

Habitats Regulations Assessment of the Lee Valley Regional Park Authority

Park Development Framework Draft Strategic Policies

Appropriate Assessment

December 2018



LEPUS CONSULTING
LANDSCAPE, ECOLOGY, PLANNING & URBAN SUSTAINABILITY

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Acronyms

AA	Appropriate Assessment
AIOSI	Adverse Impact on Site Integrity
APIS	Air Pollution Information System
BAP	Biodiversity Action Plan
BTO	British Trust for Ornithology
CJEU	Court of Justice of the European Union
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
HRA	Habitat Regulation Assessment
LCA	Landscape Character Area
LSE	Likely Significant Effect
LVRP	Lee Valley Regional Park
LVRPA	Lee Valley Regional Park Authority
MENE	Monitor of Engagement with the Natural Environment
MoU	Memorandum of Understanding
NPPF	National Planning Policy Framework
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SANG	Suitable Alternative Natural Greenspace
SIP	Site Improvement Plan
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
WeBS	Wetland Bird Survey Data

Executive Summary

- E1 The Lee Valley Regional Plan Draft Strategic Policies have been considered in light of the assessment requirements of regulation 63 / 105 of the Conservation of Habitats and Species Regulations 2017 by the Lee Valley Regional Park Authority. This is the competent authority responsible for adopting the Strategic Policies and any assessment of it required by the Regulations.
- E2 Having carried out a 'screening' assessment of the Draft Strategic Policies, the Lee Valley Regional Park Authority concluded that it would be likely have a significant effect on the Lee Valley Special Protection Area and Ramsar and Epping Forest Special Area of Conservation. Consequently, an appropriate assessment was required of the implications of the Draft Strategic Policies on the qualifying features of those sites in light of their conservation objectives.
- E3 Following an appropriate assessment in accordance with the Regulations, the competent authority has ascertained that the Draft Strategic Policies would not have an adverse effect on the integrity of the Lee Valley Special Protection Area and Ramsar and Epping Forest Special Area of Conservation either alone or in combination with other plans or projects.
- E4 Natural England will now be consulted on the findings and conclusions of this assessment.

1 Introduction

- 1.1.1 Lee Valley Regional Park Authority (LVRPA) is currently reviewing and updating the original Strategic Policies contained in the existing Park Plan (2000)¹ to reflect the new vision of the Lee Valley Regional Park (LVRP) and to take into account its changing context.
- 1.1.2 Appropriate Assessment (AA) of Local Plans is a requirement of Regulation 105 of the Conservation of Habitats and Species Regulations 2017² (the Habitats Regulations). When updating its Park Plan Strategic Policies, the LVRPA is therefore required by law to carry out a Habitat Regulations Assessment (HRA). The requirement for authorities to comply with the Habitats Regulations when preparing a Local Plan is also noted in the Government's online planning practice guidance.
- 1.1.3 Lepus Consulting has therefore prepared this HRA AA report of the LVRP Park Plan: Update of Strategic Policies on behalf of the LVRPA. This report focuses solely on the assessment of the Strategic Policy updates and does not provide an assessment of other elements of the Park Development Framework.

1.2 The HRA process

- 1.2.1 The HRA process assesses the potential effects of a plan or project on the conservation objectives of European sites designated under the Habitats³ and Birds⁴ Directives. These sites form a system of internationally important sites throughout Europe known collectively as the 'Natura 2000 Network'.

¹ Lee Valley Regional Park Authority (2000) Park Plan. Available at: <https://www.leevalleypark.org.uk/en/content/cms/corporate/enhancing-the-valley/park-plan/>

² The Conservation of Habitats and Species Regulations 2017 (2017) SI No. 2017/1012, TSO (The Stationery Office), London.

³ Official Journal of the European Communities (1992). Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

⁴ Official Journal of the European Communities (2009). Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds

- 1.2.2 European sites provide valuable ecological infrastructure for the protection of rare, endangered and/or vulnerable natural habitats and species of exceptional importance within the EU. These sites consist of Special Areas of Conservation (SACs), designated under the Habitats Directive, and Special Protection Areas (SPAs), classified under European Directive 2009/147/EC on the conservation of wild birds (the Birds Directive). Additionally, paragraph 176 of the National Planning Policy Framework (NPPF)⁵ requires that sites listed under the Ramsar Convention (The Convention on Wetlands of International Importance, especially as Waterfowl Habitat) are to be treated as if they are fully designated European sites.
- 1.2.3 There is no set methodology or specification for carrying out and recording the outcomes of the assessment process. Government guidance on the HRA process was published by Defra in 2013 as a consultation draft. In the absence of a finalised or alternative version since then, the 2013 consultation draft represents the Government's most recent thinking.
- 1.2.4 The 2013 consultation draft helped inform the Habitats Regulations Assessment Handbook, produced by David Tyldesley Associates (referred to hereafter as the DTA Handbook). The DTA Handbook, and in particular 'Practical Guidance for the Assessment of Plans under the Regulations'⁶, which forms part F, was used to prepare this report. This is widely considered to be an appropriate basis for the HRA of plans, as the Handbook is also used by Natural England, the Government's statutory nature conservation organisation.
- 1.2.5 A step-by-step guide to this methodology, as outlined in the DTA Handbook, is illustrated in **Figure 1.1**. In summary the four key stages of the HRA process are as follows:
- Stage 1. Screening: Screening to determine if the Plan would be likely to have a significant effect on a European site;
 - Stage 2. Appropriate Assessment and the Integrity Test: Assessment to ascertain that the Plan would not have a significant adverse effect on the integrity of a European site.

⁵ Ministry of Housing, Communities & Local Government (2018). National Planning Policy Framework.

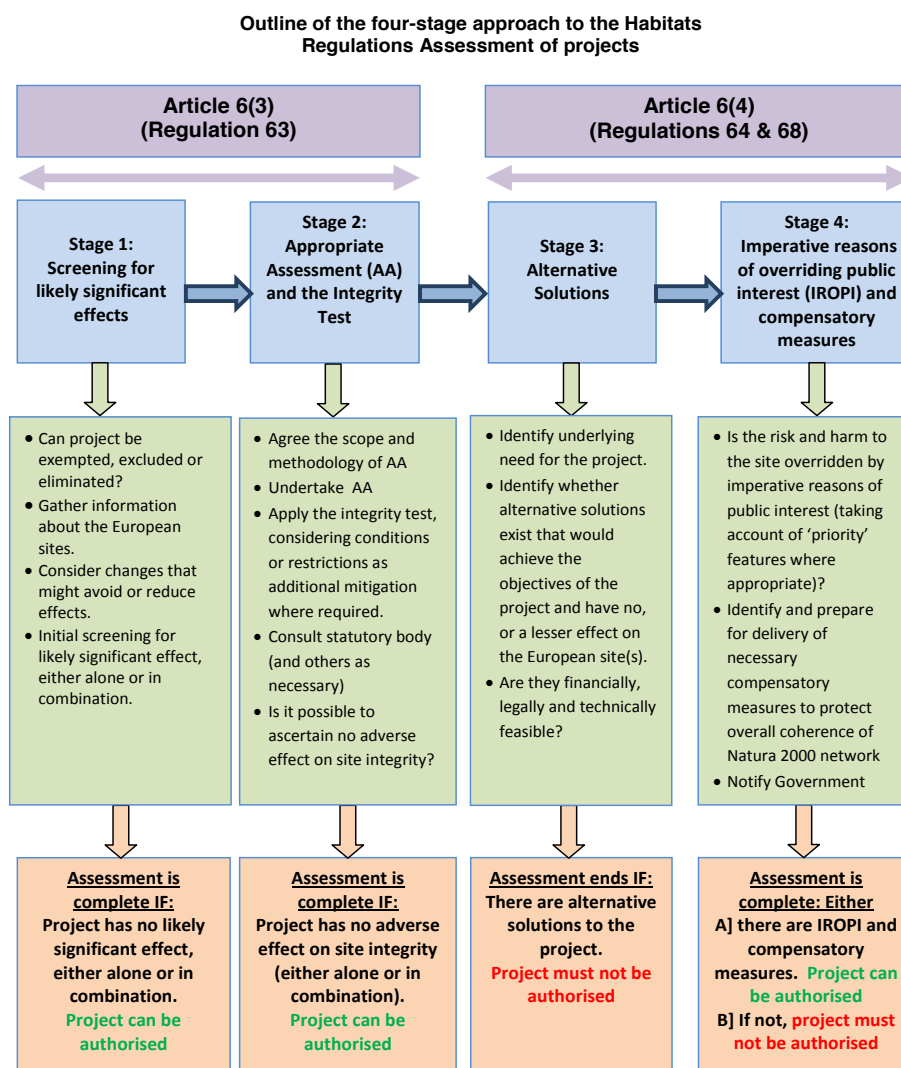
⁶ Tyldesley, D., and Chapman, C., (2013) The Habitats Regulations Assessment Handbook (September) (2013) edition UK: DTA Publications Limited. Available at www.dtapublications.co.uk

- Stage 3. Alternative solutions: Deciding whether there are alternative solutions which would avoid or have a lesser effect on a European site.
- Stage 4. Imperative reasons of overriding public interest and compensatory measures: Considering imperative reasons of overriding public interest and securing compensatory measures.

1.2.6 This report presents the methodology and findings of Stages 1 and 2 of the HRA process.

1.2.7 This HRA report is structured as follows:

- Chapter 2 describes the structure and content of the Strategic Policies of the Park Plan;
- Chapter 3 sets out the methodologies adopted;
- Chapter 4 describes the findings of the screening stage of the HRA;
- Chapters 5 and 6 describe the assumptions made and assessment findings for the Appropriate Assessment stage of the HRA;
- Chapter 7 summarises the assessment conclusions and recommendations of the HRA of the Strategic Policies of the Park Plan.



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Figure 1.1: Stages in the Habitats Regulations Assessment (reproduced from DTA)⁷.

⁷ Tyldesley, D., and Chapman, C., (2013) *The Habitats Regulations Assessment Handbook* (October) (2018) edition UK: DTA Publications Limited. Available at www.dtapublications.co.uk

2 Park Plan: Strategic Policies

- 2.1.1 The LVRP is Britain's first regional park and stretches for 26 miles along the River Lea from the River Thames in East London to Ware in Hertfordshire. Established by Parliament in 1967 the Regional Park was created to meet the recreation, leisure and nature conservation needs of London, Hertfordshire and Essex. The LVRPA is the statutory body responsible for managing and developing the LVRP.
- 2.1.2 The current Strategic Policies of the Park Plan (2000)⁸ address 'Key Issues' for the LVRP identified through research, performance, evaluation and consultation. The policies cover topic specific issues identified in detailed studies.
- 2.1.3 The central aim of the Strategic Policies is to guide development within and adjacent to the LVRP in order to protect and enhance resources of the Park. These resources include land, landscapes, nature, water, culture and heritage. Objectives for each of these resources are related to 'Key Issues', which are subdivided by the themes of Vision, Resources, Increasing Use and Implementation and Evaluation. In sum, the Park Plan puts forward Strategic Policies for the following:
- Land Resource;
 - Landscape;
 - Nature Conservation;
 - Water;
 - Culture and Heritage Resources;
 - Water Recreation;
 - Informal Recreation;
 - Formal Recreation;
 - Culture and Heritage; and
 - Tourism and the Visitor.
- 2.1.4 LVRPA is currently reviewing and updating the original Strategic Policies contained in the existing Park Plan to reflect the new vision of the LVRP and to take into account its changing context.
- 2.1.5 The updated Park Plan Strategic Policies are set out in **Table 2.1**.

⁸ Lee Valley Regional Park Authority (2000) Park Plan. Available at:
<https://www.leevalleypark.org.uk/en/content/cms/corporate/enhancing-the-valley/park-plan/>

Table 2.1: Updated Park Plan Strategic Policies

Strategic Planning Aim	Strategic Policy
Effective use & management of land	<p>E1: Work with landowners and key stakeholders across the Regional Park to ensure:</p> <ul style="list-style-type: none"> a) the most effective use of land and property in fulfilment of its statutory purpose; and b) that development proposals take into consideration the Natural Capital Accounting Framework. <p>E2: Development proposed on sites either within or outside the Park which could adversely impact on its amenity will be resisted or planning obligations sought in line with other policies within this Plan.</p>
Conserve and enhance the Park's landscape character, key views and openness	<p>L1: Require all development proposals to demonstrate how their location, scale, design and materials respect and respond to the character, sensitivities and qualities of the relevant landscape character areas, as detailed in the Landscape Character Assessment (LCA).</p> <p>L2: Secure designs of new buildings and other structures which are appropriate to their landscape context as identified in the draft Landscape Character Assessment.</p> <p>L3: Require full landscape and visual assessments to be made of all proposals for tall buildings for sites both within and adjacent to the Park.</p> <p>L4: Protect views that promote a sense of orientation and/or an appreciation of the natural and physical environment of the Lee Valley.</p>
Conserve and enhance the cultural heritage of the Park and its historic environment	<p>H1: Conserve and enhance the Park's historic environment and cultural heritage, including its archaeology, historic buildings, structures, landscapes and their settings.</p> <p>H2: Support proposals to enhance access to and interpret the heritage assets, recognising their value in providing opportunities for leisure, health and recreation.</p> <p>H3: Work with other partner bodies to support art, festivals and fairs.</p>
Conserve and enhance the Park's biodiversity	<p>B1: Development within the Regional Park should be consistent with the Authority's Biodiversity Action Plan and in accordance with a locally approved or DEFRA endorsed biodiversity assessment metric.</p> <p>B2: Proposals that could result in a net loss of biodiversity will be resisted. Where necessary the Authority will seek planning obligations to deliver the 'mitigation hierarchy' of avoidance, mitigation and compensation.</p> <p>B3: Work with the riparian boroughs and the London Mayor to identify locations within the Park which can provide opportunities for 'biodiversity offsetting' resulting from major development schemes proposed for sites outside the Park.</p> <p>B4: Regularly monitor the Park's protected sites and species in line with the adopted Lee Valley Biodiversity Action Plan.</p>
Protect, improve and make best use of the Park's water spaces	<p>W1: Ensure that water space are appropriately protected to support the Regional Park's biodiversity and recreational offer.</p> <p>W2: Support development that encourages recreational use of water spaces, where this is consistent with other strategic policies.</p> <p>W3: Ensure that existing water bodies are protected and enhanced compliant with the objectives of the Thames River Basin Management Plan.</p>
Increase the attractiveness and use of the parkland and venues to support the health	<p>V1: Bring land into Park related uses and resist the development of non-Park related uses unless they can make a significant contribution to the Authority's statutory purpose.</p> <p>V2: Continue to develop an event programme of international and national status which reflects the Regional Park's significant leisure and sporting offer.</p>

Strategic Planning Aim	Strategic Policy
and well being of visitors from all communities	<p>V.3: Work with stakeholders to promote and enhance existing sports venues. Support site and venue development sympathetic to the wider parklands.</p> <p>V4: Support the provision of appropriate visitor/education facilities at existing and new visitor hubs and entrance points to the Park.</p>
Influence major new development within and adjacent to the Park to ensure that it is protected and enhanced	<p>D1: Work in partnership with the riparian authorities on Green Belt and Metropolitan Open Land reviews and policy development, with a view to protecting open land around the Park, while meeting development aspirations.</p> <p>D2: Ensure that development proposed within the Park is of the highest environmental standards.</p> <p>D3: Work in partnership with riparian councils to ensure that the design and layout of new development on sites both within the Regional Park and adjacent to its boundary: a) Enhances the Park, avoiding detrimental impact on its ecological and heritage assets, and b) provides sufficient open space to cater for the informal recreational needs arising from the development including areas for play, and for dog walking</p> <p>D4: Working with the London Mayor and riparian Boroughs/Districts explore opportunities to designate sites within the Park to allow access to natural green space designed to offset adverse impacts of new development on the Epping Forest SAC.</p>
Improve accessibility and entrances to the Park for pedestrians and cyclists and via public transport	<p>A1: Enhance existing entrances to the Park and, where appropriate, create new entrances.</p> <p>A2: Work in partnership to reduce the severance caused by linear infrastructure, through the creation of pedestrian and cycle bridges and crossing points.</p> <p>A3: Work in partnership to secure physical links and green corridors to surrounding parks, open spaces and other points of interest, thereby improving accessibility and integration.</p> <p>A4: Improve sustainable transport links between points of interest in the Park</p> <p>A5: Enhance signage and way finding to improve access to and movement within the Park</p> <p>A6: Respond to the diversity of need enabling access to the Park by all communities</p>
Protect and enhance the Park's function in reducing and managing flood risk	<p>F1: Work with the Environment Agency and others to protect the function of the Lee Flood Relief Channel</p> <p>F2: Enhance the Park's function in mitigating and reducing flood risk to the surrounding areas, by natural flood management and sustainable drainage measures, and by supporting SUDs where appropriate</p> <p>F3: Increase the ability of the Park and surrounding areas to adapt to climate change and its impact on flood risk by promoting green infrastructure.</p> <p>F4: Work with the Environment Agency and others to protect the function of the Lee Flood Relief Channel</p>

3 Methodology

3.1.1 As noted above the application of HRA to land-use plans is a requirement of the Conservation of Habitats and Species Regulations 2017, the UK's transposition of European Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). HRA applies to plans and projects, including all Local Development Documents in England and Wales.

3.1.2 This HRA has been informed by the following guidance:

- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites' - European Commission, 2001⁹;
- The Habitat Regulations Assessment Handbook - David Tyldesley and Associates, 2013 (in particular Part F: '*Practical Guidance for the Assessment of Plans under the Regulations*'); and
- The Appropriate Assessment of Spatial Plans in England - A Guide to How, When and Why to do it - RSPB, 2007¹⁰.

3.1.3 The following European sites were identified using a 15km area of search around the LVRPA, as well as including sites which are potentially connected (e.g. hydrologically) beyond this distance:

- Epping Forest SAC;
- Lee Valley SPA;
- Lee Valley Ramsar;
- Wimbledon Common SAC; and
- Wormley Hoddesdonpark Woods SAC.

3.1.4 The location of these European sites is shown on **Figure 3.1**. The full list of the nature of, and conservation objectives of, each European site can be found in **Appendix A - Table A.1** and they are explored further in **Chapters 4 to 6**.

⁹ 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. European Commission Environment DG, November 2001

¹⁰ RSPB (2007). The Appropriate Assessment of Spatial Plans in England. A Guide to How, When and Why to do it.

