

Habitats Regulations Assessment Screening Report – Alterations to Haringey's Strategic Policies

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1 Introduction

1.1 Background to the project

AECOM has been appointed by London Borough of Haringey (referred to as “Haringey Council” and “the Authority”) to assist in undertaking a Habitats Regulations Assessment (HRA) of the potential effects of Haringey's Alterations to Strategic Policies document on the Natura 2000 network and Ramsar sites in support of the already adopted Haringey Local Plan: Strategic Policies.

- 1.1.1 The Haringey Local Plan: Strategic Policies was formally adopted by the Full Council on 18th March 2013. The Local Plan, along with the saved UDP policies (Unitary Development Plan), sets out a vision and key policies for the future development within the Borough from 2013 through to the end of the plan period (2026). It provides special policies outlining local and strategic development within the Borough, including housing, employment, leisure, and retail provision. The adopted Local Plan included the provision for at least 8,200 net new dwellings to 2026 (in line with the then London Plan).
- 1.1.2 To support Haringey's adopted Local Plan, Habitats Regulations Assessment was undertaken¹. This document is used as a basis for this assessment. The document undertook Habitats Regulations Assessment (HRA) of the following internationally designated sites: The Lee Valley SPA and Ramsar sites, and Epping Forest SAC.
- 1.1.3 Since the Local Plan: Strategic Policies document was adopted in 2013, there have been changes in the overarching planning framework, including at the national and regional level, which affect planning locally. These changes include:
 - The release of 2011 Census data, which set out higher than previously projected population growth figures for London, prompting the Mayor of London to prepare and adopt Further Alterations to the London Plan (FALP) that significantly increased Haringey's strategic housing target from 820 homes per annum to 1,502 homes per annum, effective from April 2015 – an 83% increase;
 - Changes to permitted development rights, which give greater scope for the permitted change of use of offices, shops and warehouses to go to residential development, as well as provision for larger residential extensions;
 - Changes to the National Planning Practice Guidance (NPPG), including the methodology for assessing needs most recently for Gypsy and Traveller assessments
 - The introduction of both a Mayoral and Haringey Community Infrastructure Levy (CIL), which changed the way in which new development contributed financially or in kind towards the provision of strategic and local infrastructure required to support sustainable communities;
 - The preparation of further key local evidence base studies, including an Open Spaces and Biodiversity study, an Urban Characterisation Study, and a Strategic Housing Market Assessment, as well as updates to existing studies on Employment Land, Development Viability and the pan-London wide Strategic Housing Land Availability Assessment. These new and updated studies reflect the current state of the environment with respect to the local economy and demands for various land uses, which has changed significantly since the recession when the bulk of studies to inform the Strategic Policies were undertaken; and
 - The new Housing Zone designation to be applied to Tottenham Hale, which will see significant public and private investment committed to the area to unlock its development potential and accelerate housing delivery, prompting the Council to prepare a comprehensive regeneration framework for the area along with a dedicated Area Action Plan.

¹ Hyder. (2010). London Borough of Haringey Pre-submission Core Strategy Habitats Regulations Assessment. http://www.haringey.gov.uk/sites/haringeygovuk/files/habitats_regulations_assessment.pdf [Accessed 23/09/15]

- 1.1.4 In light of these changes, the Council identified a number of alterations, the vast majority of which are factual updates, which need to be made to the adopted Local Plan: Strategic Policies document to bring it up to date and ensure it remains consistent with the current national and regional planning position. This document does not assess the entire Local Plan: Strategic Policies document, but the changes made to policy text. It does however draw from the policies that remain unchanged within the adopted Local Plan: Strategic Policies document for support.
- 1.1.5 The objective of this assessment is to:
- identify any aspects of the 'Alterations to Strategic Policies 2011 – 2026 Pre-submission Consultation October 2015' document that would cause an adverse effect on the integrity of Natura 2000 sites, otherwise known as internationally designated sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and, as a matter of Government policy, Ramsar sites²), either in isolation or in combination with other plans and projects; and
 - to advise on appropriate policy mechanisms for delivering mitigation where such effects are identified.

