature for which the European site is designated for (i.e. it is functionally linked habitat). The Lee Valley SPA and Ramsar site is designated for qualifying bird species, including great bittern (SPA only), northern shoveler, and gadwall. These species predominantly use open water and wetland habitats, although Northern Shoveler and Gadwall occasionally breed away from the water if there is no suitable habitat nearby³⁰. As the SPA/Ramsar provides a range of habitats, it is likely that only significant wetland habitats, or other habitats very close to the SPA/Ramsar would provide significant offsite habitats supporting the SPA and Ramsar species.

4.14 These bird species may make use of other large waterbodies in the Lee Valley area, including Chingford Reservoirs SSSI (King George's Reservoir and William Girling Reservoir), which is within LBE and connects habitat within the SPA/Ramsar to the north and south of the borough along the Lee Valley (shown on **Figure 4.1**). Banbury Reservoir lies just outside the borough to the south but is not designated as a wildlife site and is used for watersports; it is therefore considered unlikely to provide significant functionally linked habitat used by SPA/Ramsar bird species.

4.15 It is unlikely that development proposed as part of the Plan will result in the loss of offsite functional habitat used by the SPA/Ramsar species unless it is within or immediately adjacent to Chingford Reservoirs SSSI; however in line with a precautionary approach, this could not be screened out as safeguards set out in Local Plan policies cannot be taken into account at the screening stage.

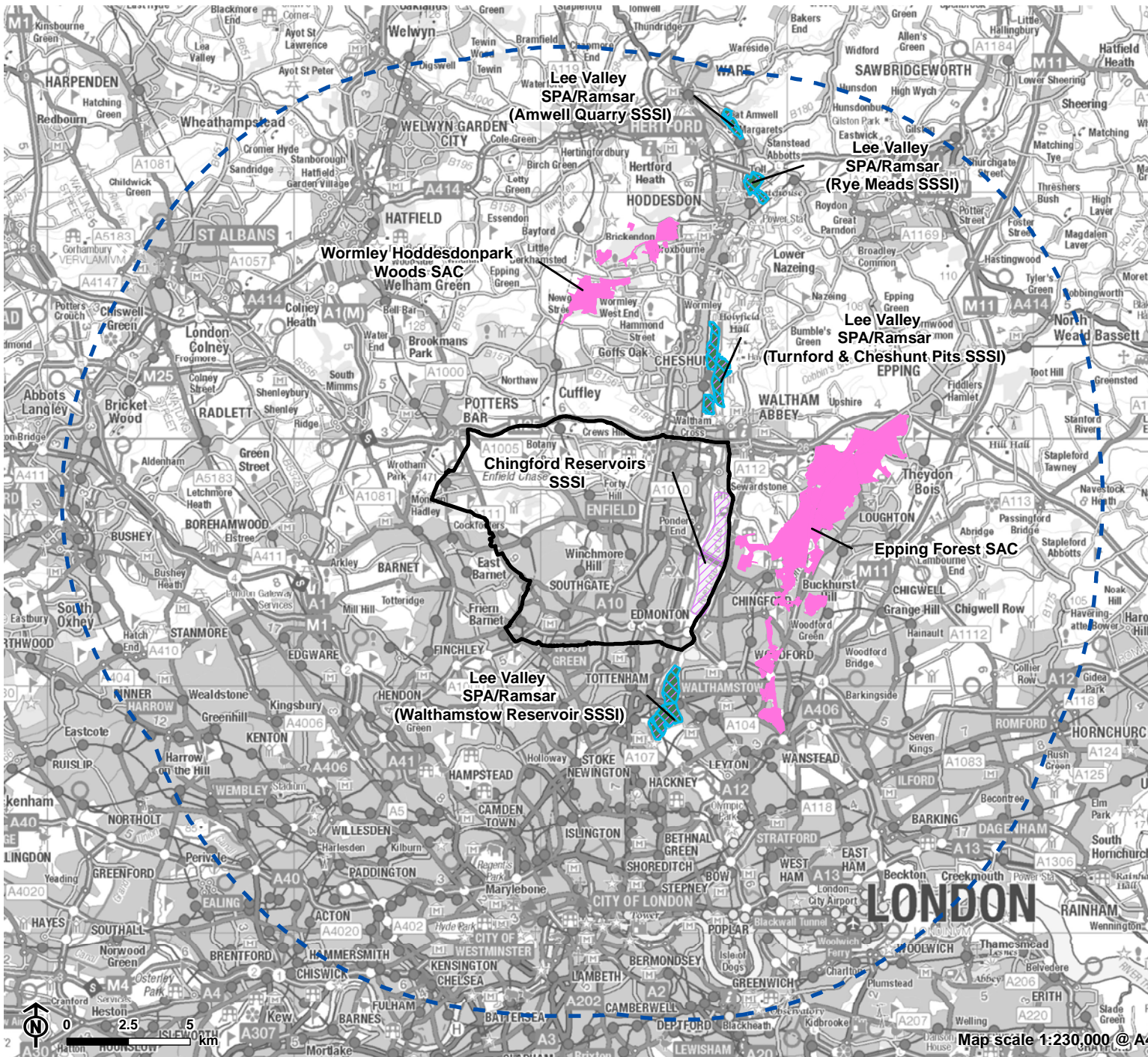
4.16 It was therefore not possible to screen out likely significant effects in relation to physical damage and loss of offsite functionally linked habitat for the Lee Valley

²⁹ Radio-telemetric monitoring of dispersing stag beetles: implications for conservation: <http://onlinelibrary.wiley.com/doi/10.1111/j.1469-7998.2006.00282.x/abstract>

³⁰ <http://www.birdlife.org/datazone>

SPA/Ramsar from the Local Plan. These likely significant effects were assessed through Appropriate Assessment.

Figure 4.1: European sites and functionally linked habitat considered in the HRA



- Enfield borough boundary
- Enfield borough boundary 15km buffer
- Ramsar
- Special Protection Area
- Special Area of Conservation
- Site of Special Scientific Interest functionally linked to Lee Valley SPA/Ramsar

Non-physical disturbance (noise, vibration and light)

Non-physical disturbance (within European site)

4.17 Epping Forest SAC and Wormley Hoddesdonpark Wood do not support qualifying species, which are susceptible to impacts from non-physical disturbance. These European sites were therefore screened out of the Appropriate Assessment in relation to non-physical disturbance.

Non-physical disturbance (at functionally linked habitat)

4.18 Noise and vibration effects, e.g. during the construction of new housing or other development, are most likely to disturb bird species and are thus a key consideration with respect to European sites where birds are the qualifying features, although such effects may also impact upon some mammals and fish species. Artificial lighting at night (e.g. from street lamps, flood lighting and security lights) is most likely to affect bat populations and some nocturnal bird and insect species, and therefore have an adverse effect on the integrity of European sites where bats or nocturnal birds or insects are a qualifying feature. The effects of noise, vibration and light are most likely to be significant if development takes place within 500m of a European site (or functionally linked habitat) with qualifying features sensitive to these disturbances. This is the distance that, in our experience, provides a robust assessment of effects and meets with the agreement of Natural England.

4.19 Lee Valley SPA and Ramsar site lies over 500m from the LBE. However, the LBE supports functionally linked habitat along the River Lee (or Lea), including Chingford Reservoirs SSSI, which is within LBE and connects to habitat within the SPA/Ramsar to the north and south of the borough along the Lee Valley. Therefore, non-physical disturbance arising from any development proposed as part of the plan within 500m of this habitat has the potential to affect the movement, as well as foraging and roosting behaviour of these bird species.

4.20 It was therefore not possible to screen out likely significant effects in relation to non-physical disturbance of Lee Valley SPA and Ramsar site qualifying species using functionally linked habitat within 500m of development proposed in the Local Plan. These likely significant effects were assessed through Appropriate Assessment.

Air pollution

4.21 Air pollution is most likely to affect European sites where plant, soil and water habitats are the qualifying features, but

some qualifying animal species may also be affected, either directly or indirectly, by deterioration in habitat as a result of air pollution. Deposition of pollutants to the ground and vegetation can alter the characteristics of the soil, affecting the pH and nitrogen levels, which can then affect plant health, productivity and species composition.

4.22 In terms of vehicle traffic, nitrogen oxides (NO_x, i.e. NO and NO₂) are considered to be the key pollutants, although ammonia (NH₃) and acid deposition (a mix of pollutants dominated by reduced and oxidised nitrogen³¹) can also increase due to vehicle emissions and contribute to harm within habitats. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and NO_x can cause eutrophication of soils and water. Based on the Highways Agency Design Manual for Road and Bridges (DMRB) guidance document LA105 Air Quality³² (which was produced to provide advice regarding the design, assessment and operation of trunk roads including motorways), it is assumed that air pollution from roads is unlikely to be significant beyond 200m from the road itself. Where increases in traffic volumes are forecast, this 200m buffer needs to be applied to the relevant roads in order to make a judgement about the likely geographical extent of air pollution impacts.

4.23 The Institute of Air Quality Management (IAQM) guidance on assessing air quality impacts on designated nature conservation sites says that air pollution effects should be screened either with reference to predicted traffic flows or air pollution effects.

4.24 Screening of predicted traffic flows is based on the DMRB guidance, which states that affected roads which should be assessed are those where:

- Daily traffic flows will change by 1,000 AADT (Annual Average Daily Traffic) or more.
- Heavy duty vehicle (HDV) flows will change by 200 AADT or more.
- Daily average speed will change by 10 km/hr or more.
- Peak hour speed will change by 20 km/hr or more.
- Road alignment will change by 5 m or more.

4.25 Screening of air pollution effects is based on the IAQM guidance, which states that increases in air pollution below 1% of a habitat's relevant critical load or level (defined thresholds above which harm may occur at that habitat) would not be expected to be significant.

4.26 Whether traffic or air pollution predictions are used for screening, in line with the Wealden judgment³³, the growth

³¹ <https://www.apis.ac.uk/overview/pollutants/acid-deposition>

³³ Wealden v SSCLG [2017] EWHC 351 (Admin)

³³ Wealden v SSCLG [2017] EWHC 351 (Admin)

considered by the HRA should be based on the effects of development provided for by the Plan alone *and* in combination with other drivers of growth such as development proposed in neighbouring districts and demographic change.

4.27 As an initial screening exercise, WSP undertook an assessment of current and anticipated traffic flows to identify the 'Affected Road Network', i.e. roads at which the screening thresholds are predicted to be exceeded, in line with the DMRB guidance. European sites within 15km of the Enfield borough boundary and also within 200m of an affected road are:

- Epping Forest SAC (M25, A110, A104, A114, A121, A1199, A406, A503, Brook Road, Buckhurst Way, Claypit Hill, Monkham's Lane, Pynest Green Lane).
- Lee Valley SPA and Ramsar (A1055, A503, and B179). Offsite functionally linked habitat at Chingford Reservoirs SSSI is intersected by the A110, which is not part of the affected road network; therefore air pollution effects relate only to direct impacts at the SPA/Ramsar itself.
- Wormley Hoddesdonpark Woods SAC (A10, and Darnicle Hill).

4.28 The traffic modelling by WSP analysed roads within 200m of European sites, against the DMRB screening thresholds for changes in total AADT flow and HDV flow. This found that:

- There are no locations in which the Local Plan alone exceeds the traffic screening thresholds.
- There are affected road links at all three European sites (shown on **Figure 4.2**) where the Local Plan in combination with other plans and projects exceeds traffic screening thresholds.

4.29 WSP also undertook screening against IAQM air pollution criteria (see Chapter 5). This identified that air quality screening thresholds may be exceeded with the Local Plan alone, on some roads near to Epping Forest SAC, despite the findings of the traffic screening assessment. The assumptions unpinning this model are currently being reviewed; however, both screening assessments identify the potential for likely significant effects at all three assessed European sites in combination with other plans or projects.

4.30 Therefore, likely significant effects relating to increased air pollution as a result of road traffic from the Local Plan in combination need to be considered further in relation to Lee

Valley SPA & Ramsar site, Epping Forest SAC and Wormley Hoddesdonpark Woods SAC.

4.31 These were assessed through Appropriate Assessment.

Recreation pressure

4.32 Recreational activities and human presence can result in significant effects on European sites as a result of erosion and trampling, associated impacts such as fire and vandalism or disturbance to sensitive features, such as birds.

4.33 The plan will result in housing growth, and associated population increase within the LBE. Where increases in population are likely to result in significant increases in recreation at a European site, either alone or in-combination, the potential for likely significant effects required assessment.

Epping Forest SAC

4.34 Epping Forest SAC is already subject to high levels of recreation pressure from a range of impacts including walking, mountain biking and unmanaged fires. An increase in recreation pressure in the surrounding area therefore has potential to have likely significant effects on qualifying habitats such as wet and dry heaths and beech woodland.

4.35 Formal visitor surveys³⁴ undertaken in relation to Epping Forest SAC identified that 75% of visitors travel within 6.2km of the European site. This Zone of Influence (ZOI) was used to inform the Interim Approach to Managing Recreation pressures on the Epping Forest Special Area of Conservation³⁵, which forms part of the Interim Mitigation Strategy for Epping Forest SAC prepared by Epping Forest District Council. This interim strategy outlines that any development proposed within 6.2km of Epping Forest SAC has the potential to result in a likely significant effect on the SAC and will need to implement mitigation measures and to make a financial contribution towards the implementation of these measures. Epping Forest SAC lies 0.3km from the LBE and as such any development proposed within the eastern part of the borough falls within the ZOI of 6.2km and will require further consideration at the Appropriate Assessment.

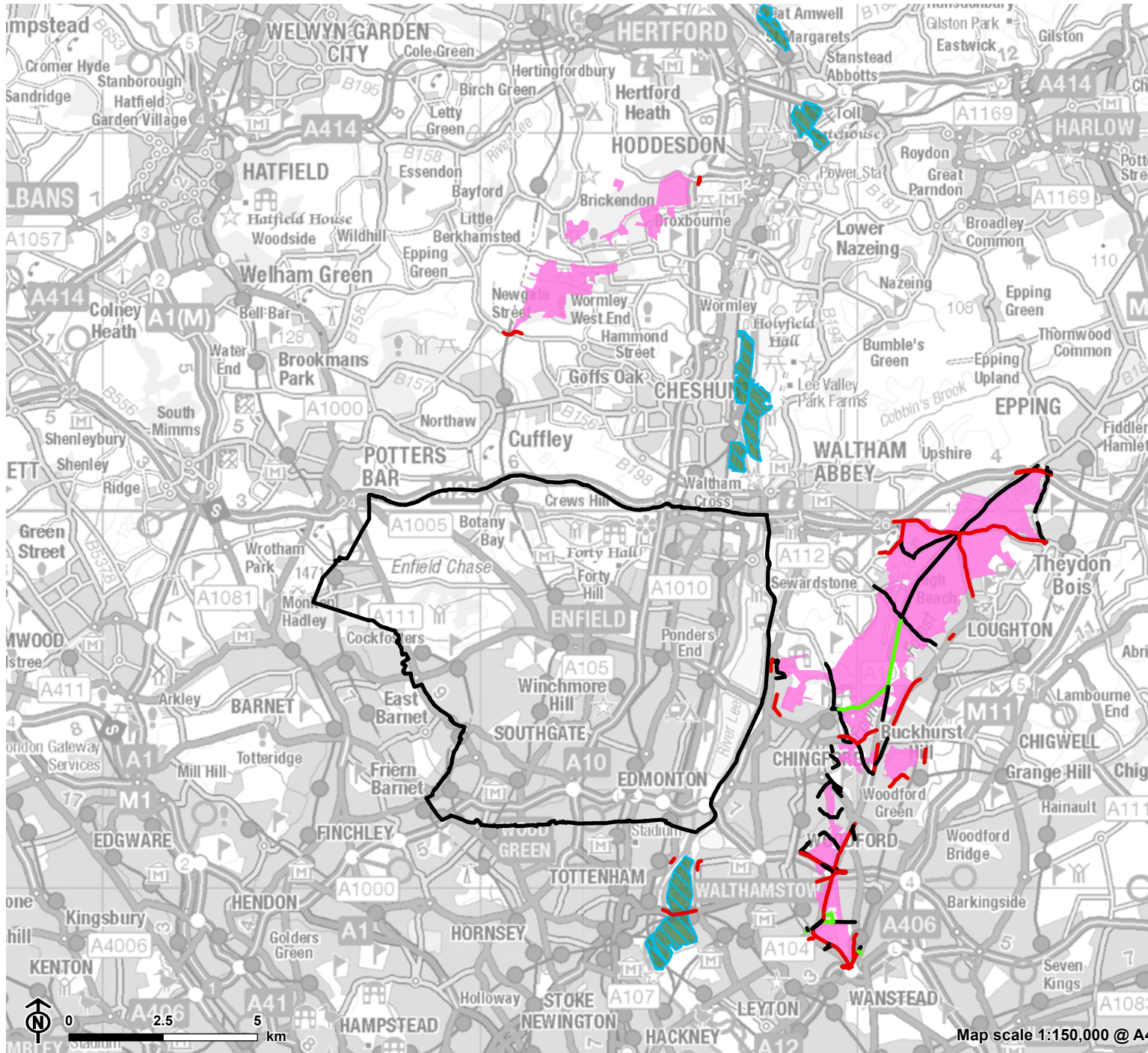
4.36 **Figure 4.3** shows the zone of influence for recreation pressure, for Epping Forest SAC and the other European sites described below.

³⁴ Footprint Ecology (2019), Epping Forest Visitor Survey Report.

³⁵ Epping Forest District Council (2020), Interim Approach to Managing Recreation pressures on the Epping Forest Special Area of Conservation: <https://www.efdclocalplan.org/wp->

<content/uploads/2019/01/EB134-Interim-Approach-to-Managing-Recreational-Pressure-on-the-Epping-Forest-Special-Area-of-Conservation-Oct-2018.pdf>

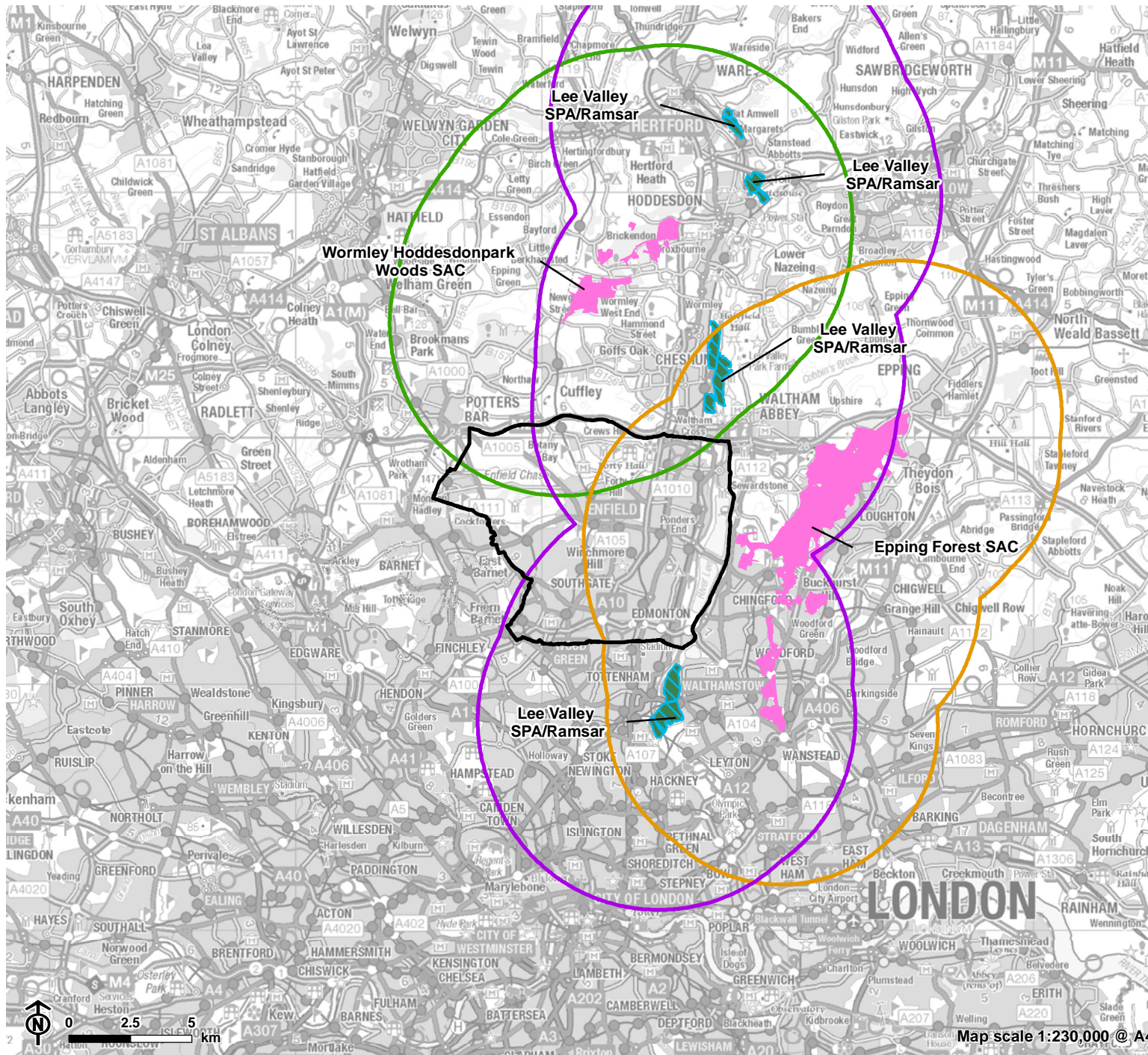
Figure 4.2: Roads exceeding the screening threshold for increases in traffic (in-combination)



- Enfield borough boundary
- Affected road network (road links within 200m of European sites)**
- Trigger the screening criteria for an increase in AADT
- Do not trigger the screening criteria as traffic flow increases are small
- Traffic flows reduce
- Ramsar
- Special Protection Area
- Special Area of Conservation

Map scale 1:150,000 @ A4

Figure 4.3: Zones of influence for recreation pressure



- Enfield borough boundary
- Ramsar
- Special Protection Area
- Special Area of Conservation
- Epping Forest 6.2km buffer
- Lee Valley 7km buffer
- Wormley Hoddesdonpark Woods 7km buffer

Lee Valley SPA and Ramsar site

4.37 The Lee Valley SPA and Ramsar site is subject to recreation pressures, such as water sports, angling and dog walking³⁶. An increase in recreation pressure in the surrounding area therefore has potential to have likely significant effects on qualifying species such as Bittern, Gadwall and Northern Shoveler, which are particularly vulnerable to impacts from recreation pressure.