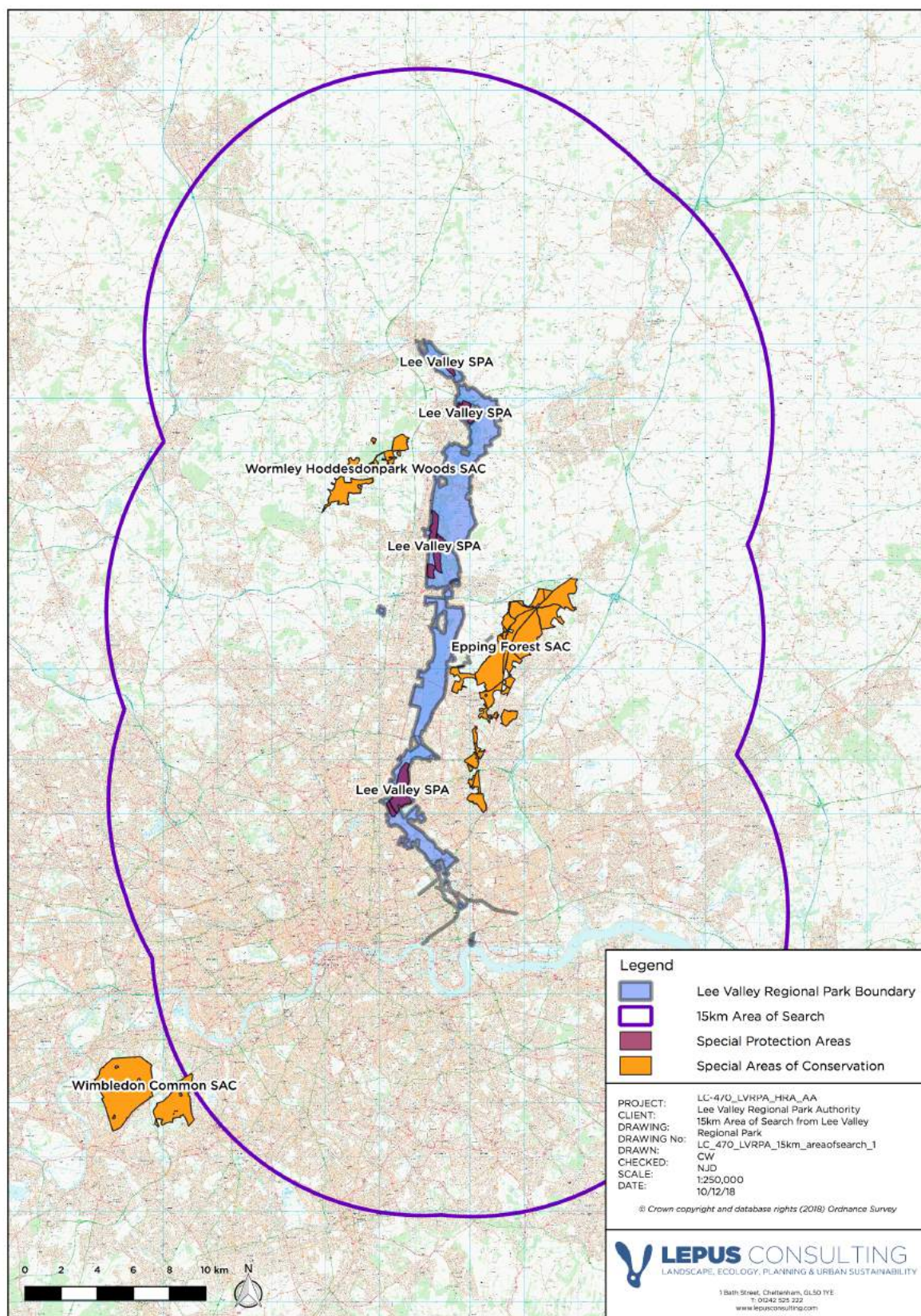
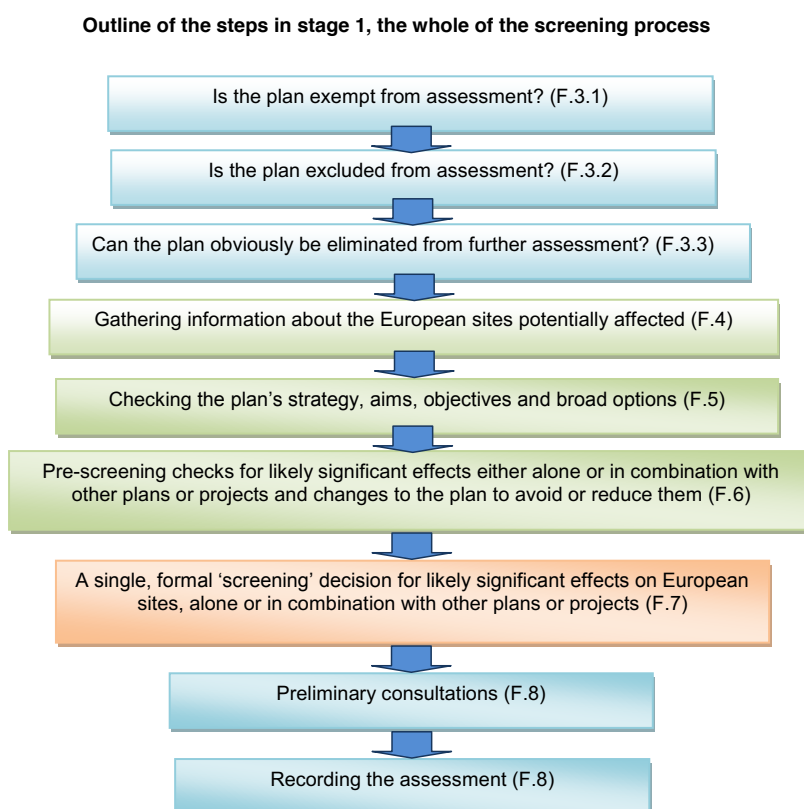


Figure 3.1: European sites considered in the HRA

- 3.1.5 HRA is a rigorous precautionary process centred around the conservation objectives of a European site's qualifying interests. It is intended to ensure that designated European sites are protected from impacts that could adversely affect their integrity, as required by the Birds and Habitats Directives. A step-by-step guide to this methodology is outlined in the Practical Guidance and has been reproduced in **Figure 1.1**. This AA report comprises Stages 1 and 2 of the HRA process.

3.2 Stage 1: Screening for likely significant effects

- 3.2.1 Stage 1 comprises the screening process and follows a number of steps which are outlined in **Figure 3.2**.



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Figure 3.2: Outline of steps in stage 1, the whole of the screening process

- 3.2.2 Stage 1 of the HRA process requires a Plan to be evaluated to identify any likely significant effects (LSE) associated with the plan that may affect European sites.
- 3.2.3 The screening process uses a number of evaluation codes to summarise whether or not a plan component is likely to have significant effects alone or in-combination, see **Table 3.1**.

Table 3.1: Assessment and reasoning categories from Part F of the DTA Handbook

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

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

What is a Likely Significant Effect?

- 3.2.4 HRA provides an analysis of LSEs identified during the HRA screening process. It considers the nature, magnitude and permanence of potential effects in order to inform the plan making process.
- 3.2.5 The DTA Handbook guidance provides the following interpretation of LSE:

- 3.2.6 *"In this context, 'likely' means risk or possibility of effects occurring that cannot be ruled out on the basis of objective information. 'Significant' effects are those that would undermine the conservation objectives for the qualifying features potentially affected, either alone or in combination with other plans or projects... even a possibility of a significant effect occurring is sufficient to trigger an 'appropriate assessment'."*¹¹
- 3.2.7 With reference to a species' given conservation status in the Habitats or Birds Directives, the following examples would be considered to constitute a significant effect:
- Any event which contributes to the long-term decline of the population of the species on the site;
 - Any event contributing to the reduction or to the risk of reduction of the range of the species within the site; and
 - Any event which contributes to the reduction of the size of the habitat of the species within the site.
- 3.2.8 Rulings from the 2012 'Sweetman'¹² case provides further clarification:
- 3.2.9 *"The requirement that the effect in question be 'significant' exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill."*
- 3.2.10 Therefore, it is not necessary for LVRPA to show that the Park Strategic Policies will result in no effects whatsoever on any European site. Instead, LVRPA are required to show that the Strategic Policies, either alone or in-combination with other plans and projects, will not result in an effect which undermines the conservation objectives of one or more qualifying features.

¹¹Tyldesley, D. (2013) The Habitats Regulations Assessment Handbook – Chapter F. DTA Publications

¹² Source: EC Case C-258-11 Reference for a Preliminary Ruling, Opinion of Advocate General Sharpston 'Sweetman' delivered on 22nd November 2012 (para 48)

3.2.11 Determining whether an effect is significant requires careful consideration of the environmental conditions and characteristics of the European site in question, as per the 2004 ‘Waddenzee’¹³ case:

3.2.12 *“in assessing the potential effects of a plan or project, their significance must be established in the light, inter alia, of the characteristics and specific environmental conditions of the site concerned by that plan or project”.*

In-Combination Effects

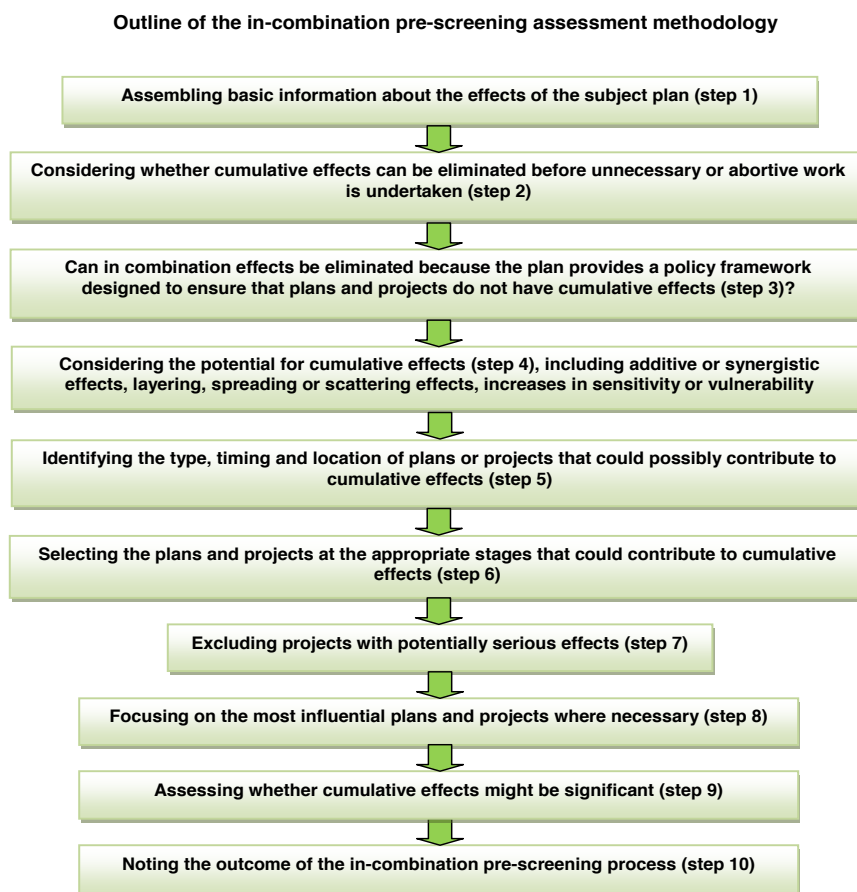
3.2.13 Regulation 105 of the Amended Habitats Regulations 2017 requires an ‘Appropriate Assessment’ where:

3.2.14 *“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”*

3.2.15 Therefore, as well as considering the LSE of the Strategic Policies alone on European sites, it is also necessary to consider whether the effects of the Strategic Policies in-combination with other plans and projects would combine to result in a LSE on a European site.

3.2.16 The in-combination assessment undertaken follows guidance provided in Chapter F of the DTA Handbook. This comprises a ten step approach as illustrated in **Figure 3.3** below.

¹³ Source: EC Case C-127/02 Reference for a Preliminary Ruling ‘Waddenzee’ 7th Sept 2004 (para 48)



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Figure 3.3: *Outline of the in-combination pre-screening assessment methodology*

3.2.17

Appendix B provides a summary of the review of other plans and projects that was undertaken as part of the in-combination assessment. The following neighbouring local authorities Local Plans and other relevant plans and projects and their HRA work was reviewed as part of this assessment:

- East Hertfordshire District Council;
- Broxbourne Borough Council;
- London Borough of Enfield;
- London Borough of Haringey;
- London Borough of Hackney;
- London Borough of Tower Hamlets;
- London Borough of Newham;
- London Borough of Waltham Forest;
- Epping Forest District Council;
- Thames River Basin Management Plan; and
- The London Plan.

3.3 Stage 2: Appropriate Assessment and Integrity Test

- 3.3.1 The purpose of the appropriate assessment (as defined by the DTA Handbook) is to “*undertake an objective, scientific assessment of the implications for the European site qualifying features potentially affected by the plan in light of their consideration objectives and other information for assessment*”.
- 3.3.2 As part of this process decision makers should take account of the potential consequences of no action, the uncertainties inherent in scientific evaluation, and should consult interested parties on the possible ways of managing the risk for instance through the adoption of mitigation measures. Mitigation measures should aim to avoid, cancel or reduce significant effects on European sites. Mitigation measures may take the form of policies within the Strategic Policies or mitigation proposed through other plans or regulatory mechanisms. All mitigation measures must be deliverable and able to mitigate adverse effects for which they are targeted.
- 3.3.3 The appropriate assessment aims to present information in respect of all aspects of the Strategic Policies and ways in which they could, either alone or in-combination with other plans and projects, affect a European site.
- 3.3.4 The plan making body must then ascertain, based on the findings of the appropriate assessment, whether the Strategic Policies will adversely affect the integrity of a European site either alone or in-combination with other plans and projects. This is referred to as the Integrity Test.

3.4 Dealing with uncertainty

- 3.4.1 Uncertainty is an inherent characteristic of HRA and decisions can be made only on currently available and relevant information. This concept is reinforced in the 7th September 2004 ‘Waddenzee’ ruling¹⁴:

¹⁴EC Case C-127/02 Reference for a Preliminary Ruling ‘Waddenzee’ 7th September 2004 Advocate General’s Opinion (para 107)

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

3.5 The Precautionary Principle

- 3.5.1 The HRA process is characterised by the precautionary principle. This is described by the European Commission as being:
- 3.5.2 *“If a preliminary scientific evaluation shows that there are reasonable grounds for concern that a particular activity might lead to damaging effects on the environment, or on human, animal or plant health, which would be inconsistent with protection normally afforded to these within the European Community, the Precautionary Principle is triggered.”*

4 Screening

4.1.1 In March 2018, Lepus Consulting prepared the HRA screening report¹⁵ on behalf of LVRPA. The screening report should be read in conjunction with this report. This report considered LSEs of the Strategic Policies on European sites identified within a 15km study area of the LVRPA boundary (as listed below). LSEs of the Strategic Policies were considered for each site both alone and in-combination.

- Epping Forest SAC;
- Lee Valley SPA;
- Lee Valley Ramsar;
- Wimbledon Common SAC; and
- Wormley Hoddesdonpark Woods SAC.

4.1.2 Wimbledon Common SAC is situated in the south west of London. The updated Strategic Policies are by their nature focussed on land within LVRP which is located to the north of London stretching northwards. Potential impacts on areas outside of the Park are considered to be limited and predominantly related to impacts associated with increasing visitor numbers and potentially increasing road transport within the local area. Taking this into consideration and noting that only a small proportion of Wimbledon Common SAC, in its north eastern corner (**Figure 3.1**), is located within 15km of the LVRP the screening report concluded that the Strategic Policies update will not have a LSE on this SAC. Wimbledon Common SAC was therefore screened out of the HRA and is considered no further in this assessment.

4.1.3 The screening report identified the nature of, and conservation objectives of, each remaining European site. This information is presented in **Appendix A**. In addition, as part of the screening process threats and pressures to which each European site is vulnerable were identified through reference to data held by the JNCC on Natura 2000 Data Forms, Ramsar Information Sheets and Site Improvement Plans (SIPs). This information provides current and predicted issues at each European site. The full range of threats and pressures at each European site is provided at **Appendix C**.

¹⁵ Lepus Consulting (2018) Habitat Regulations Assessment of the Park Development Framework Update of Strategic Policies, March 2018

4.1.4 As part of the screening process a number of threats and pressures were considered to be beyond the scope of the potential impacts of the updated Strategic Policies and were therefore screened out of the HRA process. The remaining threats and pressures to which each European site in the Screening Report was considered to be vulnerable, and which could potentially be effected by the Strategic Policies, are summarised in **Table 4.1**.

Table 4.1: Pressures and threats for European sites that may potentially be affected by the Strategic Policies update

Threats/ pressures	Lee Valley SPA & Ramsar ^{16,17}	Epping Forest SAC ^{18,19}	Wormley Hoddesdonpark Woods SAC ^{20,21}
Hydrological changes	All qualifying features	Wet heathland with cross-leaved heath	n/a
Water pollution	All qualifying features	Wet heathland with cross-leaved heath	n/a
Public access and disturbance	All qualifying features	Wet heathland with cross-leaved heath, European dry heaths and Beech forests on acid soils	All qualifying features
Air pollution	A021 (NB) Bittern	Wet heathland with cross-leaved heath and Beech forests on acid soils	All qualifying features

4.1.5 The screening report considered LSEs on each European site in the context of each threat and pressure identified above. A summary of Screening Report's conclusions is provided below by threat / pressure.

¹⁶ Natural England (2015) Site Improvement Plan Lee Valley

¹⁷ JNCC (2015) Natura 2000 – Standard Data Form Lee Valley

¹⁸ JNCC (2015) Natura 2000 – Standard Data Form Epping Forest

¹⁹ Natural England (2015) Site Improvement Plan Epping Forest

²⁰ JNCC (2015) Natura 2000 – Standard Data Form Wormley Hoddesdonpark Woods

²¹ Natural England (2015) Site Improvement Plan Wormley Hoddesdonpark Woods

4.2 Hydrological changes and water pollution

- 4.2.1 The screening report concluded that none of the Strategic Policies would result in water abstraction or would be expected to increase the rates of surface water run-off or adversely impact the quality of water by any other means. A number of Strategic Policies are designed to specifically protect and enhance the water environment such as Policies W1 to W3. As such the screening report concluded that an LSE on a European site, as a result of hydrological changes and / or water pollution caused by the Strategic Policies could be objectively ruled out. Hydrological effects are not considered further in this assessment.

4.3 Public access and disturbance

- 4.3.1 The screening report concluded that LSEs of the Strategic Policies alone and in-combination from increased public access and disturbance at Lee Valley SPA and Ramsar were unlikely and therefore screened out of the assessment. This decision was made on the basis of existing and proposed Strategic Policies designed to manage visitor numbers and distribution within the LVRP and therefore mitigate adverse LSEs.
- 4.3.2 The Strategic Policies do not propose any development or other changes that may increase visitor numbers at Epping Forest SAC or Wormley Hoddesdonpark SAC. The Screening Report therefore concluded that a LSE on Epping Forest SAC and on Wormley Hoddesdonpark Woods SAC as a result of public access associated disturbances caused by the Strategic Policy updates could objectively be ruled out of the HRA. Public access and disturbance issues at Epping Forest SAC and Wormley Hoddesdonpark Woods SAC are not considered further in this assessment.

4.4 Air pollution

- 4.4.1 Air pollution was identified as a threat or pressure for all European sites within the 15km study area.

- 4.4.2 The Design Manual for Roads and Bridges (DMRB) suggests that air quality impacts from vehicles are most likely to occur within 200m of a road²². Advice from Natural England states that the four step process for determining if there will be an LSE from air pollution is as follows:
1. If there are no new roads, or no increases in the number of cars on roads within 200m of a SAC/SPA, then the issue can be screened out;
 2. If there is a new road, or there is anticipated to be an increase in the number of cars on a road within 200m, then further consideration is needed *only* if the number of additional car movements exceeds 1000 per day;
 3. Traffic and air quality modelling is used to determine if, based on Air Pollution Information System (APIS) data²³, there is going to be an increase in deposition loads of more than 1% on background levels;
 4. If there is an increase of more than 1%, then mitigation measures are required.
- 4.4.3 Traffic and roads are a cross boundary issue. On 20th March 2017 a high court ruling²⁴ found that traffic increases and subsequent air pollution on roads within 200m of an EU site also requires an in-combination approach that considers the development of neighbouring and nearby authorities. If the combined effects of districts' development will lead to increases of traffic of more than 1,000 cars a day, further consideration of the issue is required. This would be through traffic and air quality modelling.
- 4.4.4 It is therefore necessary to consider the potential impact of the updated strategic policies on roads within 200m of each EU site both alone and in-combination with relevant plans and projects.

