Habitats Regulations Assessment of the Park Development Framework: Update of Strategic Policies

Screening Report

March 2018

LEPUS CONSULTING
LANDSCAPE, ECOLOGY, PLANNING & URBAN SUSTAINABILITY

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Habitats Regulations Assessment of 'Park Development Framework: Update of Strategic Policies'

Lee Valley Regional Park Authority

Screening Report

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Photo: Bowyers Water Lake by Joseph Evans

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Acronyms

AA	Appropriate Assessment
AQMA	Air Quality Management Area
DEFRA	Department for Environment, Food, and Rural Affairs
EU	European Union
GIS	Geographic Information Systems
HRA	Habitats Regulations Assessment
IPENS	Improvement Programme for England's Natura 2000 sites
IROPI	Imperative Reasons of Overriding Public Interest
IRZ	Impact Risk Zone
JNCC	Joint Nature Conservation Committee
LPA	Local Planning Authority
LSE	Likely Significant Effect
LVRP	Lee Valley Regional Park
LVRPA	Lee Valley Regional Park Authority
NE	Natural England
NPPF	National Planning Policy Framework
PDNP	Peak District National Park
PRoW	Public Rights of Way
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SANGS	Suitable Alternative Natural Greenspaces
SEA	Strategic Environmental Assessment
SIP	Site Improvement Plan
SNH	Scottish Natural Heritage
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
STW	Severn Trent Water
TfL	Transport for London
WeBS	Wetland Birds Survey
WRMP	Water Resource Management Plan
WRZ	Water Resource Zone

Executive Summary

E1 The Lee Valley Regional Park Authority are in the process of updating the strategic policies in their Park Plan: Part 1 as part of the Park Development Framework process. This report constitutes a Habitat Regulations Assessment Screening of the proposed updated strategic policies, to determine if any policy, either alone or in-combination, could potentially have a significant effect on a European site.

E2 The following six European sites are considered in this report:

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

E3 Wimbledon Common SAC was screened out of the assessment due to its distance from the LVRP and it being clearly beyond the scope of the proposed strategic policies to undermine the SAC's conservation objectives. It is also concluded that an LSE on Wormley Hoddesdonpark Woods SAC, as well as on Lee Valley SPA, as a result of the strategic policies alone and/or in-combination, can be objectively ruled out at this stage.

E4 An LSE on Epping Forest SAC, as a result of air pollution caused by the strategic policies in-combination with development planned in neighbouring and riparian authorities, cannot be objectively ruled out at this stage. This is because of the impact of visitors driving to the Park.

E5 This report will be consulted on with the client team and Natural England. It may be necessary to proceed to the Appropriate Assessment stage to establish the likely significance of effects and an appropriate strategy to protect the SAC which follows the avoid > mitigate > compensate hierarchy.

1 Introduction

1.1 Approach to report preparation

1.1.1 Lepus Consulting has prepared this Habitats Regulations Assessment (HRA) report on behalf of the Lee Valley Regional Park Authority (LVRPA). This is a requirement of Regulation 102 of the Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations). This constitutes a screening report of the Park Plan: Update of Park 1 Strategic Policies.

1.1.2 The following European sites were identified using a 15km area of search around the Borough of Broxbourne, 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.

1.1.3 Whilst Ramsar sites are not European sites, NPPF paragraph 118 states that Ramsar sites should be given the same protection as European sites. For the purpose of this report, the phrase 'European site' includes Ramsar sites, along with Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) unless otherwise stated.

1.1.4 The full list of the nature of, and conservation objectives of, each European site can be found in **Table A.1** and they are explored further in this report. Qualifying features of the sites include species such as the great bittern (*Botauris stellaris*) and the gadwall (*Anas strepera*) and habitats such as beech forests on acid soils and oak hornbeam forests.

1.1.5 This report comprises a screening assessment under the Habitats Regulations, which is the first step in assessing any likely significant effects (LSEs) of development proposals. This report sets the baseline with regards to European sites and determines whether the LVRPA's proposed strategic policies for their Park Plan: Part 1 are likely to have any significant effects on these sites.

1.1.6 The full list of threats and pressures each site is currently facing can be found in **Appendix B.** The threats and pressures of 'Air Pollution', 'Public Access & Disturbance', and 'Hydrological changes' are a focus of this report. These can be seen in **Table 4.1.**

1.1.7 The outputs of this report include information in relation to:

- The HRA process;
- Methodology for HRA;
- Evidence gathering in relation to European sites;
- Conservation objectives of sites;
- Understanding threats and pressures relevant to each site; and
- Conclusions and recommendations.

1.2 The HRA process

1.2.1 The application of HRA is a requirement of the Conservation of Habitats and Species Regulations 2010, 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.

1.2.2 The HRA process assesses the potential effects of a plan or project on the conservation objectives of European sites designated under the Habitats and Birds directives. These sites form a system of internationally important sites throughout Europe known collectively as the 'Natura 2000 Network'.

1.2.3 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 118 of the National Planning Policy Framework (NPPF) 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.

1.2.4 The HRA process is characterised by the precautionary principle. The European Commission describes the precautionary principle as follows:

"*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.*"

1.2.5 Decision-makers then have to determine what actions to take. They 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. Measures should be proportionate to the level of risk, and to the desired level of protection. They should be provisional in nature pending the availability of more reliable scientific data.

1.2.6 Action is then undertaken to obtain further information, enabling a more objective assessment of the risk. The measures taken to manage the risk should be maintained so long as scientific information remains inconclusive and the risk is unacceptable.

1.2.7 The hierarchy of intervention is important: where significant effects are likely or uncertain, decision makers must firstly seek to avoid the effect through, for example, a change of policy. If this is not possible, mitigation measures should be explored to remove or reduce the significant effect. If neither avoidance or mitigation is possible, alternatives to the plan should be considered. Such alternatives should explore ways of achieving the plan's objectives that do not adversely affect European sites.

1.2.8 If no suitable alternatives exist, plan-makers must demonstrate under the conditions of Regulation 103 of the Habitats Regulations, that there are Imperative Reasons of Overriding Public Interest (IROPI) in order to continue with the proposal.

1.3 About the Park Plan Strategic Policies Update

1.3.1 The Authority's current strategic policies sit within Part One of the Park Plan and address Key Issues for the Regional Park identified through research, performance, evaluation and consultation. The policies also cover topic specific issues identified in detailed topic studies.

1.3.2 The central aim of the strategic policies is to guide development within and adjacent to the Regional Park 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 1998 Park Plan put forward strategic policies for:

- Land Resource;
- Landscape;
- Nature Conservation;
- Water;
- Culture and Heritage Resources;
- Water Recreation;
- Informal Recreation;
- Formal Recreation;
- Culture and Heritage; and
- Tourism and the Visitor.

1.3.3 The LVRPA is in the process of reviewing and replacing the Park Plan with the Park Development Framework (PDF); a suite of documents including detailed area specific proposals for the whole of the Park. A review of the current Strategic Policies is part of this work. It will take into account the new vision for the Park as well as the changing context of the Park. The outcome of this review will be a new set of Strategic Policies, replacing those in the current Park Plan.

1.3.4 The HRA process is iterative and assesses different stages of the plan making process. The HRA process of this report draws on the updated methodology prepared by David Tyldesley Associates for the Habitat Assessment Handbook[1], as explained in **Section 2.1**.

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

2 Methodology

2.1 Habitats Regulations Assessment methodology

2.1.1 HRA is a rigorous precautionary process centred on the conservation objectives of a 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.

2.1.2 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.

2.1.3 The 2013 consultation draft helped inform the Habitats Regulations Assessment Handbook, produced by David Tyldesley Associates[2]. The handbook, 'Practical Guidance for the Assessment of Plans under the Regulations (September, 2013)', 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.

2.1.4 Screening for the likelihood of significant effects should be undertaken as soon as is practical. Most plans cannot be excluded, exempted or eliminated from assessment. If not, it is important to gather information on the European sites that may be affected by the Plan. Each European site has conservation objectives, the integrity of which are under various pressures and facing various threats. It is important to determine whether the proposed development or policy will exacerbate these pressures and/or threats to the extent that the integrity of an EU designated site is undermined.

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

2.1.5 If a significant effect on a site because of a Plan is considered likely, initial mitigation efforts may be incorporated into the Plan before it is rescreened in an iterative process. Should these mitigation measures not be adequate to objectively state there will be no LSE, the HRA process may need to move on to the Appropriate Assessment stage. This provides a more detailed understanding of the potential effects of the Plan on EU designated sites and therefore assists in the identification of a suitable mitigation strategy. The Appropriate Assessment would determine if this mitigation strategy is adequate in preventing an adverse effect on an EU site. Natural England, or the relevant statutory body, is also consulted over the findings of the draft HRA. A step-by-step guide to this methodology is outlined in the Practical Guidance and has been reproduced in **Figure 2.1.**

2.1.6 The assessment can be affected by uncertainty in several ways and there is therefore a need to focus the Habitats Regulations Assessment on the proposals directly promoted by the Plan. The protective regime of the Directive is intended to operate at differing levels. However, the higher the level of a Plan in the hierarchy the more general and strategic its provisions will be and therefore the more uncertain its effects likely are.

2.2 Likely significant effect

2.2.1 The Plan and its component policies are assessed to determine and identify any potential for **'likely significant effect'** (LSE) upon European sites. The guidance provides the following interpretation.

"*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'.*"[3]

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

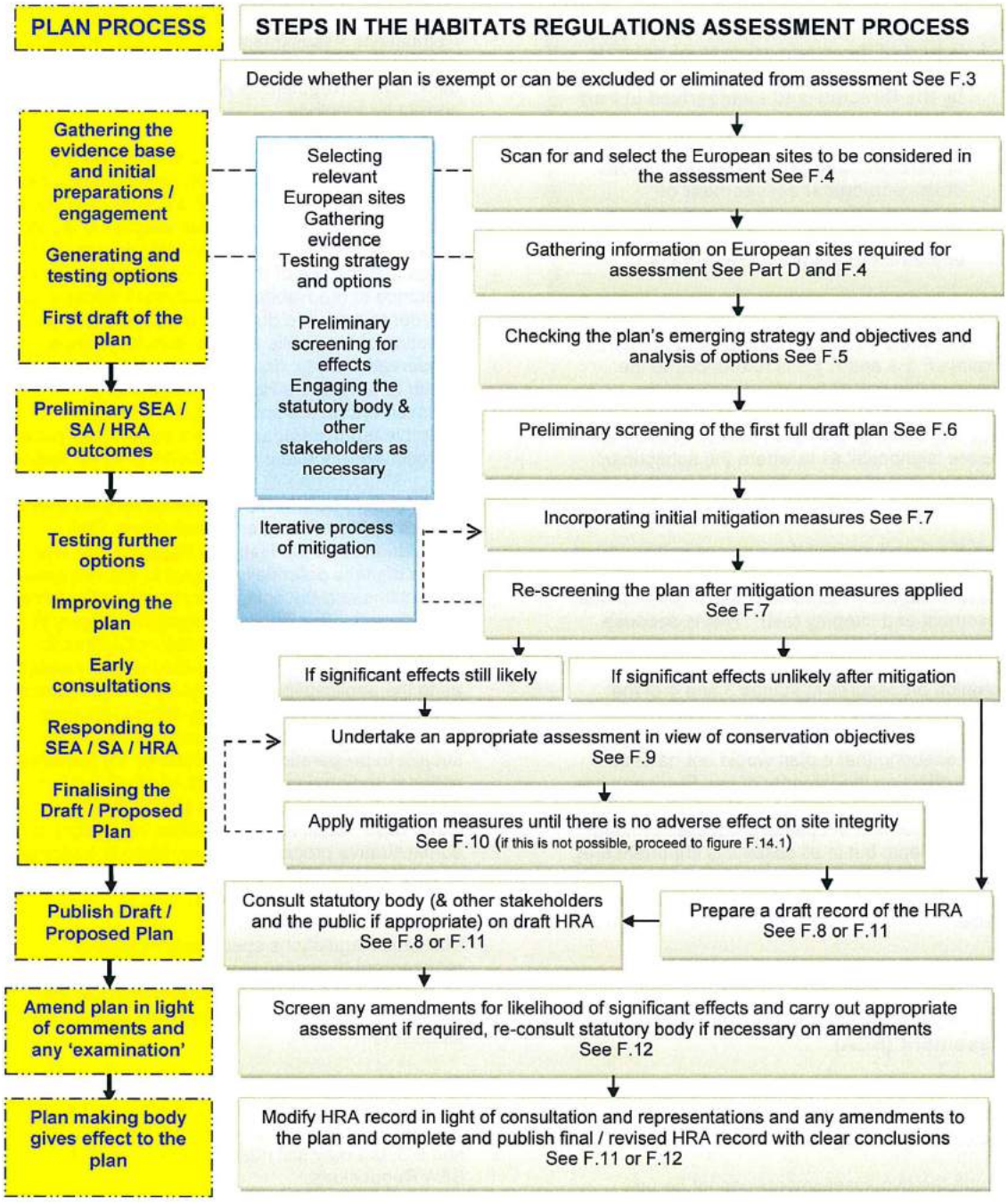

Figure 2.1: Relationship of steps in the Habitats Regulations Assessment with a typical plan-making process (reproduced from DTA, 2013[4])

2.3 Limitations

2.3.1 This report has been prepared using the best available data. References are cited in the text where appropriate. Lepus Consulting has collected no primary data in the preparation of this report.