4.38 The following SSSIs form components of the SPA and Ramsar: Turnford & Cheshunt Pits SSSI, Rye Meads SSSI, Amwell Quarry SSSI and Walthamstow Reservoir SSSI. No specific visitor studies are currently available in relation to this European site and as such a non-specific ZOI of 7km has been applied in this assessment and has been confirmed by Natural England³⁷. This is based on the typical findings from comparable studies of visitor pressure to European sites in the south of England, including Burnham Beeches³⁸ and Thames Basin Heaths³⁹.

4.39 A large proportion of the LBE is situated within 7km of the SPA and Ramsar site. Based on a ZOI of 7km, there is potential for impacts from recreation pressure to arise from development within the LBE in relation to the Turnford & Cheshunt Pits SSSI and Walthamstow Reservoir SSSI areas of the SPA and Ramsar site. These lie 1km to the north and 0.7km to the south of LBE respectively.

4.40 Chingford Reservoirs SSSI, which is comprised of William Girling Reservoir and King George V Reservoir, is within LBE and connects the areas of Lee Valley SPA and Ramsar site to the north and south. It is known to be used by the SPA and Ramsar site qualifying bird species to forage and roost⁴⁰ and is an important area of functionally linked habitat. The SSSI reservoirs are owned by Thames Water and are used primarily as an operational site to supply water with access limited to a footpath that borders the reservoirs along the western edge and the River Lee (or Lea). There is no direct access to the waterbodies and the reservoirs are screened by dense scrub, further limiting the level of disturbance from the nearby footpath. Recreation pressure at this functionally linked site was therefore considered unlikely.

4.41 Due to the development locations currently proposed in the Local Plan falling within the ZOI of Lee Valley SPA and Ramsar, likely significant effects from recreation pressure could not be screened out.

Wormley Hoddesdonpark Woods SAC

4.42 Wormley Hoddesdonpark Woods SAC site is situated 3.8km to the north of LBE in Hertfordshire. The site has extensive public access and due to its proximity to large urban centres is likely to already be subject to high levels of recreation.

4.43 No specific visitor studies are currently available in relation to this European site. However, visitor studies for similar sites in the south-east of UK, including Epping Forest SAC and Ashdown Forest⁴¹ indicate that the majority of visitors typically travel between 6.2km and 6-7km respectively. Therefore, in line with a precautionary approach, a ZOI of 7km has been applied in this assessment.

4.44 A large proportion of the LBE is situated within 7km of the SAC and therefore potential impacts from development currently proposed in the Local Plan cannot be screened out.

4.45 It was therefore not possible to screen out likely significant effects in relation to recreation pressure associated with development proposed in the Enfield Local Plan at Epping Forest SAC, Lee Valley SPA and Ramsar site and Wormley Hoddesdonpark Woods SAC, alone or in combination with other plans or projects. These were assessed through Appropriate Assessment.

Water quantity and quality

4.46 Increased demand for water abstraction and treatment can affect European sites hydrologically connected to the water abstraction or treated wastewater discharge locations.

4.47 Wormley Hoddesdonpark Woods SAC and Epping Forest SAC are not hydrologically connected to LBE, either via watercourses⁴² or aquifers⁴³. Wormley Hoddesdonpark Woods SAC is not identified in its Site Improvement Plan⁴⁴ as being sensitive to changes in water quality or quantity, although the Conservation Objectives Supplementary Advice⁴⁵ identifies hydrology as a supporting process. However, the

³⁶ Natural England (2014), Site Improvement Plan – Lee Valley.

³⁷ Personal communication with Marc Taylor, Natural England (6 May 2021)

³⁸ Chiltern and South Bucks District Councils (2020), Burnham Beeches SAC Mitigation Strategy.

³⁹ Thames Basin Heaths Joint Strategic Partnership Board (2009), Thames Basin Heaths Special Protection Area Delivery Framework.

⁴⁰ Natural England (2018), Lee Valley SPA Conservation Objectives supplementary advice

⁴¹ Clarke RT, Sharp J & Liley D. 2010. Ashdown Forest Visitor Survey Data Analysis (Natural England Commissioned Reports, Number.048) and subsequent analyses

⁴² Environment Agency Main River Map:

<https://www.arcgis.com/apps/webappviewer/index.html?id=17cd53dfc524433980cc333726a56386>

⁴³ Defra 'MAGIC': <https://magic.defra.gov.uk/MagicMap.aspx>

⁴⁴ Wormley Hoddesdonpark Woods SAC Site Improvement Plan: <http://publications.naturalengland.org.uk/publication/6314181103976448>

⁴⁵ Wormley Hoddesdonpark Woods SAC Conservation Objectives Supplementary Advice:

<http://publications.naturalengland.org.uk/publication/4919819195383808>

site is too far from the borough boundary to be affected by run-off from sites in Enfield. Therefore, there is no impact pathway and likely significant effects were ruled out in relation to Wormley Hoddesdonpark Woods SAC. Changes in water quantity or quality for this SAC have therefore been screened out of the Appropriate Assessment.

4.48 Epping Forest SAC is identified in the Site Improvement Plan⁴⁶ as being at risk from inappropriate water levels and water pollution. However, as AECOM's scoping report states: "Although Epping Forest is potentially vulnerable to water pollution, the closest part of the borough is approximately 300 metres west of the SAC with two sealed reservoirs and the River Lee between. This means that any run-off from sites would more likely pass directly into the River Lee than Epping Forest SAC at this distance and so an effect is unlikely from this impact pathway." Therefore, there is no impact pathway and no likely significant effect is considered in relation to Epping Forest SAC, and changes in water quantity or quality for this SAC have therefore been screened out of the Appropriate Assessment.

4.49 Lee Valley SPA and Ramsar site is sensitive to hydrological changes and water pollution⁴⁷, and has hydrological connectivity to the plan area, via watercourses (the River Lee/Lea and its tributaries) and groundwater, and because William Girling Reservoir and King George V Reservoir both provide supporting habitat for the SPA and Ramsar site and are within the borough.

4.50 AECOM's scoping report described the situation with regards to water quantity and quality in LBE (2020; and still current in 2023):

- *"LBE is supplied by Thames Water for both potable and wastewater services and sits within the London WRZ [Water Resource Zone]."*
- *LBE is located within an area of water stress where demand is high and supply subject to constraints.*
- *The borough is covered by a number of Source Protection Zones (SPZs), meaning development in some locations could have potential to contaminate water supplies without mitigation.*
- *The borough is serviced by the Deephams STW [Sewage Treatment Works], however it has been*

highlighted, by the Environment Agency and LBE, that this service will need significant upgrade in order to continue to service a growing population.

- *There are a number of water quality issues that impact the borough, with none of the main watercourses currently meeting the WFD [Water Framework Directive] required ecological status of 'Good'."*

4.51 AECOM's scoping report also stated that the Environment Agency is "concerned about the quality of effluent being discharged into the River Lea during storms and is setting new consents for the sewage treatment works. For Thames Water to meet the new consents, the sewage treatment works needs to be upgraded. Deephams STW currently treats the sewage from about 885,000 people and the upgraded works will need to serve a future population of 941,000." This work was completed in 2019 and the STW now has capacity to serve a population of 1,000,000, with room for further expansion⁴⁸. Deephams STW discharges into the Salmon Brook, a tributary of the River Lee Navigation, where it passes the William Girling Reservoir. The reservoirs that form the Lee Valley SPA and Ramsar site and those in Enfield do not draw water from the River Lee Navigation, instead drawing water from other channels of the Lee/Lea (River Lea, New River, Lea Diversion) and from each other⁴⁹. Sewage treatment discharges are therefore unlikely to significantly affect water quality at the Lee Valley SPA and Ramsar site.

4.52 However, additional growth from the Enfield Local Plan could affect water quality in downstream portions of the Lee Valley SPA and Ramsar site (Walthamstow Reservoirs SSSI) or at supporting habitat within the borough, via direct run-off of pollutants. For example, where development is situated close to the reservoirs or water bodies that recharge them, or if pollutants enter the superficial aquifer beneath the Lee Valley (which extends beneath Enfield's urban area).

4.53 The aquifer beneath Enfield, Harringay and the Lee Valley is used as an additional reservoir and is artificially recharged with treated water, then pumped into the New River for treatment and abstraction⁵⁰. Additional growth could therefore also affect water levels in the SPA and Ramsar site, through changes in abstraction. The waterbodies in the SPA and Ramsar site are artificial and water levels (and quality) within them are closely managed to maintain drinking water

⁴⁶ Epping Forest SAC Site Improvement Plan:<http://publications.naturalengland.org.uk/publication/6663446854631424?category=4873023563759616>

⁴⁷ Lee Valley SPA Site Improvement Plan:<http://publications.naturalengland.org.uk/publication/5864999960444928?category=6149691318206464>

⁴⁸ Deephams Sewage Treatment Works:<https://www.thameswater.co.uk/about-us/investing-in-our-region/deephams>

⁴⁹ Curtis et al (2003) *Algae in raw water storage reservoirs: a case study into the effect on rapid gravity filtration*:
https://web.archive.org/web/20110124142453/http://paginas.fe.up.pt/~mjneves/publicacoes_files/data/es/ponencias/por_autor/pdf/10109.pdf

⁵⁰ North London Artificial Recharge Scheme:
<https://cycles.thameswater.co.uk/Thames-Water/Thames-Water/help-and-advice/water-quality/where-our-water-comes-from/north-london-artificial-recharge-scheme>

supply, but in theory a period of drought and over abstraction could affect the SPA and Ramsar site.

4.54 It should be noted that there are established regulatory mechanisms over the treatment of wastewater and drinking water abstraction that take into account environmental impacts, including likely significant effects on European sites, that should provide safeguards to ensure no adverse effects on integrity arise. However, mitigation cannot be taken into account at the HRA screening stage.

4.55 It was therefore not possible to screen out likely significant effects in relation to water quality / quantity (direct run off of pollutants or water abstraction associated with growth proposed in the Local Plan) at Lee Valley SPA and Ramsar site. These were assessed through Appropriate Assessment.

Summary and conclusion of Screening

4.56 Likely significant effects from the Local Plan in combination with the other plans and projects cannot be ruled out at the screening stage.

4.57 Through the Screening Stage, it was identified that the Local Plan alone could have likely significant effects in relation to physical damage and habitat loss and non-physical disturbance (for functionally linked habitat). There is also the potential for in-combination effects from development in neighbouring authorities to result in likely significant effects, for example from, disturbance of species at functionally linked land and direct run-off of pollutants into the water environment

4.58 Impacts on air pollution, recreation pressure and changes in water quantity are largely associated with population increase as a result of development. Other development plans within London, Essex and Hertfordshire will result in development that could contribute to air pollution, recreation pressure, and changes in water quantity

4.59 In relation to air pollution, traffic data has shown that there are likely significant effects due to traffic on roads within

200m of Lee Valley SPA/Ramsar, Wormley Hoddesdonpark Woods SAC, and Epping Forest SAC. Likely significant effects for air pollution can be ruled out for the Local Plan alone but require Appropriate Assessment for in-combination effects with other plans and projects.

4.60 For recreation pressure, the combined effect of development in a number of neighbouring plans is already having a significant effect on Epping Forest SAC. The effect on Lee Valley SPA and Ramsar site and Wormley Hoddesdonpark Woods SAC is uncertain at this stage.

4.61 For changes in water quantity and quality, likely significant effects on the Lee Valley SPA and Ramsar site could not be ruled out at this stage for the Local Plan alone as mitigation cannot be taken into account at the screening stage. There is also the potential for water abstraction and pollution run-off associated with other neighbouring plans resulting in a likely significant effect on Lee Valley SPA and Ramsar site.

Screening conclusion

4.62 Appropriate Assessment was required as likely significant effects from the Local Plan, alone or in combination with other projects or plans, could not be ruled out.

4.63 The scope of the Appropriate Assessment has been narrowed down by considering each policy in turn, to determine whether it would result in the type of development that could have an effect on a European site; this is detailed in

Appendix B. The policies and sites in the Local Plan that permit the type of development that could result in likely significant effects on European sites are summarised in **Table 4.1** and **Table 4.2**.

4.64 **Table 4.3** summarises the Screening conclusions reached in this HRA, in relation to impact type. Impact types for which likely significant effects (LSE) could not be ruled out were considered in more detail at the Appropriate Assessment stage in **Chapter 5**.

Table 4.1: Policies giving rise to the need for Appropriate Assessment of the Local Plan

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Reason policy requires Appropriate Assessment
SP SS1: Spatial strategy (At least 34,710 homes, 304,000 sqm industrial and logistics floorspace and 40,000 sqm of net additional office floorspace)	Residential development Employment development Changes in vehicle traffic Water abstraction / discharge	Loss or disturbance of functionally linked habitat Air pollution Recreation pressure Changes in water quality / quantity	Yes. This policy defines the overall quantum of development that will be proposed as part of the plan, and therefore will contribute to effects largely relating to population increase such as recreation pressure, air pollution and water abstraction/treatment.
SP PL10: Chase Park (3,200 homes)	Residential development	Air pollution Recreation pressure Changes in water quality / quantity	Yes. This policy allocates a total of 3,200 new homes within the Plan period (3,700 in total), which will therefore contribute to air pollution, recreation pressure and changes in water quality / quantity.
SP PL11: Crews Hill (3,500 homes)	Residential development	Air pollution Recreation pressure Changes in water quality / quantity	Yes. This policy allocates a total of 3,500 new homes within the Plan period (5,000 in total), which will therefore contribute to air pollution, recreation pressure and changes in water quality / quantity.
SP SC2: Protecting and enhancing social and community infrastructure	Community and social infrastructure e.g. schools	Loss or disturbance of functionally linked habitat Non-physical disturbance Air pollution Changes in water quality / quantity	Yes. This policy will permit development outside of allocated sites and will contribute to changes in demand for water and travel patterns.
SP BG1: Enfield's blue and green infrastructure network	Green and blue infrastructure	Recreation pressure.	Yes. This policy primarily promotes the protection and provision for new green and blue infrastructure. However, one of the key proposals is to include a new 'green loop', which will provide access to the Lee Valley Regional Park. This may improve access to the Lee Valley SPA and Ramsar and as such increase levels of recreation in this site. This policy requires development to protect and enhance significant ecological features, and states the council's commitment to protecting and enhancing habitats and wildlife corridors across the borough. This may contribute to improved/maintained resilience of European sites.
SP H1: Housing development sites (at least 34,710 new dwellings)	Residential development	Loss or disturbance of functionally linked habitat Non-physical disturbance Air pollution Recreation pressure Changes in water quality / quantity	Yes. This policy is the overarching policy for housing development and sets out a list of sites to be allocated for housing and will therefore contribute to location-specific effects such as non-physical disturbance, as well as effects related to location and quantum of development (air pollution, recreation pressure, changes in water quality / quantity).
DM H4: Small sites and small housing development	Residential development Changes in vehicle traffic	Air pollution Recreation pressure	Yes. The quantum of residential development proposed is small-scale but this policy may result in effects related to location and quantum of

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Reason policy requires Appropriate Assessment
(3,530 homes)	Water abstraction / discharge	Changes in water quality / quantity	development (air pollution, recreation pressure, changes in water quality / quantity)..
DM H10: Traveller accommodation (21 pitches)	Residential development Changes in vehicle traffic Water abstraction / discharge	Loss or disturbance of functionally linked habitat Air pollution Recreation pressure Changes in water quality / quantity	Yes. The quantum of residential development proposed is likely to be small-scale (just development coming forward prior to the adoption of a Traveller Local Plan). However, may contribute to a likely significant effect in-combination with other policies outlining proposed development in the plan, such as SS1, H1 and E1.
SP E1: Employment and growth (304,000 sqm industrial / logistics floor space and 40,000 sqm office floor space)	Employment development Changes in vehicle traffic Water abstraction / discharge	Loss or disturbance of functionally linked habitat Air pollution Changes in water quality / quantity	Yes. This policy sets out the quantum and location of employment development in the borough and therefore has the potential to contribute to effects relating to changes in (working) population (e.g. air pollution) as well as more location-specific effects such as loss or disturbance of functionally linked habitat.
SP E5: Transforming Industrial Sites	Industrial development Employment development Changes in vehicle traffic Water abstraction / discharge	Loss or disturbance of functionally linked habitat Air pollution Changes in water quality / quantity	Yes. This policy allows intensification of industrial uses within existing SILs and LSISs and could therefore contribute to effects arising from overall quantum of development as well as more location-specific effects.
DM E12: Meridian Hinterlands	Employment development Changes in vehicle traffic Water abstraction / discharge	Air pollution Changes in water quality / quantity	Yes. This policy supports employment-led redevelopment at Meridian Hinterlands and therefore has the potential to contribute to effects relating to changes in water quality / quantity and air pollution.
DM RE2: Improving access to the countryside and green corridors	Changes to the rights of way network Pedestrian, cycling and equestrian routes Green and blue infrastructure	Recreation pressure	Yes. This policy has the potential to improve access to the Lee Valley SPA / Ramsar and as such may contribute to increased recreation pressure.
DM CL2: Leisure and tourism	Leisure development Tourism development Changes in vehicle traffic Water abstraction and discharge	Air pollution Recreation pressure. Changes in water quality / quantity	Yes. This policy provides for leisure and tourism development in LBE. This has the potential to contribute to effects largely related to overall quantum of development e.g. air pollution, recreation pressure or changes in water quality / quantity.
DM CL3: Visitor accommodation	Tourism development Changes in vehicle traffic Water abstraction and discharge	Air pollution Recreation pressure. Changes in water quality / quantity	Yes. This policy sets out the provision for visitor accommodation, within town and district centres. This has the potential to contribute to effects largely related to overall quantum of development e.g. air pollution, recreation pressure or changes in water quality / quantity.
SP CL4: Promoting sporting excellence	Sports and leisure facilities Changes in vehicle traffic	Loss or disturbance of functionally linked habitat Air pollution	Yes. This policy permits sports and leisure facilities, focussed on four allocated sites. This policy could contribute to changes in traffic flows and therefore air pollution. One of the allocated sites (RUR.06) is also close to the River Lee/Lea and could therefore have

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Reason policy requires Appropriate Assessment
	Water abstraction and discharge	Changes in water quality / quantity	water quality effects and result in loss or disturbance of functionally linked land, e.g. associated with run-off.
SP T1: Promoting a sustainable and decarbonised transport system	Transport infrastructure Changes in vehicle traffic	Air pollution Recreation pressure	Yes. This policy could change how people travel to greenspaces including European sites, which could alter recreation pressure. This policy is intended to encourage sustainable transport and result in fewer journeys by car but could alter patterns of travel more generally, increasing or decreasing air quality at European sites.