²² The Highways Agency, Transport Scotland, Welsh Assembly Government, The Department for Regional Development Northern Ireland (2007) Design Manual for Roads and Bridges, Volume 11, Section 3, Part 1: Air Quality

²³ Air Pollution Information System (APIS) Accessed online at: <http://www.apis.ac.uk/src1>

²⁴ Wealden District Council & Lewes District Council before Mr Justice Jay, available online at: <http://www.bailii.org/ew/cases/EWHC/Admin/2017/351.html>

Wormley Hoddesdonpark Woods SAC

- 4.4.5 The screening report noted that the A10 (a major dual carriageway) is located approximately 1km west of the LVRP border which, at its closest, is 190m east of Wormley Hoddesdonpark Woods SAC. The area of the SAC within 200m applies to a very small part of the site (approximately 500m²) much of which is a track/path/arable field boundary and which constitutes approximately 0.01% of the SAC. The East Hertfordshire and Broxbourne Local Plan HRAs, both of which were agreed with Natural England, concluded that any increase in traffic on the A10 could not lead to a significant effect on Wormley Hoddesdonpark Woods SAC through a reduction in air quality. The screening report therefore reached the same conclusions that an LSE on Wormley Hoddesdonpark Woods SAC, as a result of air pollution caused by the updated Strategic Policies alone and in-combination, could be objectively ruled out. This impact is therefore not considered further in this assessment.

Epping Forest SAC

- 4.4.6 The A404 extends through the centre of Epping Forest SAC and additionally a 7km stretch of the M25 between Junction 26 and 27 is located within 200m. The screening report concluded that increased visitors attracted to the LVRP are anticipated as a result of improved visitor facilities and national / international events (as set out under Policies V2, V3, V4). As the Strategic Policies do not propose new residential development the screening report concluded that LSEs on air quality associated with increased visitors alone would be minimal. However, the in-combination assessment considered that an LSE on Epping Forest SAC as a result of air pollution caused by the Strategic Policies in-combination with riparian and neighbouring authority development could not be objectively ruled out of the assessment.

Lee Valley SPA and Ramsar

- 4.4.7 A number of roads were identified within 200m of the Lee Valley SPA and Ramsar site (see **Figure 4.1**).

- 4.4.8 The SIP for Lee Valley SPA indicates that the bittern is vulnerable to the impacts of air pollution²⁵. This is likely because of the impact of excess nitrogen deposition on their habitat. The SIP for the SPA indicates the only feature of the SPA vulnerable to the threat of air pollution is the bittern. The bittern is a wading bird restricted almost entirely to reed-dominated wetlands where they feed on fish, amphibians and other small mammals or water animals. They are also regularly found in small wetlands with relatively small areas of common reed (*Phragmites*)²⁶.
- 4.4.9 The British Trust for Ornithology (BTO) calculate and provide Wetland Bird Survey Data (WeBS). This includes data for counts of gadwall, bittern and shoveler at various locations within and adjacent to Lee Valley SPA WeBS data (see **Table 4.1**). This data indicates that the bittern is not present at the Walthamstow Reservoirs portion of Lee Valley SPA and Ramsar, where there is an absence of suitable reedbed habitat. It was therefore considered necessary to consider the impact of the Strategic Policies on road transport on roads within 200m of the northern portion of the SPA (i.e. Amwell Quarry, Rye Meads and Turnford & Cheshunt Gravel Pits).

Table 4.2: WeBS Data count data for individuals of bittern, shoveler and gadwall at locations within and adjacent to Lee Valley Regional Park (2016/17 current average figures)²⁷

Location	Qualifying feature		
	Great bittern (<i>Botaurus stellaris</i>)	Gadwall (<i>Anas strepera</i>)	Northern shoveler (<i>Anas clypeata</i>)
Count Month	October	November	October
King's Meads *(Month not provided)	No data provided	56	29
Lee Valley Gravel Pits	4	699	313
Knights Pits, Lee Valley	No data provided	No data provided	No data provided
King George V Reservoirs	No data provided	32	78

²⁵ Natural England (2014) Lee Valley SPA: Site Improvement Plan. Available online at: <http://publications.naturalengland.org.uk/publication/5864999960444928> . Accessed 21.01.18

²⁶ Wotton. S., Grantham. M., Moran. N. and Gilbert. G (2011) Eurasian Bittern distribution and abundance in the UK during the 2009/10 winter. British Birds (104) November 2011 . 636-641

²⁷ WeBS data available at: <https://app.bto.org/webs-reporting/>. Accessed 28.11.18

Walthamstow Reservoirs	0	36	69
Gunpowder Park, Lee Valley	No data provided	27	7
William Girling Reservoir	No data provided	27	4
Ponders End Lake	No data provided	15	1

- 4.4.10 The northern lakes of the SPA and Ramsar are located within 200m of several roads (see **Figure 4.1**). The significant majority of these roads are considered to be minor roads and lanes (not strategic in nature) along which AADT levels would be expected to be relatively low. An increase in the AADT along these roads of 1,000 or more, caused by the Strategic Policies both alone and in-combination with other plans and projects, was therefore considered to be highly unlikely.
- 4.4.11 Running within 200m of Rye Meads SSSI is the A414, a dual carriageway connecting the LVRPA with Hertford and the borough of Broxbourne to the west and Harlow to the east. It is thought to be likely that some visitors to the LVRPA travel there and back via the A414. WeBS data currently offers no indication of the presence or potential distribution of bittern at the SSSI.
- 4.4.12 Defra manages MAGIC²⁸, which provides geographic information about the natural environment from across government. **Figure 4.2** displays the presence of reedbed within Rye Meads SSSI according to Defra. The reedbed is, at its closest point, 500m south west of the A414. A detailed review of satellite imagery suggests that the extent of reedbed at this location is greater than indicated on MAGIC, however this is still at least 280m from the A414. Overall, it is concluded that road transport associated emissions along the A414 would be unlikely to adversely impact on reedbed habitat at Rye Meads SSSI.
- 4.4.13 The screening report concluded that an LSE, on Lee Valley SPA as a result of air pollution caused by the strategic policies, when considered alone as well as in-combination with other plans and projects, can be objectively ruled out of the assessment.

²⁸ Available at: <https://magic.defra.gov.uk/>

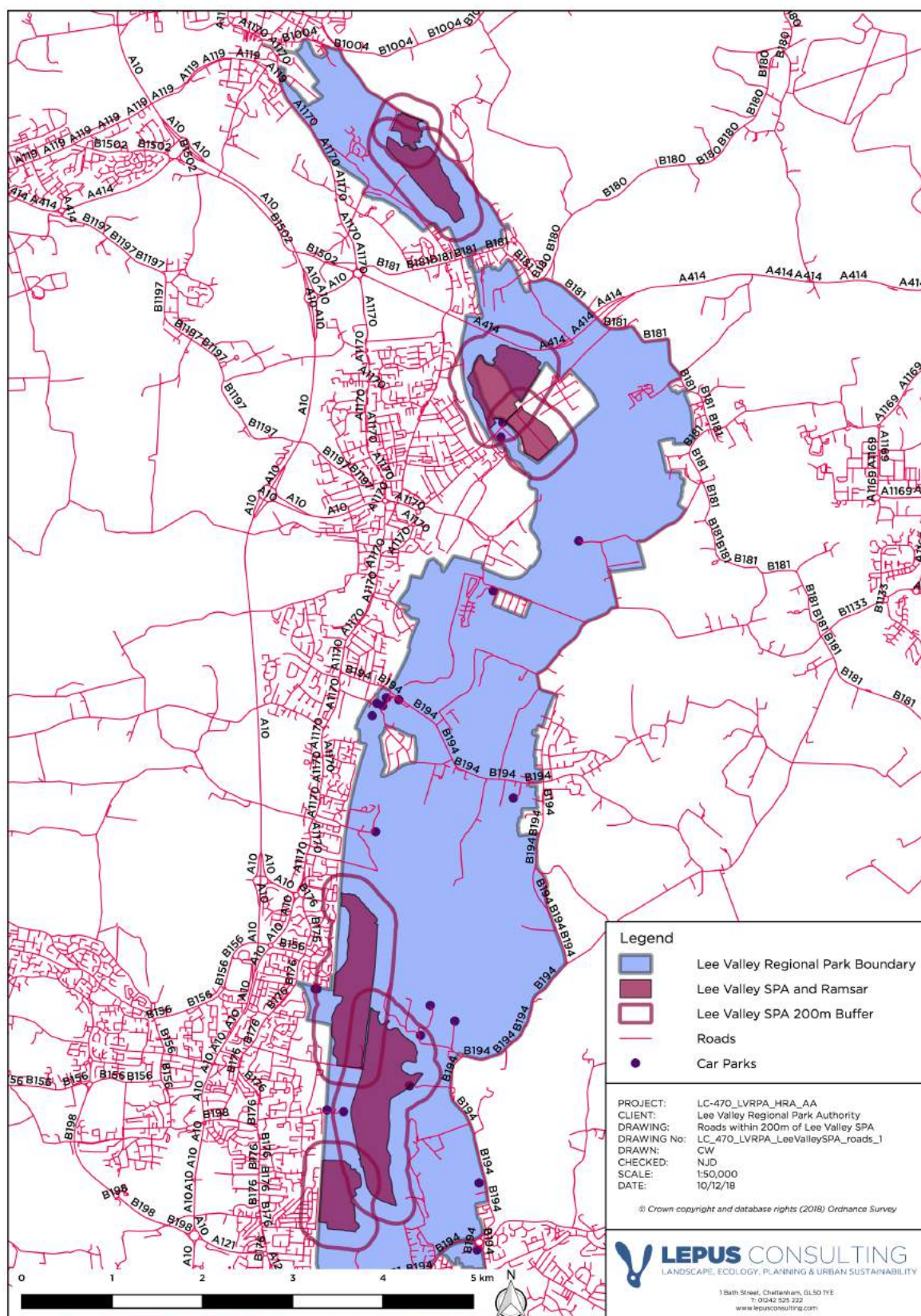


Figure 4.1: Roads within 200m of Lee Valley SPA and Ramsar

MAGiC Reedbed at Rye Meads

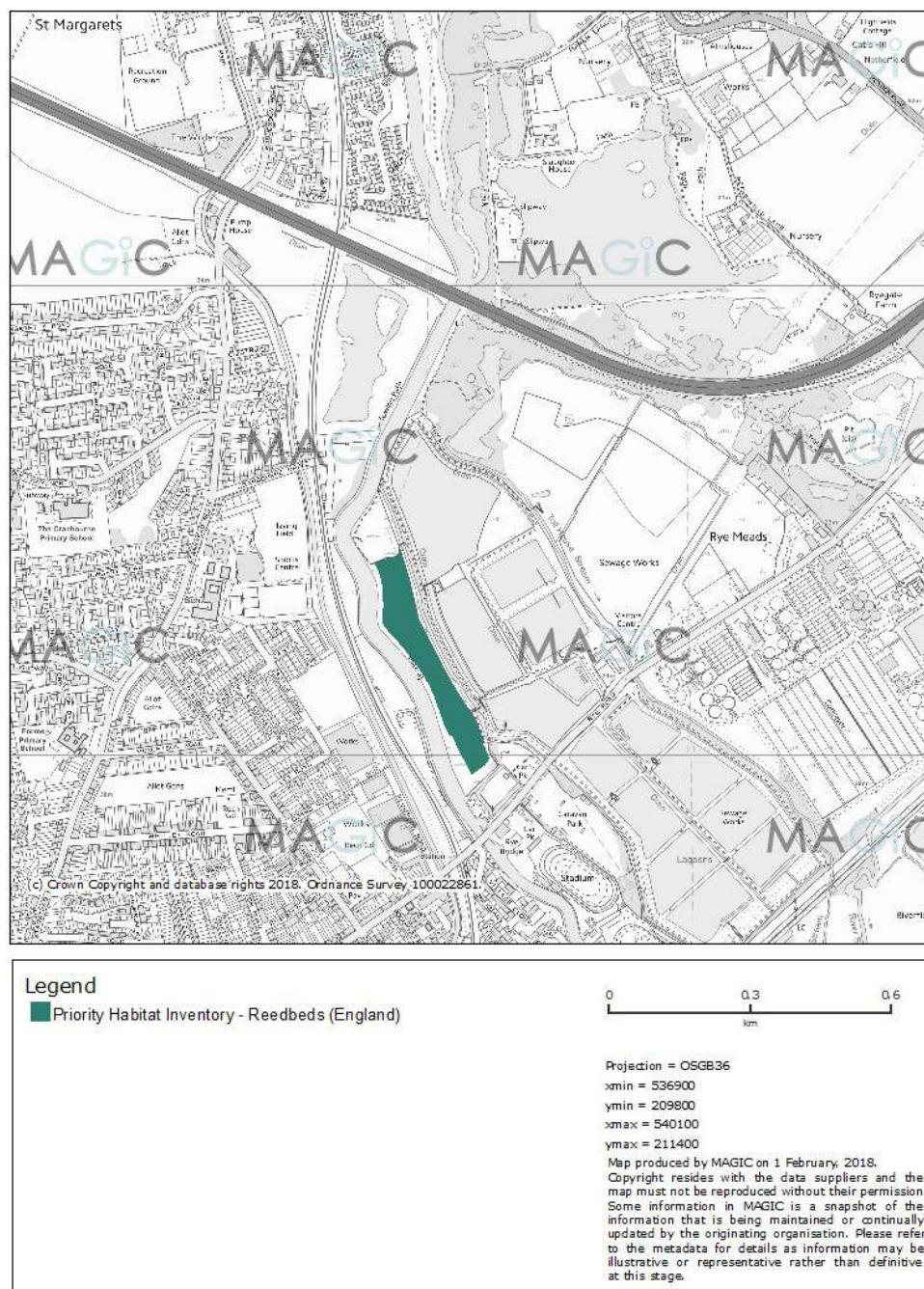


Figure 4.2: Presence of reedbed habitat within Rye Meads SSSI²⁹

²⁹ Defra (2018) Map sourced from MAGIC, available online at: <http://magic.defra.gov.uk/home.htm>

4.5 Consultation

- 4.5.1 The Screening Report was sent to Natural England, the relevant statutory body, for their comments and review. Natural England responded to the HRA screening report consultation in their letters dated 31 May and 28 September 2018. These are provided at **Appendix E**. In their response of 28 September, Natural England confirmed agreement with the overall conclusions of the screening report. However their response of 31 May referred to the recent European Court Judgement Case C-323/17 People over wind vs Coillte Teoranta (April 2018).

4.6 Re-screening exercise

- 4.6.1 As noted above, since preparation of the Screening Report case law in the form of the 2018 'Sweetman' Ruling has determined that mitigation measures are only permitted as part of an Appropriate Assessment.

Box 1: The Sweetman Case (April 2018)

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

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

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

The AA ensures a comprehensive approach to the HRA process, ensuring the report remains legally compliant and that the LVRPA Strategic Policies satisfy the Habitats Regulations.

- 4.6.2 Since the March 2018 Screening Report included mitigation measures to avoid or reduce the LSEs of the Strategic Policies, such a report would not now comply with the latest case law (see **Box 1**). Mitigation measures were proposed in the Screening Report for the public access and disturbance LSEs at Lee Valley SPA and Ramsar (see Section 4.3.1).
- 4.6.3 In addition, following consultation on the draft Strategic Policies a number of minor revisions were made on the basis of responses received. These included responses from Natural England.

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- 4.6.4 As such the HRA screening process was re-visited and each strategic policy was re-appraised against the screening criteria taking into consideration recent case law. **Table E.1, Appendix D** details the output of this re-screening exercise (summarised in **Table 4.2**).
- 4.6.5 The result of the in-combination assessment is presented at **Appendix B**. The outputs of this assessment were drawn upon as part of the re-screening process.
- 4.6.6 It was concluded that LSEs either from the Strategic Policies alone or in-combination with other plans or projects could be screened out for most policies. This is because the policies fell into the following categories:
- Category B: Policies listing general criteria for testing the acceptability / sustainability of proposals;
 - Category D: Environmental protection / site safeguarding;
 - Category E: Policies or proposals that steer change in such a way as to protect the European sites from adverse effects.
 - Category F: Policies or proposals that cannot lead to development or other change
- 4.6.7 Policies V2, V3 and V4 were considered likely to have a significant effect. On the basis of this assessment the following LSEs have been explored in this appropriate assessment in more detail (**Chapter 5 and 6**).
- Public access and disturbance impacts on Lee Valley SPA and Ramsar due to increased visitor numbers to the LVRP; and
 - Air pollution impacts on Epping Forest SAC due to increased trips to LVRP and increased vehicle flows on the A404 and M25 (Junction 26 to 27).

Table 4.3: Summary of LSEs associated with Strategic Policies

Strategic Planning Aim	Strategic Policy	Updated Screening category
Increase the attractiveness and use of the parkland and venues to support the health and well being of visitors from all communities	V2: Continue to develop an event programme of international and national status which reflects the Regional Park's significant leisure and sporting offer.	Screened in: L - Increased recreational pressure at Lee Valley SPA and Ramsar - Reduction in air quality at Epping Forest in-combination with other plans and projects
	V3: Work with stakeholders to promote and enhance existing sports venues. Support site and venue development sympathetic to the wider parklands.	
	V4: Support the provision of appropriate visitor / education facilities at existing and new visitor hubs and entrance points to the Park.	

5 Appropriate Assessment: Public Access and Disturbance

5.1.1 Based on the Sweetman ruling the re-screening process identified a pre-mitigation LSE on Lee Valley SPA and Ramsar due to increased visitor numbers to the LVRP and an associated increase in public access and disturbance effects. An appropriate assessment has therefore been made below to explore this LSE in more detail. This assessment draws closely on information previously gathered for the original screening exercise which remains relevant (Lepus, 2018).

5.2 Vulnerability of qualifying features at Lee Valley SPA

5.2.1 Lee Valley was classified as SPA and designated as Ramsar because it is considered to support the following:

- 6% of the UK overwintering population of great bittern (*Botaurus stellaris*);
- 1% (1.9% according to Ramsar) of the UK population of wintering northern shoveler (*Anas clypeata*); and
- 1.5% (2.6% according to Ramsar) of the UK population of wintering gadwall (*Anas strepera*).

5.2.2 The great bittern (*Botaurus stellaris*) is a wading bird of the heron (*Ardeidae*) family, restricted almost entirely to reed-dominated wetlands where they feed on fish, amphibians and other small mammals or water animals. They are also regularly found in small wetlands with relatively small areas of common reed (*phragmites*)³⁰. The UK is thought to be home to 600 wintering bittern individuals and 80 breeding males³¹. They are currently on the RSPB Amber List.