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

3 European sites

3.1 About European sites

3.1.1 Each site of European importance has its own intrinsic qualities, besides the habitats or species for which it has been designated, that enables the site to support the ecosystems that it does (see **Appendix A**). An important aspect of this is that the ecological integrity of each site can be vulnerable to change from natural and human induced activities in the surrounding environment (pressures and threats). Sites can be affected by land use plans in a number of different ways, such as by increases in public access associated disturbances or air pollution as a result of road transport increases. It is important that the conservation status of an EU site's qualifying features (see **Appendix A**) is not undermined as a result of a planning authority's development proposals.

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

3.2 Identification of relevant European sites

3.2.1 The guidance[5] stipulates no specific size of search area for identifying relevant European sites. During the screening process, as a starting point to explore and identify which European sites might be affected by the Park Plan strategic policies update, a 15km area of search was applied from the boundary of the LVRP (see **Figure 3.1**). A total of six European sites were identified, including Lee Valley Ramsar.

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

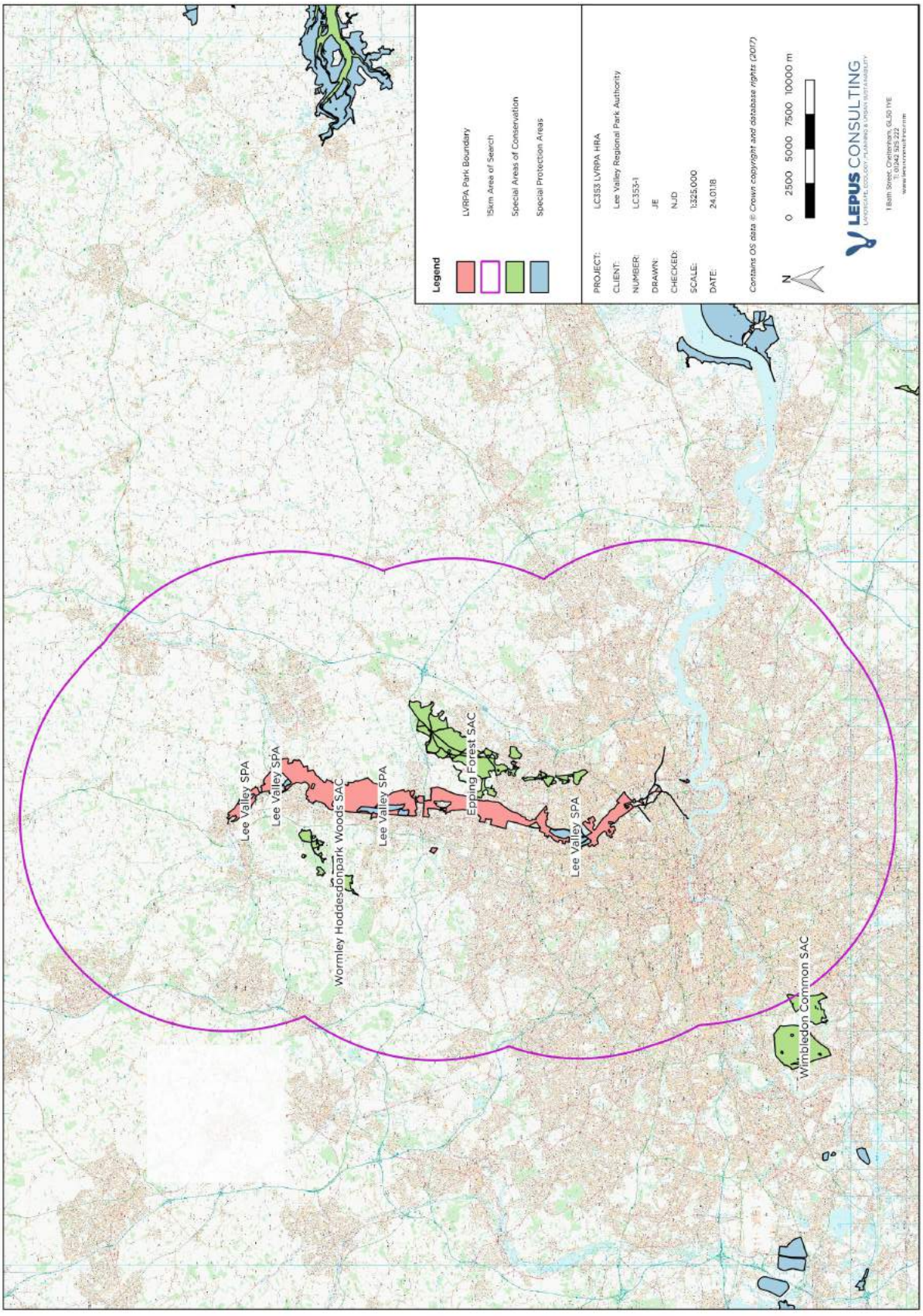

Figure 3.1: 15km area of search around LVRPA boundary

3.3 Screening out EU sites

Wimbledon Common SAC

3.3.1 The threats and pressures to which Wimbledon Common SAC is vulnerable are listed in **Appendix B**. The SAC is situated in the south west of London. The updated Strategic Policies are by their nature focussed on land within the LVRP, which is in the north of London stretching northwards out of the city. Potential impacts on areas outside of the Park are considered to be limited and predominantly related to the impact of increasing visitors and potentially increasing road transport in the local area. Given this, and that only a minor portion of Wimbledon Common SAC in its north eastern corner is within 15km of the LVRP, it is concluded that the strategic policies update will not impact on the SAC. Wimbledon Common SAC is therefore screened out of the HRA and is considered no further in this report.

4 The Draft Strategic Policies

4.1 Vision and strategic planning aims

4.1.1 The adopted vision for the Regional Park is for it to become "*a world class visitor destination*". The LVRPA have drawn on the evidence base and the spatial portrait for the Park to prepare the following strategic planning aims:

- Ensure the effective use and management of land;
- Conserve and enhance the Park's landscape character, key views and openness;
- Conserve and enhance the cultural heritage of the Park and its historic environment
- Conserve and enhance the Park's biodiversity;
- Protect and make best use of th-e Park's water spaces;
- Increase the attractiveness and use of the Parkland and venues;
- Influence major new development within and adjacent to the Park to ensure that the Park is protected and enhanced; and
- Improve accessibility and entrances into the Park for pedestrians and cyclists and via public transport.

4.1.2 The LVRPA has proposed a series of draft strategic policies for each strategic planning aim (see **Table 4.1**).

4.1.3 Each policy has been screened for the likely impacts on European sites and to determine if an LSE can be objectively ruled out in each case. A summary table of this screening process is presented in **Appendix C**. **Chapter 5** provides a detailed explanation for the HRA screening conclusions.

Table 4.1: Strategic planning aims and draft strategic policies

Strategic planning aim	**Strategic policy** - the Park Authority will…
Ensure the effective use & management of land	**E.1:** Work with landowners across the Regional Park to ensure the most effective use of land and property in fulfilment of its statutory purpose.
Conserve and enhance the Park's landscape character, key views and openness	**L1:** Require development proposals to demonstrate how their location, scale, design and materials will conserve and enhance the Park's local distinctiveness.
	L2: Require development proposals to demonstrate how they respect and respond to the character, key sensitivities and qualities of the relevant landscape character areas, as detailed in the Landscape Character Assessment.
	L3: Ensure that landscape design at existing and new gateways to the Park and associated with new development reflects the Park's semi-natural character.
	L4: Support buildings and structures and other features that are designed to contribute positively to the landscaper, avoid obstructing attractive and important views as detailed in the LCA.
	L5: Resist tall buildings within the Park and consider the impacts of proposed tall buildings adjacent to the Park, in light of a full landscape and visual impact assessment.
	L6: Protect views that promote a sense of orientation and/or an appreciation of the natural and physical environment of the Lee Valley.
	L7: Protect the openness of the Park, which is predominantly designated as Green Belt or Metropolitan Open Land.
Conserve and enhance the cultural heritage of the Park and its historic environment	**H1:** Conserve and enhance the Park's cultural heritage resource, including: archaeology, historic buildings and structures and their settings.
	H2: Support proposals to enhance access to and interpret the heritage assets recognising their value in providing opportunities for leisure, health and recreation.
	H3: Celebrate heritage through art, festivals and fairs.
Conserve and enhance the Park's biodiversity	**B1:** Protect and enhance the Park's statutorily designated nature conservation sites.
	B2: Restore, improve and conserve the Park's wider range of habitats and species.
	B3: Re-create and improve connectivity between habitats and landscape features within and adjacent to the Park.
	B4: Ensure development proposals within the Park achieve a net gain in natural capital, including net gains in biodiversity.
	B5: Secure new and enhanced entrance points to the Park in order to divert visitor pressures away from and manage the sensitivities of habitats and species.
	B6: Secure compensatory measures for adverse biodiversity impacts which cannot be mitigated, secured by planning obligations and undertakings and agreements under Section 27 of the Lee Valley Regional Park Act 1966. Work

	with the Mayor on a suitable approach to biodiversity offsetting, with the Park providing 'receptor sites'.
Protect and make best use of the Park's water spaces	**W1:** Ensure that water space (including canals, rivers, streams, lakes and reservoirs) is protected and enhanced (avoiding any reduction in the area of open water) with high quality public realm, appropriate facilities and active frontage where appropriate.
	W2: Support development that encourages recreational use of water spaces, where this is consistent with other strategic policies.
Increase the attractiveness and use of the Parkland and venues	**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.
	V2: Building on the Regional Park's great sporting legacy continue to develop an event programme of international and national status.
	V3: Support development that integrates sporting venues with the wider parklands to support a diverse visitor offer.
	V4: Support the provision of appropriate visitor/education facilities at existing and new visitor hubs and entrance points to the Park.
Influence major new development within and adjacent to the Park to ensure that the Park 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.
	D2: Work in partnership with riparian councils to ensure that the nature of new development on sites both within and adjacent to its boundary enhances the Regional Park in line with its adopted strategic objectives and avoids detrimental impact on protected ecological and heritage assets.
	D3: Support development that is consistent with other strategic policies, particularly recreational, leisure and sporting facilities.
	D4: Secure funding for Park improvements through the riparian authorities' planning obligations.
Improve accessibility and entrances to the Park for pedestrians and cyclists and via public transport	**A1:** Enhance existing entrance to the Park and, where appropriate, create new entrances.
	A2: Work in partnership to reduce the severance caused by linear infrastructure, through the creation of pedestrian and cycle bridges and crossing points.
	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.
	A4: Improve links between points of interest in the Park
	A5: Enhance signage and way finding to improve access to and movement within the Park

5 Screening for Effects

5.1 Sites of Special Scientific Interest

5.1.1 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.

5.1.2 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.

5.1.3 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.

5.1.4 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.

5.1.5 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.

5.1.6 **Figure 5.1** displays SSSI units which overlap with Lee Valley SPA, Epping Forest SAC and Wormley Hoddesdonpark Woods SAC. These SSSI units, and their conservation condition, will be referred to throughout the HRA report where relevant.