Table 4.2: Site allocations that will contribute to different types of likely significant effect

Type of impact	Screening criteria (‘Development site could have a significant effect if...’)	Potential development sites meeting screening criteria, i.e. likely to have a significant effect (and sites to be considered in Appropriate Assessment)
Physical damage and loss of habitat	Development occurs within or immediately adjacent to a European site or functionally linked habitat.	<p>No European sites are located within the boundary of the LBE, so no development sites will result in physical damage or loss of habitat within a European site.</p> <p>Four site allocations are very close to William Girling Reservoir / King George’s Reservoir (c.50m from reservoirs), which are functionally linked to the Lee Valley SPA/Ramsar site:</p> <ul style="list-style-type: none"> ■ RUR.06, Land at Picketts Lock (Sporting / Leisure); and, ■ URB.29, Land to the south of Millmarsh Lane, Brimsdown Industrial Estate (Industrial); ■ URB.28, Land and buildings to the south east of Stockingswater Lane, Brimsdown (industrial); and ■ URB.33, 6 Morson Road (Industrial).
Non-physical disturbance (vibrations, noise and lighting)	Development occurs within 500m of a European site or functionally linked habitat that supports qualifying features susceptible to impacts from non-physical disturbance, such as vibration, noise and light.	<p>None of the site allocations are within 500m of a European site, although three are within 500m of the William Girling / King George’s Reservoirs that are functionally linked to the Lee Valley SPA/Ramsar site:</p> <ul style="list-style-type: none"> ■ RUR.06, Picketts Lock (Leisure uses); ■ URB.28, Land and buildings to the south east of Stockingswater Lane, Brimsdown (industrial). ■ URB.29, Land to the south of Millmarsh Lane, Brimsdown Industrial Estate (Industrial); ■ URB.31, Snowbird foods extension, Snowbird Foods Ltd.14 Wharf Road (Industrial); ■ URB.33, 6 Morson Road (Industrial); and ■ URB.35, Riverwalk Business Park 24 Riverwalk Road (Industrial).
Air pollution	<p>Development increases traffic flows by at least 1,000 AADT or 200 HDVs AADT (alone or in combination) on roads within 200m of:</p> <ul style="list-style-type: none"> ■ Epping Forest SAC ■ Lee Valley SPA and Ramsar site ■ Wormley Hoddesdonpark Woods SAC 	<p>None of the site allocations will result in a significant increase in traffic on roads within 200m of European sites, but all of them could contribute to in-combination effects (i.e. traffic from the Plan as a whole, plus traffic associated with other plans or projects).</p>
Recreation pressure	Residential development proposed within 6.2km of Epping Forest SAC or 7km of Lee Valley SPA and Ramsar site or 7km of Wormley Hoddesdonpark Wood SAC.	<p>Sites within 6.2km of Epping Forest SAC:</p> <ul style="list-style-type: none"> ■ All site allocations associated with Place policies PL1-5 (i.e. SA1.1 to SA5.8); and ■ Residential and residential/mixed use site allocations: URB 01, 08-10, 12-15, 17, 19-21, and 23-26. <p>Sites within 7km of Lee Valley SPA/Ramsar site:</p> <ul style="list-style-type: none"> ■ All site allocations associated with Place policies PL1-8 (i.e. SA1.1 to SA8.4); ■ Crews Hill Placemaking Area PL11 Crews Hill and its site allocations (SA11.1 to SA11.6); ■ Some of the site allocations associated with Chase Park Placemaking Area PL10 Chase Park: SA10.2, SA10.3; and part of SA10.4; and ■ Residential and residential/mixed use site allocations: URB 01, 08-11, 12-21, and 23-26.

Type of impact	Screening criteria (‘Development site could have a significant effect if...’)	Potential development sites meeting screening criteria, i.e. likely to have a significant effect (and sites to be considered in Appropriate Assessment)
		<p>Sites within 7km of Wormley Hoddesdonpark Woods SAC:</p> <ul style="list-style-type: none"> ■ Crews Hill Placemaking Area PL11 Crews Hill and its site allocations (SA11.1 to SA11.6); and ■ Residential and residential/mixed use site allocations: URB.11 and 14.
Changes in water quantity / quality	<p>Development is close to / upstream of watercourse that passes through Lee Valley SPA or its supporting habitat.</p> <p>Development discharges to watercourses in / groundwater under the Lee Valley SPA/Ramsar site</p> <p>Development extracts water from watercourses in / groundwater under Lee Valley SPA/Ramsar site</p>	<p>The following site allocations are adjacent to one of the branches of the River Lee/Lea:</p> <ul style="list-style-type: none"> ■ Some of the site allocations associated with Place policy PL5: SA5.3 to SA5.7 (mixed uses); ■ RUR.03, Land to the north of Mollison Avenue, south of the M25 and east of Freezywater (Industrial). ■ RUR.06, Picketts Lock (Leisure uses); ■ URB.28, Land and buildings to the south east of Stockingswater Lane, Brimsdown (Industrial); ■ URB.29, Land to the south of Millmarsh Lane (Industrial); and ■ URB.33, 6 Morson Road (Industrial). <p>Ground conditions and the location of aquifers is complex, so many of the development sites could overlay the superficial aquifer, although this is more likely in the east of the borough, within the Lee Valley (sites as above).</p> <p>Any of the site allocations could contribute to the need to extract additional water from the reservoirs or groundwater.</p>

Table 4.3: Summary of screening assessment

European Site	Physical damage and loss of habitat	Non-physical disturbance	Air Pollution	Recreation pressure	Water Quantity/Quality
Epping Forest SAC	No LSE	No LSE	Potential LSE	Potential LSE	No LSE
Lee Valley SPA and Ramsar site	Potential LSE (functionally linked habitat only)	Potential LSE (functionally linked habitat only)	Potential LSE (within SPA/Ramsar only)	Potential LSE	Potential LSE
Wormley Hoddesdonpark Woods SAC	No LSE	No LSE	Potential LSE	Potential LSE	No LSE

Chapter 5

Appropriate Assessment

Assessment of whether there will be adverse effects on the integrity of European sites

5.1 The HRA screening identified the need for Appropriate Assessment, as certain likely significant effects from the Local Plan (alone or in combination with other projects or plans) could not be ruled out without further assessment.

5.2 For each type of impact that was identified as having a likely significant effect, the Appropriate Assessment considered the scale and likely impacts on each of the European sites, the elements of the Local Plan (and other plans or projects, where relevant) that would have those effects, and any mitigation or safeguards in place that would reduce the effects. The assessment then considered whether there would be an adverse effect on the integrity of a European site.

5.3 The Appropriate Assessment assessed the Local Plan using currently available information. Where there was insufficient information to undertake assessment to the required degree of certainty, the HRA identified the information that will be required to do so (see also **Chapter 6**).

5.4 The following policies in the Local Plan will result in the type of development or activities that could affect European sites (see **Table 4.1**):

- SP SS1: Spatial strategy;
- SP PL10: Chase Park;
- SP PL11: Crews Hill;
- SP SC2: Protecting and enhancing social and community infrastructure;
- SP BG1: Enfield's blue and green infrastructure network;
- SP H1: Housing development sites;
- DM H4: Small sites and small housing development;
- SP H10: Traveller accommodation;
- SP E1: Employment and growth;
- SP E5: Transforming Industrial Sites;
- DM E12: Meridian Hinterlands;

- DM CL2: Leisure and tourism;
- DM CL3: Visitor accommodation;
- SP CL4: Promoting sporting excellence; and,
- SP T1: Promoting a sustainable and decarbonised transport system

5.5 All site allocations were screened in, although some locations were identified as more likely to contribute to specific likely significant effects; see **Table 4.2**.

5.6 The types of potential effect identified for these policies and sites were considered further, below.

Functionally linked habitat: physical damage and loss of habitat

Lee Valley SPA and Ramsar site

5.7 The Lee Valley SPA and Ramsar site is connected in the north and south of the LBE by functionally linked habitat that is within the Chingford Reservoir SSSI (King George's and William Girling Reservoirs), which lies in the east of the Borough. The loss of some of this habitat as a result of proposed development in the borough has the potential to adversely affect the integrity of the SPA and Ramsar site through loss of foraging and nesting habitat and fragmentation.

5.8 Four site allocations are very close to the SSSI (<100m from the reservoir): industrial sites URB.28, URB.29 and URB.33; and mixed use site RUR.06.

5.9 However, three of the sites (URB.28, 29 & 30) are within an existing industrial estate, and unlikely to support habitats used by SPA and Ramsar site bird species, so damage could only occur if construction works impact beyond the site boundary. Land at Picketts Lock (RUR.06) contains a golf course and a large pond and therefore has the potential to support habitats used by SPA and Ramsar site bird species. Proposals for development could also come forward on sites outside of allocation sites, as a result of support from policies SP SSI, SP SC2, SP H1, DM H10, SP E1, DM E12, SP E5, DM CL2, DM CL3 or SP CL4 (residential, employment, tourism and leisure development).

Mitigation

5.10 Policies within the Plan indicate that development is unlikely to be permitted that damages functionally linked offsite habitat.

5.11 The Local Plan outlines specific measures in Policy BG2: Protecting Nature Conservation Sites relating to the protection of SSSIs.

Policy SP BG2: Protecting Nature Conservation Sites states:

"Development will not be permitted where it would adversely affect (directly or indirectly) Sites of Special Scientific Interest (SSSIs). Exceptions will only be made where the benefits of the development would clearly outweigh the impacts on the special conservation features of the site and appropriate measures are provided to mitigate and/or compensate harmful impacts. Where SSSIs are essential to the conservation objectives of SACs, SPAs or Ramsar sites, for example as the underlying designations or as 'functionally linked' habitats, the requirements in paragraph 1) apply."

5.12 In contrast to harm to European sites, harm to functionally linked habitat can be compensated for without demonstrating IROPI. On this basis, this policy is considered to provide sufficient protection measures to ensure that proposed development in the plan will not adversely affect offsite functionally linked habitat at Chingford Reservoirs SSSI.

Conclusion

5.13 With the policy safeguards within the Local Plan, it can be concluded that adverse effects on the integrity of Lee Valley SPA and Ramsar site as a result of physical damage and loss of offsite functional habitat will be avoided.

Functionally linked habitat: non-physical disturbance

Lee Valley SPA and Ramsar site

5.14 The Lee Valley SPA and Ramsar site is connected in the north and south of the LBE by functionally linked habitat in the east of the borough at Chingford Reservoirs SSSI. Proposed development as part of the Local Plan within 500m of this habitat has the potential to adversely affect the integrity of the SPA and Ramsar site through non-physical disturbance (e.g. noise or light) of foraging and nesting birds using the functionally linked habitat.

5.15 Six site allocations are within 500m of the Chingford Reservoirs SSSI (William Girling / King George's Reservoirs): RUR.06, URB.28-29, 31, 33 & 35.

5.16 Development at these sites could come forward under policies SP SS1 or SP E1 (housing and employment). Proposals for development could also come forward on sites outside of allocation sites, as a result of support from policies SP SS1, SP SC2, SP H1, DM H10, SP E1, SP E5, or SP CL4 (residential, employment, tourism and leisure development).

Mitigation

5.17 Although development may occur within 500m of habitats functionally linked to the Lee Valley SPA and Ramsar site, Policy SP BG2: Protecting Nature Conservation Sites and Policy DM SE8: Protection and improvement of watercourses provide sufficient safeguards (see preceding section for a summary of Policy SP BG2).

5.18 Policy DM SE8 requires development adjacent to or within close proximity to watercourses to be adequately set back (by a distance to be agreed with the Environment Agency and other bodies) to allow maintenance, river restoration and habitat enhancement. Development must not result in deterioration of a watercourse. Development should also enhance the ecological, water quality aesthetic and amenity quality of the watercourse and apply the objectives of the Thames River Basin Management Plan

Conclusion

5.19 With the protection measures outlined in the Local Plan, it can be concluded that adverse effects on the integrity of Lee Valley SPA and Ramsar site as a result of non-physical disturbance at offsite functional habitat will be avoided.

Air pollution

Epping Forest SAC

5.20 Epping Forest SAC is situated to the east of the LBE and is comprised of wet and dry heathland and woodland habitat. These habitats are designated features of the SAC and are susceptible to atmospheric deposition of nitrogen associated with vehicle emissions.

5.21 Assessment of the Affected Road Network (paragraph 4.27) identified a number of roads within 200m of Epping Forest SAC that would exceed the DMRB traffic screening thresholds for increases in traffic, for the Local Plan in combination with other plans and projects: M25, A110, A104, A114, A121, A1199, A406, A503, Brook Road, Buckhurst Way, Claypit Hill, Monkham's Lane, Pynest Green Lane.

5.22 Air quality assessment has been undertaken by WSP to assess air pollution levels that will arise as a result of the Local Plan. The initial findings narrow down the roads on which significant levels of air pollution may occur but indicate that, in some cases, air pollution screening thresholds may be exceeded for the Local Plan alone, as well as in-combination with other plans or projects. The air quality assessment also

identifies that nitrogen deposition, acid deposition and ammonia are all pollutants of concern, with each exceeding air pollution screening thresholds at some transect locations. WSP is currently refining the assumptions underpinning the model and discussions with Natural England are ongoing to agree where and what mitigation may be required.

5.23 A review of APIS⁵¹ has identified that nitrogen deposition levels currently exceed the upper end of the critical load range of 10-15kg N/ha/yr for *Fagus* woodland and 5-15kg N/ha/yr for northern Atlantic wet heath with *Erica tetralix* and for dry heaths. Nitrogen deposition levels for the SAC are recorded at 26.9kg N/ha/yr as the minimum load and 32.2kg N/ha/yr as the maximum load for *Fagus* woodland and 15.3kg N/ha/yr as the minimum load and 17.8kg N/ha/yr as the maximum load for northern Atlantic wet heath with *Erica tetralix* and also dry heaths. Nitrogen deposition is therefore currently being exceeded for both of the nitrogen-sensitive qualifying features at Epping Forest SAC. For acid deposition, the site is currently exceeding the lower end of the critical load range for *Fagus* woodland, but not the upper end; while for northern Atlantic wet heath with *Erica tetralix*, acid deposition critical loads are not exceeded at all. No data is available for ammonia levels at the site.

5.24 Epping Forest SAC is already under significant pressure from atmospheric pollution arising from vehicle emissions. Epping Forest District, in partnership with Natural England, has published an interim air pollution mitigation strategy⁵² to address the effects of traffic on Epping Forest SAC. The main purpose of this document is to provide a strategic approach to mitigating the effects of development on the integrity of Epping Forest SAC in relation to air pollution. The interim strategy sets out a suite of mitigation measures that are needed to address the effects of air pollution arising primarily from new development proposed to be brought forward within Epping Forest District. Work to finalise the strategy is ongoing.

5.25 The Epping Forest District Council mitigation strategy takes into consideration the impacts from increased air pollution as a result of "proposed housing and employment growth within and outwith the District for the period to 2033". However, as the measures included within the Epping Forest Interim Air Pollution Mitigation Strategy are not under the control of Enfield Council, and the Enfield Local Plan extends beyond 2033, Enfield will require its own mitigation strategy (see below) in line with the precautionary principle. Any of the policies that result in an increase in development or changes to traffic movements in the borough (SP SS1, SP SC2, SP H1, DM H10, SP E1, DM CL2, DM CL3, SP CL4, SP T1, DM H4,

⁵¹ The UK Air Pollution Information System (APIS): <http://www.apis.ac.uk/> Data up to date as of August 2023; note there have been significant updates to APIS data since the Reg.18 HRA.

⁵²Epping Forest District Council (2020) Epping Forest Interim Air Pollution Mitigation Strategy [online]<https://www.eppingforestdc.gov.uk/planning-and-building/efsac-guidance-for-applicants/>

DM E12, SP PL10, SP PL11) could contribute to air pollution on roads passing Epping Forest SAC. All of the site allocations are considered to potentially have adverse effects on the integrity of Epping Forest SAC, in combination (i.e. the Plan as a whole) with other plans or projects.

5.26 Development proposals could also come forward outside of allocation sites as a result of support from policies SP SS1, SP SC2, SP H1, DM H10, or SP E1).

Lee Valley SPA/Ramsar

5.27 The Lee Valley SPA and Ramsar site is situated to the north of the LBE at Turnford & Cheshunt Pits SSSI, Rye Meads SSSI, and Amwell Quarry SSSI, and to the south of the LBE at Walthamstow Reservoir SSSI. The SPA and Ramsar site is comprised of a series of embanked water supply reservoirs, sewage treatment lagoons and former gravel pits that display a range of man-made and semi-natural wetland and valley bottom habitats.

5.28 Assessment of the Affected Road Network (paragraph 4.27) identified the following roads within 200m of Lee Valley SPA/Ramsar that would exceed the DMRB traffic screening thresholds for increases in traffic, for the Local Plan in combination with other plans and projects: A1055, A503, and B179. The air quality assessment did not alter this screening conclusion; although, as stated above, work is ongoing to refine the model and quantify effects at the European sites.

5.29 A review of APIS data indicates that nitrogen deposition levels are exceeding the upper end of the critical load range of 15-20kg N/ha/yr for bitterns in rich fen habitat. Nitrogen deposition levels for the SPA are 14.3kg N/ha/yr as the minimum load and 18.6kg N/ha/yr as the maximum load. Other qualifying features at the SPA and Ramsar site do not have critical loads, although this does not necessarily mean that they are not sensitive to nitrogen deposition. No data is available on acid deposition or ammonia at the site.

5.30 Any of the policies that result in an increase in development or changes to traffic movements in the borough (SP SS1, SP SC2, SP H1, DM H10, SP E1, DM CL2, DM CL3, SP CL4, SP T1, DM H4, DM E12, SP PL10, SP PL11) could contribute to air pollution on roads passing Lee Valley SPA and Ramsar site, in combination (i.e. the Plan as a whole) with other plans or projects.

Wormley Hoddesdonpark Woods SAC

5.31 Wormley Hoddesdonpark Woods SAC is situated to the north of LBE and is comprised entirely of oak-hornbeam woodland habitat.

5.32 Assessment of the Affected Road Network (paragraph 4.27) identified the following roads within 200m of Wormley Hoddesdonpark Woods SAC that would exceed the DMRB

screening thresholds for increases in traffic, for the Local Plan in combination with other plans and projects: A10 and Darnicle Hill. The air quality assessment did not alter this screening conclusion; although, as stated above, work is ongoing to refine the model and quantify effects at the European sites.

5.33 APIS indicates that nitrogen deposition levels at the SAC exceed the maximum critical load of 15-20 kg N/ha/yr for Sub-Atlantic and medio-European oak or oak-hornbeam forests of the *Carpinion betuli*. Nitrogen deposition levels for the SAC were recorded at 25.4kg N/ha/yr as the minimum load and 27.0kg N/ha/yr as the maximum load. For acid deposition, the site is currently exceeding the lower end of the critical load range for the same habitat, but not the upper end

5.34 As stated above, the air quality assessment work is ongoing and results are not yet available. Any of the policies that result in an increase in development or changes to traffic movements in the borough (SP SS1, SP SC2, SP H1, DM H10, SP E1, DM CL2, DM CL3, SP CL4, SP T1, DM H4, DM E12, SP PL10, SP PL11) could contribute to air pollution on roads passing Wormley Hoddesdon Park Woods SAC.

5.35 Development proposals could also come forward outside of site allocations as a result of support from policies SP SSI, SP H1, DM H10, or SP E1.

All three European sites

Mitigation

5.36 Policies within the Local Plan that will contribute to the reduction of air pollution effects include:

- SP SE1: Responding to the climate emergency. Encourages a reduction in air pollution in the borough and could contribute to mitigation for air pollution effects.
- SP T1: Promoting a sustainable and decarbonised transport system. This policy is intended to encourage sustainable transport and result in fewer journeys by car but could alter patterns of travel more generally, increasing or decreasing air quality at European sites.
- ENV1: Local Environmental Protection. All major developments must demonstrate that they are at least air quality neutral and incorporate on-site measures to improve air quality.
- DM T2: Forming a healthy and connected Enfield. Requires developments to demonstrate how they will improve opportunities to cycle and walk, limit parking, provide Electric Vehicle Charging Points, and create or contribute to safe low traffic neighbourhoods in the borough.
- DM T3: Constructing a vibrant and safe Enfield for everyone. Encourages development that is well

connected for public transport and active travel, and is in close proximity to services.

- DM RE4: Farm diversification and rural employment. Requires development to not cause unacceptable level of air pollution.

5.37 BG2: Protecting nature conservation sites also provides general protection for European sites.

5.38 Other drivers for improvements in air quality, such as the borough's Air Quality Action Plan and improvements in vehicle emissions technology may also reduce the effect of air pollution, over the Plan period.

5.39 Once the air quality assessment has been finalised, the need for mitigation will be identified and agreed in consultation with Natural England. Mitigation will need to be agreed and secured prior to adoption of the Local Plan.

Conclusion

5.40 Until the air quality assessment has been completed and mitigation agreed, it is not possible to conclude that there will be no adverse effects on the integrity of Epping Forest SAC, Wormley Hoddesdonpark Woods SAC or Lee Valley SPA and Ramsar site as a result of air pollution.

Recreation pressure

Epping Forest SAC

5.41 Epping Forest SAC is a large area of semi-natural habitat that is subject to high levels of use by visitors each year (around 4.2 million visitors visit the forest each year⁵³). The forest has been entrusted to the City of London who have identified long-standing concerns about increasing recreational use of the forest resulting in damage to the designated features of the SAC.

5.42 As outlined in the Screening Assessment (**Chapter 4**), visitor survey data identified a ZOI of 6.2km based on where 75% of visitors come from. Epping Forest SAC lies 0.3km to the east of Enfield Borough at the nearest point and as a result, approximately half of the borough (the east) lies within 6.2km of the SAC (see **Figure 4.2**). This includes all site allocations associated with Place policies PL1-5 (i.e. SA1.1 to SA5.8); and a number of other residential and residential/mixed use site allocations: URB 01, 08-10, 12-15, 17, 19-21, and 23-26. A significant number of new homes is proposed in Enfield, within 6.2km of Epping Forest; therefore the Local Plan will significantly contribute to an increase in recreation pressure at Epping Forest SAC.

5.43 The number of visits to the SAC that would arise as a result of the Enfield Local Plan (ELP) was calculated in Enfield's Recreation Mitigation Strategy⁵⁴, based on allocated sites identified by the Borough's housing and economic land availability assessment (HELAA), as follows:

"Based on current HELAA sites, there will be a total of 10,059 residences within the Epping Forest ZOI as a result of the ELP. Taking into consideration an occupancy rate of 2.75 (based on recent national statistics data for Enfield), this equates to 27,662 new residents. An allowance for windfall has been made for the area of Enfield within the ZOI of 1,772 residences which equates to 4,873 new residents. This indicates a total of 37,078 new people will be resident within the ZOI over the ELP period. This would provide a total visitor uplift requirement for Enfield of 355,093. Visitor uplift is defined as the average number of visits made by the total new residents (from the ELP in the ZOI) in a day."

5.44 Lepus, who prepared the strategy, will need to confirm that this calculation remains valid for the latest version of the Local Plan; as HRA is an iterative process, this will be confirmed in the next version of the HRA.