1.2 Current legislation

- 1.2.1 The need for Habitats Regulations Assessment (HRA) is set out within Article 6 of the EC Habitats Directive 1992, and interpreted into British law by the Conservation of Habitats and Species Regulations 2010. The ultimate aim of the Directive is to "*maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest*" (Habitats Directive, Article 2(2)). This aim relates to habitats and species, not the internationally designated sites themselves, although the sites have a significant role in delivering favourable conservation status.
- 1.2.2 Within the UK, Protected Areas for nature conservation include, those established under National legislation (e.g. Sites of Special Scientific Interest (SSSI)), areas established under European Union Directives/European initiatives (including the Natura 2000 network of sites), and protected areas established under Global Agreements (e.g. Ramsar sites).
- 1.2.3 With relevance to this report, Special Protection Areas (SPAs) are strictly protected sites classified in accordance with Article 4 of the EC Birds Directive 1979. They are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species. Special Areas of Conservation (SAC) are strictly protected sites designated under Article 3 of the EC Habitats Directive, which requires the establishment of a European network of important high-quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Directive (as amended)³. The listed habitat types and species are those considered to be most in need of conservation at a European level (excluding birds). Ramsar sites are wetlands of international importance designated under the Ramsar Convention.
- 1.2.4 The Conservation of Habitats and Species Regulations 2010 require that land use plans are subject to Appropriate Assessment (AA) where they are likely to have a significant effect on a Natura 2000 site.
- 1.2.5 The Habitats Directive applies the precautionary principle to protected areas; plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. In the case of the Habitats Directive, potentially damaging plans and projects may still be permitted if there are no alternatives to them and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation will be necessary to ensure the overall integrity of the site network is maintained.
- 1.2.6 In order to ascertain whether or not site integrity will be affected, a Habitats Regulations Assessment should be undertaken of the plan or project in question:

² Wetlands of International Importance designated under the Ramsar Convention 1979

³ <http://jncc.defra.gov.uk/>

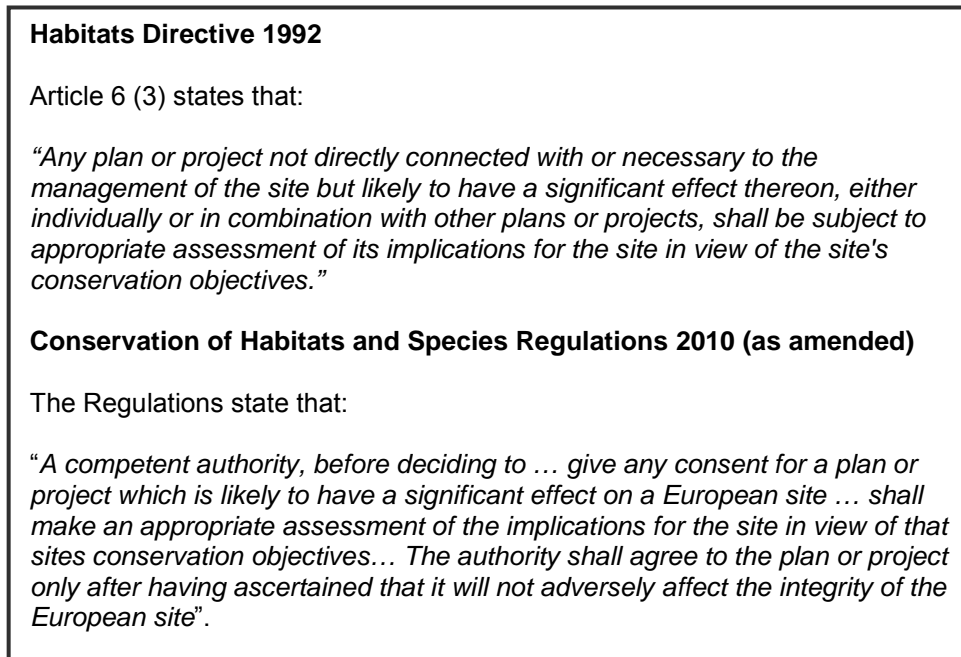


Figure 1: The Legislative Basis for Appropriate Assessment

- 1.2.7 Over the years the phrase 'Habitats Regulations Assessment' has come into wide currency to describe the overall process set out in the Conservation of Habitats and Species Regulations from screening through to Imperative Reasons of Overriding Public Interest (IROPI). This has arisen in order to distinguish the process from the individual stage described in the law as an 'appropriate assessment'. Throughout this report we use the term Habitats Regulations Assessment for the overall process.