5.1.7 Walthamstow Marshes SSSI is comprised of three units covering an area of 36.7ha in the southern portion of the LVRP. The SSSI was notified in 1985, under Section 28 of the Wildlife and Countryside Act 1981, and adjoins the Walthamstow Reservoirs SSSI. The Marshes are one of the last remaining examples of semi-natural wetland in Greater London.

5.1.8 Two of the three units comprising Walthamstow Marshes SSSI are currently in an Unfavourable – Declining condition. At one unit, the unfavourable and declining status is a result of dense litter cover, a lack of positive indicators for M27 and failure in structural diversity. The cause of this is thought to be agriculture and inappropriate mowing/cutting. At the other unit, the unfavourable and declining status is the result of dense litter cover, lack of positive indicator species and undesirable non-woody species[6]. Responsibility for management of this SSSI lies partially with the LVRPA and partially within Network Rail.

[6] Natural England (2009) Walthamstow Marshes SSSI – Designated Sites. Available online at: https://www.designatedsites.naturalengland.org.uk/ReportUnitCondition.aspx?SiteCode=S1003054&ReportTitle=Walthamstow%20Marshes%20SSSI . Accessed 29.01.18

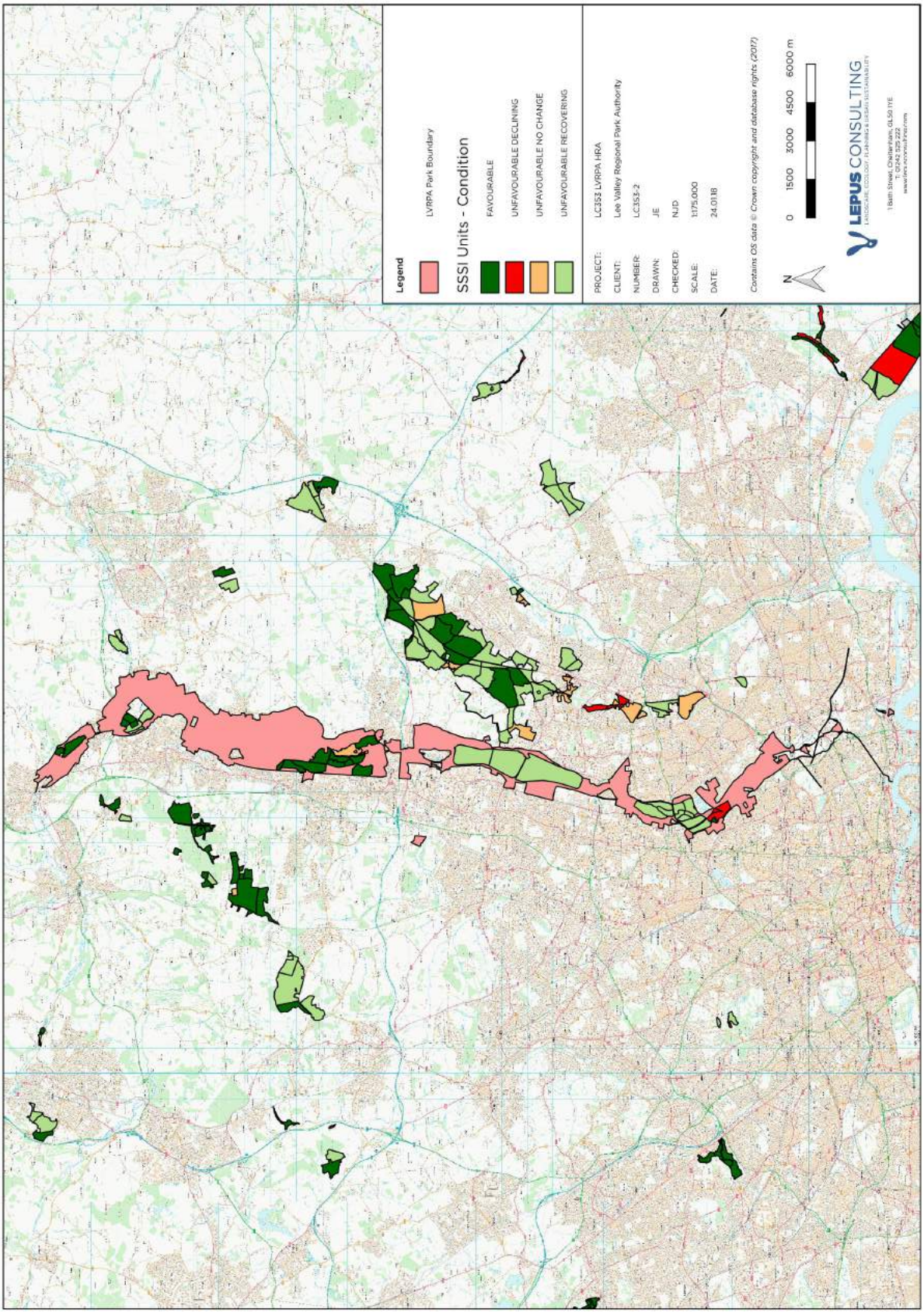

Figure 5.1: Conservation condition of SSSI units which overlap with Epping Forest SAC, Lee Valley SPA and Wormley Hoddesdonpark Woods SAC. SSSI data sourced from Natural England.

5.2 Conservation objectives

5.2.1 The Waddenzee case[7] demonstrates that the effect of a Plan or Project on a European site cannot be considered to be significant if it '*is not likely to undermine its conservation objectives*'. The conservation objectives and qualifying features of each European site are presented in **Appendix A**. To help determine whether these conservation objectives will be undermined, this report considers whether any existing pressures on, or threats to, the site will be exacerbated by the draft strategic policies.

5.3 Threats and Pressures

5.3.1 Threats and pressures that the European sites considered in this assessment are vulnerable to have been derived from data held by the JNCC on Natura 2000 Data Forms, Ramsar Information Sheets and Site Improvement Plans (SIPs). SIPs have been developed for each European site as part of the Improvement Programme for England's Natura 2000 sites (IPENS). These set out an overview of current and predicted issues at the site. The full range of threats and pressures that each site considered in this assessment is vulnerable to is listed in **Appendix B.**

5.4 Scoping out threats and pressures

5.4.1 A number of the threats and pressures listed in **Appendix B** are considered to be clearly beyond the scope of the potential impacts of the updated strategic policies and these can therefore be removed from further consideration in the HRA.

5.4.2 For example, non-native invasive aquatic weeds and *Azolla* species can harm the ecological functioning of Lee Valley SPA by adversely affecting aquatic food sources. The risk of such occurrences can be exacerbated by an increase in the movement of boats and fishing equipment. Increases in boat movements or fishing equipment as a result of the policy updates will be likely to be very limited. An LSE caused by invasive species is therefore considered to be clearly beyond the scope of the proposed policy updates.

[7] European Commission Case C-127/02 Reference for a Preliminary Ruling 'Waddenzee' 07/9/2004 (para 45)

5.4.3 The following potential threats and pressures are scoped out of the HRA Screening:

- *"Inappropriate scrub control"* – the updated Strategic Policies are not anticipated to adversely influence scrub control at any EU site;
- *"Fisheries: fish stocking"* – fishing in the LVRP is closely managed and restricted and the updated Strategic Policies are not anticipated to adversely influence this;
- *"Invasive species"* - the Strategic Policies update are not anticipated to exacerbate non-native invasive aquatic weeds;
- *"Inappropriate cutting/mowing"* – the updated Strategic Policies are not anticipated to adversely influence reedbed management;
- *"Disease"* - the updated Strategic Policies are not anticipated to impact on the introduction of diseases to any EU site;
- *"Deer"* - the updated Strategic Policies are not anticipated to impact on the presence of deer to any EU site;
- *"Vehicles: illicit"* - the updated Strategic Policies are not anticipated to impact on the presence of illicit vehicles at any EU site;
- *"Forestry and woodland management"* – the updated Strategic Policies are not anticipated to impact on the management of woodland at any EU site;
- *"Undergrazing"* and *"Grazing"* - the updated Strategic Policies will not impact on the rate or extent of grazing at any EU site;
- *"Changes in species distribution"* - the updated Strategic Policies are not anticipated to impact on the distribution of species at Epping Forest SAC;
- *"Problematic native species"* - the updated Strategic Policies are not anticipated to impact on the distribution of species at Wormley SAC;
- *"Changes in biotic conditions"* - the updated Strategic Policies are not anticipated to impact on biotic conditions at Epping Forest SAC;
- *"Interspecific floral relations"* – the updated Strategic Policies are not anticipated to impact on interspecific floral relations at Wormley SAC; and
- *"Other human intrusions and disturbances"* - the updated Strategic Policies will not impact on human intrusions at Wormley SAC.

5.4.4 The above listed threats and pressures have been scoped out of the HRA process and are not considered further in this report. The remaining threats and pressures to which each EU site considered in this report is vulnerable, which could potentially be influenced by the Strategic Policies Update, are listed in **Table 5.1**.

Table 5.1: Pressures and threats for European sites that may potentially be affected by the Strategic Policies Update. For qualifying features see **Appendix A**.

Threats/ pressures	Lee Valley SPA & Ramsar[8,9]	Epping Forest SAC[10,11]	Wormley Hoddesdonpark Woods SAC[12,13]
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

5.5 Assessment of threats and pressures

5.5.1 The proposed updated strategic policies will now be screened to determine if they could potentially result in an LSE on an EU site by exacerbating one or more of the following threats and pressures:

- Hydrological changes;
- Water pollution;
- Public access and associated disturbances; and
- Air pollution.

5.5.2 The HRA screening process is concerned with objectively ruling out LSEs on all EU sites, based on the best currently available information. If it is not possible to objectively rule out an LSE, it may be necessary to proceed to the Appropriate Assessment stage of the HRA process (see **Figure 2.1**).

[8] Natural England (2015) Site Improvement Plan Lee Valley
[9] JNCC (2015) Natura 2000 – Standard Data Form Lee Valley
[10] JNCC (2015) Natura 2000 – Standard Data Form Epping Forest
[11] Natural England (2015) Site Improvement Plan Epping Forest
[12] JNCC (2015) Natura 2000 – Standard Data Form Wormley Hoddesdonpark Woods
[13] Natural England (2015) Site Improvement Plan Wormley Hoddesdonpark Woods

5.6 Hydrological changes & water pollution

5.6.1 Hydrological changes and water pollution have been identified as threats and pressures to which the qualifying features of Lee Valley SPA and Epping Forest SAC are vulnerable. All qualifying features at Lee Valley SPA, namely the great bittern (*Botaurus stellaris)*, northern shoveler (*Anas clypeata*) and gadwall (*Anas strepera*), are reliant on the local waterbodies. The wet heathland with cross-leaved heath habitat found at Epping Forest SAC is reliant on suitable water table levels and good quality water, which can be adversely impacted by over-abstraction and surface run-off of water with elevated levels of pollutants.

5.6.2 The Updated Strategic Policies are listed in **Table 4.1**. It is considered that no policies proposed or updated will result in water abstraction which alters the local water table at Epping Forest SAC. No policy proposal or update would be expected to increase the rates of surface water run-off, or to adversely impact the quality of water by any other means, at Epping Forest SAC.

5.6.3 Some policy updates are designed as criteria for testing the acceptability of future development within the Park, and are primarily concerned with environmental protection. For example, Policy W1, as well as policies B1, B2, B3, B4 and B5, would be expected to help protect sensitive aquatic habitats within the LVRP and would be likely to help improve water quality. Policy W2 will see the LVRPA support development which encourages recreational use of some water spaces, but only where this use is consistent with other strategic policies (such as policy W1, which ensures the protection and enhancement of water spaces). These policies would therefore be likely to protect and potentially enhance the aquatic habitats at Lee Valley SPA whilst an adverse impact would be considered to be unlikely.

5.6.4 It is considered that an LSE on a European site, as a result of hydrological changes and/or water pollution caused by the updated Strategic Policies, can be objectively ruled out at this stage.

5.7 Public access and associated disturbances

5.7.1 Public access and associated disturbances have been identified as a threat to the conservation objectives of Lee Valley SPA, Epping Forest SAC and Wormley Hoddesdonpark Woods SAC (see **Table 5.1**).