5.45 The additional visits will arise due to residential development arising from Policy SP H1, SP PL1, SP PL2, SP PL3, SP PL4, SP PL5 plus residential accommodation provided for in Policies DM H10, DM CL3, and DM H4).

5.46 Policies that improve access to existing greenspace (SP BG1, and DM RE2) could also, in theory, increase recreation pressure at Epping Forest SAC (e.g. by improving access to the London LOOP footpath, which links greenspaces in LBE to the SAC), although these policies are more likely to increase access to the Lee Valley SPA/Ramsar site, which has more extensive links to green and blue infrastructure in LBE.

5.47 Mitigation for recreation pressure at Epping Forest SAC therefore needs to be set out in the Local Plan in order to avoid adverse effects on the integrity of Epping Forest SAC.

Mitigation

5.48 Natural England provided advice as part of its response to the Reg.18 Local Plan consultation (see Appendix D), and agreed with the conclusions of the Reg.18 HRA that further work would be required on the borough's Recreation Mitigation Strategy in order to provide detailed guidance for developers within policy.

5.49 Enfield Council has therefore produced a Recreation Mitigation Strategy (September 2023), which aligns with

⁵⁴ Lepus (2023) Enfield Epping Forest SAC Recreation Mitigation Strategy, September 2023

Natural England's strategic approach. Any development within the Epping Forest SAC ZOI with a net increase of one dwelling or more will need to provide mitigation to ensure no adverse impacts on the site integrity of the SAC. The Recreation Mitigation Strategy provides details of how this will be achieved and sets out:

- The requirements for contributions to Strategic Access Monitoring and Management (SAMM) at the SAC;
- Identifies proposed locations for improvements to greenspaces within the borough in order to provide for an uplift in visitors and therefore a corresponding reduction in potential trips to Epping Forest SAC; and
- The means of delivering the above.

5.50 The key purpose of improvements to greenspaces in the borough is to provide an attractive, realistic alternative green space for people who would otherwise have visited the SAC and therefore avoid impacts. Opportunities for improvements were identified through a review and analysis of possible future Blue and Green Infrastructure projects across Enfield and are as follows:

- Enfield Chase Green Link;
- Pymmes Brook Green Link;
- Albany Park;
- Alma Road Open Space;
- Boundary Brook Park Wetlands Project; and
- Kenninghall Open Space.

5.51 The Strategy provides details on the identified greenspaces and enhancements that are required at each location to ensure they deliver effective mitigation.

5.52 Although it does not form part of the Recreation Mitigation strategy, larger developments may also choose to provide bespoke recreation mitigation (e.g. greenspace creation or improvement) either on-site or, in certain circumstances, off-site. It is expected that these improvements would be delivered in advance of the occupation of dwellings and in perpetuity. As stated in paragraph 5.44, the authors will need to confirm that the calculations underpinning the strategy are up to date.

5.53 The requirements of the Recreation Mitigation Strategy are set out in Local Plan policy SP BG3:

"SP BG3: Protecting Epping Forest Special Area of Conservation

1. New development which will have an adverse impact on the site integrity of Epping Forest Special Area of Conservation (SAC), either alone or in-combination with

other plans and projects, will not be permitted unless it can demonstrate that adequate measures have been put in place to avoid and mitigate such impacts.

2. The Council, as the competent authority, will be responsible for determining whether development would have an adverse impact on site integrity at the SAC, taking into consideration the output of an Appropriate Assessment completed in compliance with the Habitats Regulations, and having regard to representations made by Natural England.

Recreational Impacts

3. All additional residential development (including strategic allocations) within 6.2km of the boundary of the Epping Forest SAC (known as the "Zone of Influence"), will need to put in place adequate measures to avoid and mitigate potential adverse impacts on the integrity of the SAC. These must be delivered prior to occupation and in perpetuity and agreed with Natural England. To meet these requirements developments will need to meet the following requirements:

- All developments of one or more residential unit, including HMOs and other non C3 uses, within the 6.2km Zone of Influence will be required to make a financial contribution towards the Council's Recreational Mitigation Strategy or provide bespoke mitigation in agreement with Natural England.

- All developments within the 6.2km Zone of Influence will be required to make a financial contribution towards the Epping Forest SAC Strategic Access Management and Monitoring (SAMM) Strategy per net additional dwelling, indexed in line with CIL payments from the year of implementation. This will be secured via a unilateral undertaking (UU) agreement.

4. Applicants on larger schemes outside of the Zone of Influence may also need to secure appropriate mitigation and avoidance measures in the form of recreational mitigation to offset any potential effects arising from increased recreational pressure on the Epping Forest SAC (either 'alone' or 'in combination' with other relevant plans and proposals) in consultation with Natural England, Epping Forest Conservators and other relevant bodies.

5. Over the lifetime of the Local Plan, should the Council not be able to demonstrate there is sufficient capacity for mitigation, the Local Plan will be reviewed. The Recreational Mitigation strategy will be reviewed every five years in line with this plan, and is intended to provide mitigation in perpetuity, costed at 80 years of maintenance with an endowment function intended to provide in perpetuity mitigation. Natural England reserves the right to object to planning applications where the Strategy is not being implemented, and Enfield Council will prepare a Recreational Mitigation Implementation Strategy within three years of the

adoption of this plan and will monitor Recreational Mitigation delivery and take-up in its Annual Monitoring Report.

6. Bespoke Recreation Mitigation, which is capable of demonstrating no adverse impact upon the integrity of the SAC either alone or in-combination with other plans and projects, must be agreed with the Council and Natural England. Bespoke mitigation must be in place before occupation of development, provided in perpetuity and delivered alongside SAMM contributions.

5.54 In addition, the Local Plan provides general protection for European sites:

"Policy SP BG2: Protecting nature conservation sites

1. Development will be expected to protect, maintain and enhance the biodiversity and geodiversity value of the Borough's international, national and local wildlife and geological sites in line with the following principles: a. Where development has the potential for a likely significant effect on any Special Protection Area (SPAs), Special Area of Conservation (SACs) or Ramsar site (and any other sites protected under the Habitats Regulations), either alone or in-combination, it would only be permitted if it can demonstrate through a Habitats Regulation Appropriate Assessment that:

- there will be no adverse impact upon the integrity of the designated site, taking into consideration the site's conservation objectives, either alone or in-combination with other plans and projects.
- where the above cannot be met, development would only be considered if it meets requirements set out in the Habitats Regulations. Applicants should, in consultation with Enfield Council as Competent Authority, and Natural England, screen applications for Appropriate Assessment.

2. Development will not be permitted where it would adversely affect (directly or indirectly) Sites of Special Scientific Interest (SSSIs). Exceptions will only be made where the benefits of the development would clearly outweigh the impacts on the special conservation features of the site and appropriate measures are provided to mitigate and/or compensate harmful impacts. Where SSSIs are essential to the conservation objectives of SACs, SPAs or Ramsar sites, for example as the underlying designations or as 'functionally linked' habitats, the requirements in paragraph 1) apply.

3. Development affecting the integrity of a Site of Importance for Nature Conservation (as shown on the Policies Map), priority habitats/species, non-designated sites or features of biodiversity interest (directly or indirectly) will only be supported where:

a. the mitigation hierarchy has been applied in line with the London Plan to offset the loss of habitats and species;

b. it will protect, restore, enhance and provide appropriate buffers around wildlife and geological features as well as links to the wider ecological network; and

c. the benefits of the proposed development would clearly outweigh the adverse impact on the biodiversity and geodiversity value of the site.

5.55 Policy DM CL5 also requires major residential development to improve open space provision and to provide new publicly accessible open space on site in areas of deficiency, which may contribute to mitigation for recreation pressure effects.

5.56 Other policies within the Local Plan that may contribute to mitigation by improving the borough's green and blue infrastructure network, and therefore providing attractive alternatives to visiting the SAC, include: SP BG1: Enfield's blue and green infrastructure network, SP BG7 Strategy for enhancing the beneficial uses of the Green Belt and the Metropolitan Open Land and DM CL5: Sport, open space and recreation.

Conclusions

5.57 The requirements of the Recreation Mitigation Strategy has been incorporated within Policy SP BG3 which will be intended to ensure the provision of appropriate natural greenspace to divert visitors and (along with Policy SP BG2) avoid recreational impacts on Epping Forest SAC. However, as noted in paragraph 5.44, the strategy's authors need to confirm that the calculation of visitor uplift underpinning the strategy remains valid for the latest version of the Local Plan. This will be confirmed in the next version of the HRA.

5.58 Therefore, some uncertainty remains. Until the visitor uplift calculation has been confirmed, it is not possible to conclude that there will be no adverse effects on the integrity of Epping Forest SAC as a result of recreation pressure.

Lee Valley SPA and Ramsar site

5.59 Lee Valley SPA and Ramsar site is located to the north and south of the LBE and supports qualifying bird species that are particularly susceptible to recreational disturbance. Public

access / disturbance is identified as a threat within the Site Improvement Plan⁵⁵.

5.60 The component Turnford & Cheshunt Pits SSSI of the SPA and Ramsar site is situated to the north of LBE between Epping Forest District and the Borough of Broxbourne. Most of the site is owned by the Lee Valley Regional Park Authority and is managed as the River Lee Country Park. The SSSI supports a network of footpaths and cycleways that provide access to the site. Given that the site is comprised of wetland habitats, including open water, recreational activities are restricted primarily to these designated footpaths and cycleways.

5.61 The Walthamstow Reservoirs SSSI component of the SPA and Ramsar site is situated to the south of the LBE in the Borough of Waltham Forest. The site is owned by Thames Water who use this as an operational site to supply water to 3.5 million people⁵⁶. In 2017, the site was opened to the public providing freely accessible walking and cycle routes. To manage the impacts of recreation pressure on the qualifying features of the SPA and Ramsar site, specific measures are in place. These include seasonal and guided walking routes, which restrict and control access to certain areas of the site at sensitive times of the year for qualifying bird species, birdwatching and fishing permits to control the extent of this activity, cycling restricted to primary routes only, and no dog walking allowed.

5.62 Bird surveys⁵⁷ undertaken before and after Walthamstow Reservoirs SSSI was opened to the public for the first time in 2017 found "no significant changes to numbers and distribution of [SPA] species that are of immediate concern and warranting the need for intervention", despite 400,000 visits in the first year. AECOM nevertheless took a precautionary approach in the HRA Scoping Report⁵⁸ (May 2020), concluding that "Walthamstow Reservoirs has only recently opened and monitoring of recreational use of the site has only recently commenced. It is therefore not impossible that measures to manage or restrict usage of the Walthamstow Wetlands may need to be introduced in the future by the site managers."

5.63 As outlined in the Screening Assessment (**Chapter 4**), there is no specific survey data available to inform definition of a ZOI for this SAC. Therefore, a precautionary non-specific ZOI of 7km has been applied to the SPA and Ramsar site boundary, based on the findings of visitor surveys at other European sites in southern England. Natural England has

confirmed⁵⁹ that it is happy with the use of a 7km ZOI for this site (and Wormley Hoddesdonpark Woods SAC). Based on this ZOI, only two areas of the SPA and Ramsar site are considered likely to be affected by increased recreation within the LBE: the component Turnford & Cheshunt Pits SSSI and Walthamstow Reservoir SSSI. Rye Meads SSSI and Amwell Quarry SSSI are situated over 7km from the LBE and thus outside the ZOI, where adverse effects on the integrity of the SPA and Ramsar are unlikely to occur alone or in combination.

5.64 The majority of the borough lies within 7km of the SPA and Ramsar site, as shown in **Figure 4.2**, with only a small number of site allocations in the north-western corner of the borough (Hadley Wood / Cockfosters) outside the ZOI. The ZOI therefore includes the majority of the c.34,710 homes provided for by Policy SP H1 (and associated site allocations under policies PL1-8, Crews Hill Placemaking Area PL11, some of the site allocations in Chase Park Placemaking Area PL10, and a number of other mixed use / residential 'URB' site allocations), plus residential accommodation provided for in Policies DM H10, DM CL3 and DM H4. The Local Plan will therefore significantly contribute to increasing recreation pressure at Lee Valley SPA and Ramsar site.

5.65 The HRA of the Regulation 18 Local Plan ruled out adverse effects on the integrity of Lee Valley SPA and Ramsar Site because:

- the European site is effectively managed to accommodate large numbers of visitors; and
- there were safeguards within Local Plan policies in relation to the provision of greenspace and protecting European Sites.

5.66 However, since the Regulation 18 Local Plan, there has been an increase in the number of dwellings at Meridian Water (Policy SP PL5).

Mitigation

5.67 The existing control of visitors at the SPA and Ramsar site and the functionally-linked Chingford Reservoirs SSSI (for example restriction to specific paths) mean that adverse effects on the integrity of the site as a result of recreation pressure are unlikely. The Local Plan provides additional safeguards, particularly within Policy SP BG2 and DM CL5 (see paragraphs 5 and 6).

⁵⁵ Lee Valley SPA/Ramsar Site Improvement Plan: <http://publications.naturalengland.org.uk/publication/5864999960444928>

⁵⁶ <https://www.wildlondon.org.uk/about-walthamstow-wetlands>

⁵⁷ Walthamstow Wetlands bird monitoring report:

<https://walthamstowwetlands.com/sites/default/files/2021->

<02/WalthamstowWetlands%20-%20Bird%20Monitoring%20Report%202018-19%20.pdf>

⁵⁸ <https://new.enfield.gov.uk/services/planning/integrated-impact-assessment-scoping-report-2020-planning.pdf>

⁵⁹ Personal communication with Marc Taylor, Natural England (6 May 2021)

5.68 Other policies within the Local Plan that may contribute to mitigation by improving the borough's green and blue infrastructure network, and therefore providing attractive alternatives to visiting the SAC, include: SP BG1: Enfield's blue and green infrastructure network, SP BG7: Strategy for enhancing the beneficial uses of the Green Belt and the Metropolitan Open Land and DM CL5: Sport, open space and recreation.

5.69 In addition, Policy SP PL10: Chase Park and SP PL11: Crews Hill, which allocate residential-led mixed use developments, include the provision of new and enhanced green and blue infrastructure. Policy SP PL5: Meridian Water, which also allocates mixed-use development, includes the provision of new multifunctional open space through a network of green corridors and public open spaces.

5.70 Therefore, even with the increased housing numbers at Meridian Water, the Local Plan is still expected to have no adverse impact on the integrity of Lee Valley SPA and Ramsar Site.

Conclusions

5.71 Adverse effects on the integrity of Lee Valley SPA and Ramsar site as a result of recreation pressure from the Enfield Local Plan alone or in-combination can be ruled out.

Wormley Hoddesdonpark Woods SAC

5.72 Wormley Hoddesdonpark Woods SAC is a large, attractive area of ancient woodland that is located to the north of the LBE. Due to its proximity to large urban centres, including Welwyn Garden City and Hertford, this site is subject to high levels of use by the public. Natural England's Site Improvement Plan⁶⁰ indicates the site is well managed by its main owners with sensitive management of its access points and well-established routes. However, it is noted that recreational levels are increasing, which could have adverse effects on the qualifying features of the SAC in the future.

5.73 As outlined in the Screening Assessment (**Chapter 4**), there is no specific survey data available, which can be drawn on to inform definition of a ZOI for this SAC. Therefore, a precautionary non-specific ZOI of 7km has been applied, as with the Lee Valley SPA and Ramsar site. The ZOI extends to the northern part of Enfield borough (see **Figure 4.2**) and includes Enfield North and North East Enfield.

5.74 All of the site allocations in the north of the borough lie within 7km of the SAC, as shown in **Figure 4.2**. However, this is only a small portion of the 30,367 homes on site allocations provided for by Policy SP H1 (site allocations within Crews Hill

Placemaking Area PL11: SA11.1 to SA11.6; URB.11 and URB.14), plus residential accommodation provided for in Policies DM H10, DM CL3 and DM H4.

5.75 Policies that improve access to existing greenspace (SP BG1, and DM RE2) could also, in theory, increase recreation pressure at the SAC but this is more likely at Lee Valley SPA and Ramsar site.

Mitigation

5.76 As with Lee Valley SPA and Ramsar site, the successful management of visitors at the SAC means that adverse effects on the integrity of the site as a result of recreation pressure are unlikely. The Local Plan provides additional safeguards within policies SP BG2, DM CL5 and other policies that improve the green and blue infrastructure network.

Conclusion

5.77 The existing visitor management regime together with safeguards in Policy SP BG2 (see paragraph 5) mean that it is possible to conclude no adverse effects on the integrity of Wormley Hoddesdonpark Woods SAC as a result of recreation pressure from Enfield Local Plan alone or in-combination.

Water quantity and quality

Lee Valley SPA and Ramsar site

5.78 Development associated with the Local Plan could affect water quality in downstream portions of the Lee Valley SPA and Ramsar site (Walthamstow Reservoirs SSSI) or at functionally linked habitat within the borough, if development is situated close to the reservoirs or waterbodies that recharge them and could result in direct run-off of pollutants into those waterbodies (e.g. during construction), or if pollutants enter the superficial aquifer beneath the Lee Valley (which extends beneath Enfield's urban area).

5.79 The following allocated sites are adjacent to one of the branches of the River Lea/Lea:

- Some of the site allocations associated with Place policy PL5: SA5.3 to SA5.7 (mixed uses);
- RUR.03, Land to the north of Mollison Avenue, south of the M25 and east of Freezywater (Industrial).
- RUR.06, Picketts Lock (Leisure uses);
- URB.28, Land and buildings to the south east of Stockingswater Lane, Brimsdown (Industrial);

⁶⁰ Natural England (2015), Site Improvement Plan: Wormley Hoddesdonpark Woods

- URB.29, Land to the south of Millmarsh Lane (Industrial); and
- URB.33, 6 Morson Road (Industrial).

5.80 Development at these sites could come forward under policies SP SSI, SP H1, SP CL4, SP PL5 or SP E1 (housing and employment), although development proposals could also come forwards outside of allocation sites, as a result of the support of policies SP SSI, SP H1, SP E5, DM CL2, DM H10, DM CL3, DM E12, SP SC2 or SP E1 (residential, employment and tourism development).

5.81 Ground conditions and the location of aquifers are complex, such that many of the development sites provided for the Local Plan could overlay the superficial aquifer, although this is more likely in the east of the borough, within the Lee Valley (sites as above). Any of the site allocations could contribute to the need to abstract additional water from the reservoirs or groundwater. Revised Draft Thames Water's Water Resource Management Plan 2024⁶¹ (WRMP) forecasts demand for an additional 295 MI/d of water in 2023, 846 MI/d in 2050 and over 1000 MI/d in 2075. Thames Water is aiming to reduce water use to 123 l/h/d per person. In the medium term (2030-2045), the capacity of the London WRZ will need to be expanded to meet demand. The household-based forecast for the London WRZ is an increase in 8,153,00 homes between 2019-2050. The HRA⁶² of the WRMP concluded that, with mitigation, none of the proposed options would have an adverse effect on the integrity of a European site. Enfield's Local Plan provides for at least 34,710 new homes, which will result in a higher demand for water, however, the WRMP makes plans and commitments to reduce consumption and increase supply to meet demand. In addition, the Draft WRMP has relied on local authority plan based forecasts to calculate demand for water in the future. Therefore, it can be assumed that Thames Water has planned for the growth forecast by Enfield Borough Council. The implementation of any demand management measures recommended or assumed by the Draft WRMP will ensure that development proposed by the Local Plan will not result in likely significant effects in relation to changes in water quantity.

Mitigation

5.82 The Local Plan includes policies that would reduce the risk of water pollution, in addition to the general protection for European sites set out in Policy BG2:

- Policy DM SE8: Protection and improvement of watercourses. Requires development adjacent to or

within close proximity to watercourses to be set back (by a distance to be agreed with the Environment Agency and other bodies) to allow maintenance, river restoration and habitat enhancement. Development must not result in deterioration of a watercourse.

- Policy DM SE9: Sustainable drainage systems. Requires all major developments to use SuDS to reduce pollution, where relevant.
- Policy SP ENV1: Local environmental protection. Requires developments to mitigate impacts from contaminated land. The policy also states that proposals that adversely affect water quality (including aquifers) will not be permitted. Developments must reduce run off through the use of SuDS and pollution control measures.

5.83 There is no specific policy relating to water use, but the following may contribute to mitigation for water quantity impacts:

- Policy DM SE2: Sustainable design and construction. Requires developments of 10 dwellings or more to achieve a minimum Home Quality Mark certification of 4*, and large (>1000m²) non-residential development to achieve a minimum BREEAM rating of Excellent. These certification schemes have associated water efficiency standards, which may reduce water demand.

5.84 Policy SP BG2 also provides general protection for the Lee Valley SPA/Ramsar.

5.85 There are also established regulatory mechanisms over the treatment and abstraction of wastewater (overseen by the Environment Agency) that require the water companies to take into account environmental impacts including likely significant effects on European sites, which should provide safeguards to ensure no adverse effects on integrity arise.

Conclusion

5.86 Lee Valley SPA and Ramsar site exists because of the creation and management of reservoirs for water supply, and it is considered that existing management of the site in addition to safeguards in the Local Plan and the environmental permitting regime for water abstraction and wastewater treatment are sufficient to avoid adverse effects on its integrity from the Local Plan alone or in-combination due to changes in water quality / quantity.