1.3 Scope of the Project

- 1.3.1 There is no pre-defined guidance that dictates the physical scope of a HRA of a supporting Local Plan document. Therefore, in considering the physical scope of the assessment, we were guided primarily by the identified impact pathways rather than by arbitrary 'zones'. Current guidance suggests that the following European sites be included in the scope of assessment:
- All sites within the Local Plan area boundary; and
 - Other sites shown to be linked to development within the Borough boundary through a known 'pathway'.

- 1.3.2 Briefly defined, pathways are routes by which a change in activity provided within the Alterations to Strategic Policies 2011-2026 document can lead to an effect upon an internationally designated site. In terms of the second category of designated site listed above, guidance from the former Department of Communities and Local Government states that the HRA should be *'proportionate to the geographical scope of the [plan policy]'* and that *'an AA need not be done in any more detail, or using more resources, than is useful for its purpose'* (CLG, 2006, p.6). More recently, the Court of Appeal⁴ ruled that providing the Council (competent authority) was duly satisfied that proposed mitigation could be *'achieved in practice'* to satisfied that the proposed development would have no adverse effect, then this would suffice. This ruling has since been applied to a planning permission (rather than a Core Strategy)⁵. In this case the High Court ruled that for *'a multistage process, so long as there is sufficient information at any particular stage to enable the authority to be satisfied that the proposed mitigation can be achieved in practice it is not necessary for all matters concerning mitigation to be fully resolved before a decision maker is able to conclude that a development will satisfy the requirements of reg 61 of the Habitats Regulations'*.
- 1.3.3 No internationally designated sites are located within the London Borough of Haringey's boundary.
- 1.3.4 The following internationally designated sites are considered within the Habitats Regulations Assessment of Haringey's Alterations to Strategic Policies 2011-2026 document and are located within 20km of the London Borough of Haringey's authority boundary. These sites could potentially have impact pathways present that could interact with Haringey's Alterations to Strategic Policies document:
- Lee Valley SPA and Ramsar site;
 - Epping Forest SAC;
 - Richmond Park SAC;
 - Wimbledon Common SAC; and
 - Wormley-Hoddesdonpark Woods SAC.
- 1.3.5 During an initial sieving exercise to screen out internationally designated sites (e.g. no realistic impact pathways present), the following internationally designated sites can be sieved out from further assessment due to the distances involved.
- Wormley-Hoddesdonpark Woods SAC located 12.9km from the borough boundary;
 - Richmond Park SAC located 14.3km from the borough boundary, and;
 - Wimbledon Common SAC located 14.7km from the borough boundary.
- 1.3.6 These sites are not considered further within this document.
- 1.3.7 There are three internationally designated sites that are located within a sufficiently close distance that there could be impact pathways linking to Haringey's draft DMP. These are:
- Lee Valley SPA and Ramsar site, located immediately adjacent to the London Borough of Haringey to the east; and,
 - Epping Forest SAC, located 3km east from the London Borough of Haringey.
- 1.3.8 Details of these internationally designated sites that could be linked with Haringey's Alterations to Strategic Policies document as identified within paragraph 1.3.7 can be found in Appendix A. Appendix B, Figure 1 illustrates the locations of the internationally designated sites in relation to the London Borough of Haringey's boundary.
- 1.3.9 The Habitats Regulation Assessment undertaken for the adopted Local Plan in 2010⁶ identified only one impact pathway linking the London Borough of Haringey Local Plan to the Lee Valley SPA and Ramsar site. The residual impact pathway was construction noise, disturbing features in the designated site. Epping Forest SAC is located 3km from the London

⁴ No Adastral New Town Ltd (NANT) v Suffolk Coastal District Council Court of Appeal, 17th February 2015

⁵ High Court case of R (Devon Wildlife Trust) v Teignbridge District Council, 28 July 2015

⁶ Ibid

Borough of Haringey, and as such, this impact pathway did not link the SAC to the Local Plan in 2013. The 2013 Local Plan provided for 8,200 net new dwellings to the end of the Plan period (2026). Haringey's Alteration to Strategic Policies document provides for meeting the revised strategic housing requirement of 19,802 net new dwellings between 2011 and 2026. As a result of this change, at the initial sieving stage, Epping Forest SAC cannot be automatically screened out from likely significant effects resulting from Haringey's Alterations to Strategic Policies document, and impact pathways affecting this SAC require assessment. In addition, a more detailed investigation of impact pathways linking to Lee Valley SPA and Ramsar site is undertaken.