5.7.2 The proposed updated strategic policies are listed in **Table 4.1**. It is considered to be highly unlikely that these policy updates would impact on the rates of public access, and the potential disturbances associated with this, at Epping Forest SAC and Wormley Hoddesdonpark Woods SAC.

5.7.3 The updated strategic policies are predominantly proposals for criteria to test the acceptability of future development within the LVRP, but they do not propose or allocate any specific development. The updated strategic policies are also predominantly designed to steer change in such a way as to help protect sensitive habitats and species, including Lee Valley SPA, from adverse effects.

5.7.4 There are several updated strategic policies which are designed to help improve the accessibility of the LVRP, including policies A1 – A5. It is necessary to carefully consider the potential impact of these proposed policy updates on rates of public access at Lee Valley SPA.

5.7.5 The proposed policy updates would not be expected to impact on visitor numbers at Epping Forest SAC or Wormley Hoddesdonpark Woods SAC in any way. It is considered that an LSE on Epping Forest SAC and on Wormley Hoddesdonpark Woods SAC, as a result of public access associated disturbances caused by the proposed strategic policy updates, can be objectively ruled out at this stage.

Vulnerability of qualifying features at Lee Valley SPA

5.7.6 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*).

5.7.7 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)*[14]. During the spring breeding season, the booming call of the male bittern can often be heard in reed beds and thick vegetation near water bodies (hence the folk name 'bull of the bog'). Bitterns have a thick, brown and bright plumage covering their bodies. The UK is thought to be home to 600 wintering bittern individuals and 80 breeding males[15]. They are currently on the RSPB Amber List.

5.7.8 The intricate pattern of black, white, grey and brown hairs give the gadwall ducks (*Anas strepera*) an overall grey appearance, with black rear ends and a white wing patch on display during flight. They 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 pairs[16]. They are currently on the RSPB Amber List.

[14] 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
[15] 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
[16] 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

5.7.9 The northern shoveler (*Anas clypeata*), often referred to simply as the shoveler, is a surface feeding duck with a broad, rounded and narrow based bill (shovel shaped). Males are predominantly green and chestnut brown whilst females are mottled brown. 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 pairs[17].

5.7.10 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 (see **Table 5.2**).

5.7.11 Bird survey data for the SPA in relation to the presence, distribution and movement of gadwall, shoveler and bittern is somewhat lacking. WeBS data is currently the most appropriate available data and offers some indication of the presence and distribution of the SPA's qualifying features. The WeBS data survey results indicate that Lee Valley Gravel Pits provides an essential extent of suitable habitat for bittern in the region.

[17] 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

Table 5.2: WeBS count data for individuals of bittern, shoveler and gadwall at locations within and adjacent to Lee Valley Regional Park

	Qualifying feature		
Location	Great bittern (*Botaurus stellaris*)	Gadwall (*Anas strepera*)	Northern shoveler (*Anas clypeata*)
Count Month	*October*	*November*	*October*
King's Meads	n/a	51	25
Lee Valley Gravel Pits	4	725	332
Knights Pits, Lee Valley	n/a	n/a	n/a
King George V Reservoirs	n/a	55	57
Walthamstow Reservoirs	0	37	99
Gunpowder Park, Lee Valley	n/a	16	5
William Girling Reservoir	n/a	59	5
Ponders End Lake	n/a	14	1

Management at the SPA

5.7.12 Lee Valley SPA is situated in four distinct locations (see **Figure 5.2**):

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

5.7.13 Overall, these areas of the SPA 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*"[18].

5.7.14 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. 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.

5.7.15 The Walthamstow Reservoirs are made up of ten individual reservoirs, each of which is a SSSI in an 'Unfavourable – recovering' condition. The reservoirs are in the London Borough of Waltham Forest. The lakes are an accessible and popular visitor attraction, primarily for fishing and birdwatching, and car parking, toilets and disabled access is 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.

5.7.16 One of the SSSIs of the Reservoirs is Walthamstow Wetlands SSSI, a 211ha urban wetland habitat nature reserve opened to the public in late 2017 which provides visitors with access to recreational, educational, volunteer and nature opportunities.

[18] Lee Valley Regional Park Authority (2016) About Us. Accessed online: http://www.leevalleypark.org.uk

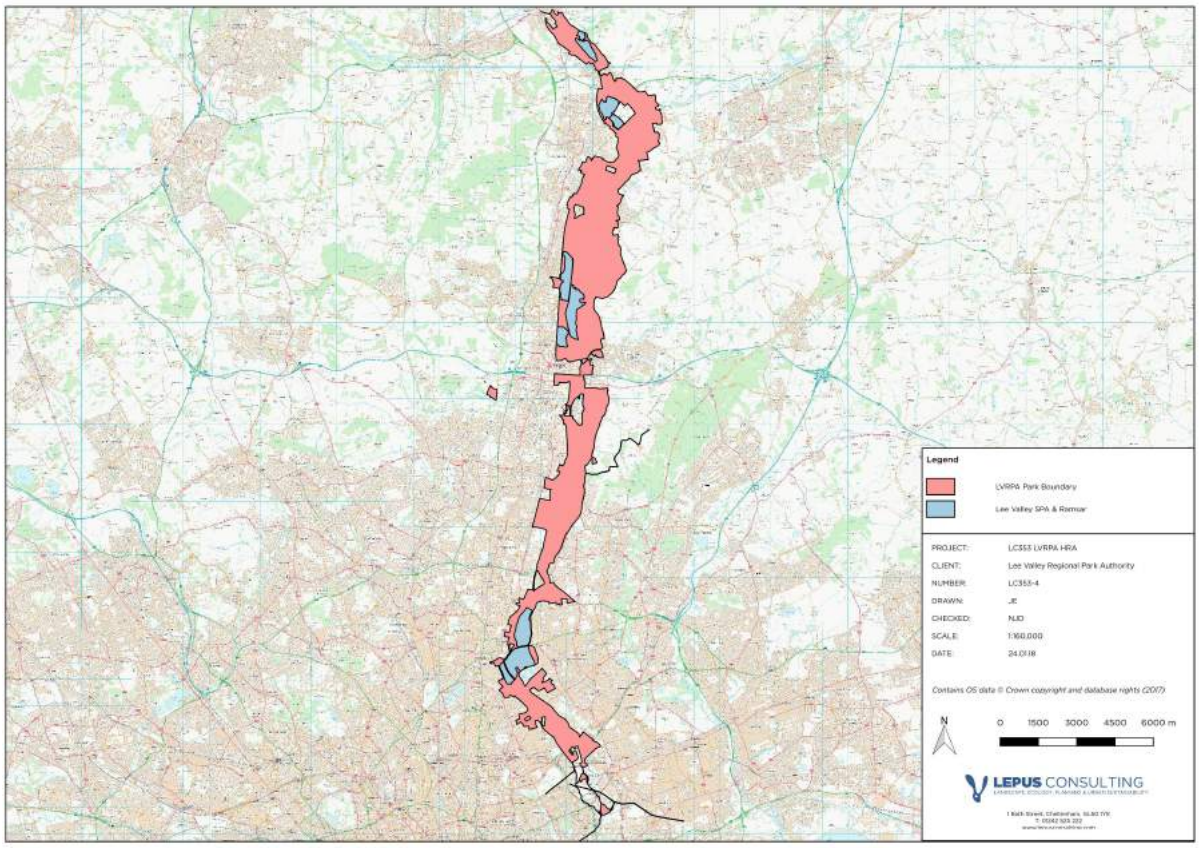

Figure 5.2: Lee Valley SPA in relation to Lee Valley Regional Park

Potential impacts of recreational disturbance at Lee Valley SPA

5.7.17 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.

5.7.18 Minimal disturbance is a key environmental condition for Lee Valley SPA & 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.

5.7.19 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.

5.7.20 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 dogs[19].

5.7.21 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 dog[20]. 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 dogs[21]. 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 3km[22].

5.7.22 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 bittern[23]. 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.

[19] 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.
[20] Natural England (2015) Monitor of Engagement with the Natural Environment. Available online at: http://naturalengland.tns-global.com/Default.aspx. Accessed 09.07.17
[21] Natural England (2013) Thames Basin Heaths Special Protection Area – visitor survey. Footprint Ecology, Natural England commissioned survey
[22] Natural England (2015) Monitor of Engagement with the Natural Environment. Available online at: http://naturalengland.tns-global.com/Default.aspx . Accessed 09.07.17
[23] Woodfield, E. & Langston, R.H. (2004) A study of the effects on breeding nightjars of access on foot to heathland. English Nature, Peterborough

5.7.23 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.

Impact of updated strategic policies on public access

5.7.24 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."*[24]

5.7.25 Its status as a visitor destination is reflected in its designation as one of the nine Strategic Cultural Areas in London in the most recent London Plan. The Park received approximately 6.5 million visitors in 2015 – 2016, two 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 venues[25].

5.7.26 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**).

[24] Section 12(1) Lee Valley Regional Park Act 1996
[25] LUC (2017) Park Plan: Update of Part 1 Strategic Policies, Evidence Base, August 2017