⁶¹ Thames Water (2022) Revised Draft Water Resources management Plan 2024: <https://thames-wrmp.co.uk/document-library/>

⁶² Thames Water (2022) Habitats Regulations Assessment of Thames Water Final Water Resources Management Plan 2024: <https://thames-wrmp.co.uk/document-library/>

Summary of Appropriate Assessment

5.87 The conclusions of the Appropriate Assessment are summarised in **Table 5.1**:

- The European sites that are shown as screened out indicate sites that were considered to have no Likely Significant Effect at the screening stage.

The European sites shown as having no adverse effect on integrity were found to have no adverse effect on integrity due to confirmed mitigation already included in the draft Local Plan.

Table 5.1: Summary of Appropriate Assessment

European sites	Physical damage and loss	Non-physical disturbance	Air pollution	Recreation pressure	Water quantity and quality
Epping Forest SAC	Screened out	Screened out	Adverse effects on integrity Uncertain. Further information is required to determine adverse effects on integrity.	Adverse effects on integrity Uncertain. Calculations underpinning mitigation strategy to be confirmed.	Screened out
Lee Valley SPA and Ramsar	No adverse effects on integrity	No adverse effects on integrity	Adverse effects on integrity Uncertain. Further information is required to determine adverse effects on integrity.	No adverse effects on integrity	No adverse effects on integrity
Wormley Hoddesdonpark Wood SAC	Screened out	Screened out	Adverse effects on integrity Uncertain. Further information is required to determine adverse effects on integrity.	No adverse effects on integrity	Screened out

Chapter 6

Conclusions

Summary of Regulation 19 HRA findings

6.1 The HRA Screening concluded that the following policies and all site allocations set out in the Publication version of the Local Plan could have a likely significant effect on Epping Forest SAC, Lee Valley SPA and Ramsar site and Wormley Hoddesdonpark Wood SAC, alone or in combination with other plans or projects:

- SP SS1: Spatial strategy;
- SP PL10: Chase Park;
- SP PL11: Crews Hill;
- SP SC2: Protecting and enhancing social and community infrastructure;
- SP BG1: Enfield's blue and green infrastructure network;
- SP H1: Housing development sites;
- DM H4: Small sites and small housing development;
- DM H10: Traveller accommodation;
- SP E1: Employment and growth;
- SP E5: Transforming Industrial Sites;
- DM E12: Meridian Hinterlands;
- DM RE2: Improving access to the countryside and green corridors;
- DM CL2: Leisure and tourism;
- DM CL3: Visitor accommodation;
- DM CL4: Promoting sporting excellence; and,
- SP T1: Promoting a sustainable and decarbonised transport system.

6.2 However, through the information reviewed and mitigation measures considered during the Appropriate Assessment, it was possible to conclude that no adverse effect on integrity will occur for the following impacts and European sites, as a result of confirmed mitigation measures, as detailed in **Chapter 5**.

- **Physical damage and loss (functionally linked habitat)** – no adverse effects on the integrity of Lee Valley SPA and Ramsar site;
- **Non-physical disturbance (functionally linked habitat)** – no adverse effects on the integrity of Lee Valley SPA and Ramsar site;
- **Air pollution** – adverse effects on the integrity of Epping Forest SAC, Lee Valley SPA and Ramsar site, Wormley Hoddesdonpark Woods SAC uncertain pending further information;
- **Recreation pressure** – adverse effects on the integrity of Epping Forest SAC uncertain, pending further information. No adverse effects on the integrity of Lee Valley SPA and Ramsar site or Wormley Hoddesdonpark Woods SAC; and
- **Water quality and quantity** – no adverse effects on the integrity of Lee Valley SPA and Ramsar site.

Next Steps

6.3 This report will be published for consultation as part of Regulation 19 consultation on the Publication Version of the Local Plan in March 2024. Natural England and other consultees will have an opportunity to comment on this HRA.

6.4 HRA is an iterative process and as such is expected to be updated in light of newly available evidence and comments from key consultees. Where required, the HRA will therefore be updated to reflect consultation comments and any further changes to the Local Plan (for example through Main Modifications).

LUC

December 2023

Appendix A

Attributes of European Sites screened into the HRA

Site name and area (ha)	Location	Qualifying features	Threats and pressures	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
Lee Valley SPA & Ramsar (447.87 ha)	Lee Valley SPA & Ramsar is formed of several fragmented sites. The closest sections of the sites lie 0.7km south east and 1 km north east of the LBE boundary.	<p><u>SPA:</u></p> <p><u>Annex 1 species (non – breeding):</u></p> <p>Great bittern <i>Botaurus stellaris</i></p> <p><u>Annex 1 (migratory species, non - breeding):</u></p> <p>Northern shoveler <i>Anas clypeata</i></p> <p>Gadwall <i>Anas strepera</i></p> <p><u>Non Qualifying Species of Interest:</u></p> <p>Cormorant <i>Phalacrocorax carbo</i></p> <p>Great Crested Grebe <i>Podiceps cristatus</i></p> <p>Tufted Duck <i>Aythya fuligula</i></p>	<p>Threats and pressures⁶³ on this site include the following:</p> <ul style="list-style-type: none"> ■ Water pollution ■ Hydrological changes ■ Public access / disturbance ■ Inappropriate scrub control ■ Fisheries: Fish stocking ■ Invasive species ■ Inappropriate cutting / mowing ■ Air pollution: risk of atmospheric nitrogen deposition <p>Water Pollution - The vegetation and invertebrates provide food for the ducks, while fish provide food for the bitterns; and the habitat mosaic needs to vary from clear open water with abundant aquatic vegetation to moderately eutrophic conditions. Changes in water quality need to be managed to prevent loss of suitable habitat and food sources.</p> <p>Hydrological changes - Reservoir levels linked to operational requirements and all water bodies subject to natural fluctuations accounting for abstraction and climatic change.</p> <p>Public Access/Disturbance - Areas of the SPA are subject to a range of recreation pressures including watersports, angling and dog walking. This has the potential to affect SPA populations directly or indirectly.</p> <p>Inappropriate scrub control - The reedbed habitats, muddy fringes, and bankside all provide habitat as part of the mosaic for the SPA birds. Scrub control is necessary to ensure these habitats are maintained.</p>	<p>The information below is drawn from the supplementary advice on conserving and restoring site features⁶⁶.</p> <p>Great bittern</p> <ul style="list-style-type: none"> ■ Standing open water and canals - bittern rely on the presence and continuity of open water habitat. Changes in water area, and associated marginal habitat, can adversely affect the suitability of supporting open water habitat. ■ Reedbeds. ■ Open terrain – bittern favour large areas of open terrain, largely free of obstructions, in and around its nesting, roosting and feeding areas. Often there is a need to maintain an unobstructed line of sight within nesting, feeding or roosting habitat to detect approaching predators, or to ensure visibility of displaying behaviour. ■ Key prey species include eel, rudd, roach, frogs, toads and invertebrates. <p>Within the SPA/Ramsar, the majority of bittern are found in the Turnford and Cheshunt Pits site while Amwell Quarry and Rye Meads also support the species. Walthamstow Reservoirs also occasionally supports bittern.</p> <p>Gadwall</p> <ul style="list-style-type: none"> ■ Standing open water - gadwall favour gravel pits and reservoirs during the winter period where they feed on seeds, leaves and stems of water plants. ■ Preferred food plants – sweet-grass (<i>Glyceria fluitans</i>),

⁶³ Site Improvement Plan: Lee Valley, Natural England, December 2014. Available at: <http://publications.naturalengland.org.uk/publication/5864999960444928?category=23039>.

⁶⁶ European Site Conservation Objectives: Supplementary Advice on Conserving and Restoring Site Features Lee Valley Special Protection Area (SPA). Natural England, February, 2018. Available at: <http://publications.naturalengland.org.uk/publication/5670650798669824>.

Site name and area (ha)	Location	Qualifying features	Threats and pressures	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>Pochard <i>Aythya ferina</i></p> <p>Grey Heron <i>Ardea cinerea</i></p> <p><u>Ramsar:</u></p> <p>The site supports the nationally scarce plant species whorled watermilfoil <i>Myriophyllum verticillatum</i> and the rare or vulnerable invertebrate <i>Micronecta minutissima</i> (a waterboatman).</p> <p>Over winter the area regularly supports:</p> <p>Gadwell, <i>Anas strepera</i> – 456 individuals, representing an</p>	<p>Fisheries: Fish stocking - Fish population and species composition needs to be appropriate to ensure suitable habitats including food resource and water quality are maintained for SPA bird species.</p> <p>Invasive species - Azolla and/or invasive aquatic blanket weeds will adversely affect aquatic habitat (food sources).</p> <p>Inappropriate cutting/mowing - The reedbed requires rotational management for bittern.</p> <p>Air Pollution: risk of atmospheric nitrogen deposition - Nitrogen deposition exceeds site relevant critical loads.</p> <p>The Information Sheet on Ramsar Wetlands⁶⁴ also notes the whole site supports high levels of visitor pressure; principally for purposes of angling, walking, cycling and birdwatching; with boating on the adjacent canal. These activities are mostly well regulated and at current levels are not considered to threaten the interest of the Ramsar site (although they may reduce the potential for enhancing the interest). In addition to the above, the supplementary advice⁶⁵ identifies the following vulnerabilities:</p> <p>Conservation measures - Active and ongoing conservation management is often needed to protect, maintain or restore <i>Botaurus stellaris</i> Great bittern (non-breeding) at this site.</p> <p>Vegetation characteristics - Many bird species will have specific requirements that conservation measures will aim to maintain, for others such requirements will be less clear. Activities that may directly or indirectly affect the vegetation of supporting habitats and modify these characteristics may adversely affect the feature.</p> <p>Connectivity with supporting habitats - Bitterns clearly move between</p>	<p>creeping bent (<i>Arostis stolonifera</i>), stoneworts (<i>Chara</i>), pondweeds (<i>Potamogeton</i>, <i>Ceratophyllum</i> spp., <i>Ruppia</i>, <i>Elodeo nuttallii</i>).</p> <p>Each of the SPA/Ramsar's component SSSIs support gadwall in numbers which are sufficient to qualify them as being of national importance.</p> <p>Northern shoveler</p> <ul style="list-style-type: none"> ■ Standing open water - in winter, shoveler frequent shallow water areas on marshes, flooded pasture, reservoirs and lakes with plentiful, marginal reeds or emergent vegetation and are found throughout. ■ Preferred food plants – <i>Scirpus</i>, <i>Eleocharis</i>, <i>Carex</i>, <i>Potamogeton</i>, <i>Glyceria</i>. Shoveler also feed on zooplankton (e.g. <i>Hydrobia</i>, crustaceans, caddisflies, <i>Diptera</i>, beetles) in the shallow margins of waterbodies. Preferred food plants are linked with early successional stages of waterbodies, therefore succession, particularly tree cover, can lead to the loss of suitable foraging habitat. <p>BTO Bird Facts</p> <p>The British Trust for Ornithology⁶⁷ records the site's qualifying bird species' diets as:</p> <ul style="list-style-type: none"> ■ Bittern: mostly fish, amphibians, insects but wide variety;

⁶⁴ Information Sheet on Ramsar Wetlands (RIS) UK11034: Lee Valley. JNCC, September 2000. Available at: <https://jncc.gov.uk/our-work/ramsar-sites/>.

⁶⁵ European Site Conservation Objectives: Supplementary Advice on Conserving and Restoring Site Features Lee Valley Special Protection Area (SPA). Natural England, February, 2018. Available at: <http://publications.naturalengland.org.uk/publication/5670650798669824>.

⁶⁷ <https://www.bto.org/understanding-birds/birdfacts>

Site name and area (ha)	Location	Qualifying features	Threats and pressures	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>average of 1.5% of the population</p> <p>Shoveler, <i>Anas clypeata</i> – 406 individuals, representing an average of 1% of the population</p>	<p>sites within the Lee Valley and to do this they will need to move safely to and from supporting habitat between individual waterbodies and above/across land outside the SPA. Also, the ability of Northern Shoveler to safely and successfully move to and from feeding and roosting areas is critical to their adult fitness and survival.</p> <p>Water depth - As the birds will rely on detecting their prey within the water to hunt, the depth of water at critical times of year may be paramount for successful feeding and therefore their fitness and survival.</p> <p>Population abundance – the population of Northern Shoveler within Lee Valley SPA has shown a slight decrease since Classification. The key SPA sites at Amwell and Turnford & Cheshunt Pits experienced a population decline during the 1999/00 – 2008/09 period, along with the functionally linked non- SPA Holyfield gravel pits. The SPA Walthamstow reservoirs and non-SPA Chingford reservoirs show population trends that appear to be related to water levels and available food resource.</p> <p>Food availability within supporting habitat - the availability of an abundant food supply is critically important for successful breeding, adult fitness and survival and the overall sustainability of the population. As a result, inappropriate management and direct or indirect impacts which may affect the distribution, abundance and availability of prey may adversely affect the population.</p>	<ul style="list-style-type: none"> ■ Shoveler: omnivorous (incl. insects, crustaceans, molluscs, seeds); and ■ Gadwall: leaves and shoots. <p>The Information Sheet on Ramsar Wetlands⁶⁸ also notes the ecological features of the site include open water, with associated wetland habitats including reedbeds, fen grassland and woodland which support a number of wetland plant and animal species including internationally important numbers of wintering wildfowl.</p>
Epping Forest SAC (1,630.74 ha)	Epping Forest SAC is formed of several fragmented sites located	<u>Annex 1 Habitats (which are a primary reason for the selection of this site):</u>	<p>Threats and pressures⁶⁹ on this site include the following:</p> <ul style="list-style-type: none"> ■ Air pollution: impact of atmospheric nitrogen deposition ■ Undergrazing 	<p>Stag beetles require decaying wood of broadleaved trees for larvae to feed, although not of a particular tree species. The supplementary advice on conserving and restoring site features⁷¹ states that off-site trees in local gardens, parks and along the roadside may be important in helping to maintain the local stag beetle population if decaying timber is present and</p>

⁶⁸ Information Sheet on Ramsar Wetlands (RIS) UK11034: Lee Valley. JNCC, September 2000. Available at: <https://jncc.gov.uk/our-work/ramsar-sites/>.

⁶⁹ Site Improvement Plan: Epping Forest, Natural England, December 2016. Available at: <http://publications.naturalengland.org.uk/publication/6663446854631424?category=35016>.

⁷¹ European Site Conservation Objectives: Supplementary advice on conserving and restoring site features Epping Forest (SAC). Natural England, January 2019. Available at: <http://publications.naturalengland.org.uk/publication/5908284745711616>.

Site name and area (ha)	Location	Qualifying features	Threats and pressures	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>east of the borough and within the 15km boundary buffer. The closest site is 0.3km east of the LBE boundary.</p>	<p>Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrublayer (<i>Quercion roboretanae</i> or <i>Ilici-Fagenion</i>).</p> <p><u>Annex 1 Habitats (which are present as a qualifying feature but not a primary reason for the selection of this site):</u></p> <p>European dry heaths</p> <p>North Atlantic wet heaths with <i>Erica tetralix</i> (wet heathland with corss-leaved heath).</p> <p><u>Annex II species (that are a primary reason for the selection of this site):</u></p>	<ul style="list-style-type: none"> ■ Public access / disturbance ■ Changes in species distributions ■ Inappropriate water levels ■ Water pollution ■ Invasive species ■ Disease ■ Invasive species <p>Air Pollution: impact of atmospheric nitrogen deposition - Nitrogen deposition exceeds site-relevant critical loads for ecosystem protection. Some parts of the site are assessed as in unfavourable condition for reasons linked to air pollution impacts.</p> <p>Undergrazing - The quality and diversity of the SAC features requires targeted management best achieved through grazing to: minimise scrub invasion; minimise robust grass domination, and maximise the species diversity of heathland plant communities.</p> <p>Public Access / Disturbance - Epping Forest is subject to high recreation pressure.</p> <p>Changes in species distributions - Beech tree health and recruitment may not be coping sufficiently with environmental conditions to sustain its presence and representation within the SAC feature. This may be linked to climate change as well as other factors such as air quality, recreation pressure and water availability.</p> <p>Inappropriate water levels - Wet heath is dependent on suitable ground water levels. There is a threat of prolonged drying out through climate change.</p> <p>Water pollution - Surface run-off of poor quality water from roads with elevated levels of pollutants, nutrients and salinity may be affecting wet</p>	<p>may help to 'connect' the SAC population with neighbouring colonies.</p> <p>The supplementary advice also states:</p> <p>The qualifying habitat comprises beech <i>Fagus sylvatica</i> forests with holly <i>Ilex aquifolium</i>, growing on acid soils, in a humid Atlantic climate. Sites of this habitat type often are, or were, managed as wood-pasture systems, in which pollarding of beech <i>Fagus sylvatica</i> and oak <i>Quercus</i> spp. was common.</p> <p>Wet heath usually occurs on acidic, nutrient-poor substrates, such as shallow peats or sandy soils with impeded drainage.</p> <p>European dry heaths typically occur on freely-draining, acidic to circumneutral soils with generally low nutrient content. Nearly all dry heath is seminatural, being derived from woodland through a long history of grazing and burning. Most dry heaths are managed as extensive grazing for livestock.</p> <p>Some plant or animal species (or related groups of such species) make a particularly important contribution to the necessary structure, function and/or quality of qualifying habitats. For wet heath, this includes: <i>Calluna vulgaris</i>, <i>Erica cinerea</i>, <i>E. tetralix</i>, <i>Salix repens</i>, <i>Ulex minor</i>, <i>Vaccinium</i> spp., <i>Carex panicea</i>, <i>C. pulicaris</i>, <i>Dactylorhiza maculata</i>, <i>Eleocharis</i> spp., <i>Eriophorum angustifolium</i>, <i>Juncus acutiflorus</i>, <i>J. articulatus</i>, <i>Molinia caerulea</i>, <i>Anagallis tenella</i>, <i>Drosera</i> spp., <i>Galium saxatile</i>, <i>Genista anglica</i>, <i>Polygala serpyllifolia</i>, <i>Potentilla erecta</i>, <i>Succisa pratensis</i>, <i>Pedicularis sylvatica</i>. For dry heath, this includes: <i>Calluna vulgaris</i>, <i>Erica cinerea</i>, <i>E. tetralix</i>, <i>Ulex minor</i>, <i>Vaccinium</i> spp, <i>Genista anglica</i>, <i>Agrostis</i> spp., <i>Carex</i> spp., <i>Danthonia decumbens</i>, <i>Deschampsia flexuosa</i>, <i>Festuca</i> spp., <i>Molinia caerulea</i>, <i>Nardus stricta</i>, <i>Galium saxatile</i>, <i>Hypochaeris radicata</i>, <i>Lotus corniculatus</i>, <i>Pedicularis sylvatica</i>, <i>Plantago lanceolata</i>, <i>Polygala</i> spp. <i>Potentilla erecta</i>, <i>Rumex</i></p>

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Site name and area (ha)	Location	Qualifying features	Threats and pressures	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>Stag beetle <i>Lucanus cervus</i></p>	<p>heath, probably mostly around the edges.</p> <p>Invasive species - Heather beetle has locally impacted on some heathland areas. Grey squirrel is not currently known to be significantly affecting tree health or regeneration but this will need to be monitored.</p> <p>Disease - Tree diseases such as Phytophthora present a real threat to Beech.</p> <p>In addition to the above, the supplementary advice⁷⁰ identifies the following vulnerabilities:</p> <p>Adaptation and resilience of the feature – the vulnerability of Epping Forest SAC to climate change has been assessed by Natural England as being Medium taking into account the sensitivity, fragmentation, topography and management of its habitats.</p> <p>Functional connectivity with wider landscape- The heathland resource is extensive in county terms but is fragmented, mainly by closed tree canopy habitat and roads. It is therefore vulnerable to encroachment, boundary effects, pollution, recreational impact and hydrological changes.</p> <p>Vegetation structure - Variations in the structure of the heathland vegetation (vegetation height, amount of canopy closure, and patch structure) is needed to maintain high niche diversity and hence high species richness of characteristic heathland plants and animals. There is currently low cover (<25%) of dwarf shrubs present for the feature and less than 15% of scrub and tree cover.</p> <p>Soils - the soils of the wet heath habitat are vulnerable to, and have been exposed to acidification, nutrient enrichment and pollution due to their fragmentation and proximity to roads and urban/residential development.</p> <p>Illumination - Epping Forest is fragmented by roads and largely surrounded by urban development and residential areas. Opportunities</p>	<p><i>acetosella, Succisa pratensis, Scilla verna, Serratula tinctoria, Teucrium scorodonia Thymus praecox, Viola riviniana,</i></p> <p>There are many plants and animals which use or co-exist with non-native trees, but many rare and threatened woodland species are specialists adapted to one or a few native trees or shrub species (birches, willows and oaks, are examples of trees that host many specialist insect species). At this SAC, site-native species of tree and shrub include those typical of the H9120 type including Beech <i>Fagus sylvatica</i>, Oak <i>Quercus robur</i> and <i>Quercus petraea</i>, Holly <i>Ilex aquifolium</i>, Bramble <i>Rubus fruticosus</i> agg. Honeysuckle <i>Lonicera periclymenum</i>, Hornbeam <i>Carpinus betulus</i>, Silver birch <i>Betula pendula</i>, Downy birch <i>Betula pubescens</i>, Yew <i>Taxus baccata</i>, Elder <i>Sambucus nigra</i>, Goat willow <i>Salix caprea</i> and Wild Cherry <i>Prunus avium</i>. In addition to this, the characteristic mosaics and transitions of ancient forests and wood-pasture-types are well-represented within the site and are necessary for the conservation of SAC features and site integrity.</p> <p>Key species of ground flora, epiphytic bryophytes, mosses, liverworts and lichens are also listed.</p>

⁷⁰ European Site Conservation Objectives: Supplementary advice on conserving and restoring site features Epping Forest (SAC). Natural England, January 2019. Available at: <http://publications.naturalengland.org.uk/publication/5908284745711616>.