³⁰ Wotton. S., Grantham. M., Moran. N. and Gilbert. G (2011) Eurasian Bittern distribution and abundance in the UK during the 2009/10 winter. British Birds (104) November 2011. 636-641

³¹ RSPB (2017) Great bittern Available online at: <https://www.rspb.org.uk/birds-and-wildlife/bird-and-wildlife-guides/bird-a-z/b/bittern/> Accessed 12.07.17

- 5.2.3 The northern shoveler (*Anas clypeata*) is a surface feeding duck. Shovelers feed by dabbling for plant food and aquatic invertebrates and thus mud bottomed marshes rich in invertebrate life are usually their habitat of choice. Shovelers prefer to nest on grassy land away from open water and in shallow depressions lined with plant matter. The UK is thought to be home to approximately 18,000 wintering shoveler individuals and 310 – 1,020 annual breeding pairs³².
- 5.2.4 Gadwall ducks (*Anas strepera*) usually migrate to the UK during winter to avoid the harsher winter on the continent, and are most likely to be found in pits, lakes and coastal wetlands. They nest in low numbers and prefer to breed in the shallow edges of lakes and pits where vegetation is ample. The UK is thought to be home to 25,000 wintering gadwall individuals and 690 – 1,730 annual breeding pairs³³. They are currently on the RSPB Amber List.
- 5.2.5 The WeBS data (**Table 4.1**) indicates that Lee Valley Gravel Pits provides an essential area of suitable habitat for bittern in the region.

5.3 Sites of Special Scientific Interest

- 5.3.1 Sites of Special Scientific Interest (SSSI) are areas in the United Kingdom designated for conservation by Natural England. SSSIs are the building blocks of site based nature conservation in the UK. Most other conservation designations, in the UK are based on their location. SSSIs are therefore regularly found at the same location as European designated SACs and SPAs.
- 5.3.2 A SSSI will be designated based on the characteristics of its fauna, flora, geology and/or geomorphology. The reasons for its designation can be entirely different to those for which the same area is designated as a SAC, SPA or Ramsar.
- 5.3.3 There are a total of eight SSSIs within the LVRP, as well as a number of SSSIs overlapping with each EU site within 15km of the Park.

³² RSPB (2017) Northern shoveler. Available online at: <https://www.rspb.org.uk/birds-and-wildlife/bird-and-wildlife-guides/bird-a-z/s/shoveler/> Accessed 08.07.17

³³ RSPB (2017) Gadwall Available online at: <https://www.rspb.org.uk/birds-and-wildlife/bird-and-wildlife-guides/bird-a-z/g/gadwall/> . Accessed 03.07.17

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- 5.3.4 Natural England periodically assesses the conservation conditions of each SSSI unit, assigning it a status of one of the following:
- Favourable;
 - Unfavourable – recovering;
 - Unfavourable – no change; or
 - Unfavourable – declining.
- 5.3.5 It is important to bear in mind that the SSSI may be in an unfavourable state due to the condition of features unrelated to its European designation. However, it is considered that the conservation status of SSSI units that overlap with European designated sites offer a useful indicator of habitat health at that location. For example, a SSSI unit in an unfavourable condition because of excess Nitrogen deposition, which is resulting in changes in local flora species composition, may indicate that habitats at this location are particularly sensitive to increases in atmospheric nitrogen deposition.
- 5.3.6 **Figure 5.1** displays SSSI units which overlap with and lie adjacent to the LVRP.

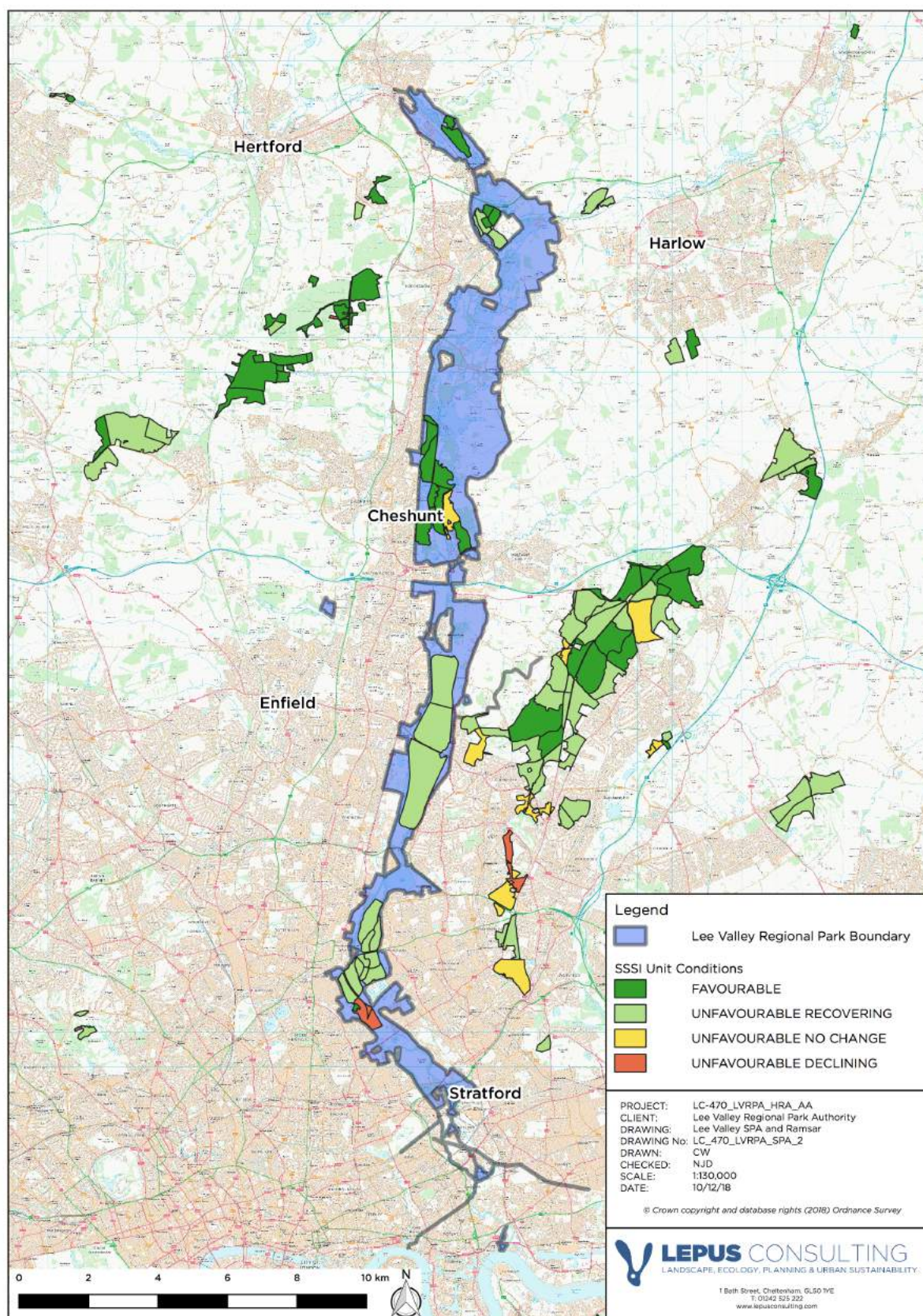


Figure 5.1: Conservation condition of SSSI units which overlap with and lie adjacent to the LVRP. SSSI data sourced from Natural England.

5.4 Management at the Lee Valley SPA and Ramsar

5.4.1 Lee Valley SPA and Ramsar is located entirely within the LVRP and is situated in four distinct locations (see **Figure 5.2**):

- Rye Meads – 1.5km south of Amwell Quarry;
- Amwell Quarry – the most northern lakes;
- Turnford & Cheshunt Gravel Pits – approximately 5.5km south of Rye Meads; and
- Walthamstow Reservoirs – approximately 10km south of Turnford & Cheshunt Gravel Pits.

5.4.2 Overall, these areas of the SPA and Ramsar are well managed with conservation and wildlife a key factor in management approaches. Recreational pressures are regulated through the zoning of water bodies within the LVRP. An agreed management plan for the River Lee Country Park, an internal document within which nature conservation is a significant priority, is in place. The LVRPA has a wide remit that includes, in part, being “*responsible for regenerating derelict and neglected land into high quality public open spaces and wildlife habitats of ecological importance*”³⁴.

5.4.3 Rye Meads SSSI is within Rye Meads Nature Reserve, which is managed jointly by the Royal Society for the Protection of Birds (RSPB) and Herts & Middlesex Wildlife Trust. Rye Meads comprises six SSSI units, three of which are noted to be in a Favourable condition³⁵. Three are however noted to be in an Unfavourable – Recovering condition. This is noted to be due to the non-breeding population of tufted duck (*Aythya fuligula*) (unit 3-5) and breeding pairs of common tern (*Sterna hirundo*) which are currently unfavourable. Natural England note that there is a need for an ongoing investigation with action to seek to adequately address this. It is noted that these species are not qualifying features of the Lee Valley SPA and Ramsar.

³⁴ Lee Valley Regional Park Authority (2016) About Us. Accessed online: <http://www.leevalleypark.org.uk>

³⁵ Natural England Designated Sites View. Accessed 27.11.18. Available at: <https://designatedsites.naturalengland.org.uk/SiteSearch.aspx>

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- 5.4.4 For the sites noted Amwell Quarry SSSI sits within the Amwell Nature Reserve, which is managed by the Herts & Middlesex Wildlife Trust. Visits to these reserve are actively encouraged with tracks, accessible to all, available around the site. Amwell Quarry is comprises of two SSSI units. Both of which are noted to be in a favourable condition.
- 5.4.5 Turnford & Cheshunt Pits SSSI comprises nine SSSI units all of which are noted to be in a favourable condition. Turnford & Cheshunt Pits SSSI includes ten former gravel pits with 7.2km of shoreline. It is host to important concentrations of gadwall, shoveler and bittern (qualifying features of the Lee Valley SPA and Ramsar). Turnford & Cheshunt Pits SSSI is one of three SSSIs within the 1,000-acre River Lee Country Park.
- 5.4.6 The Walthamstow Reservoirs are made up of ten individual reservoirs, each of which is a SSSI in an 'Unfavourable - recovering' condition. Natural England note that this is because breeding heron (*Ardea cinerea*) numbers continue to fail the minimum threshold, but Natural England note that this is not considered to be a result of detrimental site management. It is noted that heron are not a qualifying feature of the Lee Valley SPA or Ramsar. The reservoirs are in the London Borough of Waltham Forest. The lakes are an accessible and popular visitor attraction known as 'Waltham Wetlands'. This is used primarily for fishing and birdwatching with car parking, toilets and disabled access available. The entrance to the reservoirs is just a seven minute walk from Tottenham Hale tube station which is on the Victoria Line. The reservoirs are owned and managed by Thames Water. Whilst the LVRPA has no responsibility for the reservoirs they are committed to work with the London Wildlife Trust, the London Borough of Waltham and Thames Water to create an urban wetland nature reserve compatible with the site's international and national conservation status and to support work to improve the existing status of the SSSI from unfavourable - recovering to favourable.

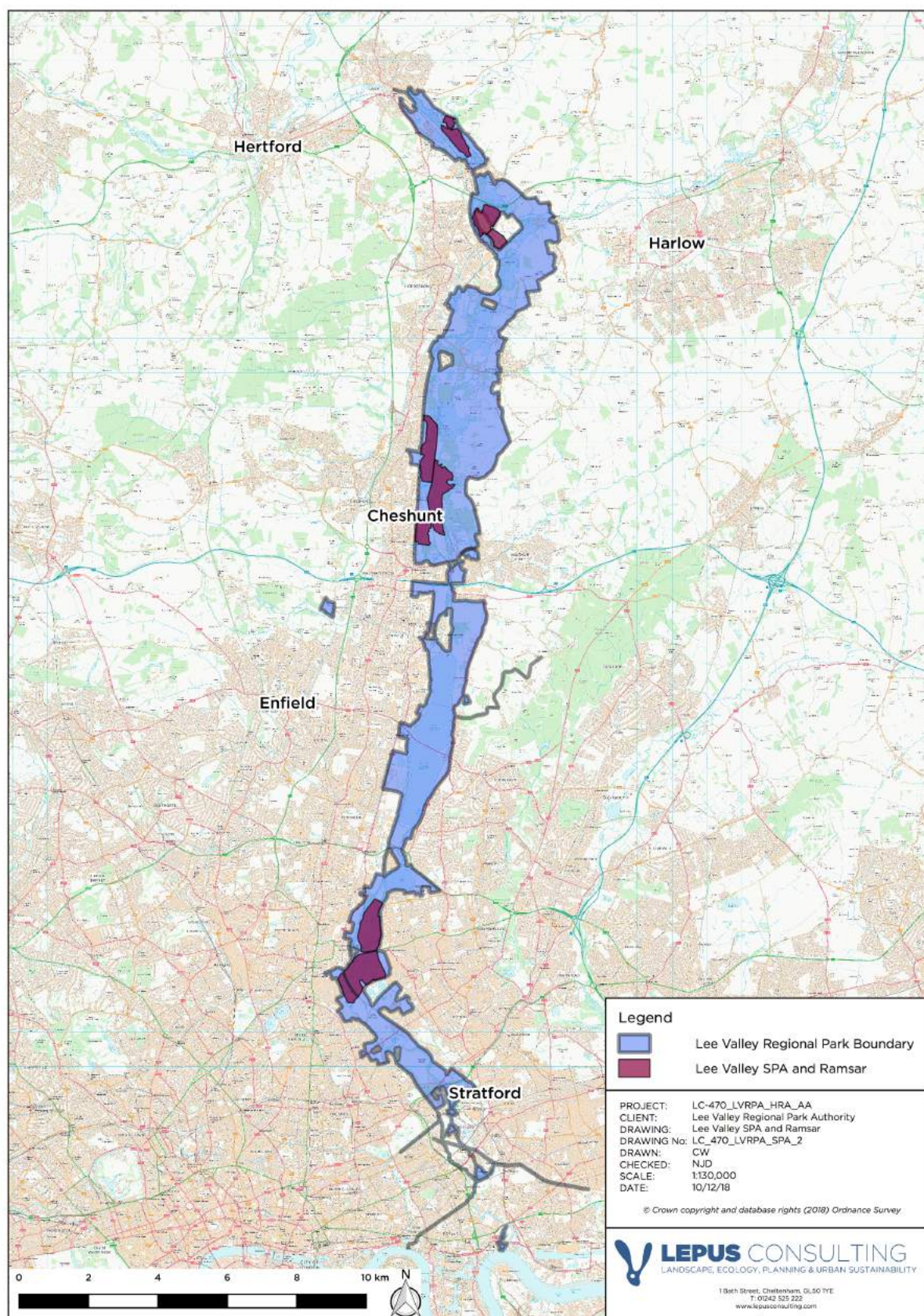


Figure 5.2: Lee Valley SPA in relation to Lee Valley Regional Park

5.5 Adverse Impacts on Site Integrity

- 5.5.1 Of the 24 SSSI units assigned a conservation status that intersect with Lee Valley SPA & Ramsar, twelve are in a 'Favourable' state whilst the remaining twelve are in an 'Unfavourable - recovering' state. At each SSSI, a mosaic of wet grasslands, open waters, swamps and reedbeds are recognised as being in a favourable condition for supporting the gadwall, shoveler and great bittern. SSSIs in an 'Unfavourable' status are not considered to be so because of public access associated disturbance.
- 5.5.2 Minimal disturbance is a key environmental condition for Lee Valley SPA and Ramsar. The bittern, gadwall and shoveler are all under threat from public access and associated disturbances. Recreational pressures including water sports, angling and dog walking have the potential to adversely impact the habitat and populations of each bird species in the area. The LVRP, which the Lee Valley SPA & Ramsar sits entirely within (see **Figure 5.2**), received 6.5 million visitors in the year 2015 – 2016, with the number of visitors increasing 46% over the preceding five years.
- 5.5.3 Impacts of visitors can be direct, such as birds being forced to flee oncoming boats, or indirect, such as the localised destruction of habitats. Disturbances may lead to behavioural changes, such as the avoidance of particular areas or changes to feeding habits, and physiological changes, such as quicker heartbeat rates. Whilst recreational activities are reduced during winter, food is scarce at this time of year and so interruptions to foraging birds can be particularly damaging.
- 5.5.4 Birds are considered to be more wary of dogs than people alone. They flush from their nest more readily, more frequently and at greater distances when disturbed by dogs³⁶.

³⁶ Murison, G. (2002) The impact of human disturbance on the breeding success of nightjar *Caprimulgus europaeus* on heathlands in south Dorset, England. English Nature, Peterborough.

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- 5.5.5 Natural England fund the Monitor of Engagement with the Natural Environment (MENE) survey, which collects information on how the public engage with the natural environment. They found that 49% of visitors to a river, lake or canal were walking with at least one dog³⁷. A survey of Thames Basin Heaths SPA (a site which is in many ways similar to Lee Valley SPA) suggests that 80% of visitors to the SPA are walking dogs³⁸. According to the MENE, 92% of dog walkers travel up to 8km (4.9 miles) to reach their desired dog walking location, although 79% of dog walkers travel no further than 3km³⁹.
- 5.5.6 The adverse effects of unnecessary expenditure of energy by birds flying away from oncoming threats, coupled with the reduction in their intake of energy as a result of less time spent foraging, can be significant for the balance between birth/immigration and death/emigration. It only takes one dog to potentially disturb large areas of breeding habitat for gadwall, shoveler and/or bittern⁴⁰. The level of disturbance, and the impact this disturbance has on the birds, is significant whether it is due to one dog or a group of dogs.
- 5.5.7 The LVRPA have advised that dogs have proved to be a particular issue through reed disturbance and entering the water. Footpaths are numerous and frequently in close proximity to the lakes and bodies of water. In some locations, lying in between the footpaths and waterbodies are habitats suitable for the qualifying bird species, such as reedbeds. It is therefore common for dogs chasing sticks or balls to run through the reeds or crash into the water, thereby impacting on the qualifying habitats and potentially disturbing the birds themselves.

³⁷ Natural England (2015) Monitor of Engagement with the Natural Environment. Available online at: <http://naturalengland.tns-global.com/Default.aspx>. Accessed 09.07.17

³⁸ Natural England (2013) Thames Basin Heaths Special Protection Area – visitor survey. Footprint Ecology, Natural England commissioned survey

³⁹ Natural England (2015) Monitor of Engagement with the Natural Environment. Available online at: <http://naturalengland.tns-global.com/Default.aspx> . Accessed 09.07.17

⁴⁰ Woodfield, E. & Langston, R.H. (2004) A study of the effects on breeding nightjars of access on foot to heathland. English Nature, Peterborough

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- 5.5.8 The purpose of the Lee Valley Regional Park is defined in the Park Act as *"...a place for the occupation of leisure, recreation, sport, games or amusements or any similar activity, for the provision of nature reserves and for the provision and enjoyment of entertainments of any kind."*⁴¹
- 5.5.9 LVRPA collect annual visitor tracking data for the LVRP⁴². This data shows that the Park received approximately 7 million visitors in 2017 – 2018, 2.5 million more than in 2012 – 2013. In 2015, approximately 65% of visits are to the parklands and open spaces of the LVRP, with 35% to the venues⁴³.
- 5.5.10 The accessibility of the Park influences the number of visitors in different locations. Different areas of the Park currently have varying levels of accessibility for pedestrians and vehicles (see **Figures 5.3, 5.4 and 5.5**).

⁴¹ Section 12(1) Lee Valley Regional Park Act 1996

⁴² The most recent report is dated 22 November 2018, Paper S/47/18 'Scrutiny Scorecard 2018/19 Q2'.