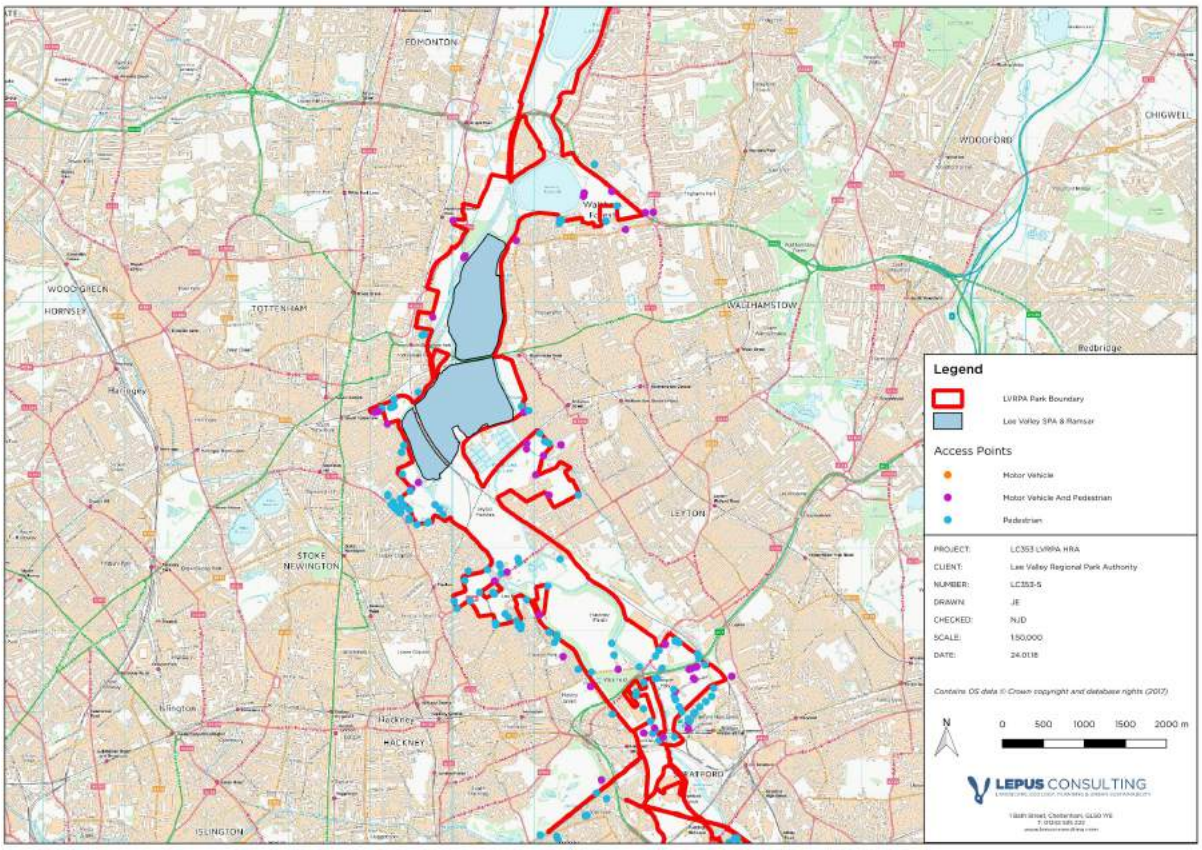

Figure 5.3: Access points near Walthamstow Reservoirs

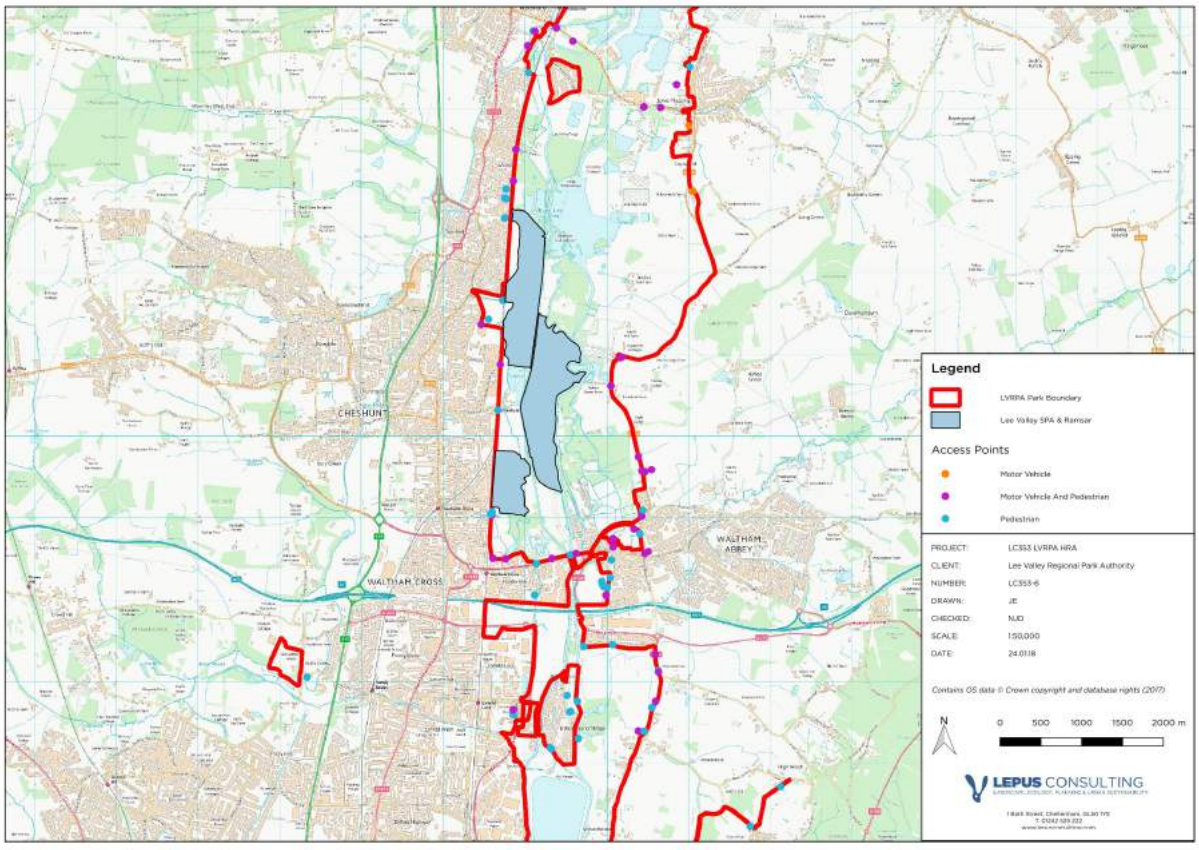

Figure 5.4: Access points near Turnford and Cheshunt Gravel Pits

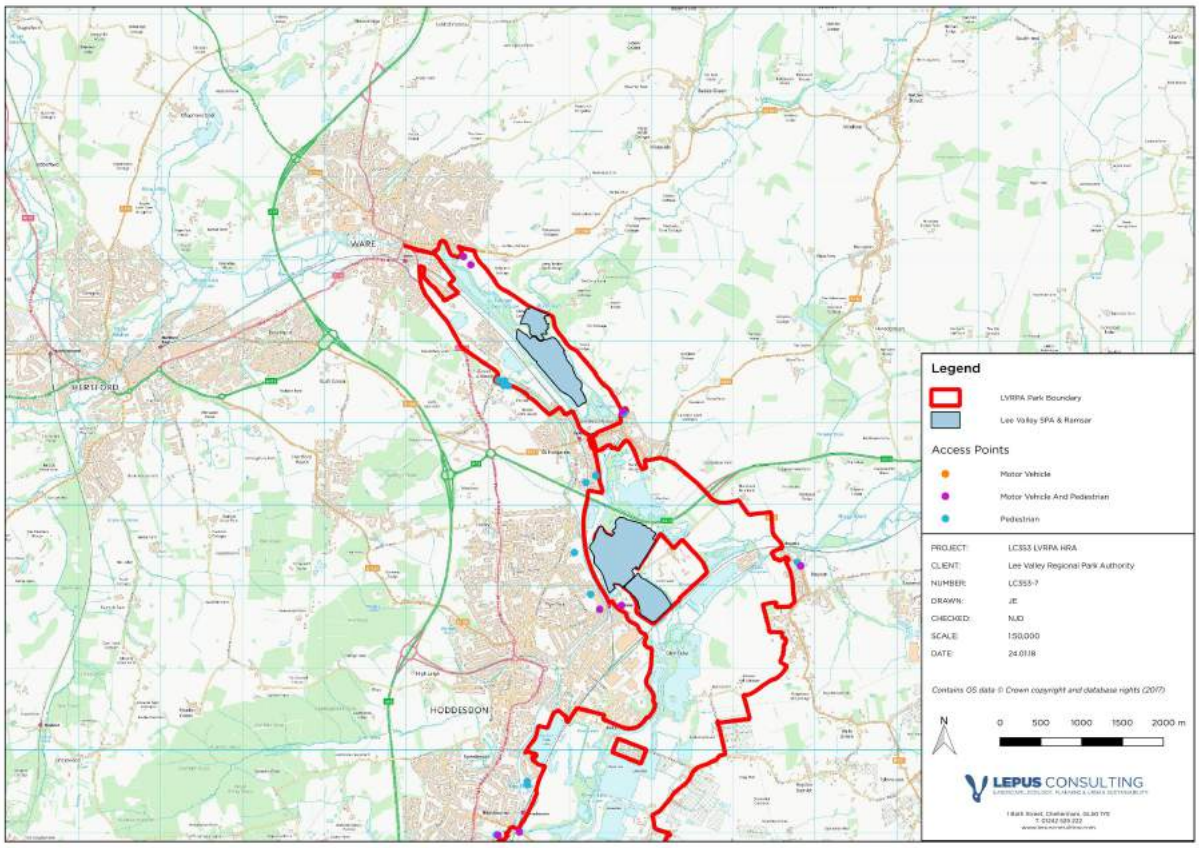

Figure 5.5: Access points near Amwell Quarry and Rye Meads

5.7.27 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**).

5.7.28 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 attractiveness to visitors. This likely contributes to the unequal distribution of visitors to the LVRP, with some areas such as Fishers Green subject to excessive visitor pressure while others are less popular. The requirement for the LVRP to fulfil its other land management requirements, such as nature conservation or water storage reservoirs, limits opportunities to provide recreation which may attract more visitors or encourage visitors to stay longer.

5.7.29 **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 in Broxbourne borough and Epping Forest district (1.01 – 2.50) than other riparian authorities, such as Waltham Forest (0.26 – 1.00) and Newham (0.11 – 0.25). This indicates that there is scope for significant increases in visitor numbers to the LVRP from riparian authorities[26].

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

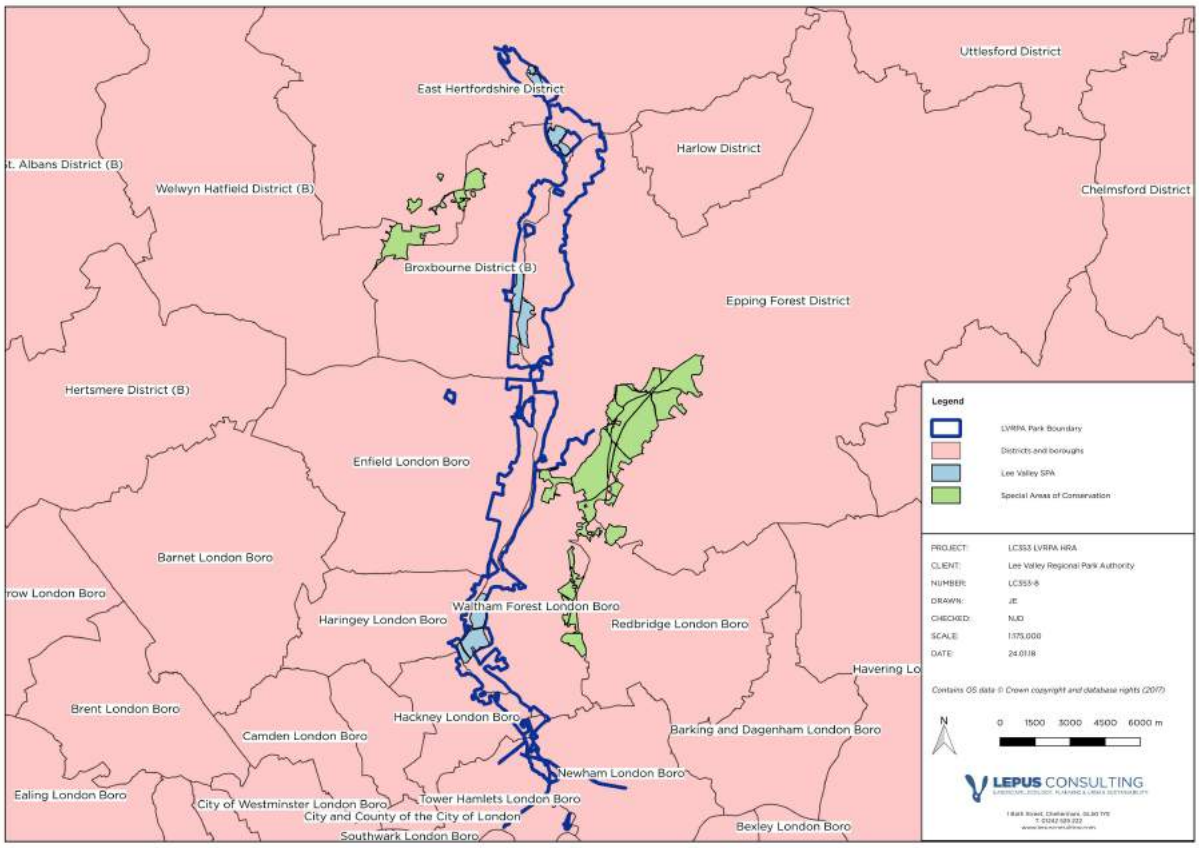

Figure 5.6: Riparian and neighbouring authorities of Lee Valley Regional Park

5.7.30 In 2015 – 2016, approximately half of the visitors were above the age of 60 years old. Approximately 3% of visitors were aged between 16 – 24 years old. This indicates that there is significant potential for increasing the number of visits to the LVRP from younger people.

5.7.31 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 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.

5.7.32 Another strategic planning aim of the PDF draft Strategic Policies is to "*Increase the attractiveness and use of the Parkland and venues"*. The Plan proposes five policies in order to help achieve this, four of which are designed for testing the acceptability for future development (policies V1, V3, V4 and V5). The LVRPA also proposes the following strategic policy:

- **Policy V2:** Build on the Regional Park's great sporting legacy and continue to develop an event programme of international and national status.

5.7.33 The overriding intention of Policies A1 – A5 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, they are determined 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 – A5, 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.

5.7.34 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 Plan[27]) have discounted the possibility of a public access LSE at Lee Valley SPA. This is a stance previously backed by Natural England.

[27] AECOM (2017) Draft London Plan Habitats Regulations Assessment

5.7.35 It is anticipated that Policies A1 – A5 will help enable the LVRPA to continue protecting sensitive habitats from the impacts of public access associated disturbances.

5.7.36 Policy V2 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. It should be noted that events held within the LVRPA are self-contained within the curtilage of key sites or buildings. 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.

5.7.37 A cumulative impact of policies A1 – A5 and V2 in-combination could potentially be an increase in visitors to the LVRP. It is thought to be likely that increases in visitor numbers, and changes to the characteristics of visits (such as spatial distribution, length of stay, primary activities), will be unequally distributed both temporally and spatially in the Park.