Site name and area (ha)	Location	Qualifying features	Threats and pressures	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
			<p>should be sought to minimise and reduce light pollution from existing development and any development plans or projects to ensure SAC features and significant biodiversity assets are safeguarded.</p>	
<p>Wormley - Hoddesdonpark Woods SAC (336.47 ha)</p>	<p>Epping Forest SAC is formed of several fragmented sites located north of the borough and within the 15km boundary buffer. The closest site is 4.3km north of the LBE boundary.</p>	<p><u>Annex I Habitats (which are a primary reason for the selection of this site):</u> Sub-Atlantic and medio – European oak, or oak-hornbeam forests of the <i>Carpinion betuli</i>.</p>	<p>Threats and pressures⁷² on this site include the following:</p> <ul style="list-style-type: none"> ■ Disease ■ Invasive species ■ Air Pollution: risk of atmospheric nitrogen deposition ■ Deer ■ Vehicles: illicit ■ Forestry and woodland management ■ Public access / disturbance <p>Disease - Acute Oak Decline (AOD) is present in at least two parts of the site and affects both native oak species, which are key components of this woodland type.</p> <p>Invasive species - Several tree and shrub species not native to the site are present. Where they are not being actively controlled, they are gradually spreading. The more invasive of these include sycamore, turkey oak, rhododendron and snowberry.</p> <p>Air Pollution: risk of atmospheric nitrogen deposition - Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection and hence there is a risk of harmful effects, but the sensitive features are currently considered to be in favourable condition on the site.</p> <p>Deer – Browsing and grazing by deer can reduce tree regeneration and</p>	<p>The supplementary advice on conserving and restoring site features⁷⁴ makes it clear that the qualifying habitat can be affected by change of habitat and soil disturbance/compaction adjacent to the site.</p> <p>Light grazing and browsing by sheep and deer helps promote a diverse woodland structure but heavy browsing can prevent woodland regeneration.</p> <p>The supplementary advice identifies the following non qualifying habitats/features that the qualifying features depend on:</p> <p>Vegetation community composition - maintaining or restoring these characteristic and distinctive vegetation types, and the range of types as appropriate, will be important to sustaining the overall habitat feature.</p> <p>Vegetation Structure – open space (for woodland pasture with old trees) - having some open, sunlit and largely tree-less areas as part of the woodland community is often important to facilitate natural tree and shrub regeneration and also to provide supporting habitat for specialist woodland invertebrates, birds, vascular and lower plants.</p> <p>Vegetation structure – dead wood – for this habitat type, old or over-mature elements of the woodland are particularly characteristic and important features.</p>

⁷² Site Improvement Plan: Wormley-Hoddesdonpark Woods, Natural England, April 2015. Available at: <http://publications.naturalengland.org.uk/publication/6314181103976448?category=35016>.

⁷⁴ European Site Conservation Objectives: Supplementary advice on conserving and restoring site features Wormley Hoddesdonpark Woods Special Area of Conservation (SAC). Natural England, January 2019. Available at: <http://publications.naturalengland.org.uk/publication/4919819195383808>.

Site name and area (ha)	Location	Qualifying features	Threats and pressures	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
			<p>damage the woodland understorey and ground flora. Deer damage levels are currently only moderate and do not appear to be affecting tree regeneration, habitat structure or species composition greatly.</p> <p>Vehicles: illicit - Illegal use of restricted byways and bridleways by off-road vehicles causes localised but sometimes severe rutting and soil compaction, damaging the woodland ground flora, shrubs and trees. Fly-tipping damages the ground flora directly and can introduce toxins and alien species.</p> <p>Forestry and woodland management - The larger woodland units with public access are under appropriate management but some of the smaller, privately-owned units are not which can result in a reduction in structural and species diversity (particularly in previously coppiced areas), the loss of temporary and permanent open space, the over-shading and deterioration of veteran pollards, and the spread of invasive species.</p> <p>Public Access/Disturbance – As the site is a large, attractive area of ancient woodland with extensive public access and close to large urban centres, it is heavily used by the public for recreational purposes.</p> <p>In addition to the above, the supplementary advice⁷³ identifies the following vulnerabilities:</p> <p>Vegetation community composition - maintaining or restoring these characteristic and distinctive vegetation types, and the range of types as appropriate, will be important to sustaining the overall habitat feature.</p> <p>Vegetation Structure – open space (for woodland pasture with old trees) - having some open, sunlit and largely tree-less areas as part of the woodland community is often important to facilitate natural tree and shrub regeneration and also to provide supporting habitat for specialist woodland invertebrates, birds, vascular and lower plants. Currently, the</p>	<p>The vegetation community composition is as follows:</p> <p>The largest part of the site is oak-bracken-bramble woodland, dominated by sessile oak <i>Quercus petraea</i> and hornbeam <i>Carpinus betulus</i>, with areas of pedunculate oak <i>Quercus robur</i> and hornbeam. Further there are large stands of almost pure hornbeam (former coppice). There are also marshy areas with alder <i>Alnus glutinosa</i>, pendulous sedge <i>Carex pendula</i> and yellow pimpernel <i>Lysimachia nemorum</i> as well as areas with higher proportions of ash <i>Fraxinus excelsior</i>, Dogs Mercury <i>Mercurialis perennis</i> and Yellow Archangel <i>Lamium galeobdolon</i> on the chalky boulder clay. Areas dominated by bluebell <i>Hyacinthoides non-scripta</i> do occur, but elsewhere there are stands of great wood-rush <i>Luzula sylvatica</i> with carpets of the mosses <i>Dicranum majus</i> and <i>Leucobryum glaucum</i>. Locally, a bryophyte community more typical of continental Europe occurs, including the mosses <i>Dicranum montanum</i>, <i>D. flagellare</i> and <i>D. tauricum</i>.</p>

⁷³ European Site Conservation Objectives: Supplementary advice on conserving and restoring site features Wormley Hoddesdonpark Woods Special Area of Conservation (SAC). Natural England, January 2019. Available at: <http://publications.naturalengland.org.uk/publication/4919819195383808>.

Site name and area (ha)	Location	Qualifying features	Threats and pressures	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
			<p>areas of open space within the wood-pasture areas are insufficient to meet the desired target.</p> <p>Vegetation structure – dead wood – for this habitat type, old or over-mature elements of the woodland are particularly characteristic and important features, and their continuity should be a priority.</p> <p>Root zones of ancient trees - unless carefully managed, activities such as construction, forestry management and trampling by grazing livestock and human feet during recreational activity may all contribute to excessive soil compaction around ancient trees.</p>	

Appendix B

Screening matrices

B.1 The matrices below show which types of impacts on European sites could potentially result from each of the policies and site allocations in the Enfield Local Plan. In **Table B.1**, where a policy is not expected to have a particular type of impact, the relevant cell is shaded green. Where a policy could potentially have a certain type of impact, this is shown in orange. Policies that could provide mitigation for adverse effects on European sites are identified in explanatory text highlighted grey. The final column of the policies matrix sets out the nature of potential significant effects if they were to arise. Where uncertain or likely significant effects are identified, these are required to be considered further via Appropriate Assessment.

B.2 The allocated sites matrix (**Table B.2**) considers which sites need to be screened in for different types of impact.

Table B.1: Screening matrix – policies

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
4. Good growth in Enfield			
SP SS1: Spatial strategy (At least 34,710 homes, with 304,000 sqm of net additional industrial and logistics floorspace and 40,000 sqm of net additional office floorspace)	Residential development Employment development Changes in vehicle traffic Water abstraction / discharge	Loss or disturbance of functionally linked habitat Air pollution Recreation pressure Changes in water quality / quantity	Yes. This policy defines the overall quantum of housing and employment development that will be proposed as part of the plan, and therefore will contribute to effects largely relating to population increase such as recreation pressure, air pollution and water abstraction/treatment.
SP SS2: Making good places	None; this policy sets out placemaking principles but will not itself result in new development.	None	No
5. Place			
SP PL1: Enfield Town	None; this policy sets out the principles of development. The new development itself has been assessed in relation to the policy's associated site allocations: SA1.1 to SA1.7.	None	No
SP PL2: Southbury	None; this policy sets out the principles of development. The new development itself has been assessed in relation to the policy's associated site allocations: SA2.1 to SA2.7.	None	No
SP PL3: Edmonton Green	None; this policy sets out the principles of development. The new development itself has been assessed in relation to the policy's associated site allocations: SA3.1 & SA3.2.	None	No

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
SP PL4: Angel Edmonton	None; this policy sets out the principles of development. The new development itself has been assessed in relation to the policy's associated site allocations: SA4.1 to SA4.5.	None	No
SP PL5: Meridian Water	None; this policy sets out the principles of development. The new development itself has been assessed in relation to the policy's associated site allocations: SA5.1 to SA5.8.	None	No
SP PL6: Southgate	None; this policy sets out the principles of development. The new development itself has been assessed in relation to the policy's associated site allocations: SA6.1 to SA6.3.	None	No
SP PL7: New Southgate	None; this policy sets out the principles of development. The new development has been assessed in relation to the policy's associated site allocations: SA7.1 to SA7.5.	None	No
SP PL8: Palmers Green	None; this policy sets out the principles of development. The new development has been assessed in relation to the policy's associated site allocations: SA8.1 to SA8.4.	None	No
SP PL9: Rural Enfield	None; this policy sets out the principles of development and has no associated allocated sites.	None	No
SP PL10: Chase Park (3,200 homes)	Sustainable urban extension (Chase Park Placemaking Area): Residential-led mixed use development Note that this assessment considers the sustainable urban extension as a whole. The	Air pollution Recreation pressure Changes in water quality / quantity	Yes. This policy allocates a total of 3,200 new homes within the Plan period (3,700 in total), which will therefore contribute to air pollution, recreation pressure and changes in water quality / quantity.

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
	area comprises four allocated sites (SA10.1 to SA10.4, also assessed separately) plus additional development.		
SP PL11: Crews Hill (3,500 homes)	Sustainable urban extension (Crews Hill Placemaking Area): Residential-led mixed use development Note that this assessment considers the sustainable urban extension as a whole. The area comprises six allocated sites (SA11.1 to SA11.6, also assessed separately) plus additional development.	Air pollution Recreation pressure Changes in water quality / quantity	Yes. This policy allocates a total of 3,500 new homes within the Plan period (5,000 in total), which will therefore contribute to air pollution, recreation pressure and changes in water quality / quantity.
6. Sustainable Enfield			
SP SE1: Responding to the climate emergency	None; this policy explains how the council will seek to reduce the environmental impact of new development.	None	No This policy encourages a reduction in air pollution in the borough and could contribute to mitigation for air pollution effects. It also states that the council will work with developers to reduce flood risk and improve waste water infrastructure in line with the Council's Infrastructure Delivery Plan, which may help reduce water quality / quantity impacts. The policy also supports the safeguarding and maximising the role of the natural environment to reduce the effects of climate change.
DM SE2: Sustainable design and construction	None; this policy sets out additional requirements for developers to demonstrate, and incorporate, sustainable design and construction methods in future development	None	No This policy requires developments of ten dwellings or more to achieve a minimum Home Quality Mark certification of 4*, and

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
	proposals but will not itself result in new development.		large (>1000m2) non-residential development to achieve a minimum BREEAM rating of Excellent. These certification schemes have associated water efficiency standards; this policy may therefore contribute to mitigation for water quantity impacts.
DM SE3: Whole-life carbon and circular economy	None; this policy sets out additional requirements for developers to ensure that proposal prioritise the reuse and retrofit of existing buildings and minimise environmental impact of materials used in development.	None	No
DM SE4: Reducing energy demand and increasing low carbon energy supply	None; this policy sets out energy efficiency standards for buildings and achieving net zero but will not itself result in new development.	None	No
DM SE5: Renewable energy development	None; this policy sets out principles to minimise the impacts of renewable energy development but will not itself result in new development.	None	No
DM SE6: Climate change adaptation and managing heat risk	None; this policy sets out additional requirements for developers to demonstrate that mitigation measures against overheating have been incorporated in future development proposals but will not itself result in new development.	None	No
DM SE7: Managing flood risk	None; this policy sets out additional requirements for developers to demonstrate that protective measures against flood risk have been incorporated in future	None	No

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
	development proposals but will not itself result in new development.		
DM SE8: Protection and improvement of watercourses	None; this policy sets out principles for the protection of watercourses and will not result in new development.	None	No This policy requires development in close proximity to watercourses to be set back (by a distance to be agreed with the Environment Agency and other bodies) to allow maintenance, river restoration and habitat enhancement. Development must not result in deterioration of a watercourse. This will contribute to mitigation for water quality effects associated with direct run-off and physical habitat loss of functionally linked land (where development is immediately adjacent).
DM SE9: Sustainable drainage systems	None; this policy sets out additional requirements for developers to demonstrate they have incorporated SuDS provision into future development proposals but will not itself result in new development.	None	No This policy requires developments to use SuDS to reduce pollution, where relevant. It also states that development on or adjacent to watercourses must not result in deterioration in a watercourse. This will contribute to mitigation for water quality effects due to run-off.
5. Addressing equality and improving health and wellbeing			
SP SC1: Improving health and wellbeing of Enfield's diverse communities	None; this policy sets out additional requirements for developers to demonstrate how future development proposals will contribute to health and wellbeing and were a	None	No

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
	health impact assessment is required but will not itself result in new development.		
SP SC2: Protecting and enhancing social and community infrastructure	Community and social infrastructure e.g. schools	Loss or disturbance of functionally linked habitat Non-physical disturbance Air pollution Changes in water quality / quantity	Yes. This policy will permit development outside of allocated sites and will contribute to changes in demand for water and travel patterns.
6. Blue and green Enfield			
SP BG1: Enfield's blue and green infrastructure network	Green and blue infrastructure	Recreation pressure	Yes. This policy primarily promotes the protection and provision for new green and blue infrastructure. However, one of the key proposals is to include a new 'green-loop', which will provide access to the Lee Valley Regional Park. This may improve access to the Lee Valley SPA and Ramsar and as such increase levels of recreation in this site. This policy requires development to protect and enhance significant ecological features and states the council's commitment to protecting and enhancing habitats and wildlife corridors across the Borough. This may contribute to improved/maintained resilience of European sites.
SP BG2: Protecting nature conservation sites	None; this policy sets out principles for protecting designated sites.	None	No This policy provides general protection for European sites

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
SP BG3: Protecting Epping Forest Special Area of Conservation	None; this policy sets out principles for protecting Epping Forest SAC and the provision of Recreation Mitigation.	None	No This policy provides specific protection in relation to recreation pressure at Epping Forest SAC. The policy also sets out the requirements for Recreation Mitigation.
SP BG4: Biodiversity net gain, landscape restoration and offsetting	None; this policy sets targets for biodiversity gain.	None	No This policy may contribute to increased resilience of the European sites, by improving biodiversity throughout the Borough.
SP BG5: Green Belt and Metropolitan Open Land	None; this policy sets safeguards the Green Belt and MOL from inappropriate development but will not itself result in development.	None	No
SP BG6: Development in the open countryside and greenspaces including in the Green Belt and Metropolitan Open Land	None; sets principles governing development within Green Belt but will not itself result in development.	None	No
SP BG7: Strategy for enhancing the beneficial uses of the Green Belt and Metropolitan Open Land	None; sets principles for the use of the Green Belt and Metropolitan Open Land.	None	No This policy may contribute to increased resilience of the European Sites through compensatory improvements to the Green Belt and MOL and enhancements to the Green Infrastructure network.
DM BG8: Protecting open space	None; sets principles governing development within designated open space but will not itself result in development.	None	No
DM BG9: Watercourses	None; this policy sets out principles for development near watercourses and	None	No

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
	waterspaces and the provision of new moorings away from the River Lee/Lea but will not itself result in development.		
DM BG10: Urban greening and biophilic principles	None; this policy sets out the requirement for new development to promote opportunities for greening and will not itself result in new development.	None	No
DM BG11: Allotments and community food production	None; this policy sets out principles for the provision of allotments as part of new developments but will not itself result in new development.	None	No
DM BG12: Burial and crematorium spaces	Burial and crematorium space	Air pollution	No. This policy allocates two sites for burial and crematorium space but none are in close proximity to European sites. Potential contribution to air pollution at European sites likely to be limited.
DM BG13: Blue and green infrastructure plans	None; this policy sets out additional requirements for major planning applications to submit blue and green infrastructure plans but will not itself result in new development.	None	No
7. Design and character			
SP DE1: Delivering a well-designed, high quality and resilient environment	None; this policy sets out design principles for the public realm and all new development but will not itself result in new development.	None	No
DM DE2: Design process and Design Review Panel	None; this policy sets out the design requirements as part of the planning	None	No

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
	application process and will not result in new development.		
DM DE3: Inclusive design	None; this policy sets out principles for making development more accessible but will not itself result in new development.	None	No
SP DE4: Putting heritage at the centre of placemaking	None; this policy sets out additional planning requirements and design principles to ensure that new developments will enhance heritage assets but will not itself result in new development.	None	No
DM DE5: Strategic and important local views	None; this policy sets out additional planning requirements to ensure that new developments will not harm long distance and designated views but will not itself result in new development.	None	No
DM DE6: Tall buildings	None; this policy defines appropriate locations for tall buildings and sets out design principles, but will not itself result in new development (beyond that defined by other policies).	None	No
DM DE7: Creating liveable, inclusive and quality public realm	None; this policy sets out design principles for public realm but will not itself result in new development.	None	No
DM DE8: Design of business premises	None; this policy sets out design principles and requirements for new business premises but will not itself result in new development.	None	No

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
DM DE9: Shopfronts and advertisements	None; this policy relates to shopfronts and advertising and will not result in new development.	None	No
DM DE10: Conserving and enhancing heritage assets	None; this policy sets out additional planning requirements and design principles to ensure that new developments will conserve and enhance heritage assets and/or a registered park and garden but will not itself result in new development.	None	No
DM DE11: Landscape design	None; this policy sets principles for landscape design and will not result in new development.	None	No
DM DE12: Civic and public developments	None; this policy sets out design principles and requirements for new civic buildings but will not itself result in new development.	None	No
DM DE13: Housing standards and design	None; this policy sets design standards for new residential development but will not itself result in new development.	None	No
DM DE14: External amenity standards	None; this policy sets design standards for external private amenity space but will not itself result in new development.	None	No
DM DE15: Residential extensions and outbuildings	None; this policy describes the circumstances in which extensions to existing property and outbuildings will be permitted, but will not itself result in new development (e.g. a new home).	None	No

8. Homes for all

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
SP H1: Housing development sites (at least 34,710 dwellings)	Residential development	Loss or disturbance of functionally linked habitat Non-physical disturbance Air pollution Recreation pressure Changes in water quality / quantity	Yes. This policy is the overarching policy for site allocations and will therefore contribute to location-specific effects such as non-physical disturbance, as well as effects related to location and quantum of development (air pollution, recreation pressure, changes in water quality / quantity).
SP H2: Affordable housing	None; this policy describes the mix of housing tenure that will be provided but will not itself result in new development (beyond that defined by other policies)	None	No
DM H3: Housing mix and type	None; this policy describes the mix of dwelling size and type and the proportion of accessible housing that will be provided but will not itself result in new development (beyond that defined by other policies)	None	No
DM H4: Small sites and small housing development (3,530 homes)	Residential development Changes in vehicle traffic Water abstraction / discharge	Air pollution Recreation pressure Changes in water quality / quantity	Yes. The quantum of residential development proposed is small-scale but this policy may result in effects related to location and quantum of development (air pollution, recreation pressure, changes in water quality / quantity)..
DM H5: Supported and specialist housing	None, this policy supports the need for appropriate housing to meet the specialist and supported needs of vulnerable people.	None	No
DM H6: Community led housing	None; this policy sets out principles for community led housing schemes but will not	None	No

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
	result in new development over and above that set out in other policies (e.g. H4).		
DM H7: Build to rent	None; this policy sets out additional requirements relating to design, management and the desired tenure mix for build-to-rent developments but will not itself result in new development.	None	No
DM H8: Large scale purpose-built shared housing	None; this policy sets out additional requirements relating to design, management and the affordable housing contribution for purpose-built shared living developments but will not itself result in new development.	None	No
DM H9: Student accommodation	None; this policy sets out additional requirements relating to design, location, management and the desired tenure mix for student accommodation developments but will not itself result in new development.	None	No
DM H10: Traveller accommodation (at least 21 pitches)	Residential development Changes in vehicle traffic Water abstraction / discharge	Loss or disturbance of functionally linked habitat Air pollution Recreation pressure Changes in water quality / quantity	Yes. The quantum of residential development proposed is likely to be small-scale (just development coming forward through Traveller Local Plan). However, may result in a Likely Significant Effect in-combination with other policies outlining proposed development in the plan, such as SS1, H1 and E1.
9. Economy			
SP E1: Employment and growth	Employment development Changes in vehicle traffic	Loss or disturbance of functionally linked habitat	Yes. This policy sets out the quantum and location of employment development in the borough and therefore has the potential to