1.3.10 The remainder of this document considers potential for likely significant effects from impact pathways resulting from Haringey's Alterations to Strategic Policies document upon the following internationally designated sites:

- Lee Valley SPA and Ramsar site
- Epping Forest SAC

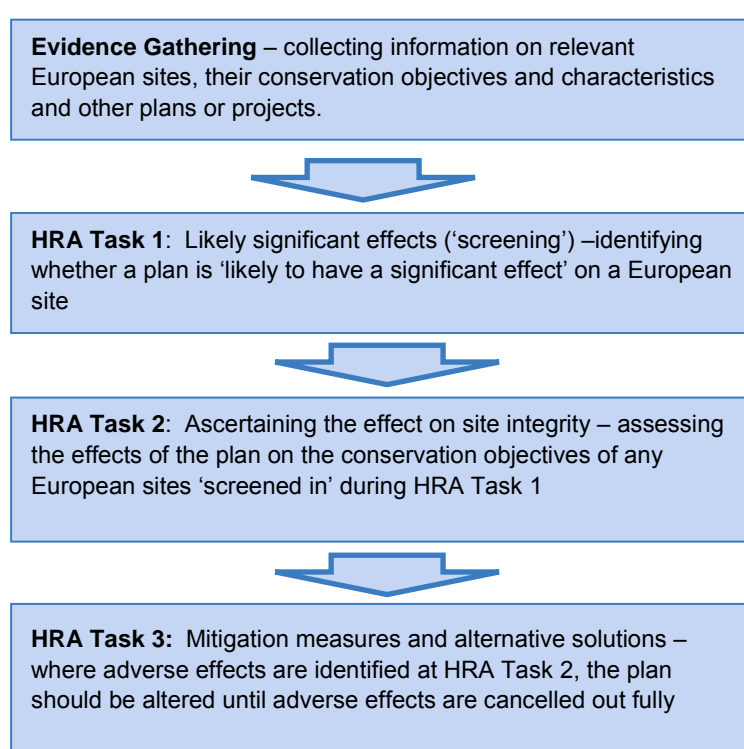
1.4 This Report

1.4.1 Section 2 of this report summarises the methodology for the assessment. Section 3 identifies the possible pathways by which adverse effects on European protected sites could arise. Section 4 considers each policy amendment within Haringey's Alterations to Strategic policies document, assessing possible pathways upon internationally designated sites that may be vulnerable, determine likely significant effects, based on key environmental conditions required to maintain the integrity of these sites. The screening exercise concludes by either screening out any possible impacts or by determining that mitigation or avoidance measures are required. Where mitigation strategies are deemed necessary, potential approaches are discussed. In combination effects with other plans on each internationally designated site are also considered within Section 4. Background information on all the internationally designated sites discussed in this report is presented within Appendix A. Figure 1 of Appendix B presents a map showing all internationally important wildlife sites discussed.

2 Methodology

2.1 Introduction

- 2.1.1 This HRA has been carried out in the continuing absence of formal central Government guidance, although general EC guidance on HRA does exist⁷. The former Department for Communities and Local Government released a consultation paper on the Appropriate Assessment of Plans in 2006⁸. As yet, no further formal guidance has emerged. However, Natural England has produced its own internal guidance⁹ as has the RSPB¹⁰. Both of these have been referred to alongside the guidance outlined in Section 1.2 in undertaking this HRA.
- 2.1.2 Figure 2 below, outlines the stages of HRA according to current draft CLG guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations and any relevant changes to the plan until no significant adverse effects remain.