In-combination effect

5.7.38 It is important to note than any increase in visitors to the LVRP caused by the updated strategic policies will be in-combination with increases in visitors caused by growth in riparian authorities. Whilst the LVRPA are proposing policies to improve accessibility into the LVRP via public transport and pedestrian routes, riparian authorities are currently proposing development and experiencing growth which will also be likely to contribute towards increases in visitor numbers at the Park.

5.7.39 Riparian authorities of the LVRP are currently targeting a combined total of approximately 12,758 new homes a year (this is an approximate figure and is subject to change based on the progress of relevant plans and programmes, see **Table 5.3**). This should also be seen in the context of future housing delivery across London as a whole, with Mayor of London Sadiq Khan recently announcing that the city had a need for 66,000 new homes a year[28].

Table 5.3: Development Plans in the LVRP's riparian and neighbouring authorities

Riparian authorities	Current Plan stage	Annual housing target (approximate)
East Hertfordshire District Council	Local Plan currently at Examination	745
Broxbourne Borough Council	Regulation 19 consultation	550
London Borough of Enfield	Assessing call for sites for 2017 – 2032 Local Plan.	560
London Borough of Haringey	Completed & plans adopted.	1,345
London Borough of Hackney	Development plan adopted. Currently consulting on Local Plan 2033	1,875
London Borough of Tower Hamlets	Regulation 19 consultation of Local Plan 2031	3,100
London Borough of Newham	Adopted Core Strategy 2027ouses	3,208
London Borough of Waltham Forest	Issues and Options stage of new Local Plan	862
Epping Forest District Council	Submission version to be published	513
Total		**12,758**

5.7.40 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.

[28] Mayor of London (2017) Available online at: https://www.london.gov.uk/press-releases/mayoral/sadiq-calls-for-drastic-government-action

5.7.41 The HRA for the Broxbourne Local Plan has identified an LSE on Lee Valley SPA due to public access associated disturbances, primarily due to the impacts of a strategic mixed use site in close proximity to Turnford & Cheshunt Gravel Pits. It is considered to be likely that the proposals by the LVRPA to improve visitor access will contribute towards the additional recreational pressures resulting from the Broxbourne Local Plan.

5.7.42 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 D2 would see the LVRPA work in partnership with riparian authorities to help ensure that development in the local area avoids detrimental impacts on ecological assets. This could potentially include measures such as helping authorities increase their provision of Suitable Alternative Natural Greenspaces in order to reduce the reliance of local residents on Lee Valley SPA for recreational purposes.

5.8 Public access associated disturbances: Conclusion

5.8.1 It is anticipated that the proposed strategic policies updates will increase the portion of visitors reaching the LVRP via more sustainable transport modes such as walking and cycling.

5.8.2 The proposed policy updates would also be expected to help ensure the LVRPA is able to continue to manage visitors closely and direct them away from sensitive habitats such as the SPA. This will become an increasingly vital role of the LVRPA because of future development in riparian authorities.

5.8.3 It is also important to factor in the mitigating impact of other proposed strategic policies. In accordance with policies B1 – B6, 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. Policy B5 would require the LVRPA to secure entrance points in the Park which help to divert visitors away from sensitive habitats, whilst Policy B6 would help ensure that any unavoidable adverse impacts on biodiversity are either mitigated or compensated for.

5.8.4 Bird survey data is currently being gathered and prepared in order to inform the mitigation strategy adopted by Broxbourne Borough Council to deal with a public access associated disturbances LSE at the SPA identified for their Local Plan. It is anticipated that the results from this survey will provide the Council, as well as the LVRPA, with a more comprehensive idea of the prevalence, distribution and movement of the SPA's qualifying features (gadwall, shoveler and bittern).

5.8.5 It is also anticipated that the LVRPA will gather detailed visitor survey data in the near future. This will include data on the quantity of visitors, where they are travelling to the Park from, how they travelled and their spatial distribution within the Park. Through careful analysis of bird and visitor survey data, the LVRPA will be able to ensure that they are effectively directing visitors away from areas they know to be important and sensitive bird areas. Using this data, the LVRPA will be better placed to swiftly and effectively identify and avoid, or potentially mitigate, likely adverse impacts on sensitive bird areas.

5.8.6 It is concluded that an LSE on Lee Valley SPA, 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 ruled out at this stage.

5.9 Air pollution

5.9.1 Air pollution, in particular atmospheric nitrogen deposition, has been identified as a threat or pressure for all European sites identified within 15km of the LVRP boundary.

5.9.2 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.

5.9.3 Excess nitrogen deposition often leads to the acidification of soils and a reduction in the soils' buffering capacity (the ability of soil to resist pH changes). It can also render the ecosystem more susceptible to adverse effects of secondary stresses, such as frost or drought, and disturbance events, such as foraging by herbivores.

5.9.4 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:

"*...quantitative estimate of exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge*"[29].

5.9.5 As can be seen in **Table 5.4**, the qualifying features of EU sites considered in this report, 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. For each EU site, road transport is the second biggest contributor towards nitrogen deposition.

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

Table 5.4: Nitrogen deposition critical loads of EU sites and source attribution[30]

EU Site	Habitat	Qualifying feature	Critical load Kg N/ha/yr	Current deposition Kg N/ha/yr	Source attribution
Lee Valley SPA	Rich fens	Bittern	15 - 30	Maximum: 28.8 Minimum: 16.5 Average: 18.7	Europe import: 23% Road transport: 20% Other: 10% Livestock: 9% Other transport: 9% Int. shipping: 8% Non-agri. waste: 8% Non-agri. non-abatable: 5% Commercial industry: 4% Fertiliser: 4%
	Low and medium altitude hay meadows	Northern shoveler	20 - 30	Maximum: 28.8 Minimum: 16.5 Average: 18.7	
	No comparable habitat	Gadwall	*No critical loads available for this feature*	Maximum: 14.8 Minimum: 11.6 Average: 12.2	
Epping Forest SAC	Fagus woodland	Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* 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% Non-agri. waste: 7% Other transport: 7% Other: 6% Non-agri. abatable: 5% Fertiliser: 5% Commercial ind.: 4%
	Broadleaved deciduous woodland	Stag beetle (*Lucanus cervus*)	10 - 20	Maximum: 52.5 Minimum: 25.6 Average: 29.2	
	Dry heaths	European dry heaths	10 - 20	Maximum: 28.8 Minimum: 14.7 Average: 16.6	
Wormley Hod. Woods SAC	Meso- and eutrophic Quercus woodland	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the *Carpinion betuli*	15 - 20	Maximum: 31.2 Minimum: 25.3 Average: 26.2	Europe import: 26% Road transport: 16% Livestock: 15% Int. shipping: 9% Other: 8% Non-agri. non-abatable: 7% Fertiliser: 7% Other transport: 6% Non-agri. waste: 4% Non-agri. abatable: 3%

5.10 Potential impacts of strategic policies

5.10.1 It is necessary to consider the potential risk of European sites being exposed to increased levels of air pollution as a result of increased levels of road transport caused by the updated strategic policies.

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

5.10.2 In 2015 – 2016, approximately 67% of visitors to the LVRP arrived by car (see **Table 5.5**). If the updated strategic policies result in an increase in visitors to the Park, it is considered to be likely that there will be a subsequent rise in the number of people driving there.

Table 5.5: Mode of travel to Lee Valley Regional Park in 2015 - 2016

Mode of travel in 2015 - 2016	Percentage of visitors
Car	67%
Walk	13%
Cycle	8%
Bus	6%
Rail	4%
Coach	1%
Other	1%

5.10.3 The Design Manual for Roads and Bridges (DMRB) suggests that air quality impacts from vehicles are most likely to occur within 200m of a road[31]. 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) data[32], 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.

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

[32] Air Pollution Information System (APIS) Accessed online at: http://www.apis.ac.uk/srcl

5.10.4 Traffic and roads are a cross boundary issue. On 20th March 2017 a high court ruling[33] 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.

5.10.5 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.

5.11 Road Transport and Wormley Hoddesdonpark Woods SAC

5.11.1 **Figure 5.7** shows roads within 200m of Wormley Hoddesdonpark Woods SAC. There is a network of minor roads running within 200m, the majority of which are minor and/or private roads where levels of traffic will be unlikely to be impacted by the strategic policies update and where an increase in 1,000 AADT on these minor and often narrow and winding roads is considered to be clearly beyond the scope of the strategic policies. This includes:

- Lord Street;
- Cock Lane;
- Pembridge Lane;
- Brickenden Green;
- White Stubbs Lane;
- West End Road; and
- Darnacle Hill.

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

5.11.2 The A10 is a major dual carriageway approximately 1km west of the LVRP border which, at its closest, is 190m east of Wormley Hoddesdonpark Woods SAC. It is considered 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. This is because the portion of the SAC that is within the 200m zone of the A10 is negligible in relation to the size of the SAC (see **Figure 5.7**). This conclusion was also reached in the 2016 HRA of the East Herts District Plan and the 2017 HRA of the Broxbourne Local Plan, both of which were agreed with by Natural England.

5.11.3 It is concluded that an LSE on Wormley Hoddesdonpark Woods SAC, as a result of air pollution caused by the updated strategic policies alone and in-combination, can be objectively ruled out at this stage.

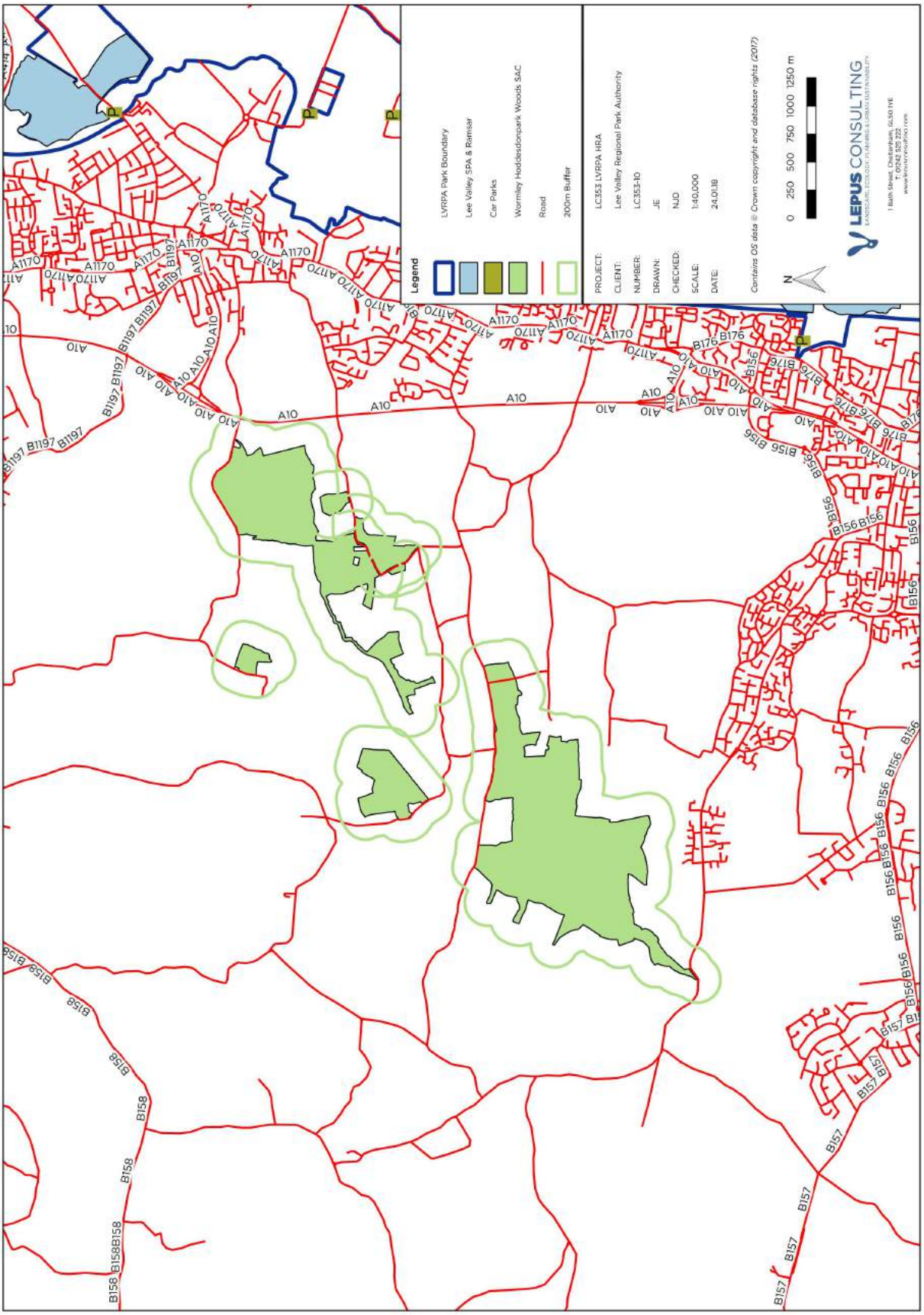

Figure 5.7: Roads within 200m of Wormley Hoddesdonpark Woods SAC

5.12 Road Transport and Epping Forest SAC

5.12.1 **Figure 5.8** 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 to be likely to have low levels of traffic. However, there are several major roads, including the A404 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.