⁴³ LUC (2017) Park Plan: Update of Part 1 Strategic Policies, Evidence Base, August 2017

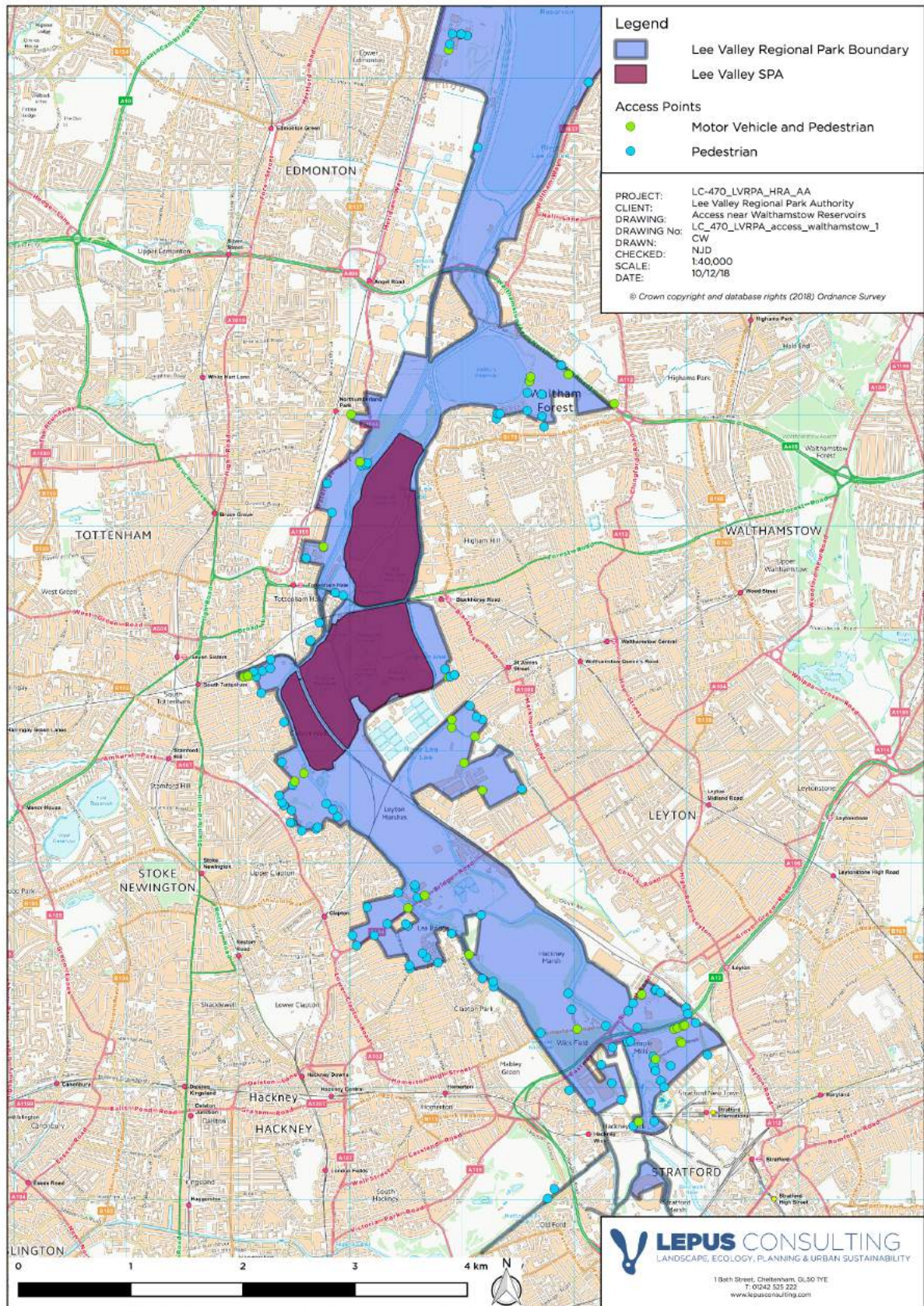


Figure 5.3: Access points near Walthamstow Reservoirs

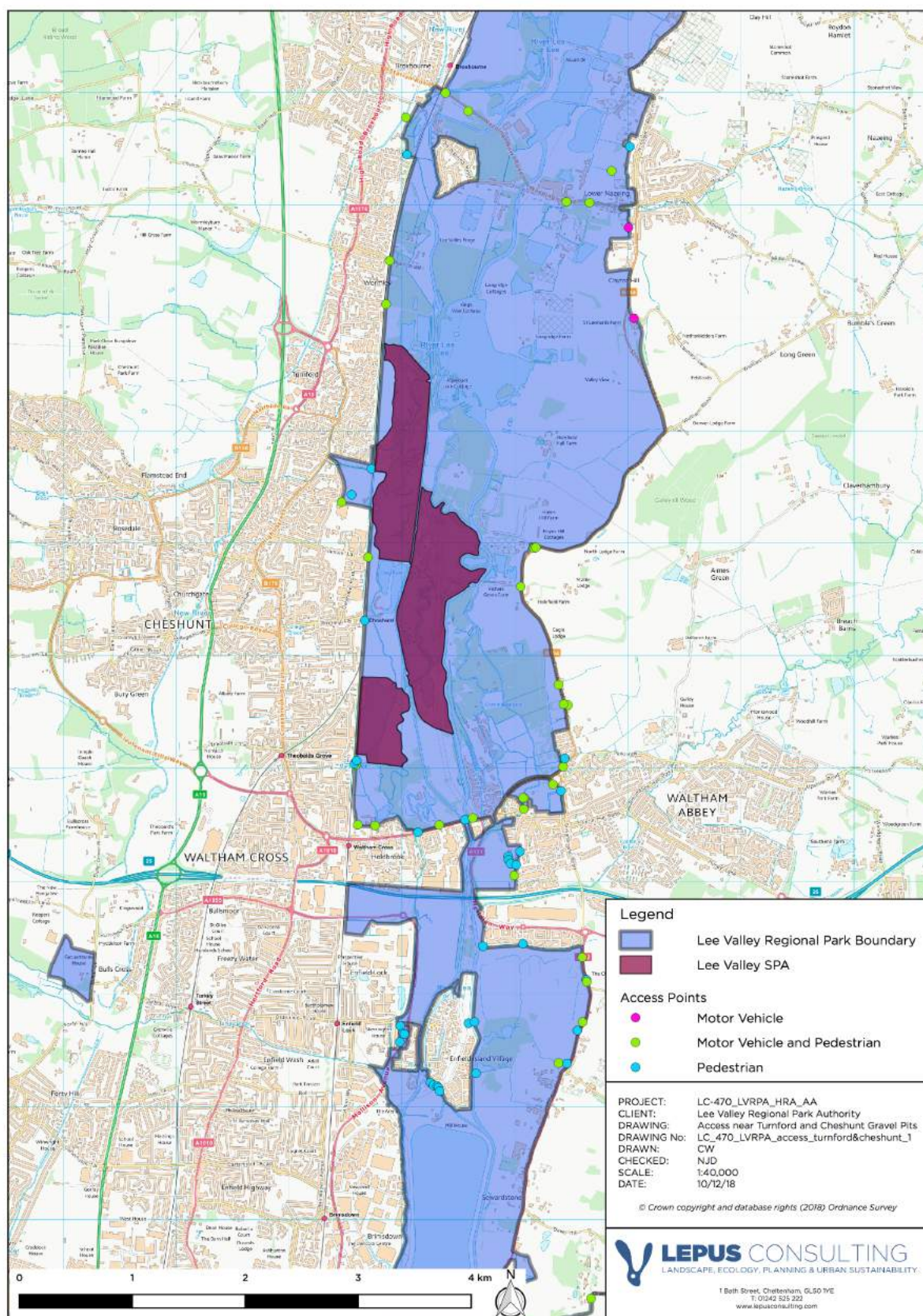


Figure 5.4: Access points near Turnford and Cheshunt Gravel Pits

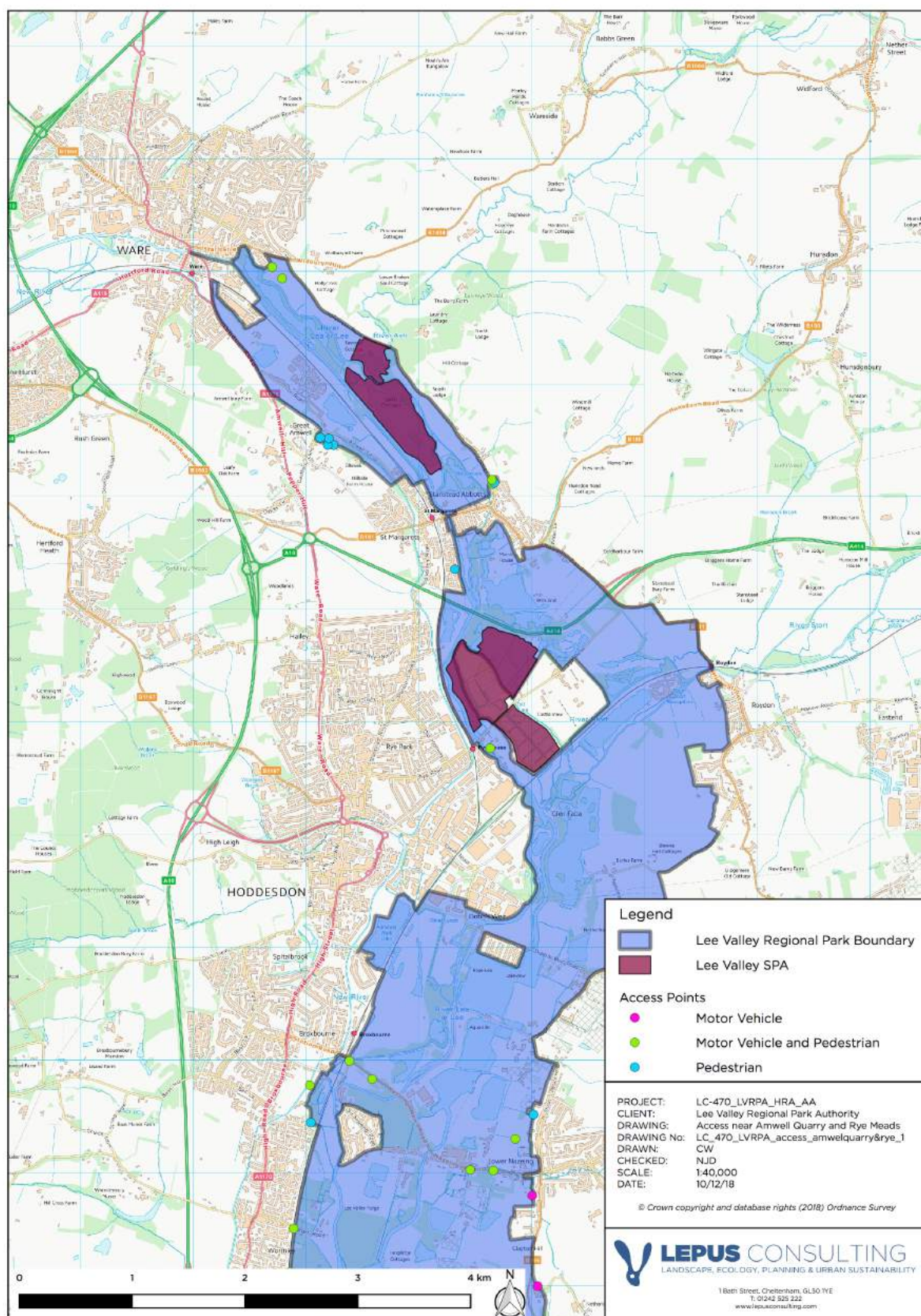


Figure 5.5: Access points near Amwell Quarry and Rye Meads

- 5.5.11 The Walthamstow Reservoirs portion of Lee Valley SPA is in close proximity to a greater quantity and density of pedestrian and vehicle access points into LVRP than other areas of the SPA (see **Figure 5.3**). However, the Cheshunt and Gravel Pits portion of the SPA, as well the Rye Meads and Amwell Quarry portions of the SPA, are still considered to be accessible for both pedestrians and vehicles (see **Figure 5.4** and **Figure 5.5**).
- 5.5.12 There is somewhat limited access in some areas of the LVRP, with long distances between entrance points. Access via foot and cycle is sometimes restricted by convoluted routes, railway lines, roads and industrial areas. The lack of high quality visitor facilities at some areas of the LVRP, including public toilets, information points, signage and eating facilities, potentially reduces the comparative attractiveness of sites to visitors. This likely contributes to the unequal distribution of visitors to the LVRP. The diverse functions of the LVRP which ranges from nature conservation to water storage limits opportunities to provide recreation across the whole Park which can attract more visitors or encourage visitors to stay longer.
- 5.5.13 **Figure 5.6** shows the Park's neighbouring authorities in relation to the SPA. Based on a three year average (2013 – 2016) there are no more than 2.5 visits per head per year from riparian boroughs of the LVRP. The number of visits per head per year is greater from Broxbourne borough and Epping Forest district (1.01 – 2.50) than from other riparian authorities, such as Waltham Forest (0.26 – 1.00) and Newham (0.11 – 0.25). These variations may reflect the accessibility and amenity value of areas of the Park near the riparian authorities and the need to balance improved access against the environmental sensitivity of some areas. Although visits to the Park have increased in recent years there is scope to increase visitor numbers⁴⁴.

⁴⁴ LUC (2017) Park Plan: Update of Part 1 Strategic Policies, Evidence Base, March 2018

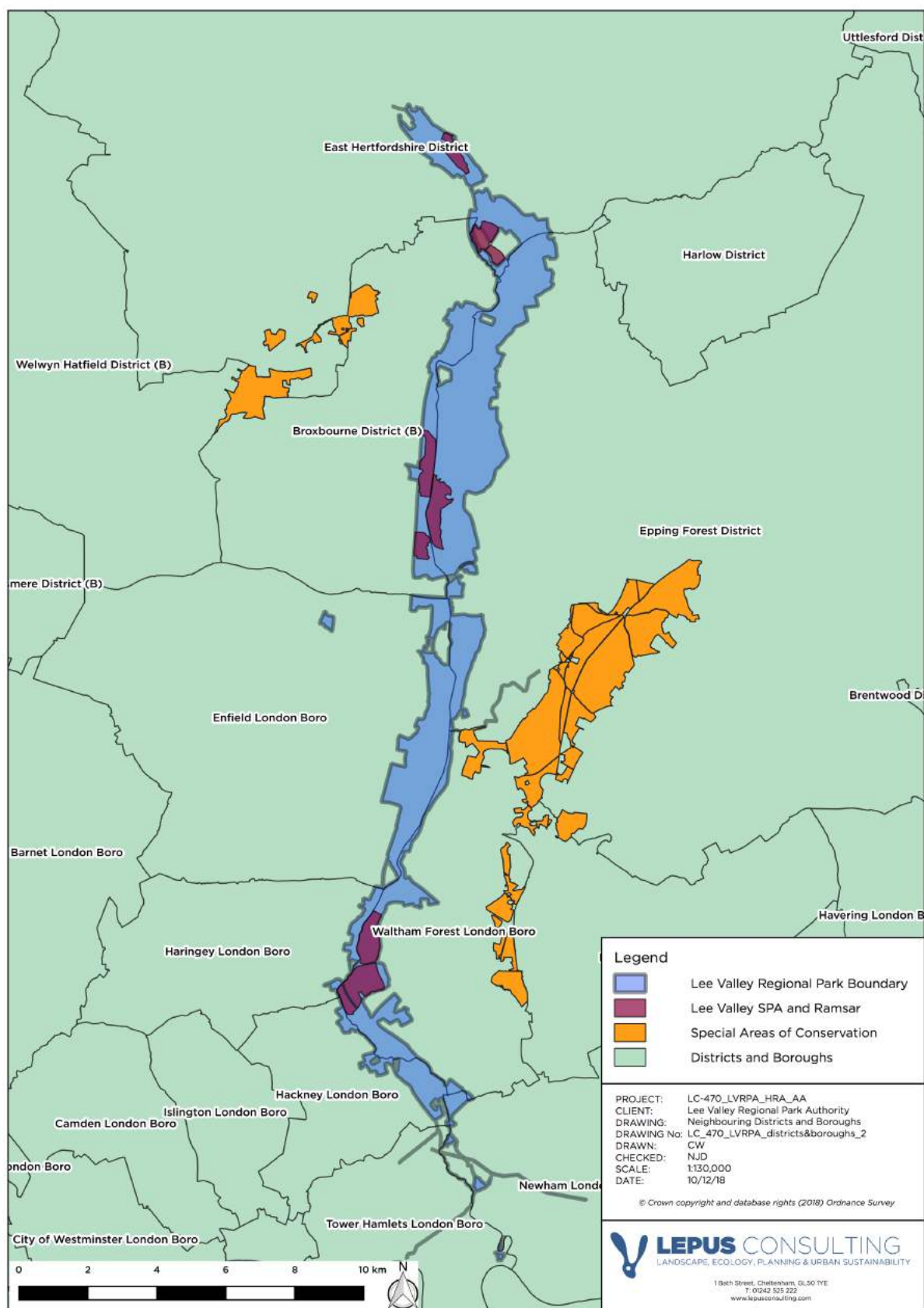


Figure 5.6: Riparian and neighbouring authorities of Lee Valley Regional Park

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- 5.5.14 A strategic planning aim of the updated Strategic Policies is to “*Increase the attractiveness and use of the parkland and venues to support the health and well being of visitors from all communities*”. The Plan proposes four policies in order to help achieve this; Policies V1, V2, V3 and V4).
- 5.5.15 Policy V1 is designed for testing the accessibility for future development and is not likely to result in increased visitors to the LVRP.
- 5.5.16 Policy V4 aims to support the provision of appropriate visitor / education facilities at existing and new visitor hubs and entrance points to the park. An improvement in visitor and educational facilities has the potential to increase visitor numbers to the LVRP.
- 5.5.17 Policy V2 aims to “*continue to develop an event programme of international and national status which reflects the Regional Park’s significant leisure and sporting offer*”. Policy V3 aims to “*work with stakeholders to promote and enhance existing sports venues. Support site and venue development sympathetic to the wider parklands*”. These policies have the potential to increase visitor numbers to the LVRP as a result of major sporting events.

In-combination effect

- 5.5.18 It is important to note than any increase in visitors to the LVRP which may result from the updated strategic policies will be in-combination with increases in visitors caused by growth in riparian authorities. Riparian authorities are currently proposing development and experiencing growth which will be likely to contribute towards increases in visitor numbers at the Park. An in-combination effect is therefore likely.
- 5.5.19 The cumulative impact could potentially be a net increase in visitors to the LVRP. It is not possible to determine the spatial distribution of new visitors to the LVRP, although as 67% of visitors currently focus their time on the open spaces and parklands, it may be likely that a portion of new visitors will spend some time at sites of Lee Valley SPA and Ramsar (set out above in **Section 5.4**).

5.6 Mitigation Measures

5.6.1 The LVRPA currently manages visitors closely and through a system of pathways, signage and promotion of particular routes they direct visitors away from certain areas of the Park, including important sites of sensitive habitats. The LVRPA therefore play a crucial role in protecting sensitive habitats from public access associated disturbances. They have proven so successful at doing so that HRA Screening conclusions for development plans in riparian authorities (such as the recent draft HRA Screening of the London Plan⁴⁵) have discounted the possibility of a public access LSE at Lee Valley SPA on this basis. This is a stance previously supported by Natural England.