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
(304,000 sqm industrial / logistics floor space and 40,000 sqm office floor space)	Water abstraction / discharge	Air pollution Changes in water quality / quantity	contribute to effects relating to changes in (working) population (e.g. air pollution) as well as more location-specific effects such as loss or disturbance of functionally linked habitat.
SP E2: Promoting jobs and inclusive business growth	None; this policy adds detail to the spatial strategy set out in Policy E1 but will not itself result in new development.	None	No
SP E3: Strategic Industrial Locations	None; this policy sets out safeguarding measures to protect existing employment sites and describes the types of development appropriate to each type of employment development location (defined in E1), but will not itself result in new development.	None	No
SP E4: Supporting offices	None; this policy sets principles for new office space but will not itself result in new development.	None	No
SP E5: Transforming Industrial Sites	Industrial development Employment development Changes in vehicle traffic Water abstraction / discharge	Loss or disturbance of functionally linked habitat Air pollution Changes in water quality / quantity	Yes. This policy allows intensification of industrial uses within existing SILs and LSISs and could therefore contribute to effects arising from overall quantum of development as well as more location-specific effects.
DM E6: Locally Significant Industrial Sites	None; this policy safeguards existing sites and sets principles for their redevelopment but will not itself result in new development.	None	No
DM E7: Non-designated industrial sites	None; this policy safeguards existing sites and sets principles for their redevelopment but will not itself result in new development.	None	No

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
DM E8: Providing for workspaces	None; this policy supports the provision of development in Enfield Town and Southgate but will not itself result in new development.	None	No
DM E9: Local jobs, skills and local procurement	None; this policy sets out additional requirements for certain developments to facilitate jobs for locals and to protect working environments but will not itself result in new development.	None	No
DM E10: Fostering a successful evening economy	None; this policy supports the development that contributes to Enfield's town centre but will not itself result in new development.	None	No
DM E11: Creating a smart and digitally connected Borough	None; this policy sets out additional requirements for developers to demonstrate how future development proposals will incorporate high quality digital connections and services but will not itself result in new development.	None	No
DM E12: Meridian Hinterlands	Employment development Changes in vehicle traffic Water abstraction / discharge	Air pollution Changes in water quality / quantity	Yes. This policy supports employment-led redevelopment at Meridian Hinterlands and therefore has the potential to contribute to effects relating to changes in water quality / quantity and air pollution.
10. Town centres and high streets			
SP TC1: Promoting town centres	None; this policy defines principles for development within town centres but will not itself result in new development.	None	No

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
SP TC2: Encouraging vibrant and resilient town centres	None; this policy defines the types of development that will be acceptable in town centre locations but will not itself result in new development.	None	No
DM TC3: Floorspace above commercial premises	None; this policy supports the re-use or refurbishment of existing developments but will not itself result in new development.	None	No
DM TC4: Markets	None; this policy sets out additional requirements to ensure the new developments will not affect existing markets but will not itself result in new development.	None	No
DM TC5: Meanwhile uses	None; this policy outlines the principles for temporary use of land and buildings prior to redevelopment and will not itself result in new development.	None	No
DM TC6: Managing the clustering of town centres uses	None; this policy sets out additional requirements to manage the mix of uses in any new town centre developments but will not itself result in new development.	None	No
11. Rural Enfield			
DM RE1: Character of the Green Belt and open countryside	None; this policy sets out the circumstances in which previously developed Green Belt sites would be permitted to be developed but will not itself result in new development.	None	No
DM RE2: Improving access to the countryside and green corridors	Changes to the rights of way network Pedestrian, cycling and equestrian routes	Recreation pressure	Yes. This policy has the potential to improve access to the Lee Valley SPA / Ramsar and

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
	Green and blue infrastructure		as such may contribute to increased recreation pressure.
SP RE3: Supporting the rural economy	None; this policy explains what development will be appropriate in rural areas to improve employment opportunities, but will not itself result in new development.	None	No
DM RE4: Farm diversification and rural employment	None; this policy promotes the diversification of land use from farming and agriculture to other ecological, business uses and/or sport but will not itself result in new development.	None	No
12. Culture, leisure and recreation			
SP CL1: Promoting culture and creativity	None; this policy supports the provision of arts, culture and entertainment uses but will not itself result in new development.	None	No
DM CL2: Leisure and tourism	Leisure development Tourism development Changes in vehicle traffic Water abstraction and discharge	Air pollution Recreation pressure. Changes in water quality / quantity	Yes. This policy provides for leisure and tourism development in LBE. This has the potential to contribute to effects largely related to overall quantum of development e.g. air pollution, recreation pressure or changes in water quality / quantity.
DM CL3: Visitor accommodation	Tourism development Changes in vehicle traffic Water abstraction and discharge	Air pollution Recreation pressure. Changes in water quality / quantity	Yes. This policy sets out the provision for visitor accommodation, within town and district centres. This has the potential to contribute to effects largely related to overall quantum of development e.g. air pollution, recreation pressure or changes in water quality / quantity.

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
SP CL4: Promoting sporting excellence	Sports and leisure facilities Changes in vehicle traffic Water abstraction and discharge	Loss or disturbance of functionally linked habitat Air pollution Changes in water quality / quantity	Yes. This policy permits sports and leisure facilities, focussed on four allocated sites. This policy could contribute to changes in traffic flows and therefore air pollution. One of the allocated sites (RUR.06) is also close to the River Lee/Lea and could therefore have water quality effects and result in loss or disturbance of functionally linked land, e.g. associated with run-off.
DM CL5: Sport, open space and recreation	None; this policy sets out the requirement for development to make provision for sport facilities and open space and will not itself result in new development.	None	No This policy requires major residential development to improve open space provision and to provide new publicly accessible open space on site in areas of deficiency. This may contribute to mitigation for recreation pressure effects.
DM CL6: Protecting and attracting public houses	None; this policy sets out the principles for protecting and making provision for new public houses and bars but will not itself result in development.	None	No
13. Movement and connectivity			
SP T1: Promoting a sustainable and decarbonised transport system	Transport infrastructure Changes in vehicle traffic	Air pollution Recreation pressure	Yes This policy could change how people travel to greenspaces including European sites, which could alter recreation pressure. This policy is intended to encourage sustainable transport and result in fewer journeys by car but could alter patterns of travel more generally,

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
			increasing or decreasing air quality at European sites..
DM T2: Forming a healthy and connected Enfield	None; this policy sets out requirements for developers to demonstrate how future development proposals will encourage active travel but will not itself result in new development.	None	No This policy requires developments to demonstrate how they will improve opportunities to cycle and walk, limit parking, provide Electric Vehicle Charging Points, and create or contribute to safe low traffic neighbourhoods in the Borough. This may contribute to mitigation for air pollution effects.
DM T3: Constructing a vibrant and safe Enfield for everyone	None; this policy encourages compact and mixed use developments in close proximity to designations and services, but will not itself result in new development.	None	No This policy encourages development that is well connected for public transport and active travel, and is in close proximity to services. This may contribute to mitigation for air pollution effects.
14. Environmental protection			
SP ENV1: Local environmental protection	None; this policy sets out additional requirements for developers to demonstrate that mitigation or protective measures against environmental issues have been incorporated in future development proposals but will not itself result in new development.	None	No Requires major developments to carry out air quality assessments and be air quality neutral. Developments must mitigate impacts from noise, lighting, contaminated land and hazardous waste. This will contribute to mitigation for air pollution and non-physical disturbance. The policy also states that proposals that adversely affect water quality (including aquifers) will not be permitted. Developments

Policy	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
			must reduce run off through the use of SuDS and pollution control measures. This will contribute to mitigate for water quality effects due to pollution.
15. Delivering and monitoring			
SP D1: Securing contributions to mitigate the impact of development	None; sets out the mechanisms and requirements for developer contributions but will not itself result in development.	None	No
DM D2: Masterplans and Design Codes to achieve comprehensive development	None; this policy sets out requirements for masterplanning and design codes but will not itself result in new development.	None	No
DM D3: Infrastructure and phasing	None; this policy sets out requirements for the provision of infrastructure and phasing information but will not itself result in new development.	None	No
DM D4: Monitoring and review	None; this policy sets out how the spatial vision and strategic objectives of the Local Plan will be monitored and reviewed to ensure that they are delivered.	None	No

Table B.2: Screening matrix – allocated sites

Type of impact	Screening criteria (‘Development site could have a significant effect if...’)	Potential development sites meeting screening criteria (sites to be considered in Appropriate Assessment)
Physical damage and loss of habitat	Development occurs within or immediately adjacent to a European site or functionally linked habitat.	<p>No European sites are located within the boundary of the LBE, so no development sites will result in physical damage or loss of habitat within a European site.</p> <p>Four site allocations are very close to William Girling Reservoir / King George’s Reservoir (<100m from reservoirs and adjacent to the River Lee Navigation), which is functionally linked to the Lee Valley SPA/Ramsar site:</p> <ul style="list-style-type: none"> ■ RUR.06, Land at Picketts Lock (mixed use); and, ■ URB.28, Land and buildings to the south east of Stockingswater Lane, Brimsdown (industrial); ■ URB.29, Land to the south of Millmarsh Lane, Brimsdown Industrial Estate (Industrial); and, ■ URB.33, 6 Morson Road (Industrial). <p>Development could in theory also occur outside of identified sites.</p>
Non-physical disturbance (vibrations, noise and lighting)	Development occurs within 500m of a European site of functionally linked habitat that supports qualifying features susceptible to impacts from non-physical disturbance, such as vibration, noise and light.	<p>None of the site allocations are within 500m of a European site, although seven are within 500m of the William Girling / King George’s that are functionally linked to the Lee Valley SPA/Ramsar site:</p> <ul style="list-style-type: none"> ■ RUR.06, Land at Picketts Lock (Mixed use); ■ URB.28, Land and buildings to the south east of Stockingswater Lane, Brimsdown (industrial); ■ URB.29, Land to the south of Millmarsh Lane (Industrial); ■ URB.31, Snowbird foods extension, Snowbird Foods Ltd.14 Wharf Road (Industrial); ■ URB.33, 6 Morson Road (Industrial); and ■ URB.35, Riverwalk Business Park 24 Riverwalk Road (Industrial). <p>Development could in theory also occur outside of identified sites.</p>
Air pollution	Development increases traffic flows by at least 1,000 AADT or 200 HDVs AADT (alone or in combination) on roads within 200m of Epping Forest SAC, Lee Valley SPA/Ramsar or Wormley	None of the site allocations will result in a significant increase in traffic on roads within 200m of European sites alone, or as part of the Local Plan as a whole alone. However, all of them could contribute to in-combination effects (i.e. traffic from the Plan as a whole, plus traffic associated with other plans or projects).

Type of impact	Screening criteria (‘Development site could have a significant effect if...’)	Potential development sites meeting screening criteria (sites to be considered in Appropriate Assessment)
	<p>Hoddesdonpark Wood SAC; i.e. the following roads:</p> <ul style="list-style-type: none"> ■ Epping Forest SAC (M25, A110, A104, A114, A121, A1199, A406, A503, Brook Road, Buckhurst Way, Claypit Hill, Monkham’s Lane, Pynest Green Lane). ■ Lee Valley SPA and Ramsar and functionally linked habitats at Chingford Reservoirs SSSI (A1055, A503, and B179). <p>Wormley Hoddesdonpark Woods SAC (A10, and Darnicle Hill).</p>	
Recreation pressure	Residential development proposed within 6.2km of Epping Forest SAC and 7km of Lee Valley SPA and Ramsar and Wormley Hoddesdonpark Wood SAC.	<p>Sites within 6.2km of Epping Forest SAC:</p> <ul style="list-style-type: none"> ■ All site allocations associated with Place policies PL1-5 (i.e. SA1.1 to SA5.8); and ■ Residential and residential/mixed use site allocations: URB 01, 08-10, 12-15, 17, 19-21, and 23-26. <p>Sites within 7km of Lee Valley SPA/Ramsar:</p> <ul style="list-style-type: none"> ■ All site allocations associated with Place policies PL1-8 (i.e. SA1.1 to SA8.4); ■ Crews Hill Placemaking Area PL11 Crews Hill and its site allocations (SA11.1 to SA11.6); ■ Some of the site allocations associated with Chase Park Placemaking Area PL10 Chase Park: SA10.2, SA10.3; and part of SA10.4; and ■ Residential and residential/mixed use site allocations: URB 01, 08-11, 12-21, and 23-26. <p>Sites within 7km of Wormley Hoddesdonpark Woods SAC:</p> <ul style="list-style-type: none"> ■ Crews Hill Placemaking Area PL11 Crews Hill and its site allocations (SA11.1 to SA11.6); and ■ Residential and residential/mixed use site allocations: URB.11 and 14.

Type of impact	Screening criteria (‘Development site could have a significant effect if...’)	Potential development sites meeting screening criteria (sites to be considered in Appropriate Assessment)
		Development could in theory also occur outside of identified sites.
Changes in water quantity / quality	<p>Development is close to / upstream of watercourse that passes through Lee Valley SPA or its supporting habitat.</p> <p>Development discharges to watercourses in / groundwater under the Lee Valley SPA/Ramsar</p> <p>Development extracts water from watercourses in / groundwater under Lee Valley SPA/Ramsar</p>	<p>The following sites are adjacent to one of the branches of the River Lee/Lea:</p> <ul style="list-style-type: none"> ■ Some of the site allocations associated with Place policy PL5: SA5.3 to SA5.7 (mixed uses); ■ RUR.03, Land to the north of Mollison Avenue, south of the M25 and east of Freezywater (Industrial). ■ RUR.06, Picketts Lock (Leisure uses); ■ URB.28, Land and buildings to the south east of Stockingswater Lane, Brimsdown (Industrial); ■ URB.29, Land to the south of Millmarsh Lane (Industrial); and ■ URB.33, 6 Morson Road (Industrial). <p>Ground conditions and the location of aquifers is complex, so many of the development sites could overlay the superficial aquifer, although this is more likely in the east of the borough, within the Lee Valley (sites as above).</p> <p>Any of the site allocations could contribute to the need to extract additional water from the reservoirs or groundwater.</p> <p>Development could in theory also occur outside of identified sites.</p>

Appendix C

Potential development sites considered in the HRA

Table C.1: Local Plan site allocations

Site reference	Site name	Capacity	Proposed use
Enfield Town (SP PL1)			
SA1.1	Palace Gardens Shopping Centre	329	Mixed Use (Housing + town centre uses)
SA1.2	Enfield Town Station and the Former Enfield Arms	180	Mixed Use (Housing + town centre uses at ground floor)
SA1.3	Tesco, Southbury Road	303	Mixed use (Housing + supermarket)
SA1.4	Enfield Civic Centre	114	Mixed Use (Housing + offices)
SA1.5	St Anne's Catholic High School for Girls	131	Housing
SA1.6	100 Church Street	78	Housing
SA1.7	Oak House, 43 Baker Street	47	Housing
Southbury (SP PL2)			
SA2.1	Colosseum Retail Park	1587 + 7,224 sqm	Mixed Use (Housing + town centre uses)
SA2.2	Heritage House	22,120 sqm	Industrial
SA2.3	Morrisons, Southbury Road	646	Mixed use (Housing + supermarket)
SA2.4	Southbury Leisure Park	605	Mixed Use (Housing + town centre uses i.e. re-provided leisure/recreation uses i.e. cinema)
SA2.5	Tesco, Ponders End	521	Mixed use (Housing + supermarket)
SA2.6	Sainsburys Crown Road	434 + 20,685 sqm	Mixed use (Housing + supermarket)
SA2.7	Crown Road Lorry Park	8,123 sqm	Industrial
SA2.8	Land and buildings north of Lincoln Road	26,328 sqm	Industrial
Edmonton Green (SP PL3)			
SA3.1	Edmonton Green Shopping Centre	1423 + 41,400 sqm	Mixed Use (Housing + town centre uses)
SA3.2	Chiswick Road Estate	146	Housing

Site reference	Site name	Capacity	Proposed use
Angel Edmonton (SP PL4)			
SA4.1	Joyce Avenue and Snells Park Estate	1188	Housing (with some supporting non-residential uses such as social infrastructure)
SA4.2	Upton Road and Raynham Road	134 + 188 sqm	Housing (with some supporting non-residential uses such as social infrastructure)
SA4.3	Langhedge Lane Industrial Estate	120 + 4,000 sqm	Mixed Use (Housing + re-provision of light industrial at Ground floor)
SA4.4	South east corner of the North Middlesex University Hospital Trust of Sterling Way, London	260 + 3,000 sqm	Mixed Use (Housing + offices)
SA4.5	Public House, 50-56 Fore Street, London	58 + 420 sqm	Mixed Use (Housing + town centre uses at ground floor)
Meridian Water (SP PL5)			
SA5.1	Meridian Water Phase 1	978 + 2,000 sqm	Residential-led mixed-use
SA5.2	Meridian Water Phase 2	2236 + 8,500 sqm	Residential-led mixed-use
SA5.3	Former IKEA, Meridian Water	810 + 15,000 sqm	Residential-led mixed-use
SA5.4	Tesco Extra, Meridian Water	819 + 7,000 sqm	Residential-led mixed-use
SA5.5	Meridian 13	TBC	Residential-led mixed-use
SA5.6	Meridian East (Harbet Road)	815	Residential + light Industrial in new LSIS + intensified SIL area
SA5.7	Ravenside Retail Park	21,700 sqm	New SIL
SA5.8	Kenninghall Metals and Waste	TBC	New SIL
Southgate (SP PL6)			
SA6.1	Southgate Office Village	216 + 3,473 sqm	Mixed Use (Housing + offices with ground floor café)
SA6.2	Barnet and Southgate College	0 (reprovision)	Non-residential
SA6.3	Minchenden Car Park and Alan Pullinger Centre	48	Housing
New Southgate (SP PL7)			
SA7.1	Former Gasholder, New Southgate	182 + 371 sqm	Mixed Use (Housing with ground floor commercial uses)
SA7.2	Aldi, New Southgate (Formerly Homebase)	203	Mixed Use

Site reference	Site name	Capacity	Proposed use
SA7.3	Ladderswood Estate	107 + 1,554 sqm	Housing (with some supporting non-residential uses such as social infrastructure)
SA7.4	Arnos Grove Station Car Park	162 + 89 sqm	Housing (with some non-residential uses such as café/retail)
SA7.5	Coppice Wood Lodge	45	Housing
Palmers Green (SP PL8)			
SA8.1	Morrisons, Palmers Green.	130 + 6,000 sqm	Mixed Use (Housing + Supermarket)
SA8.2	Lodge Drive Car Park	124	Housing
SA8.3	Corner of Green Lanes and the North Circular	129	Mixed Use (Housing + Supermarket)
SA8.4	Travis Perkins Palmers Green	84 + 3,200sqm	Mixed Use (Housing with reprovision of existing use)
Chase Park (SP PL10)			
SA10	Chase Park (Chase Park Placemaking Area)	3,700 (3,200 during Plan period)	Housing (with supporting non-residential uses such as social infrastructure)
SA10.1	Land South of Merryfields Brook	TBC	Residential-led mixed-use
SA10.2	Arnold House (66 Ridgeway) & Land to the rear of 66 the Ridgeway (west)	42	Housing (older persons)
SA10.3	Land East of Slamons Brook	TBC	Residential-led mixed-use
SA10.4	Land East of Slamons Brook	TBC	Residential-led mixed-use
Crews Hill (SP PL11)			
SA11	Crews Hill (Crews Hill Placemaking Area))	5,500 (3,500 during Plan period)	Housing (with supporting non-residential uses such as social infrastructure) - large scale new settlement
SA11.1	Crews Hill North West	See Crews Hill Placemaking Area	Residential-led mixed-use
SA11.2	Crews Hill South West	See Crews Hill Placemaking Area	Residential-led mixed-use
SA11.3	Crews Hill; North East	See Crews Hill Placemaking Area	Residential-led mixed-use
SA11.4	Crews Hill	See Crews Hill Placemaking Area	Residential-led mixed-use

Site reference	Site name	Capacity	Proposed use
SA11.5	Crews Hill South	See Crews Hill Placemaking Area	Residential-led mixed-use
SA11.6	Crews Hill East	See Crews Hill Placemaking Area	Residential-led mixed-use
Other proposed site allocations outside of the place making areas (urban areas)			
URB.01	Land known as Brimsdown Sports Ground	532	Housing (with supporting non-residential uses to support open space)
URB.02	Cockfosters Station Car Park	351 + 924 sqm	Housing
URB.03	Former Chase Farm Hospital	344 + 36,320 sqm	Housing (with some supporting non-residential uses such as social infrastructure)
URB.04	Blackhorse Tower, Cockfosters Road	216	Housing
URB.05	New Avenue Estate	204 + 319 sqm	Housing (with some supporting non-residential uses such as social infrastructure)
URB.06	Former Middlesex University, Trent Park	249	Housing (with some supporting non-residential uses such as social infrastructure)
URB.07	Sainsburys Green Lanes	368 + 13,325 sqm	Mixed use (Housing + supermarket)
URB.08	Hoe, Eastfield, Cherry and Bouvier Estates	240	Housing (infill)
URB.09	Exeter Road Estate	129	Housing (with some supporting non-residential uses such as social infrastructure)
URB.10	Alma Estate	127 + 3,800 sqm	Housing (with some supporting non-residential uses such as social infrastructure)
URB.11	The Former Royal Chace Hotel	115	Housing (including older persons)
URB.12	241 Green Street	92	Mixed use (Housing + non-residential commercial use at ground floor)
URB.13	Hertford Road, Archers and Roman Way, Larksfield Grove Caterhatch, Lytchet Way and Sherbourne Avenue Estate	199	Housing (infill)
URB.14	Four Hills Estate, Lavender Hill	99	Housing (infill)
URB.15	Kettering Rd Estate	90	Housing (infill)
URB.16	188-200 Bowes Road	86 + 526 sqm	Housing