5.12.2 The Department for Transport (DfT) supplies annual average daily flow (AADF) data for roads throughout the UK[34]. The AADF for the M25, between J26 and J27 in 2016, was 135,453 total vehicles, 91,521 of which were cars and taxis. An estimated 45,000 vehicles pass through the Wake Arms roundabout in the centre of the SAC every weekday[35].

5.12.3 It is not possible to objectively state the extent to which the increase in visitors to the LVRP, which is anticipated to be partially caused by the updated strategic policies, will increase traffic on roads within 200m of Epping Forest SAC.

5.12.4 Visitor numbers to the LVRP increased by 46% between 2010 – 2015. A similarly significant increase could potentially be expected over the coming years as a result of the LVRPA's proposals to improve accessibility into the Park, as well as due to the anticipated levels of growth in riparian and neighbouring authorities of the LVRP. There may also be short periods of time where visitor numbers are substantially higher than normal due to international events.

5.12.5 In 2015 – 2016 approximately 67% of the 6.5 million visitors to the LVRP arrived by car. A significant increase in visitors can therefore be expected to result in a significant increase in the number of people driving to visit the LVRPA. Whilst it is unknown where these visitors are coming from and the route by which they reach the Park, it is thought to be likely that a fairly sizeable portion will utilise the M25.

[34] 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 11.07.17
[35] Epping Forest – The next 10 years (2013). Accessed online at: consult.cityoflondon.gov.uk

5.12.6 A 1,000 AADT increase between J26 and J27 as a result of the strategic policies alone is thought to be highly unlikely. However, in accordance with the latest advice from Natural England and the recent Wealden high court case[36], it is necessary to consider the cumulative impact of the LVRPA's proposals in-combination with other plans and projects.

5.12.7 The sensitive features of the 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 been working to prepare a Memorandum of Understanding (MoU) to cooperatively manage the potential impacts of growth on Epping Forest SAC. Included in the MoU are the councils of East Hertfordshire, Epping Forest, Harlow, Uttlesford. Hertfordshire County and Essex County. The scope could potentially widen to include Broxbourne Borough Council in the future.

5.12.8 The purpose of the MoU is to ensure these authorities work in partnership to fulfil the following requirements:

- Collect and analyse data related to the impacts of proposed development and growth;
- Commit to prepare a joint strategy, based on relevant available data and evidence; and
- The joint strategy will address the requirement for Local Plan development to avoid, or effectively mitigate, adverse impacts on the integrity of Epping Forest SAC.

5.12.9 Data to inform the joint strategy includes:

- Allocated housing and commercial development sites, including delivery timeframes; Highways infrastructure changes;
- Public transport developments;
- Visitor numbers and behaviour, purposes of visits and distances travelled;
- Forecast change in traffic flows, and subsequent impacts on air quality including continued monitoring of the Bell Common Air Quality Management Area; and
- Forecast change to visitor pressures, and any significant positive or

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

negative impacts.

5.12.10 Each authority has committed to the MoU in order to attempt to tackle the in-combination air pollution issue at Epping Forest SAC.

5.12.11 It is considered that an LSE on Epping Forest SAC, as a result of air pollution caused by the Park Plan: Part 1 strategic policies in-combination with development plans in riparian and neighbouring authorities, cannot be objectively ruled out at this stage.

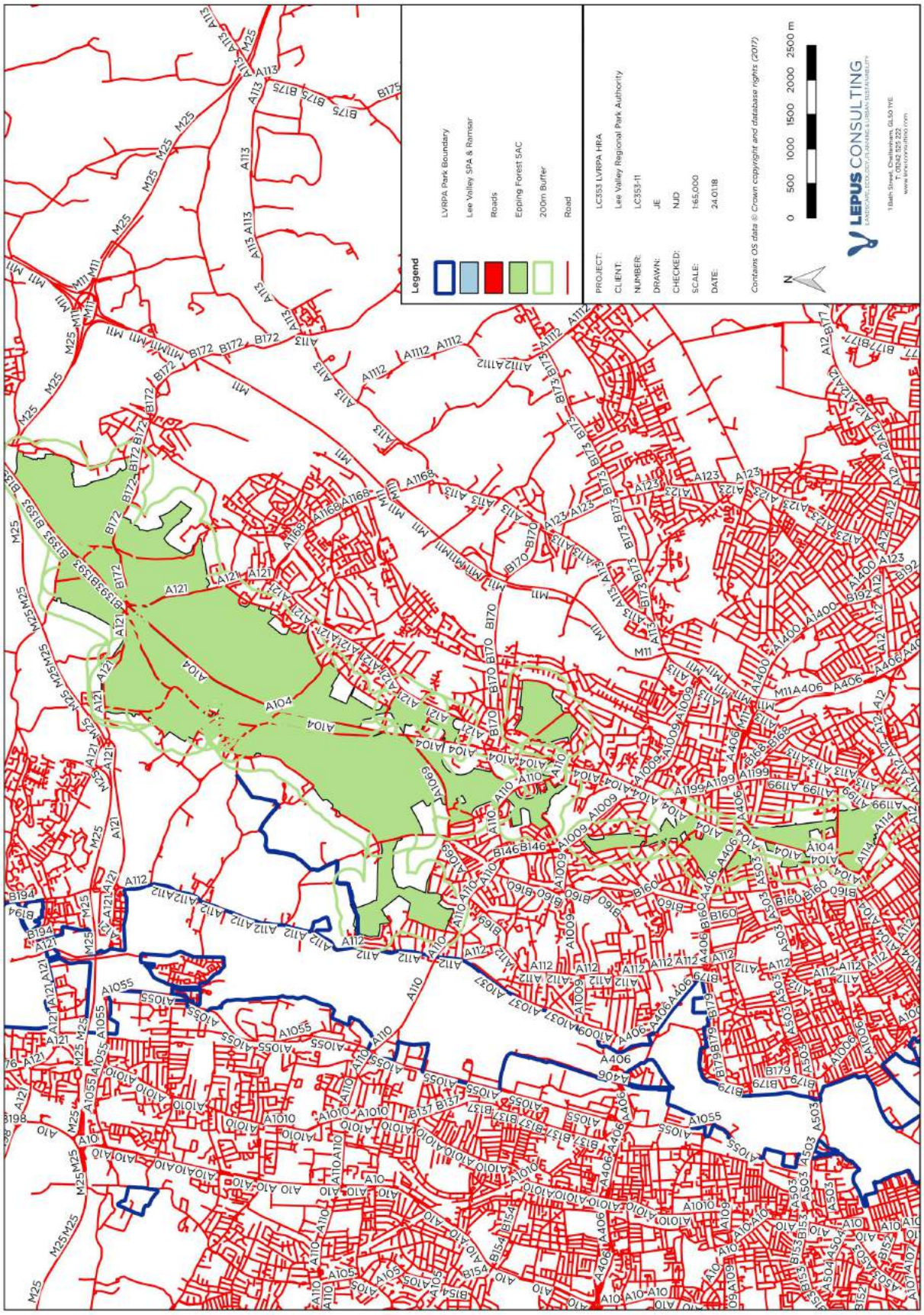

Figure 5.8: Roads within 200m of Epping Forest SAC

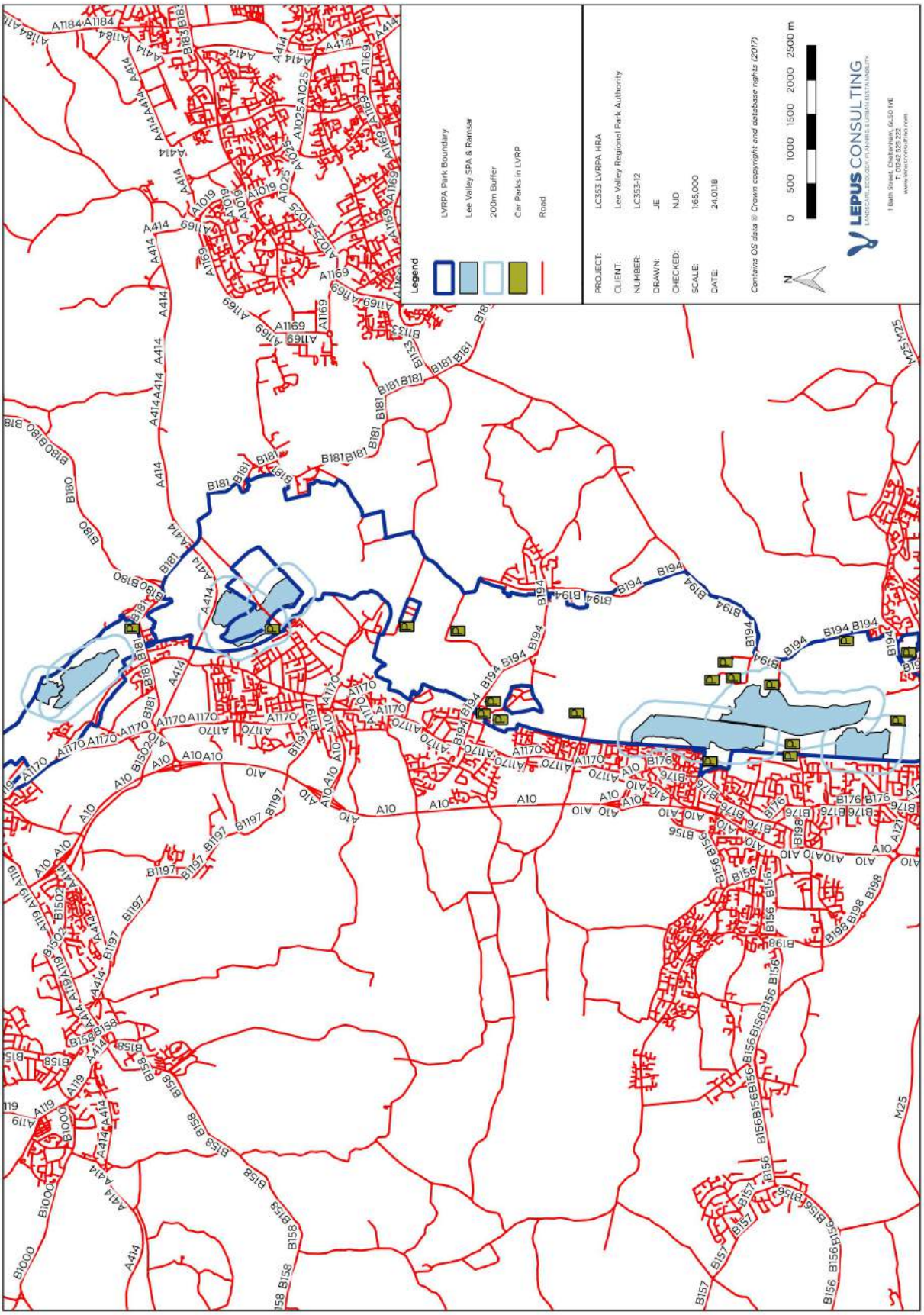

Figure 5.9: Roads within 200m of Lee Valley SPA

5.13 Road Transport and Lee Valley SPA

5.13.1 The SIP for Lee Valley SPA indicates that the bittern is vulnerable to the impacts of air pollution[37]. 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)*[38].