5.6.2 One of the eight strategic planning aims of the PDF draft Strategic Policies is to *“Improve accessibility and entrances to the Park for pedestrians and cyclists and via public transport”*. In order to achieve this aim, the LVRPA proposes the following policies:

- Policy A1: Enhance existing entrances to the Park and, where appropriate, create new entrances;
- Policy A2: Work in partnership to reduce the severance caused by linear infrastructure, through the creation of pedestrian and cycle bridges and crossing points;
- Policy A3: Work in partnership to secure physical links and green corridors to surrounding parks, open spaces and other points of interest, thereby improving accessibility and integration;
- Policy A4: Improve sustainable transport links between points of interest in the Park; and
- Policy A5: Enhance signage and way finding to improve access to and movement within the Park; and
- Policy 6: Respond to the diversity of need enabling access to the Park by all communities.

⁴⁵ AECOM (2017) Draft London Plan Habitats Regulations Assessment

- 5.6.3 The overriding intention of Policies A1 – A6 is to make visiting the Park via public transport, cycling and pedestrian routes more convenient and feasible. Whilst the LVRPA is limited to some extent by the location of stations and bus routes over which they have little control, these policies aim to reduce the reliance on personal car use for visits to the Park. Evidence being gathered on behalf of the LVRPA indicates 67% of visitors currently reach the Park by car and only 4% do so by train. It is anticipated that in line with Policies A1 – A6, the LVRPA will achieve a gradual change in the way in which visitors reach the Park, with an increase in the proportion of those pursuing the more sustainable options of walking, cycling or public transport. These policies are therefore considered unlikely to increase visitor numbers within the LVRP, but rather improve the sustainability of the means by which visitors access the Park. In addition through improved signage and links these policies will ensure that visitors are directed away from sensitive habitats.
- 5.6.4 Policy V2 and V3 will help to ensure that the LVRP builds on its reputation for hosting major sporting events, such as at the velodrome facilities, and may therefore be anticipated to contribute to periods (such as a weekend) of higher visitor numbers at the LVRP than normal. The LVRPA's strategy when marketing for such events is to promote public transport routes at all times, whilst visitors and crowds are closely managed during events.
- 5.6.5 For example spectator car parking at the Lee Valley Velopark and the Lee Valley Hockey and Tennis Centre is not provided at events. Public transport options (bus, train and bike links) are set out in the 'Getting here' information provided to spectators on the websites⁴⁶.

⁴⁶ Examples of event information provided to spectators: Hockey World Cup: <https://www.visitleevalley.org.uk/en/content/cms/whatson/hockey-womens-world-cup-2018/>
Track Cycling World Cup: <https://www.visitleevalley.org.uk/en/content/cms/whatson/track-cycling-world-cup-2018/>

Six Day 2018: <https://www.visitleevalley.org.uk/en/content/cms/whatson/six-day-london-2018/>

- 5.6.6 Policies D1 – D4 will see the LVRPA work with riparian authorities with a view to protecting sensitive natural assets such as landscape and biodiversity. In particular, the proposed Policy D1 states that the LVRPA will “*work in partnership with the riparian authorities on Green Belt and Metropolitan Open Land reviews and policy development, with a view to protecting open land around the Park*”. This will help to ensure that functionally linked habitat to the Lee Valley SPA and Ramsar will be protected. Policy D3 sets out the requirement for riparian councils to ensure that the design and layout of new development on site both within the Regional Park and adjacent to its boundary avoid detrimental ecological impact but also provide sufficient open space to cater for informal recreational needs such as play and dog walking. This provision is important to ensure that the designated areas of the SPA and Ramsar within the LVRP do not become fragmented and isolated. In addition it will direct potentially adverse impacts associated with increased visitors and dog walking away from the designated sites.
- 5.6.7 Policies B1 to B4 aim to “*conserve and enhance the Park’s biodiversity*” through promotion of the Authority’s Biodiversity Action Plan (BAP)⁴⁷. The overarching aims of the BAP is to “*work with partners and communities to conserve, create, restore and enhance the habitats of the Regional park, providing access to and appreciation of this area*”. A key objective of the BAP is to maintain and enhance the present range of species, habitats and landscape features combined with extensive recreation and expansion of key habitat types. This expansion of habitats will ensure the protection of areas of functionally linked habitat and maintenance of connectivity between the designated areas of the Lee Valley SPA and Ramsar. This will also ensure that the individual sites that form the SPA and Ramsar do not become isolated and fragmented within the wider landscape but remain connected through the maintenance of other aquatic habitats and landscapes across the Park. The BAP sets out a series of species and habitat Action Plans. Of particular note are the Rivers and Streams and Standing Open Water Habitat Action Plans. These plans seek to manage and enhance these habitat types. For each of these Action Plans a suite of monitoring is required to monitor their success. Monitoring data will be an important tool to ensure that objectives within the BAP are based on current and well informed data sets.

⁴⁷ LVRPA (2018). Lee Valley Regional Park Biodiversity Action Plan 2018 – 2028.

- 5.6.8 As noted in the in-combination assessment (**Appendix B**) riparian and neighbouring authorities have ruled out alone and in-combination AIOSI at Lee Valley SPA and Ramsar. In a number of instances (such as for Broxbourne Borough Council and East Hertfordshire District Council) this is following consideration and adoption of mitigation strategies which aim to deliver greenspace in line with Natural England Suitable Alternative Natural Green Space requirements (SANG). This will provide alternative space for local residents to walk their dogs and play in areas away from the designated sites of the SPA and Ramsar.

5.7 Conclusions

- 5.7.1 The proposed policy updates will help ensure the LVRPA is able to continue to manage visitors closely and direct them away from sensitive habitats such as the SPA and Ramsar. This will become an increasingly vital role of the LVRPA because of future development in riparian authorities (Policies D1 – D4).
- 5.7.2 In accordance with policies B1 – B4 (and in particular through implementation of the BAP), the LVRPA will protect and enhance the Park's statutory designated conservation sites, restore and improve habitats, improve habitat connectivity and require development proposals to achieve a net gain for biodiversity.
- 5.7.3 Public access and disturbance effects on the Lee Valley SPA and Ramsar associated with the implementation of other plans and projects have not been identified in the in-combination assessment.
- 5.7.4 It is concluded therefore that there will be no adverse impact on site integrity (AIOSI) at Lee Valley SPA and Ramsar in relation to public access and disturbances issues caused by the Strategic Policies update alone and in-combination.
- 5.7.5 This conclusion was supported by Natural England in their letter of 28 September 2018 which states the following:

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- 5.7.6 *“Accounting for the LVRPA’s strong track record in conservation management and noting the Lee Valley Park Plan provides a strategic framework with revised policies that clearly promote the protection and enhancement of designated sites and biodiversity and HRA compliant projects, Natural England can agree with the conclusion of 5.8.6 [of the Screening Report⁴⁸].*

⁴⁸ Section 5.8.6 of the Screening Report: *“It is concluded that an LSE on Less Valley SPA and Ramsar as a result of public access associated disturbances caused by the Park Plan: Part 1 Strategic Policies update alone and in-combination, can be objectively rule out at this stage”*. Lepus Consulting (March 2018) Screening Report.

6 Appropriate Assessment: Air Quality

6.1 Introduction

- 6.1.1 The Screening Report (March, 2018) and re-screening exercise undertaken above concluded LSEs on air quality at Epping Forest SAC. This is due to the potential for increased traffic flows within 200m of the Epping Forest SAC as a result of the Strategic Policies in-combination with other plans. An AIOSI at Epping Forest SAC as a result of the Strategic Policies in-combination with other plans is therefore assessed in more detail below.

6.2 Air pollution

- 6.2.1 Air pollution, in particular atmospheric nitrogen deposition, has been identified as a threat / pressure for Epping Forest SAC.
- 6.2.2 Excess atmospheric nitrogen deposition within an ecosystem or habitat can disrupt the delicate balance of ecological processes interacting with one another. As the availability of nitrogen increases in the local environment, plants characteristic of that ecosystem are competitively excluded in favour of more nitrophilic plants. It also upsets the ammonium and nitrate balance of the ecosystem, which disrupts the growth, structure and resilience of plant species.
- 6.2.3 Excess nitrogen deposition often leads to the acidification of soils and a reduction in the soils' buffering capacity (the ability of soil to resist pH changes). It can also render the ecosystem more susceptible to adverse effects of secondary stresses, such as frost or drought, and disturbance events, such as foraging by herbivores.
- 6.2.4 As an attempt to manage the negative consequences of atmospheric nitrogen deposition, 'critical loads' have been established for ecosystems in Europe. Each EU site is host to a variety of habitats and species, the features of which are often designated a critical load for nitrogen deposition. The 'critical loads' of pollutants are defined as a:

6.2.5 “...quantitative estimate of exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge”⁴⁹.

6.2.6 As can be seen in **Table 6.1**, the qualifying features of Epping Forest SAC, which are known to be vulnerable to the impacts of excess nitrogen deposition, are already being exposed to nitrogen deposition which exceeds their critical load. Road transport is the second biggest contributor towards nitrogen deposition.

Table 6.1: Nitrogen deposition critical loads of EU sites and source attribution⁵⁰

EU Site	Habitat	Qualifying feature	Critical load Kg N/ha/yr	Current deposition Kg N/ha/yr	Source attribution
Epping Forest SAC	Fagus woodland	Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrublayer	10 - 20	Maximum: 52.5 Minimum: 25.6 Average: 29.2	Europe import: 22% Road transport: 18% Livestock: 10% Non-agri. non-abatable: 8% Int. shipping: 8%
	Broadleaved deciduous woodland	Stag beetle (<i>Lucanus cervus</i>)	10 - 20	Maximum: 52.5 Minimum: 25.6 Average: 29.2	Non-agri. waste: 7% Other transport: 7% Other: 6%
	Dry heaths	European dry heaths	10 - 20	Maximum: 28.8 Minimum: 14.7 Average: 16.6	Non-agri. abatable: 5% Fertiliser: 5% Commercial ind.: 4%

6.2.7 **Section 4.4** above sets out the DMRB and Natural England four step process for determining if there will be an LSE from traffic related air pollution at a European site.

⁴⁹ UNECE (date unavailable) ICP Modeling and Mapping Critical loads and levels approach, available at: <http://www.unece.org/env/Irtap/WorkingGroups/wge/definitions.html>, accessed 20/09/16

⁵⁰ Air Pollution Information Systems (APIS) Site Relevant Critical Loads and Source Attribution Data. Available online at: <http://www.apis.ac.uk/>

6.3 Adverse Impacts on Site Integrity

- 6.3.1 **Figure 6.1** shows roads within 200m of Epping Forest SAC. The SAC extends southwards into a heavily urbanised area and is therefore within 200m of a large number of roads. Many of these roads are minor and considered likely to support low levels of traffic. However, there are several major strategic roads, including the A104 which extends through the centre of the SAC, which are likely to have higher levels of traffic. Additionally, within 200m of the SAC's northern tip runs the 7km stretch of M25 between Junction 26 and Junction 27.
- 6.3.2 The Department for Transport (DfT) supplies annual average daily flow (AADF) data for roads throughout the UK⁵¹. The AADF for the M25, between J26 and J27 in 2017, was 140,043 total vehicles, 92,588 of which were cars and taxis. The AADF for the A104 (between the A1069 and A121 junctions) in 2017 was 14,032 total vehicles of which 11,539 were cars and taxis. An estimated 45,000 vehicles pass through the Wake Arms roundabout in the centre of the SAC every weekday⁵².
- 6.3.3 Policies V2, V3 and V4 were identified during the screening process as having the potential to cause a LSE at Epping Forest SAC in-combination with other plans. These policies promote the continued development of an event programme of international and national status, enhanced existing sports venues and provision of appropriate existing and new visitor / education facilities. It is likely that as a result of these policies visitor numbers to LVRP will increase.

⁵¹ Department for Transport (2016) Traffic counts for Essex. Available online at: <https://www.dft.gov.uk/traffic-counts/area.php?region=East+of+England&la=Essex> Accessed 17.11.18

⁵² Epping Forest – The next 10 years (2013). Accessed online at: consult.cityoflondon.gov.uk

- 6.3.4 A 1,000 AADT increase on the A104 and M25 (between J26 and J27) as a result of the Strategic Policies alone is thought to be highly unlikely. Increases related to Policies V2 and V3 are likely to be short term and temporary in nature reflecting the LVRP's events and sporting programme. Increases related to Policy V4 are likely to be insignificant when considered alone when taken in the context of the LVRPA providing a recreational / leisure venue, rather than a regular commuting destination such as a place of work. However, in accordance with the latest advice from Natural England and the recent Wealden high court case⁵³, it is necessary to consider the cumulative impact of the LVRPA's proposals in-combination with other plans and projects. An AIOSI at Epping Forest SAC due to the effects of the Strategic Policies in-combination with other plans cannot therefore be ruled out.
- 6.3.5 The sensitive features of Epping Forest SAC are currently being exposed to nitrogen deposition that far exceeds their critical loads, an issue which is being taken into consideration by several local authorities. The West Essex / East Hertfordshire Housing Market Area Partnership has signed a Memorandum of Understanding (MoU) to cooperatively manage the potential impacts of growth on Epping Forest SAC. The organisations party to this MoU include; East Hertfordshire District Council, Epping Forest District Council, Harlow District Council, Uttlesford District Council, Essex County Council, Hertfordshire County Council, the City of London Corporation (Conservators of Epping Forest) and Natural England.

⁵³ Wealden District Council & Lewes District Council before Mr Justice Jay, available online at: <http://www.bailii.org/ew/cases/EWHC/Admin/2017/351.html>

- 6.3.6 In 2017 as part of the HRA that was undertaken for Epping Forest District Council Regulation 19 Local Plan⁵⁴, air quality monitoring for a number of road links within 200m of Epping Forest SAC was undertaken. Predictions of nitrogen deposition and annual mean NO_x concentrations were based on the assessment methodology presented in Annex F of the Design Manual for Roads and Bridges (DMRB), Volume 11, Section 3, Part 1 (HA207/07)⁵⁵ for the assessment of impacts on sensitive designated ecosystems due to highways works.
- 6.3.7 As a result of this modelling, and following a broader discussion with Natural England and the City of London Corporation, the surrounding local authorities agreed that a mitigation strategy should be devised. This is discussed in further detail at **Section 6.4**. Since that commitment was made governance arrangements have been put in place and traffic modellers have been working on potential traffic mitigation scenarios. The latest scenarios available at time of writing the Epping Forest Regulation 19 Local Plan HRA focused on Wake Arms Roundabout, as this is known to be the most congested part of the network in Epping Forest SAC. It is understood that the traffic modelling will be further refined to take account of downstream impacts because the introduction of mitigation on one part of the network can cause issues on another part of the network which then need to be addressed in turn.
- 6.3.8 A programme of long-term air quality monitoring is also being planned with input from the City of London Corporation. This will be useful in air quality model verification but its main value will be in tracking the expected improvement in emissions over the Epping Forest District Council Plan period. This can feed into any reviews of housing/employment quantum and mitigation measures.

⁵⁴ AECOM (2017). Habitats Regulations Assessment Screening of Epping Forest District Council Regulation 19 Local Plan. Available at: <http://www.efdclocalplan.org/wp-content/uploads/2018/03/EB206-Habitats-Regulations-Assessment-AECOM-December-2017-1.pdf>

⁵⁵ DMRB Volume 11, Section 3, Part 1 (HA207/07) (2007). Available at: <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/section3/ha20707.pdf>

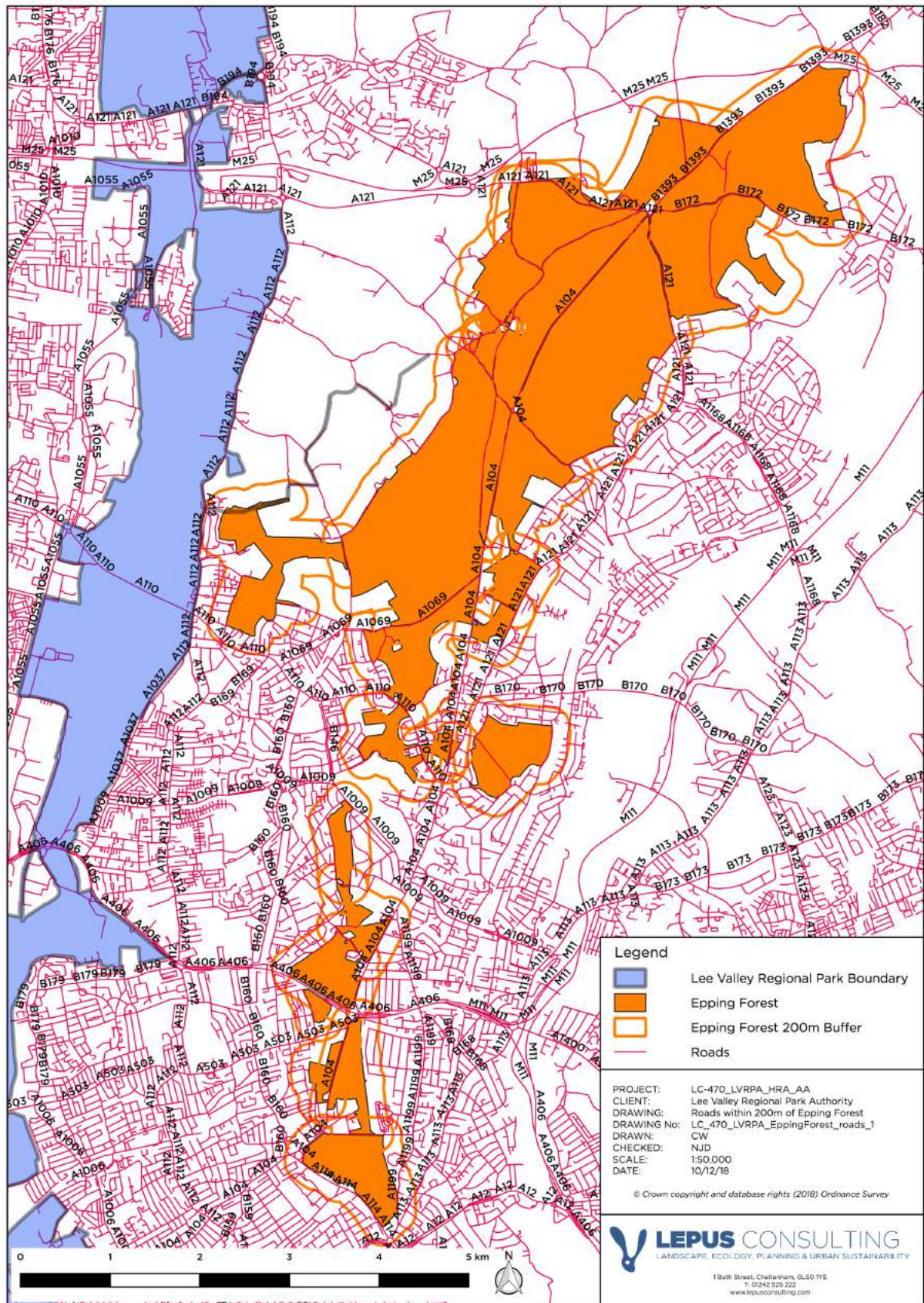


Figure 6.1: Roads within 200m of Epping Forest SAC

6.4 Mitigation Measures

- 6.4.1 As noted above surrounding local authorities agreed that a mitigation strategy should be devised to address air quality impacts at Epping Forest SAC.
- 6.4.2 These authorities are working in partnership to develop a large scale strategic approach relating to the Epping Forest SAC known as the Epping Forest Mitigation Strategy. The final mitigation strategy will comprise a package of strategic mitigation measures to address effects which will be costed and funded through developer contributions. The final Mitigation Strategy will address the following:
- Recreational pressure impacts (through Strategic Access Management Measures and Suitable Alternative Natural Green Space provision (SANGS)); and
 - Air quality impacts.
- 6.4.3 Correspondence from Natural England of 20 September provides interim advice to ensure new residential development and any associated recreational impacts on Epping Forest SAC are compliant with the Habitats Regulations. It does not however address the potential air pollution impacts specifically as the updated HRA for the Epping Forest District Local Plan is required before Natural England can provide further advice on this matter.
- 6.4.4 Natural England's advice sets out an interim 'zone of influence' of 6.2km to determine whether residential applications will have a recreational impact on Epping Forest. This is based on a visitors survey undertaken by Footprint Ecology to identify the distance that the majority of visitors (75%) travel to Epping Forest SAC. Natural England recognise that a considerable proportion of residential allocations in local authority plans will be coming forward as planning applications prior to the adoption of the Mitigation Strategy. Natural England advises that in the interim period any recreational impacts from residential schemes are considered in terms of the Habitat Regulations through a project level HRA following a set of guidelines focusing on Impact Risk Zones⁵⁶, the provision of SANGS and financial contributions. Natural England's interim advice in this respect is provided at **Appendix E**.