Source: CLG, 2006

Figure 2- Four-Stage Approach to Habitats Regulations Assessment

2.2 HRA Task 1 - Likely Significant Effects (LSE)

- 2.2.1 Following evidence gathering, the first stage of any Habitats Regulations Assessment is a Likely Significant Effect (LSE) test - essentially a risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:

"Is the Plan, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites?"

⁷ European Commission (2001): Assessment of plans and projects significantly affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6(3) and 6(4) of the Habitats Directive.

⁸ CLG (2006) Planning for the Protection of European Sites, Consultation Paper

⁹ http://www.ukmpas.org/pdf/practical_guidance/HRGN1.pdf

¹⁰ Dodd A.M., Cleary B.E., Dawkins J.S., Byron H.J., Palframan L.J. and Williams G.M. (2007)

The Appropriate Assessment of Spatial Plans in England: a guide to why, when and how to do it. The RSPB, Sandy.

- 2.2.2 The objective is to 'screen out' those plans and projects that can, without any detailed appraisal, be said to be unlikely to result in significant adverse effects upon internationally designated sites, usually because there is no mechanism for an adverse interaction with internationally designated sites. This stage is the subject of Chapter 4 of this report (See Appendix C, Table 1 for the screening table), and goes a step further than a scoping report that was able to scope out sites listed in section 1.3.5. Those particular sites could be scoped out regardless of the nature and scale of any proposed development, whereas screening is needed where there is a potential pathway of impact and the scale, nature and location of development determines whether this actually exists.
- 2.2.3 The level of detail in land use plans concerning developments that will be permitted under the plans will never be sufficient to make a detailed quantification of adverse effects. Therefore, we have again taken a precautionary approach (in the absence of more precise data) assuming as the default position that if an adverse effect cannot be confidently ruled out, avoidance or mitigation measures must be provided. This is in line with the former Department of Communities and Local Government guidance that the level of detail of the assessment, whilst meeting the relevant requirements of the Habitats Regulations, should be 'appropriate' to the level of plan or project that it addresses.

2.3 Confirming Other Plans and Projects That May Act In Combination

- 2.3.1 It is a requirement of the Regulations that the impacts of any land use plan being assessed are not considered in isolation but in combination with other plans and projects that may also be affecting the internationally designated site(s) in question.
- 2.3.2 It is neither practical nor necessary to assess the 'in combination' effects of the Local Plan within the context of all other plans and projects within this area of England. For the purposes of this assessment, we have determined that, due to the nature of the identified impacts, the key other plans and projects relate to the additional housing, transportation and commercial/industrial allocations proposed for neighbouring and nearby authorities over the lifetime of the Local Plan. A good place to start is the London Plan (2015)¹¹
- 2.3.3 In considering the potential for regional housing development on internationally designated sites, the primary consideration for many sites is the impact of visitor numbers – i.e. recreational pressure. Other pathways of impact described in more detail in Chapter 3 include disturbances from construction activities, urbanisation, water quality and water quantity, and air quality. Whilst these are also strongly related to housing provision, the actual geographic impact must also be considered within the context of relevant infrastructure.

Table 1: Housing Levels to be Delivered in Neighbouring Authorities

Local Authority	Total housing (taken from the London Plan, 2015 ¹²) Minimum ten year target 2015-2025	Total housing (taken from the London Plan, 2015) Annual monitoring target 2015-2025
London Borough of Barnet	23,489	2,349
London Borough of Camden	8,892	889
London Borough of Enfield	7,976	798
London Borough of Islington	12,641	1,264
London Borough of Hackney	15,988	1,599
London Borough of Waltham Forest	8,620	862

- 2.3.4 There are other plans and projects that are relevant to the 'in combination' assessment and the following have all been taken into account in this assessment:

¹¹ Mayor of London (March, 2015). The London Plan. The Spatial Development Strategy for London. Consolidated with Alterations Since 2011. Also referred to as Further Alterations to the London Plan (FALP)