5.13.2 WeBS data (see **Table 5.2**) indicates that the bittern is not present at the Walthamstow Reservoirs portion of Lee Valley SPA, where there is an absence of suitable reedbed habitat. It is 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 - see **Figure 5.9**).

5.13.3 The northern lakes of the SPA are within 200m of several roads (see **Figure 5.9**). The significant majority of these roads are considered to be minor roads and lanes 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, is considered to be highly unlikely.

5.13.4 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.

[37] Natural England (2014) Lee Valley SPA: Site Improvement Plan. Available online at: http://publications.naturalengland.org.uk/publication/5864999960444928 . Accessed 21.01.18
[38] 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

5.13.5 Defra manages MAGIC, which provides geaographic information about the natural environment from across government. **Figure 5.10** 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. Satelllite imagery suggests that the extent of reedbed at this location is greater than indicated on MAGIC. If there is reedbed within 200m of the A414, it may be useful for the LVRPA to establish its precise distrbution, particularly in relation to the threat of road transport associated pollution from the A414. Overall, it is likely of a such a minor extent tand it is considered that road transport associated emissions along the A414 would be unlikely to adversely impact on reedbed habitat at Rye Meads SSSI.

5.13.6 It is 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 at this stage.

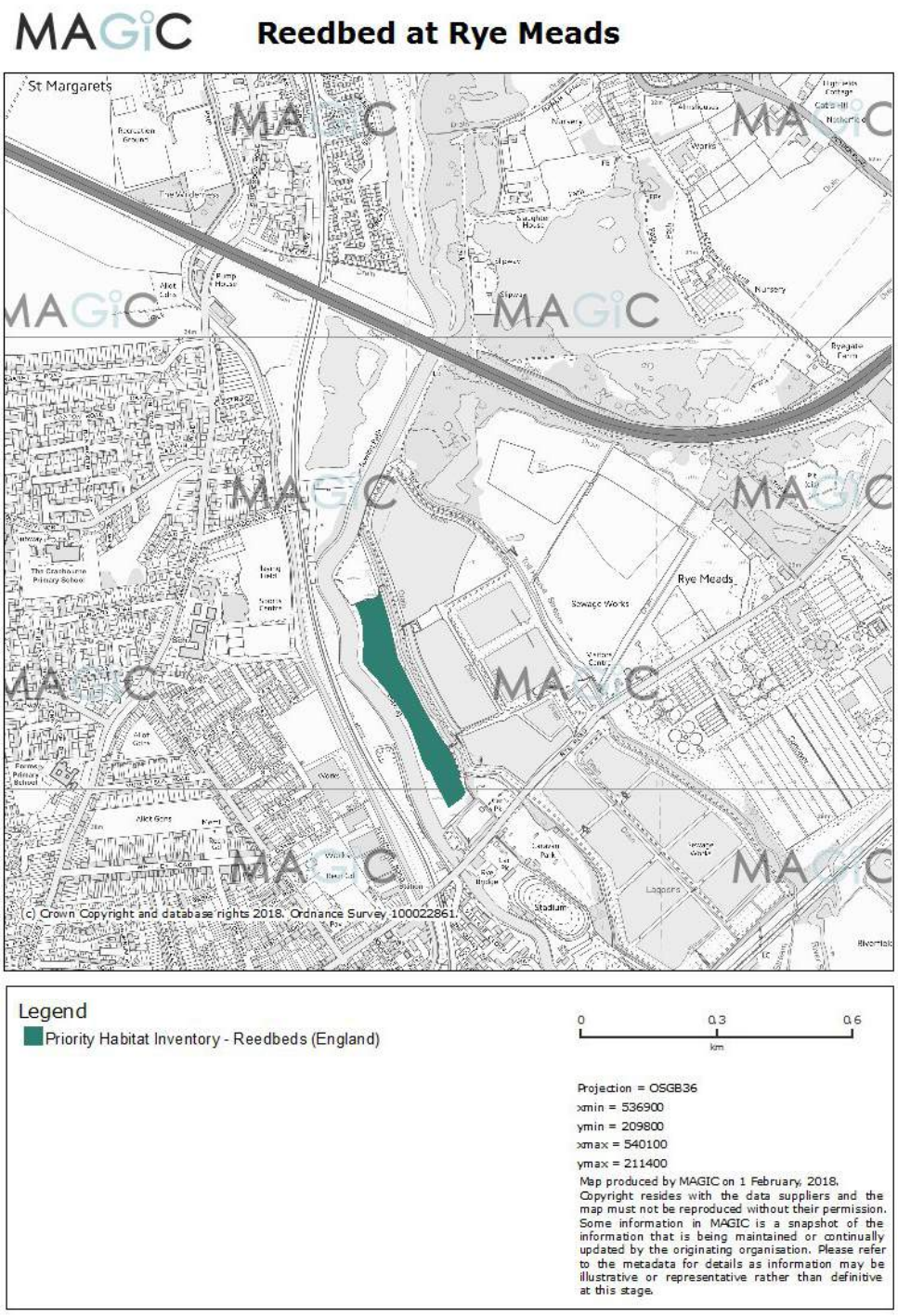

Figure 5.10: Presence of reedbed habitat within Rye Meads SSSI[39]

[39] Defra (2018) Map sourced from MAGIC, available online at: http://magic.defra.gov.uk/home.htm

6 Conclusions and next steps

6.1 Assessment findings

6.1.1 This assessment considered the potential impacts of the Park Plan: Part 1 strategic policies update on European sites.

6.1.2 This HRA report has outlined the threats and pressures that have the potential to undermine the conservation objectives of each European site and identified any likely significant effect that may be associated with strategic policies.

6.1.3 It is considered that an LSE on Wimbledon Common SAC, Wormley Hoddesdonpark Woods SAC and Lee Valley SPA can be objectively ruled out at this stage.

6.1.4 It is considered that an LSE on Epping Forest SAC, as a result of air pollution caused by the strategic policies in-combination with other plans and projects, cannot be objectively ruled out at this stage (see **Section 5.8.16 – 5.8.26**). This is the only LSE identified for Epping Forest SAC.

6.1.5 A summary screening table of the assessment and conclusion in this report in relation to each strategic policy is presented in **Appendix C**.

6.2 Next steps

6.2.1 This HRA screening report is subject to consultation with Natural England. Any responses from Natural England will be taken into account and this report will be reviewed and amended if possible. The report will also be subject to one round of comments from the LVRPA, after which amendments may be made.

6.2.2 If, after consultation, it is still considered that an LSE cannot be objectively ruled out after additional screening of the Plan, an Appropriate Assessment will be required.

6.3 Recommendations

6.3.1 This HRA screening report has not been able to objectively rule out an LSE on Epping Forest SAC at this stage. It is recommended that the LVRPA collaborate with local authorities involved with the MoU for Epping Forest in order to help ensure the conservation status of the SAC is not undermined by air pollution. Air pollution at the SAC is a transboundary and cumulative problem for which the MoU is likely the best means of solving.

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	Ramsar criterion 2 - the site supports the nationally scarce plant species: • Whorled water-milfoil *Myriophyllum verticillatum*; and • The rare or vulnerable invertebrate *Micronecta minutissima* (a water-boatman).
6	Ramsar criterion 6 – species/populations occurring at levels of international importance. **Qualifying species/populations with peak counts in spring/autumn:** • Northern shoveler, *Anas clypeata*, NW & C Europe (287 individuals). **Qualifying species/populations with peak counts in winter:** • Gadwall, *Anas strepera strepera,* NW Europe (445 individuals).

APPENDIX B

Table B.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 C

Table C.1: Summary screening table

Strategic planning aim	**Strategic policy** - the Park Authority will…	Screening category
Ensure the effective use & management of land	**E.1:** Work with landowners across the Regional Park to ensure the most effective use of land and property in fulfilment of its statutory purpose.	D
Conserve and enhance the Park's landscape character, key views and openness	**L1:** Require development proposals to demonstrate how their location, scale, design and materials will conserve and enhance the Park's local distinctiveness.	D
	L2: Require development proposals to demonstrate how they respect and respond to the character, key sensitivities and qualities of the relevant landscape character areas, as detailed in the Landscape Character Assessment.	D
	L3: Ensure that landscape design at existing and new gateways to the Park and associated with new development reflects the Park's semi-natural character.	D
	L4: Support buildings and structures and other features that are designed to contribute positively to the landscaper, avoid obstructing attractive and important views as detailed in the LCA.	D
	L5: Resist tall buildings within the Park and consider the impacts of proposed tall buildings adjacent to the Park, in light of a full landscape and visual impact assessment.	D
	L6: Protect views that promote a sense of orientation and/or an appreciation of the natural and physical environment of the Lee Valley.	D
	L7: Protect the openness of the Park, which is predominantly designated as Green Belt or Metropolitan Open Land.	D
Conserve and enhance the cultural heritage of the Park and its historic environment	**H1:** Conserve and enhance the Park's cultural heritage resource, including: archaeology, historic buildings and structures and their settings.	D
	H2: Support proposals to enhance access to and interpret the heritage assets, recognising their value in providing opportunities for leisure, health and recreation.	D
	H3: Celebrate heritage through art, festivals and fairs.	D
Conserve and enhance the Park's biodiversity	**B1:** Protect and enhance the Park's statutorily designated nature conservation sites.	E
	B2: Restore, improve and conserve the Park's wider range of habitats and species.	E
	B3: Re-create and improve connectivity between habitats and landscape features within and adjacent to the Park.	E
	B4: Ensure development proposals within the Park achieve a net gain in natural capital, including net gains in biodiversity.	E
	B5: Secure new and enhanced entrance points to the Park in order to divert visitor pressures away from and manage the sensitivities of habitats and species.	E

	B6: Secure compensatory measures for adverse biodiversity impacts which cannot be mitigated, secured by planning obligations and undertakings and agreements under Section 27 of the Lee Valley Regional Park Act 1966. Work with the Mayor on a suitable approach to biodiversity offsetting, with the Park providing 'receptor sites'.	D
Protect and make best use of the Park's water spaces	**W1:** Ensure that water space (including canals, rivers, streams, lakes and reservoirs) is protected and enhanced (avoiding any reduction in the area of open water) with high quality public realm, appropriate facilities and active frontage where appropriate.	E
	W2: Support development that encourages recreational use of water spaces, where this is consistent with other strategic policies.	E
Increase the attractiveness and use of the Parkland and venues	**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.	B
	V2: Build on the Regional Park's great sporting legacy and continue to develop an event programme of international and national status.	L
	V3: Support development that integrates sporting venues with the wider parklands to support a diverse visitor offer.	B
	.	G
	V4: Support the provision of appropriate visitor/education facilities at existing and new visitor hubs and entrance points to the Park.	B
Influence major new development within and adjacent to the Park to ensure that the Park 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.	G
	D2: Work in partnership with riparian councils to ensure that the nature of new development on sites both within and adjacent to its boundary enhances the Regional Park in line with its adopted strategic objectives and avoids detrimental impact on protected ecological and heritage assets.	B
	D3: Support development that is consistent with other strategic policies, particularly recreational, leisure and sporting facilities.	B
	D4: Secure funding for Park improvements through the riparian authorities' planning obligations.	G
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.	L
	A2: Work in partnership to reduce the severance caused by linear infrastructure, through the creation of pedestrian and cycle bridges and crossing points.	L
	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.	L
	A4: Improve links between points of interest in the Park	L
	A5: Enhance signage and way finding to improve access to and movement within the Park	L

Screening and reasoning categories:

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

Habitat Regulations Assessments

Sustainability Appraisals

Strategic Environmental Assessments

Landscape Character Assessments

Landscape and Visual Impact Assessments

Green Belt Reviews

Expert Witness

Ecological Impact Assessments

Habitat and Ecology Surveys

LEPUS CONSULTING

LANDSCAPE, ECOLOGY, PLANNING & URBAN SUSTAINABILITY

1 Bath Street Cheltenham GL50 1YE

T: 01242 525222

E: enquiries@lepusconsulting.com

www.lepusconsulting.com

CHELTENHAM

Lepus Consulting
1 Bath Street
Cheltenham
Gloucestershire GL50 1YE

t: 01242 525222
w: www.lepusconsulting.com
e: enquiries@lepusconsulting.com