⁵⁶ Impact Risk Zone are "The Impact Risk Zones (IRZs) are a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks to SSSIs posed by development proposals.

- 6.4.5 Other measures which will mitigate impacts associated with increased traffic due to increased visitor numbers to LVRP include policies set out within the Strategic Policies themselves. Policy A1 – A6 will increase the portion of visitors reaching the LVRP via more sustainable transport modes such as public transport, walking and cycling. These policies will reduce reliance on the car to access LVRP.
- 6.4.6 It is also noted that LVRPA's strategy when marketing for events of an international and national status and other sporting events is to promote public transport and sustainable transport options at all times. This will also contribute to a reduction in car reliance when accessing the LVRP. See **Section 5.6.5** above.

6.5 Conclusions and Recommendations

- 6.5.1 The Strategic Policies will not increase development. As noted above Policy V2 and V3 aim to ensure that the LVRP builds on its reputation for hosting major sporting events, such as at the VeloPark, and may therefore be anticipated to contribute to periods (such as a weekend) of higher visitor numbers at the LVRP than normal. It is noted that these events are likely to occur outside busy commuter periods. This increase in visitor numbers will be linked to these one off events. A combination of Policies A1 – A6 and LVRPA's event strategy both which promote the use of public transport, walking and cycling to major events within the Park will mitigate an in-combination AIOSI at Epping Forest SAC as a result of these policies.
- 6.5.2 Policy V4 aims to improve the provision of visitor and education facilities at existing and new visitor hubs and entrance points to the Park. Improved facilities have the potential to increase visitor numbers to the LVRP. Visitors are likely to rely on more sustainable modes of transport as a result of Policies A1 – A6 which promote improved pedestrian access to the park and links to public transport.

They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts. The IRZs also cover the interest features and sensitivities of European sites, which are underpinned by the SSSI designation and "Compensation Sites", which have been secured as compensation for impacts on Natura 2000/Ramsar sites". Source: Natural England (2018). User Guide. Available at: https://magic.defra.gov.uk/Metadata_for_magic/SSSI%20IRZ%20User%20Guidance%20MAGIC.pdf

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- 6.5.3 The Mitigation Strategy currently being prepared by the surrounding local authorities to Epping Forest SAC and Natural England's proposed interim advice seeks to provide alternative recreational space within a specified zone of influence from Epping Forest SAC. This will provide alternative green space for residents as part of development in districts and boroughs that lie within the 6.2km zone of influence. This will potentially reduce the draw of visitors from these areas to the LVRP on a regular basis for instance for dog walking.
- 6.5.4 In addition, as noted above, the Mitigation Strategy seeks to develop a package of mitigation to address in-combination air quality impacts at Epping Forest SAC. The details of this Mitigation Strategy cannot be determined in the timescale of this assessment. Whilst this strategy has yet to be developed, the LVRPA will maintain a watching brief, aiming to provide support when the draft strategy emerges.
- 6.5.5 Based on the adoption of mitigation set out above it can be concluded that there will be no in-combination AIOSI at Epping Forest SAC in relation to reduced air quality caused by the Park Development Framework revised Strategic Policies.

7 Conclusions

7.1 Summary

- 7.1.1 The updated Park Plan Strategic Policies have been considered in light of the assessment requirements of Regulation 105 of the Conservation of Habitats and Species Regulations 2017 by LVRPA, which is the competent authority responsible for adopting the Strategic Policies and any assessment of it required by the regulations.
- 7.1.2 Having carried out a screening assessment of the Strategic Policies, LVRPA concluded that they would be likely to have a LSE on Lee Valley SPA and Ramsar and Epping Forest SAC.
- 7.1.3 These judgments were made in light of the ‘Waddenzee’ and ‘Sweetman’ rulings of the European Court of Justice (respectively; Case C-127/02 and Case C-323/17). LSEs of the Strategic Policies on Lee Valley SPA and Ramsar site identified were associated with public access and disturbance effects. LSEs on Epping Forest SAC identified were related to changes in air quality as a result of the Strategic Policies in-combination with other plans and projects.
- 7.1.4 In line with the Sweetman ruling it is not necessary for LVRPA to show that the Park Strategic Policies will result in no effects whatsoever on any European site. Instead, LVRPA are required to show that the Strategic Policies, either alone or in-combination with other plans and projects, will not result in an effect which undermines the conservation objectives of one or more qualifying features.
- 7.1.5 Consequently an appropriate assessment was required of the implications of the Strategic Policies on the qualifying features of those sites in light of their conservation objectives.
- 7.1.6 The appropriate assessment determined adverse impacts on site integrity at these European sites. Integrity of a European site is defined in the DTA handbook as “*the coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat and /or the levels of populations of the species for which it was classified*”. A number of mitigation measures were considered as part of the assessment process where adverse impacts were identified.

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- 7.1.7 Following the appropriate assessment, LVRPA has ascertained that the Strategic Policies would not have an adverse effect on the integrity of these sites either alone or in-combination with other plans or projects.

7.2 Next steps

- 7.2.1 This draft report will now be submitted to Natural England, the statutory nature conservation body, for formal consultation.
- 7.2.2 Regard will be given to Natural England's advice under the provisions of Regulations 63(3) and 105(2).

APPENDIX A:

Table A.1: European sites and their conservation objectives

Epping Forest SAC

Conservation objectives:

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

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

Qualifying Features:

- H4010: Northern Atlantic wet heaths with *Erica tetralix*; Wet heathlands with cross-leaved heath
- H4030: European dry heaths
- H9120: Atlantic acidophilous beech forests with *Ilex* also *Taxus* in the shrublayer (*Quericon robori-petraeae* or *Ilici-Fagenion*); Beech forests on acid soils
- S1083: *Lucanus cervus*; Stag beetle

Wormley Hoddesdonpark SAC

Conservation objectives:

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

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

Qualifying Features:

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

Wimbeldon Common SAC

Conservation objectives:

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

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

Qualifying Features:

- H4010. Northern Atlantic wet heaths with *Erica tetralix*; Wet heathland with cross-leaved heath
- H4030. European dry heaths
- S1083. *Lucanus cervus*; Stag beetle

Lee Valley SPA

Conservation objectives:

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

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

Qualifying Features:

- A021 *Botaurus stellaris*; Great bittern (Non-breeding)
- A051 *Anas strepera*; Gadwall (Non-breeding)
- A056 *Anas clypeata*; Northern shoveler (Non-breeding)

Lee Valley Ramsar

Conservation objectives:

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

Ramsar Criterion	Justification for the application of each Criterion
2	<p>Ramsar criterion 2 - the site supports the nationally scarce plant species:</p> <ul style="list-style-type: none"> • Whorled water-milfoil <i>Myriophyllum verticillatum</i>; and • The rare or vulnerable invertebrate <i>Micronecta minutissima</i> (a water-boatman).
6	<p>Ramsar criterion 6 – species/populations occurring at levels of international importance.</p> <p>Qualifying species/populations with peak counts in spring/autumn:</p> <ul style="list-style-type: none"> • Northern shoveler, <i>Anas clypeata</i>, NW & C Europe (287 individuals). <p>Qualifying species/populations with peak counts in winter:</p> <ul style="list-style-type: none"> • Gadwall, <i>Anas strepera strepera</i>, NW Europe (445 individuals).

APPENDIX B: Review of relevant plans and projects

Table B.1: Review of relevant plans and projects for in-combination assessment

LPAs overlapping LVRPA	Findings of the HRA and in-combination assessment
East Hertfordshire District Council	<p>East Hertfordshire District Plan 2011-2033 was adopted on 23 October 2018⁵⁷. A HRA was prepared by AECOM in 2016⁵⁸. The Plan sets out policies to provide a minimum of 16,390 new homes between 2011 and 2033.</p> <p>The HRA identified the following potential impacts:</p> <ul style="list-style-type: none"> - Recreational pressure - Air quality - Water abstraction - Water quality <p>The HRA focused on LSEs on the following European sites:</p> <ul style="list-style-type: none"> - Lee Valley SPA and Ramsar; - Wormley Hoddesdonwood Park SAC; and - Epping Forest SAC. <p>Overall the HRA concluded that, provided the recommendations made in the HRA were incorporated into the Local Plan, it would be possible to conclude that the East Hertfordshire Local Plan would not result in a likely significant effect, either alone or in combination, upon any European sites. This conclusion was contingent upon the signature, adoption and implementation of the Epping Forest SAC Memorandum of Understanding between the HMA authorities, Hertfordshire County Council, Essex County Council, Natural England and the Corporation of London. This will ensure that any issues that may arise regarding air quality or recreational pressure on Epping Forest SAC can be identified and addressed before they result in a likely significant effect. The HRA also recommended that reference to a commitment by the Council to identified strategic initiatives to manage recreation at Wormley Hoddesdonpark Woods (as identified in the SIP for that SAC) was incorporated within the Plan. It also recommended that all new development deliver greenspace in-line with the Natural England ANG standard to ensure it is self-sufficient.</p> <p>Mitigation measures outline above in relation to in-combination effects are relevant to the assessment of the Strategic Policies</p>

⁵⁷ East Hertfordshire District Council (2018). East Herts District Plan, October 2018. Available at: https://www.eastherts.gov.uk/media/33185/East-Herts-District-Plan-2018-web-view/PDF/District_Plan_Publish_web_view.pdf

⁵⁸ AECOM (2016). East Hertfordshire Local Plan Habitat Regulations Assessment. Available at: https://www.eastherts.gov.uk/media/30381/Habitats-Regulation-Assessment/PDF/Habitats_Regulations_Assessment__2016.pdf

LPAs overlapping LVRPA	Findings of the HRA and in-combination assessment
Broxbourne Borough Council	<p>Broxbourne Local Plan 2018 -2033⁵⁹ was submitted to the Secretary of State on 15th March 2018. A HRA was prepared for the Local Plan⁶⁰.</p> <p>The AA considered each European site and the following LSEs closely:</p> <ul style="list-style-type: none"> • Public access associated disturbances LSE at Lee Valley SPA caused by the Broxbourne Local Plan alone; • Air pollution and public access LSEs at Epping Forest SAC caused by the Broxbourne Local Plan in-combination; and • Public access associated disturbances LSE at Wormley Hoddesdonpark Woods SAC caused by the Broxbourne Local Plan in-combination. <p>The AA made the following conclusions in relation to these impacts:</p> <ul style="list-style-type: none"> • The council is developing a mitigation strategy which focuses on managing visitor numbers at the Lee Valley SPA, the provision of SANGS and the creation of new habitat for the SPA's qualifying features. It is concluded that an LSE on Lee Valley SPA can be objectively ruled out at this stage because of the Council's adopted mitigation strategy. • A Memorandum of Understanding (MoU) has been produced by several local authorities to investigate, monitor, avoid and mitigate air pollution at Epping Forest SAC. Broxbourne Council are committed to signing the MoU and positively contributing towards the strategy for protecting the SAC from air pollution. It is concluded that, based on the continued development of a monitoring and mitigation strategy for the SAC through the MoU, no adverse effect on the integrity of the SAC will occur due to the emerging Broxbourne Local Plan alone or in-combination. • Overall the HRA concluded that Wormley Hoddesdonpark Woods SAC is in good ecological condition and it is unlikely that the Plan will exacerbate the SAC's threats and pressures. It is concluded that an LSE on the SAC, as a result of the Plan alone and in-combination, can be objectively ruled out at this stage. <p>The HRA AA for the Broxbourne Local Plan concludes that, based on the Council's continued adoption and progress of the relevant monitoring and mitigation strategies, all potential LSEs on EU sites caused by the Broxbourne Local Plan alone or in-combination can be objectively ruled out at this stage.</p> <p>Mitigation measures outline above in relation to in-combination effects at Epping Forest SAC are relevant to the assessment of the Strategic Policies.</p>
London Borough of Enfield	<p>The London Borough of Enfield is currently updating its Local Plan for the period 2017 – 2032. A Call for Sites was made in 2016 to accommodate future development in the borough. The sites suggested during the consultation are currently being assessed as part of the ongoing Local Plan work. Work is currently underway on the Issue and Options stage of the Local Plan which will provide detailed options on the planning choices.</p>

⁵⁹ Borough of Broxbourne (2017). Broxbourne Local Plan: A Framework for the future development of the Borough 2018 - 2033. Regulation 19 Draft Local Plan Consultation Document. Available at: https://www.broxbourne.gov.uk/sites/default/files/Documents/Planning_Policy/Pre-Submission%20Local%20Plan%20Written%20Statement%20-%20LOW%20RES%20VERSION.pdf

⁶⁰ Lepus Consulting (2017). Habitat Regulation Assessment of the Broxbourne Emerging Local Plan. Available at: <https://www.broxbourne.gov.uk/sites/default/files/EV1%20-%20Habitats%20Regulations%20Assessment.pdf>

LPAs overlapping LVRPA	Findings of the HRA and in-combination assessment
	<p>In November 2010 the Council adopted the Core Strategy⁶¹ which sets the spatial planning framework for development of the borough over the next 10 to 20 years.</p> <p>The outcome of the HRA for the new local plan is currently unknown.</p> <p>It is considered that there is the potential for in-combination public access and associated disturbance effects and air pollution effects of the Enfield Local Plan at European sites considered in this HRA.</p>
London Borough of Haringey	<p>Haringey's development plan is completed and adopted. It is currently made up of the Strategic Policies, Development Management Policies, Site Allocations and Tottenham Area Action Plan, alongside the London Plan. The council is currently preparing two additional plans, the Wood Green Area Action Plan, and the North London Waste Plan, and once adopted will form part of the development plan⁶².</p> <p>HRA Screening Assessments were undertaken for each of the development plan documents.</p> <ul style="list-style-type: none"> • HRA Screening of Strategic Policies⁶³. • HRA Screening of Development Management Policies⁶⁴. • HRA Screening of Tottenham Area Action Plan⁶⁵. • HRA Screening of Site Allocations⁶⁶. <p>Following assessment of Lee Valley SPA and Ramsar site, the potential impact pathway of disturbance (from recreational pressure), urbanisation, water abstraction, water quality and air quality were screened out both alone and in-combination with other projects and plans.</p> <p>There is a potentially small contribution of this plan to in-combination public access and disturbance and air pollution impacts with the Strategic Policies.</p>
London Borough of Hackney	<p>Hackney's existing local plan (formerly local development framework - LDF) comprises the core strategy (adopted November 2010), the development management local plan (adopted July 2015), the site allocations local plan (adopted July 2016) and adopted area action plans. Consulting on the</p>

⁶¹ Enfield Council (2010). The Enfield Plan Core Strategy 2010 – 2025. Available at: <https://new.enfield.gov.uk/services/planning/planning-policy/local-plan/planning-policy-information-enfield-core-strategy.pdf>

⁶² Available at: <https://www.haringey.gov.uk/planning-and-building-control/planning/planning-policy/local-development-framework>

⁶³ AECOM (2015). Habitats Regulations Assessment Screening Report – Alterations to Haringey's Strategic Policies. Available at: https://www.haringey.gov.uk/sites/haringeygovuk/files/haringey_sp_alterations_hra_101115_v3.pdf

⁶⁴ AECOM (2015). Habitats Regulations Assessment Screening Report –Haringey's Proposed Submission Development Management Policies. Available at: https://www.haringey.gov.uk/sites/haringeygovuk/files/haringey_dmp_hra_101115_en_comments_i_h_v3.pdf

⁶⁵ AECOM (2015). Habitats Regulations Assessment Screening Report –Tottenham Area Action Plan. Available at: https://www.haringey.gov.uk/sites/haringeygovuk/files/tottenham_aap_hra_for_issue_101115_en_ih_v2.pdf

⁶⁶ AECOM (2015). Habitats Regulations Assessment Screening Report – Draft Site Allocations DPD Available at: https://www.haringey.gov.uk/sites/haringeygovuk/files/haringey_site_allocations_hra_101115_en_ih_v3.pdf

LPAs overlapping LVRPA	Findings of the HRA and in-combination assessment
	<p>proposed submission local plan 2033 is currently underway 19 November 2018 to 7 January 2019⁶⁷.</p> <p>An integrated impact assessment of the Local Plan included a HRA Screening Report⁶⁸. This noted that the Local Plan 2033 aims to direct development to the most sustainable locations and that there are various policies in the plan to positively manage and promote biodiversity, green infrastructure, air quality and sustainable methods of travel. Furthermore, it stated that the impact of increased visitors to the European sites are dealt with by the sites themselves. The Screening Report concluded that the Local Plan 2033 policies have been 'screened out' as being unlikely to lead to significant adverse effects on European sites and do not need to be taken forward for the next stage of Appropriate Assessment.</p> <p>This plan is of relevance to the assessment of Strategic Policies in terms of in-combination public access / disturbance threats and changes in air quality.</p>
London Borough of Tower Hamlets	<p>The Development Plan for Tower Hamlets is comprised of the London Plan (produced by the Mayor of London), Local Plan and Neighbourhood Plans. The Regulation 19 Tower Hamlets Local Plan has been submitted to the government to undergo an independent examination. An Integrated Impact Assessment was prepared for the revised local plan which included a HRA⁶⁹.</p> <p>The HRA assessed the potential for the plan to affect five European sites within 15km of the LBTH area: Epping Forest SAC, Richmond Park SAC, Wimbledon Common SAC, Lee Valley SPA and Lee Valley Ramsar.</p> <p>It noted that Epping Forest SAC, Lee Valley SPA and Lee Valley Ramsar have features that are potentially sensitive to the outcomes of the plan, particularly via visitor pressure or reduced air quality which are aspects that are known to be currently affecting Epping Forest SAC in particular.</p> <p>The HRA 'screening' undertaken concluded that the Plan, if delivered as per the draft (with specific amendments to policies made in light of the HRA), will have no significant effects (alone or in combination) on any European sites due to either an absence of impact pathways; policy controls within the plan that can be relied on to ensure significant effects are avoided; or external controls (such as the water resources planning process) that account for the growth aspects of the plan and with which the plan is consistent.</p> <p>This plan is of relevance to the assessment of Strategic Policies in terms of in-combination public access / disturbance threats and changes in air quality.</p>
London Borough of Newham	<p>The Newham's Local Plan Core Strategy was adopted in 2012⁷⁰. An Integrated Impact Assessment was undertaken for the Plan⁷¹. The Habitats Regulations Assessment carried out for the Core Strategy identified the designated areas likely to be affected by development within the Borough (Epping Forest SSSI / SAC) and identified the likely effects of development. The spatial and strategic</p>