¹² Ibid

Plans

- **London Borough of Haringey Local Plan: Strategic Policies.** Adopted March 2013.
- **The London Plan.** The Spatial Development Strategy for London. Consolidated with Alterations Since 2011. Published March 2015.
- **The London Plan.** Sub Regional Development Framework – North London. Published May 2006.
- **The London Plan.** Sub Regional Development Framework – Central London. Published May 2006.
- **North London Waste Plan.** This is currently in preparation; the draft is due for consultation in 'Summer/ Autumn 2015'.
- **London Borough of Barnet Local Plan Core strategy DPD.** Adopted September 2012.
- **London Borough of Camden Core Strategy.** Adopted November 2010.
- **London Borough of Enfield Core Strategy.** Adopted November 2010.
- **London Borough of Islington Core Strategy.** Adopted February 2011.
- **London Borough of Hackney Core Strategy: Local Development framework.** Adopted December 2010.
- **London Borough of Waltham Forest Local Plan Core Strategy.** Adopted March 2012
- **Walthamstow Wetlands.** Planning permission granted 2014.

2.3.5 When undertaking this part of the assessment it is essential to bear in mind the principal intention behind the legislation i.e. to ensure that those projects or plans which in themselves have minor impacts are not simply dismissed on that basis, but are evaluated for any cumulative contribution they may make to an overall significant effect. In practice, in combination assessment is therefore of greatest relevance when the plan would otherwise be screened out because its individual contribution is inconsequential.

3 Pathways of Impact

3.1 Introduction

3.1.1 In carrying out an HRA it is important to determine the various ways in which land use plans can impact on internationally designated sites by following the pathways along which development can be connected with internationally designated sites, in some cases many kilometres distant. Briefly defined, pathways are routes by which a change in activity associated with a development can lead to an effect upon an internationally designated site. Following the HRA of the Local Plan in 2010 and a brief sieve of the DMP, the following impact pathways are considered within this document.

3.1.2 Impact pathways for consideration are:

- Disturbance (from recreational and construction activities)
- Urbanisation
- Atmospheric pollution
- Water abstraction
- Water quality

3.2 Disturbance (from Recreational and Construction Activities)

3.2.1 Recreational use of an internationally designated site and construction activities within close proximity of an internationally designated site have potential to:

- Cause damage through mechanical/ abrasive damage and nutrient enrichment;
- Cause disturbance to sensitive species, particularly ground-nesting birds and wintering wildfowl; and
- Prevent appropriate management or exacerbate existing management difficulties.

Recreational pressure

3.2.2 Different types of internationally designated sites are subject to different types of recreational pressures and have different vulnerabilities. Studies across a range of species have shown that the effects from recreation can be complex.

Mechanical/abrasive damage and nutrient enrichment

3.2.3 Most types of terrestrial internationally designated site can be affected by trampling, which in turn causes soil compaction and erosion. Walkers with dogs contribute to pressure on sites through nutrient enrichment via dog fouling and also have potential to cause greater disturbance to fauna as dogs are less likely to keep to marked footpaths and move more erratically. Motorcycle scrambling and off-road vehicle use can cause serious erosion, as well as disturbance to sensitive species.

3.2.4 There have been several papers published that empirically demonstrate that damage to vegetation in woodlands and other habitats can be caused by vehicles, walkers, horses and cyclists:

- Wilson & Seney (1994)¹³ examined the degree of track erosion caused by hikers, motorcycles, horses and cyclists from 108 plots along tracks in the Gallatin National Forest, Montana. Although the results proved difficult to interpret, it was concluded that

¹³ Wilson, J.P. & J.P. Seney. 1994. Erosional impact of hikers, horses, motorcycles and off road bicycles on mountain trails in Montana. *Mountain Research and Development* 14:77-88

horses and hikers disturbed more sediment on wet tracks, and therefore caused more erosion, than motorcycles and bicycles.