Site reference	Site name	Capacity	Proposed use
URB.17	Main Avenue Site	80	Housing (infill)
URB.18	Land at Ritz Parade	71	Mixed Use
URB.19	Albany Leisure Centre and Car Park	85	Housing (with some supporting non-residential uses to reprovide existing)
URB.20	Cuckoo Hall Lane Estate	59	Housing (infill)
URB.21	Moorfield Health Centre	52	Housing (with some supporting non-residential uses such as social infrastructure)
URB.22	Oakwood Station Car Park	52	Housing
URB.23	Stoneleigh Avenue Estate	42	Housing (infill)
URB.24	Fore Street Estate	39	Housing (infill)
URB.25	Peveny Avenue	36	Housing (infill)
URB.26	Fords Grove Car Park	29	Housing
URB.27	South Street	29	Housing (infill)
Other proposed site allocations outside of the place making areas (outside urban areas)			
RUR.01	Land opposite Enfield Crematorium (known as The Dell), Great Cambridge Road	291	Housing (with some supporting non-residential uses)
RUR.02	Land between Camlet Way and Crescent West, Hadley	160	Housing
Other sites outside the place making areas			
RUR.03	Land West of Rammey Marsh	70,200 sqm	Industrial
URB.28	Land and Buildings South East of Stockingswater Lane	80,753 sqm	Industrial
URB.29	Land to the south of Millmarsh Lane, Brimsdown Industrial Estate	32,500 sqm	Industrial
URB.30	Montagu Industrial Estate	6,613 sqm	Industrial
URB.31	Snowbird Foods extension	3,289 sqm	Industrial
URB.32	Claverings Industrial Estate	3,219 sqm	Industrial
URB.33	6 Morson Road	2,600 sqm	Industrial
URB.34	5 Picketts Lock Lane	2,297 sqm	Industrial
URB.35	Riverwalk Business Park	924 sqm	Industrial
RUR.04	Land East of Junction 24	30,550 sqm	Industrial

Site reference	Site name	Capacity	Proposed use
RUR.05	Land to the North West of Innova Park	16,445 sqm	Industrial
All other uses			
RUR.06	Land at Picketts Lock	N/A	Sporting / Leisure - being promoted for a bespoke surfing lake
RUR.07	Whitewebbs Golf Course & Land at and within the vicinity of Tottenham Hotspur Football Club Training Ground, Hotspur Way, Whitewebbs Lane.	N/A	Nature Recovery / Sporting - being promoted for expansion of club's training ground including ladies training ground
RUR.08	Sloemans Farm	N/A	Burial
SA6.2	Barnet and Southgate College	N/A	Education and complementary uses
URB.36	Church Street Recreation Ground	N/A	Crematorium

Appendix D

Record of consultation

Table D.1: Responses to the consultation comments received on the Issues and Options Consultation (December 2018 and February 2019)

Respondent	Representation	LUC's response
<p>Natural England</p>	<p>Emerging strategic approach for Epping Forest Special Area of Conservation (SAC)</p> <p>A new mitigation strategy is currently being formulated for Epping Forest SAC. The strategy is intended to avoid an adverse effect resulting from both recreational pressure and air quality deterioration arising from development coming forward over the next plan period. In the absence of a strategic approach to mitigation, an adverse effect on the SAC is likely and development may not be able to come forward. Natural England is advising a number of authorities as to their responsibilities as competent authorities under the Habitats Regulations (2017) in relation to the emerging approach.</p> <p>As part of the work required to produce the Mitigation Strategy, Footprint Ecology undertook a visitor survey to identify a recreational zone of influence and to identify the distance the majority of visitors will travel to visit Epping Forest SAC. This report identified that 75% of visitors travelled up to 6.2Km to the SAC.</p> <p>Natural England therefore advises that in the interim period (that is until further evidence collected during Summer 2019 can be examined and taken into account. Aiming for January 2020), a zone of influence (Zol) of 6.2Km is used to determine whether residential applications will have a recreational impact on Epping Forest SAC.</p> <p>A significant proportion of the Borough of Enfield lies within the identified Zol. There is the potential for a significant amount of housing to come forward in the Eastern part of the borough, in closer proximity to the SAC, as part of the Upper Lee Valley Opportunity Area (OA). We advise that the mitigation strategy should form a key strategic consideration for development proposed to be delivered within this area.</p> <p>Natural England has now issued revised Interim Advice on the approach, which can be used by authorities to determine planning applications. It still does not address the potential air pollution impacts as Natural England is still considering the recently updated Habitats Regulations Assessment for the Epping Forest District local plan. In relation to recreational pressure, the advice refers to a number of potential mitigation options as part of a 'toolbox' approach. Provision of Page 2 of 3 Suitable Alternative Natural Greenspace (SANG) is the preferred option, however the other options allow for flexibility where this is demonstrably not possible due to spatial limitations in urban areas. This advice is attached to this response.</p> <p>In the context of Enfield Local Plan, policy should be produced which outlines the expectations for mitigation measures required for development coming forward within the Zol. In order to demonstrate no adverse effect on the SAC in-combination with other plans and projects, the Plan should demonstrate how development coming forward over the course of the plan period will provide sufficient avoidance and mitigation measures through the</p>	<p>The ZOI of 6.2km has been applied and a Recreation Mitigation Strategy developed alongside the Reg.19 Local Plan.</p> <p>Traffic modelling has been undertaken to understand the effects of the Local Plan on traffic flows and therefore air quality at European sites, in line with DMRB guidance.</p>

Respondent	Representation	LUC's response
	<p>Mitigation Strategy. Allocation policies should be clear as to the requirements for mitigation in relation to specific allocations.</p> <p>In relation to air quality, traffic modelling should be undertaken to assess the likely change in Annual Average Daily Traffic (AADT) movements on roads within 200m of the SAC resulting from development coming forward over the course of the plan period, in-combination with other plans and projects. Where an adverse effect is identified, either alone or in-combination, avoidance and mitigation measures should be provided sufficient to preclude the possibility an effect arising from development within the plan.</p>	
	<p>Lee Valley Special Protection Area (SPA) – Walthamstow Wetlands</p> <p>Walthamstow Wetlands - part of the Lee Valley SPA - opened to the public in 2017. Development proposed at Meridian Water is within walking distance of the wetlands, and as such is likely to contribute to additional recreational pressure at the site. Natural England has engaged with the development of the Enfield Leaside Area Action Plan, which relates to the first 5000 units of development, and have outlined our position through a Statement of Common Ground with Enfield Council. If the Enfield Local Plan proposes to allocate additional residential development at the site, consideration will have to be given as to the potential for additional precautionary mitigation and avoidance measures through further discussion with Natural England.</p>	<p>Additional residential development has been allocated in the Reg.19 Local Plan and this has been taken into consideration in the Appropriate Assessment of recreation impacts at Lee Valley SPA.</p>
	<p>The Local Plan should be screened under Regulation 105 of the Conservation of Habitats and Species Regulations 2017 (as amended) at an early stage so that outcomes of the assessment can inform key decision making on strategic options and development sites. It may be necessary to outline avoidance and/or mitigation measures at the plan level, which will usually need to be considered as part of an Appropriate Assessment, including a clear direction for project level HRA work to ensure no adverse effect on the integrity of internationally designated sites.</p> <p>As mitigation is likely to be required through this plan to demonstrate no adverse effect in relation to European sites, we advise that following the People Over Wind European Court Judgment, an appropriate assessment of the plan will be required.</p> <p>Natural England would welcome early discussion on the HRA of the plan and can offer further advice as policy options are progressed.</p> <p>Natural England advises that all relevant SSSIs, European sites (SACs and SPAs) and Ramsar sites should be included on the proposals map for the area so they can be clearly identified in the context of proposed development allocations and policies for development. Designated sites should be protected and, where possible, enhanced.</p>	<p>The HRA has been carried out following best practice guidance and with reference to relevant case law.</p> <p>HRA is an iterative process and has been consulted on as part of the Local Plan consultations, and through direct communication with Natural England. The findings of the HRA have informed the Local Plan policies.</p>

Respondent	Representation	LUC's response
	In accordance with the paragraph 171 of NPPF, the plan should allocate land with the least environmental or amenity value. Natural England expects sufficient evidence to be provided, through the SA and HRA, to justify the site selection process and to ensure sites of least environmental value are selected, e.g. land allocations should avoid designated sites and landscapes and significant areas of best and most versatile agricultural land and should consider the direct and indirect effects of development, including on land outside designated boundaries and within the setting of protected landscapes.	

Table D.2: Responses to the consultation comments received on the Regulation 18 HRA (June and September 2021)

Respondent	Representation	LUC's response
Lee Valley Regional Park Authority	<p>Policy BG2 Protecting Nature Conservation Sites includes a reference to the need for development involving over 100 new homes within 6km of the boundary of the Epping Forest SAC, (known as the “zone of influence”) to secure appropriate mitigation and avoidance measures in the form of strategic alternative nature green space (SANG) to offset any potential effects arising from increased recreation pressure and air pollution on the Epping Forest SAC. The LVRP and Pickett’s Lock are identified as locations for SANG mitigation in terms of recreation pressure.</p> <p>The Authority’s officers would welcome further discussion on this point in due course; a similar discussion is underway with officers at Waltham Forest who are working on a SANGS SPD. It will be necessary to understand the implications of the HRA Report and its recommendations for revising policy to ensure “the Local Plan provides specific guidance on the circumstances in which SANG, developer contributions and/or project level HRA will be needed, and the quantities required” and that this is referenced in policy text (paragraph 6.10).</p> <p>It will be important to identify appropriate sites within the Park to meet the requirements of SANG mitigation and understand what this will mean for the long term management in relation to the Authority’s venues and open spaces and delivery of the PDF proposals. The open spaces within the Regional Park, many of which are designated as part of the Lee Valley SPA, already face considerable recreation pressure from visitors and increased numbers of local residents, which makes their management for ecological objectives in accordance with these designations difficult.</p>	<p>As part of the HRA, suitable policy wording has been agreed between Enfield Council and LUC to ensure that mechanisms for securing sufficient Recreation Mitigation alongside new development are embedded within the Local Plan (in a new Policy BG3), such that development would not be permitted that would have an adverse effect on the integrity of European sites.</p> <p>Enfield Council commissioned a Recreation Mitigation Strategy which identified suitable locations for Recreation Mitigation; the HRA reflects the conclusions of the Recreation Mitigation Strategy.</p> <p>A further round of consultation on the HRA will be carried out alongside the Reg.19 Local Plan.</p>
Epping Forest District Council	In respect of matters that relate solely to the EFSAC, EFDC notes the results of the screening opinion in the HRA assessment draft report, June 2021 (HRA):	Traffic modelling and air quality assessment have been undertaken and have informed the HRA of the Reg.19 Local Plan.

Respondent	Representation	LUC's response
	<p>For air pollution, it is unknown at this stage whether the Local Plan will have a likely significant effect on its own due to a lack of traffic forecast data, but it is considered very likely that it will have a significant effect in combination with the traffic increases associated with growth in neighbouring plans.</p> <p>The Council notes that the HRA states, in relation to Air Pollution, that further work is required to assess whether the screening thresholds are exceeded either from the Local Plan alone or in combination with other plans and projects. It states that if AADT thresholds are exceeded, air quality modelling will be required to understand whether the plan will result in adverse effect on integrity and whether avoidance measures can be applied which prevent adverse impacts on integrity. EFDC notes that Enfield Council has commissioned these assessments which will be completed following this Regulation 18 consultation.</p> <p>We also note that the HRA states: However, it is unclear at this stage how or if traffic from Enfield will be mitigated by the strategy proposed by Epping Forest District Council, and it is likely that Enfield would need its own mitigation strategy in place. The proposed approach is something that requires further discussion between the neighbouring authorities and Natural England and is part of ongoing discussions under their Duty to Cooperate.</p> <p>Until the traffic modelling and air quality assessment has been completed, and mitigation agreed, it is not possible for EFDC to conclude no adverse effects on the integrity of the Epping Forest SAC as a result of air pollution.</p>	
Epping Forest District Council	<p>The HRA report at paragraph 5.23 notes that Epping Forest District Council has published an interim air pollution mitigation strategy which sets out a suite of mitigation measures that will be implemented and identifies 'the main feature of the strategy is the establishment of a Clean Air Zone, which will need to be in place by 2025'. To be clear, whether such a zone continues to be needed and how this zone could work taking account of local issues and the flexibilities associated with establishing such a zone, is subject to continued environmental measurement and the detailed work-up of all schemes on the list including the options that surround a clean air zone. The introduction of a Clean Air Zone, to disincentivise only the drivers of the most polluting vehicles, will only be required if demonstrated by evidence that all of the other measures aren't successful. These measures are set out in the Interim Air Pollution Mitigation Strategy</p>	<p>We are aware that work on the EFDC air pollution mitigation strategy is ongoing and are keeping abreast of the implications of this in consultation with Natural England.</p>
Epping Forest District Council	<p>However, as set out in the HRA report, without more specific mitigation (for example required quantity of SANG/developer contributions) incorporated into Policy BG2 and the wording of any site allocation policies or development briefs that may be drafted at Regulation 19 stage, it is not possible to conclude no adverse effects on the integrity of Epping Forest SAC, as a result of recreation pressure.</p> <p>However, as set out in the HRA report, without more specific mitigation (for example required quantity of SANG/developer contributions) incorporated into Policy BG2 and the wording of any site allocation policies or</p>	<p>Agreed; revised policy wording will be agreed and the HRA updated to assess the revisions.</p>

Respondent	Representation	LUC's response
	<p>development briefs that may be drafted at Regulation 19 stage, it is not possible to conclude no adverse effects on the integrity of Epping Forest SAC, as a result of recreation pressure. Mitigation for recreation pressure at Epping Forest SAC needs to be set out in the Local Plan in order to avoid adverse effects on the integrity of Epping Forest SAC.</p>	
<p>Natural England</p>	<p>We welcome the strength of the policy in terms of development not being permitted where it would adversely affect the integrity of SPAs and SACs, unless it meets the requirements in the regulations. We would advise that a HRA screening is required for all sites with the Zone of Influence of a Habitat Site (SPAs and SACs) in order to comply with the Habitats Regulations. If Likely Significant Effect cannot be ruled out, an Appropriate Assessment detailing mitigation measures should be provided, as highlighted by the People over Wind case and subsequent judgement. The text in point 2 of the summary box could be clarified to better reflect this process. Natural England looks forward to working with Enfield on a specific borough wide approach to HRAs in the future.</p>	<p>Amendments to policy text have been considered in the Regulation 19 stage of the HRA.</p>
<p>Natural England</p>	<p>"Our comments relating to Epping Forest SAC are as follows:</p> <ul style="list-style-type: none"> ■ the 6th March 2019 Natural England published interim advice detailing the emerging strategic approach on the Epping Forest SAC mitigation strategy. This outlines the avoidance and mitigation measures required for developments of different sizes and in different Zones of Influence (ZOI) of Epping Forest SAC. ■ Following on from the previous bullet point, we note that currently the local plan only refers to developments of over 100 units in point 3 of SP BG2, this needs to better reflect the interim strategy in terms of the need for SAMM and SANG payments as appropriate. ■ Developments in the 0-3km ZOI are required to contribute SAMM payments, and this should be made clearer. If this is only collected on major developments (>10 units) to also cover the mitigation costs of minor developments, then NE is happy to agree to this approach, but it should be written up in the supporting text and HRA. ■ As you are aware the discussions around moving the interim strategy forward are ongoing. Currently the oversight group is hopeful that a governance agreement and breakdown of the SAMM tariff may be able to be brought before councils in January 2022 and we would advise that the policy may need to be amended as appropriate as these discussions develop. <p>We advise the addition of a further point to this policy stating that appropriate avoidance and mitigation measures will be secured prior to occupation.</p>	<p>Further mitigation within (new) Policy BG3 in relation to recreation pressure on Epping Forest SAC has been considered at Regulation 19 stage of the Local Plan and HRA.</p>

Respondent	Representation	LUC's response
Natural England	Paragraph 6.1.1 in 'Blue and green Enfield' highlights Enfield's many open spaces, including over 300ha of woodland and scrubland. Area like this provides strong potential opportunities for SANG, which we are aware forms a part of the mitigation put forward in table 6.1. Natural England have previously discussed the possibility of a site visit to Enfield to visit potential SANG opportunities within the borough, and this is an offer we would like to reiterate. We would like to work with Enfield Council to identify suitable mitigation options in the borough and are happy to continue these discussions. The Local Plan can be used as a vehicle to identify potential developer mitigation options around the borough. Having this sort of strategic approach to the avoidance and mitigation measures for Epping Forest SAC would help in the evidence base for the HRA to show that the quantum of housing proposed is deliverable. Currently, the identified avoidance and mitigation measures for Epping Forest SAC gives some level of risk to the deliverability of this Plan.	As commented above, a Recreation Mitigation Strategy has been prepared and potential sites identified with Natural England.
Natural England	With regards to the HRA, we understand that much of this work is ongoing, and largely agree with the conclusions of the current HRA with regards to the summary of the Appropriate Assessment given in Table 5.1. We note that this HRA quotes the 2017 Footprint Ecology Visitor Survey, referencing 1.24% of visits to the forest come from the London Borough of Enfield and we would advise that this should be updated to the 2% illustrated in the 2019 Visitor Survey.	The HRA has been updated to reflect the most recent Visitor Survey (2019 survey).
Natural England	The Local Plan indicates a housing delivery target of 25,000 homes by 2039. Whilst the contribution of this new development to air pollution impacts on the nearby designated sites is partially dependent on the chosen spatial development strategy, without effective cross-boundary cooperation with other Boroughs, it is unlikely that a Likely Significant Effect on the SAC can be ruled out. Natural England agree with the conclusions of the HRA that currently the effects of the plan on air quality remain uncertain and that further information is required. We are pleased to see that the air pollution and traffic data surveys have been commissioned by Enfield Council and would be happy to discuss these once completed.	Noted and agreed.
Natural England	Recreation pressure on Epping Forest SAC: In terms of recreation pressure avoidance and mitigation measures, we agree with the recommendations made in the HRA, especially in paragraph 5.56 highlighting the importance of strategic SANG measures and the need for more detailed wording in policy BG2. For these reasons we agree with the conclusion given in paragraph 5.59 that it is not possible to conclude no adverse effects on the integrity of Epping Forest SAC as a result of recreation pressure at this stage.	Noted.
LB Redbridge	Epping Forest SAC is a key strategic issue affecting both ourselves and Enfield. Epping Forest is a popular recreational destination, the popularity of which has only increased recently. The HRA Screening identifies air pollution and recreational disturbance as potential likely significant effects on Epping Forest SAC; with the eastern part of Enfield being within the 6.2km buffer zone for recreation pressure.	Noted and agreed.

Respondent	Representation	LUC's response
<p>City of London - Conservators of Epping Forest</p>	<p>The Conservators understand the Borough's desire to maintain and improve the economic potential of the Borough. In relation to the Forest and the EFSAC, the Borough's location with access to the M25 and A406 would be attractive to businesses looking to service London. A concern for The Conservators would be the impact such new business will have on increased traffic on these roads which also dissect the Forest and have a major effect in terms of nitrogenous air-pollution. The HRA, does not reach firm conclusions on this issue and detailed traffic modelling is required to understand the potential for increased traffic from workers coming out of the Borough to attend work at potential new industrial or office sites or the operations of such sites along these traffic corridors.</p> <p>As discussed at the meeting of officers on 6th September on air quality, we accept that the HRA at this stage is only "qualitative" and requires the input of quantitative traffic data. We are also concerned that Epping Forest remains "at high risk" from the proposed development in the Local Plan, as was made clear at the 6th Sept meeting by the air quality consultant for the Borough. We await the input of these data in future iterations of the HRA and look forward to discussing the implications of the traffic models.</p> <p>Air Pollution – 5.26 indicates that all potential site allocations within the Plan may contribute 'in combination' to adverse effects on the integrity of the Epping Forest SAC, especially in relation to the M25, A104 & A1069. The HRA currently concludes that until traffic modelling and air quality assessment has been completed and mitigation details have been provided, it is not possible to conclude no adverse effects on the integrity of the EFSAC. Therefore, we await the details of the traffic modelling, until we can make further comment on the effect of the LB Enfield Local Plan.</p>	<p>Noted and agreed: further work to assess traffic and air pollution effects has been carried out.</p>
<p>City of London - Conservators of Epping Forest</p>	<p>Comments have been made, above, regarding Table 6.1 in the Local Plan Reg.18 document. However, we concur with the conclusion of the HRA at 5.59 that: "Without more specific mitigation (for example required quantity of SANG/developer contributions) incorporated into Policy BG2 and the wording of any site allocation policies or development briefs that may be drafted at Regulation 19 stage, it is not possible to conclude no adverse effects on the integrity of Epping Forest SAC, as a result of recreation pressure".</p> <p>The Conservators, therefore, await further details of SANG allocations associated with the Local Plan, and working in conjunction with the Borough and Natural England on those proposed. The Conservators would reiterate the need of the Enfield to utilise Forest-type landscapes within the Borough to create SANGS that replicate the desirable recreational offer of the Forest.</p>	<p>Noted.</p>
<p>City of London - Conservators of Epping Forest</p>	<p>The Conservators welcomes the ambition and objectives of the Borough's Local Plan but encourages the Borough to give further serious consideration through its HRA's Appropriate Assessment to the impact of the Plan's proposals on the statutorily protected area of Epping Forest.</p>	<p>Noted.</p>

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