⁶⁸ London Borough of Hackney (2018). Integrated Impact Assessment. Available at: <https://hackney.gov.uk/media/9668/Integrated-impact-assessment/pdf/integrated-impact-assessment.pdf?m=636779623976730000>

⁶⁹ Amec Foster Wheeler (2017). London Borough of Tower Hamlets. Integrated Impact Assessment. https://www.towerhamlets.gov.uk/Documents/Planning-and-building-control/Strategic-Planning/Local-Plan/Submission_2018/Integrated_Impact_Assessment_2017.pdf

⁷⁰ London Borough of Newham (2012). Newham 2027: Newham's Local Plan - The Core Strategy. <https://www.newham.gov.uk/Documents/Environment%20and%20planning/CoreStrategy2004-13.pdf>

⁷¹ London Borough of Newham (2015). Integrated Impact Assessment Proposed Submission Draft. <https://www.newham.gov.uk/Documents/Environment%20and%20planning/IntegratedImpactAssessmentDSPDPD.pdf>

LPAs overlapping LVRPA	Findings of the HRA and in-combination assessment
	<p>policies of the Core Strategy, as well as designation of several key 'strategic sites' for development, were found to be acceptable in regards any potential impacts on the identified conservation areas, due to the distance from identified areas (within 10km but not within the borough), policies that set out important biodiversity safeguards, and at least in part due to distance from the identified areas, and the knowledge that the entirety of the Borough is within 10km of the designated Epping Forest SSSI / SAC.</p> <p>The conclusion of the Core Strategy HRA was unchallenged either by interested parties or the Inspector at Examination, the overall finding was that: None of the Core Strategy policies or sites were found likely to have any significant discernible adverse impact on European sites either in isolation or when considered in association with any other policy, site or plan. Given the spatial designations and policy advances made in the Issues & Options stage of the Detailed Sites and Policies DPD, are much smaller in scale, and strengthen the biodiversity position of the plan, the previous assessment is held to be equally applicable to the Detailed Sites and Policies DPD as currently scoped. This plans is of relevance to the assessment of Strategic Policies in terms of in-combination public access / disturbance threats and changes in air quality.</p>
London Borough of Waltham Forest	<p>The Council is in the process of preparing a new Local Plan for the Borough. Public consultation has been undertaken. The Council is currently developing its evidence base to support production of the draft plan.</p> <p>Outcome of new Local Plan HRA unknown.</p> <p>The Core Strategy was formally adopted by the Council on 1 March 2012⁷².</p> <p>A HRA was undertaken of the Core Strategy⁷³.</p> <p>LSEs on Epping Forest SAC and Lee Valley SPA and Ramsar site were assessed. The HRA concluded that the Waltham Forest Core Strategy includes an adequate policy framework to deliver measures to avoid or mitigate the adverse effects of development on these sites provided that the effectiveness of measures is adequately monitored. None of the amendments to Core Strategy text that have been made since the proposed Submission version were considered to introduced any risk to these sites and several were considered to have strengthened their protection.</p> <p>Overall the HRA concluded that significant effects are unlikely to occur on any European sites as a result of Core Strategy development, either alone or in combination with other plans and projects.</p> <p>This plans is of relevance to the assessment of Strategic Policies in terms of in-combination public access / disturbance threats and changes in air quality</p>
Epping Forest District Council	<p>The Epping Forest new Local Plan⁷⁴ has been submitted for approval to the Planning Inspectorate by Epping Forest District Council. A HRA was undertaken for the Epping Forest Regulation 18 Local Plan⁷⁵.</p>

⁷² London Borough of Waltham Forest (2012). Waltham Forest Local Plan. Core Strategy. Available at: <http://static.walthamforest.gov.uk/sp/documents/adopted-core-strategy.pdf>

⁷³ URS (2011). London Borough of Waltham Forest Local Development Framework Submission Core Strategy Habitat Regulations Assessment

<http://static.walthamforest.gov.uk/sp/documents//sd08-core-strategy-habitats-regulation-assessment-final-submission.pdf>

⁷⁴ Epping Forest District Council (2016). Epping Forest Draft Local Plan Consultation. Available at: <http://www.efdclocalplan.org/wp-content/uploads/2017/12/Epping-Forest-Draft-Local-Plan-2016.pdf>

⁷⁵ AECOM (2016). HRA Screening Assessment of Epping Forest District Council Regulation 19 Local Plan. Available at: <http://www.efdclocalplan.org/wp-content/uploads/2018/03/EB206-Habitats-Regulations-Assessment-AECOM-December-2017-1.pdf>

LPAs overlapping LVRPA	Findings of the HRA and in-combination assessment
	<p>The HRA concluded that provided that the recommendations made in the HRA are incorporated into the District Plan, it would be possible to conclude that the Epping Forest District Plan will not result in a likely significant effect, either alone or in combination, upon any European sites. This conclusion is contingent upon the signature, adoption and implementation of the Epping Forest SAC Memorandum of Understanding between the HMA authorities, Hertfordshire County Council, Essex County Council, Natural England and the Corporation of London. This will ensure that any issues that may arise regarding air quality or recreational pressure on Epping Forest SAC can be identified and addressed before they result in a likely significant effect.</p> <p>Recommendations included:</p> <ul style="list-style-type: none"> • Project level HRAs for allocations within 400m of a Epping Forest SAC. • Delivery of greenspace in-line with the Natural England ANG standard to ensure that self-sufficiency. • Use of financial contributions. • Monitoring air quality along key roads within Essex that lie within 200m of Epping Forest, in conjunction with the Epping Forest Conservators. • Working with the Epping Forest Conservators and Essex County Council to deliver the Site Nitrogen Plan and Transport Management Strategy for Epping Forest, in addition to any further measures that are identified as an outcome of the monitoring described in the above point. • Maximising promotion of sustainable transport throughout the local authority area. <p>The results of this HRA are of relevance for in-combination effects with the Strategic Policies. Of particular relevance is the measures proposed for mitigating impacts.</p>
Thames River Basin Management Plan ⁷⁶	<p>A HRA Screening Process has been undertaken for the Thames River Basin Management Plan (RBMP). This concludes that the Thames RBMP is not likely to have any significant effects on any European sites, alone or in combination with other plans or projects.</p>
The London Plan ⁷⁷	<p>A HRA was prepared for the London Plan⁷⁸. The HRA identified that several amendments to policy or matters of direction to boroughs (particularly those around Epping Forest SAC) are required. Those matters have since been addressed. It is therefore considered that there are sufficient protective mechanisms in place to ensure that the growth objectives of the London Plan can be delivered without an adverse effect on the integrity of European sites, either alone or in combination with other plans and projects.</p> <p>This plans and mitigation measures proposed in the HRA are of relevance to the assessment of Strategic Policies in terms of in-combination public access / disturbance threats and changes in air quality.</p>

⁷⁶ Environment Agency (2015). River basin management plan for the Thames River Basin District Habitats Regulations Assessment Updated December 2015. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/496497/RBMP_HRA_Thames_FINAL_Jan_2016.pdf

⁷⁷ Mayor of London (2017). The London Plan The Spatial Development Strategy for Greater London. Draft for Public Consultation.

⁷⁸ AECOM (2018). Draft London Plan Habitats Regulations Assessment Update. Available at: https://www.london.gov.uk/sites/default/files/london_plan_hra_update_report_july_2018.pdf

APPENDIX C:

Table C.1: Threats, pressures and the relevant qualifying features of EU sites considered in this report. For qualifying features, see **Appendix A**.

Information from SIPs and Natura 2000 data forms	Threats/ pressures	Lee Valley SPA & Ramsar	Epping Forest SAC	Wormley Hoddesdonpark Woods SAC	Wimbledon Common SAC
	Water pollution	All qualifying features (SIP + N2K)	Wet heathland with cross- leaved heath	n/a	n/a
	Hydrological changes	All qualifying features (SIP + N2K)	Wet heathland with cross- leaved heath (SIP + N2K)	n/a	n/a
	Public access/ disturbance	All qualifying features (SIP + N2K)	Wet heathland with cross- leaved heath, European dry heaths and Beech forests on acid soils (SIP + N2K)	All qualifying features	All qualifying features
	Inappropriate scrub control	All qualifying features	n/a	n/a	n/a
	Fisheries: fish stocking	All qualifying features	n/a	n/a	n/a
	Invasive species	All qualifying features	Wet heathland with cross- leaved heath and Beech forests on acid soils	All qualifying features (SIP + N2K)	All qualifying features
	Inappropriate cutting/ mowing	Bittern	n/a	n/a	n/a
	Air pollution: risk of atmospheric nitrogen deposition	Bittern	Wet heathland with cross- leaved heath and Beech forests on acid soils (SIP + N2K)	All qualifying features (SIP + N2K)	All qualifying features
	Habitat fragmentation	n/a	n/a	n/a	All qualifying features
	Disease	n/a	Beech forests on acid soils	All qualifying features (SIP)	n/a
	Deer	n/a	n/a	All qualifying features (SIP)	n/a
	Vehicles: illicit	n/a	n/a	All qualifying features (SIP)	n/a

Information from Natura 2000 data forms only

Forestry and woodland management	n/a	n/a	All qualifying features (SIP)	n/a
Undergrazing	n/a	Wet heathland with cross-leaved heath (SIP)	n/a	n/a
Changes in species distribution	n/a	Beech forests on acid soils (SIP)	n/a	n/a
Problematic native species	n/a	n/a	All qualifying features (N2K)	n/a
Marine and freshwater aquaculture	All qualifying features (N2K)	n/a	n/a	n/a
Changes in biotic conditions	n/a	All qualifying features (N2K)	n/a	n/a
Grazing	n/a	All qualifying features (N2K)	n/a	n/a
Biocenotic evolution succession	All qualifying features (N2K)	n/a	n/a	n/a
Interspecific floral relations	n/a	n/a	All qualifying features (N2K)	n/a
Other human intrusions and disturbances	n/a	n/a	All qualifying features (N2K)	n/a

APPENDIX D: Screening Summary

Table D1: HRA Screening Summary

Strategic Planning Aim	Strategic Policy	Justification	Updated Screening category
Effective use & management of land	E1: Work with landowners and key stakeholders across the Regional Park to ensure: a) the most effective use of land and property in fulfilment of its statutory purpose; and b) that development proposals take into consideration the Natural Capital Accounting Framework.	Policy sets out criteria for working with stakeholders. It will not result in development or change. No LSE on European site.	Screened out: B
	E2: Development proposed on sites either within or outside the Park which could adversely impact on its amenity will be resisted or planning obligations sought in line with other policies within this Plan.	Policy protects amenity of site. It does not result in development or change. No LSE on European site.	Screened out: B
Conserve and enhance the Park's landscape character, key views and openness	L1: Require all development proposals to demonstrate how their location, scale, design and materials respect and respond to the character, sensitivities and qualities of the relevant landscape character areas, as detailed in the Landscape Character Assessment (LCA).	Policy sets out design criteria for development it does not propose development or change itself. No LSE on European site.	Screened out: B
	L2: Secure designs of new buildings and other structures which are appropriate to their landscape context as identified in the draft Landscape Character Assessment.	Policy sets out design requirements it will not lead to development or change. No LSE on European site.	Screened out: F
	L3: Require full landscape and visual assessments to be made of all proposals for tall buildings for sites both within and adjacent to the Park.	Policy sets out requirements for landscape and visual considerations but does not lead to development or change. No LSE on European site.	Screened out: F
	L4: Protect views that promote a sense of orientation and/or an appreciation of the natural and physical environment of the Lee Valley.	Policy seeks to protect views but does not lead to development or change. No LSE	Screened out: F

Strategic Planning Aim	Strategic Policy	Justification	Updated Screening category
		on European site.	
Conserve and enhance the cultural heritage of the Park and its historic environment	H.1: Conserve and enhance the Park's historic environment and cultural heritage, including its archaeology, historic buildings, structures, landscapes and their settings.	Policy sets out general requirements to protect historical assets but does not lead to development or change. No LSE on European site.	Screened out: B
	H2: Support proposals to enhance access to and interpret the heritage assets, recognising their value in providing opportunities for leisure, health and recreation.	Policy sets out measures to propose heritage assets but does not lead to development or change. No LSE on European site.	Screened out: F
	H3: Work with other partner bodies to support art, festivals and fairs.	Policy sets out framework of working with partners but does not lead to development or change. No LSE on European site.	Screened out: F
Conserve and enhance the Park's biodiversity	B1: Development within the Regional Park should be consistent with the Authority's Biodiversity Action Plan and in accordance with a locally approved or DEFRA endorsed biodiversity assessment metric.	Policy steers development to ensure compliance with BAP but does not lead to development or change. No LSE on European site.	Screened out: E
	B2: Proposals that could result in a net loss of biodiversity will be resisted. Where necessary the Authority will seek planning obligations to deliver the 'mitigation hierarchy' of avoidance, mitigation and compensation.	Policy protects biodiversity but does not lead to development or change. No LSE on European site.	Screened out: E
	B3: Work with the riparian boroughs and the London Mayor to identify locations within the Park which can provide opportunities for 'biodiversity offsetting' resulting from major development schemes proposed for sites outside the Park.	Policy seeks to protect biodiversity and specifically protect designated sites from major development outside of the park. Policy does not lead to development or change. No LSE	Screened out: D

Strategic Planning Aim	Strategic Policy	Justification	Updated Screening category
		on European site.	
	B4: Regularly monitor the Park's protected sites and species in line with the adopted Lee Valley Biodiversity Action Plan.	Policy seeks to protect biodiversity from impacts but does not lead to development or change. No LSE on European site.	Screened out: E
Protect, improve and make best use of the Park's water spaces	W1: Ensure that water space are appropriately protected to support the Regional Park's biodiversity and recreational offer.	Policy seeks to protect water and ecological receptors in the LVRP but does not lead to development or change. No LSE on European site.	Screened out: E
	W2: Support development that encourages recreational use of water spaces, where this is consistent with other strategic policies.	Policy supports development but only where this supports other policies hence protecting wildlife. Policy does not lead to development or change. No LSE on European site.	Screened out: E
	W3: Ensure that existing water bodies are protected and enhanced compliant with the objectives of the Thames River Basin Management Plan.	Policy seeks to protect water receptors in the LVRP but does not lead to development or change. No LSE on European site.	Screened out: E
Increase the attractiveness and use of the parkland and venues to support the health and well being of visitors from all communities	V1: Bring land into Park related uses and resist the development of non-Park related uses unless they can make a significant contribution to the Authority's statutory purpose.	Policy seeks to protect the Park and does not lead to development or change. No LSE on European site.	Screened out: D
	V2: Continue to develop an event programme of international and national status which reflects the Regional Park's significant leisure and sporting offer.	Policy has the potential to increase visitor numbers and associated car movements to LVRP. Potential impact on Epping Forest SAC and Lee	Screened in: L - increased recreational pressure - reduction in air quality

Strategic Planning Aim	Strategic Policy	Justification	Updated Screening category
		Valley SPA and Ramsar site.	
	V3: Work with stakeholders to promote and enhance existing sports venues. Support site and venue development sympathetic to the wider parklands.	Policy has the potential to increase visitor numbers and associated car movements to LVRP. Potential impact on Epping Forest SAC and Lee Valley SPA and Ramsar site.	Screened in: L - increased recreational pressure - reduction in air quality
	V4: Support the provision of appropriate visitor/education facilities at existing and new visitor hubs and entrance points to the Park.	Policy has the potential to increase visitor numbers and associated car movements to LVRP. Potential impact on Epping Forest SAC and Lee Valley SPA and Ramsar site.	Screened in: L - increased recreational pressure - reduction in air quality
Influence major new development within and adjacent to the Park to ensure that it is protected and enhanced	D1: Work in partnership with the riparian authorities on Green Belt and Metropolitan Open Land reviews and policy development, with a view to protecting open land around the Park, while meeting development aspirations.	Policy aims to protect open land but does not lead to development or change. No LSE on European site.	Screened out: B
	D2: Ensure that development proposed within the Park is of the highest environmental standards.	Policy seeks to protect environmental standards and not lead to development or change. No LSE on European site.	Screened out: B
	D3: Work in partnership with riparian councils to ensure that the design and layout of new development on sites both within the Regional Park and adjacent to its boundary: a) Enhances the Park, avoiding detrimental impact on its ecological and heritage assets, and b) provides sufficient open space to cater for the informal recreational needs arising from the development including areas for play, and for dog walking	Policy seeks to protect ecological and heritage interests and open spaces it will not lead to development or change. No LSE on European site.	Screened out: B
	D4: Working with the London Mayor and riparian Boroughs/Districts explore opportunities to designate sites within the Park to allow access to natural green space	Policy promotes partner working to protect European sites.	Screened out: E

Strategic Planning Aim	Strategic Policy	Justification	Updated Screening category
	designed to offset adverse impacts of new development on the Epping Forest SAC.		
Improve accessibility and entrances to the Park for pedestrians and cyclists and via public transport	A1: Enhance existing entrances to the Park and, where appropriate, create new entrances.	Policy aims to improve pedestrian and cycle access to and within the Park and therefore reduce the proportion of journey's to the Park by car.	Screened out: B and E
	A2: Work in partnership to reduce the severance caused by linear infrastructure, through the creation of pedestrian and cycle bridges and crossing points.	Policy aims to improve pedestrian and cycle access to and within the Park and therefore reduce the proportion of journey's to the Park by car.	Screened out: B and E
	A3: Work in partnership to secure physical links and green corridors to surrounding parks, open spaces and other points of interest, thereby improving accessibility and integration.	Policy aims to improve pedestrian and cycle access to and within the Park and therefore reduce the proportion of journey's to the Park by car.	Screened out: B and E
	A4: Improve sustainable transport links between points of interest in the Park	Policy aims to improve sustainable transport, pedestrian and cycle access to and within the Park and therefore reduce the proportion of journey's to the Park by car.	Screened out: B and E
	A5: Enhance signage and way finding to improve access to and movement within the Park	Policy aims to improve pedestrian and cycle access to and within the Park and therefore reduce the proportion of journey's to the Park by car.	Screened out: B and E
	A6: Respond to the diversity of need enabling access to the Park by all communities	Policy aims to improve pedestrian and cycle access to and within the Park and	Screened out: B and E

Strategic Planning Aim	Strategic Policy	Justification	Updated Screening category
		therefore reduce the proportion of journey's to the Park by car.	
Protect and enhance the Park's function in reducing and managing flood risk	F1: Work with the Environment Agency and others to protect the function of the Lee Flood Relief Channel		Screened out: B
	F2: Enhance the Park's function in mitigating and reducing flood risk to the surrounding areas, by natural flood management and sustainable drainage measures, and by supporting SUDs where appropriate		Screened out: B
	F3: Increase the ability of the Park and surrounding areas to adapt to climate change and its impact on flood risk by promoting green infrastructure.		Screened out: B

APPENDIX E: Natural England Correspondence

Ecological Services
Green Infrastructure
Landscape and Visual Impact Assessment
Landscape Character Assessment
Habitats Regulations Assessment
Strategic Environmental Assessment
Sustainability Appraisal



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