- Cole et al (1995a, b)¹⁴ conducted experimental off-track trampling in 18 closed forest, dwarf scrub and meadow and grassland communities (each tramped between 0 – 500 times) over five mountain regions in the US. Vegetation cover was assessed two weeks and one year after trampling, and an inverse relationship with trampling intensity was discovered, although this relationship was weaker after one year than two weeks indicating some recovery of the vegetation. Differences in plant morphological characteristics were found to explain more variation in response between different vegetation types than soil and topographic factors. Low-growing, mat-forming grasses regained their cover best after two weeks and were considered most resistant to trampling, while tall forbs (non-woody vascular plants other than grasses, sedges, rushes and ferns) were considered least resistant. Cover of hemicryptophytes and geophytes (plants with buds below the soil surface) was heavily reduced after two weeks, but had recovered well after one year and as such these were considered most resilient to trampling. Chamaephytes (plants with buds above the soil surface) were least resilient to trampling. It was concluded that these would be the least tolerant of a regular cycle of disturbance.
- Cole (1995c)¹⁵ conducted a follow-up study (in 4 vegetation types) in which shoe type (trainers or walking boots) and trampler weight were varied. Although immediate damage was greater with walking boots, there was no significant difference after one year. Heavier trampers caused a greater reduction in vegetation height than lighter trampers, but there was no difference in effect on cover.
- Cole & Spildie (1998)¹⁶ experimentally compared the effects of off-track trampling by hiker and horse (at two intensities – 25 and 150 passes) in two woodland vegetation types (one with an erect forb understorey and one with a low shrub understorey). Horse traffic was found to cause the largest reduction in vegetation cover. The forb-dominated vegetation suffered greatest disturbance, but recovered rapidly. Higher trampling intensities caused more disturbance.

3.2.5 The total volume of dog faeces deposited on sites can be surprisingly large. For example, at Burnham Beeches National Nature Reserve over one year, Barnard¹⁷ estimated the total amounts of urine and faeces from dogs as 30,000 litres and 60 tonnes respectively. The specific impact on Epping Forest has not been quantified from local studies; however, the fact that habitats for which the SAC is designated appear to be subject already to excessive nitrogen deposition, suggests that any additional source of nutrient enrichment (including uncollected dog faeces) will make a cumulative contribution to overall enrichment. Any such contribution must then be considered within the context of other recreational sources of impact on sites.

Disturbance

3.2.6 Concern regarding the effects of disturbance on birds stems from the fact that they are expending energy unnecessarily and the time they spend responding to disturbance is time that is not spent feeding¹⁸. Disturbance therefore risks increasing energetic output while reducing energetic input, which can adversely affect the 'condition' and ultimately the survival of the birds. In addition, displacement of birds from one feeding site to others can increase the

¹⁴ Cole, D.N. 1995a. Experimental trampling of vegetation. I. Relationship between trampling intensity and vegetation response. *Journal of Applied Ecology* 32: 203-214

Cole, D.N. 1995b. Experimental trampling of vegetation. II. Predictors of resistance and resilience. *Journal of Applied Ecology* 32: 215-224

¹⁵ Cole, D.N. (1995c) Recreational trampling experiments: effects of trampler weight and shoe type. Research Note INT-RN-425. U.S. Forest Service, Intermountain Research Station, Utah

¹⁶ Cole, D.N., Spildie, D.R. (1998) Hiker, horse and llama trampling effects on native vegetation in Montana, USA. *Journal of Environmental Management* 53: 61-71

¹⁷ Barnard, A. (2003) Getting the Facts - Dog Walking and Visitor Number Surveys at Burnham Beeches and their Implications for the Management Process. *Countryside Recreation*, 11, 16 - 19

¹⁸ Riddington, R. et al. 1996. The impact of disturbance on the behaviour and energy budgets of Brent geese. *Bird Study* 43:269-279

pressure on the resources available within the remaining sites, as they have to sustain a greater number of birds¹⁹.

3.2.7 The potential for disturbance may be less in winter than in summer, in that there are often a smaller number of recreational users. In addition, the consequences of disturbance at a population level may be reduced because birds are not breeding. However, winter activity can still cause important disturbance, especially as birds are particularly vulnerable at this time of year due to food shortages, such that disturbance which results in abandonment of suitable feeding areas through disturbance can have severe consequences. Several empirical studies have, through correlative analysis, demonstrated that out-of-season (October-March) recreational activity can result in quantifiable disturbance:

- Underhill et al²⁰ counted waterfowl and all disturbance events on 54 water bodies within the South West London Water bodies Special Protection Area and clearly correlated disturbance with a decrease in bird numbers at weekends in smaller sites and with the movement of birds within larger sites from disturbed to less disturbed areas.
- Evans & Warrington²¹ found that on Sundays total water bird numbers (including shoveler and gadwall) were 19% higher on Stocker's Lake LNR in Hertfordshire, and attributed this to displacement of birds resulting from greater recreational activity on surrounding water bodies at weekends relative to week days.
- Tuite et al²² used a large (379 site), long-term (10-year) dataset (September – March species counts) to correlate seasonal changes in wildfowl abundance with the presence of various recreational activities. They found that on inland water bodies shoveler was one of the most sensitive species to disturbance. The greatest impact on winter wildfowl numbers was associated with sailing/windsurfing and rowing.
- Pease et al²³ investigated the responses of seven species of dabbling ducks to a range of potential causes of disturbance, ranging from pedestrians to vehicle movements. They determined that walking and biking created greater disturbance than vehicles and that gadwall were among the most sensitive of the species studied.
- In a three-year study of wetland birds at the Stour and Orwell SPA, Ravenscroft²⁴ found that walkers, boats and dogs were the most regular source of disturbance. Despite this, the greatest responses came from relatively infrequent events, such as gun shots and aircraft noise. Birds seemed to habituate to frequent 'benign' events such as vehicles, sailing and horses, but there was evidence that apparent habituation to more disruptive events related to reduced bird numbers – i.e. birds were avoiding the most frequently disturbed areas. Disturbance was greatest at high tide and on the Orwell, but birds on the Stour showed greatest sensitivity.

3.2.8 A number of studies have shown that birds are affected more by dogs and people with dogs than by people alone, with birds flushing more readily, more frequently, at greater distances and for longer. In addition, dogs, rather than people, tend to be the cause of many management difficulties, notably by worrying grazing animals, and can cause eutrophication

¹⁹ Gill, J.A., Sutherland, W.J. & Norris, K. 1998. The consequences of human disturbance for estuarine birds. *RSPB Conservation Review* 12: 67-72

²⁰ Underhill, M.C. et al. 1993. Use of Waterbodies in South West London by Waterfowl. An Investigation of the Factors Affecting Distribution, Abundance and Community Structure. Report to Thames Water Utilities Ltd. and English Nature. Wetlands Advisory Service, Slimbridge

²¹ Evans, D.M. & Warrington, S. 1997. The effects of recreational disturbance on wintering waterbirds on a mature gravel pit lake near London. *International Journal of Environmental Studies* 53: 167-182

²² Tuite, C.H., Hanson, P.R. & Owen, M. 1984. Some ecological factors affecting winter wildfowl distribution on inland waters in England and Wales and the influence of water-based recreation. *Journal of Applied Ecology* 21: 41-62

²³ Pease, M.L., Rose, R.K. & Butler, M.J. 2005. Effects of human disturbances on the behavior of wintering ducks. *Wildlife Society Bulletin* 33 (1): 103-112.

²⁴ Ravenscroft, N. (2005) Pilot study into disturbance of waders and wildfowl on the Stour-Orwell SPA: analysis of 2004/05 data. Era report 44, Report to Suffolk Coast & Heaths Unit.

near paths. Nutrient-poor habitats such as heathland are particularly sensitive to the fertilising effect of inputs of phosphates, nitrogen and potassium from dog faeces²⁵.

- 3.2.9 Underhill-Day²⁶ summarises the results of visitor studies that have collected data on the use of semi-natural habitat by dogs. In surveys where 100 observations or more were reported, the mean percentage of visitors who were accompanied by dogs was 54.0%.
- 3.2.10 However the outcomes of many of these studies need to be treated with care. For instance, the effect of disturbance is not necessarily correlated with the impact of disturbance, i.e. the most easily disturbed species are not necessarily those that will suffer the greatest impacts. It has been shown that, in some cases, the most easily disturbed birds simply move to other feeding sites, whilst others may remain (possibly due to an absence of alternative sites) and thus suffer greater impacts on their population²⁷. A literature review undertaken for the RSPB²⁸ also urges caution when extrapolating the results of one disturbance study because responses differ between species and the response of one species may differ according to local environmental conditions. These facts have to be taken into account when attempting to predict the impacts of future recreational pressure on internationally designated sites.
- 3.2.11 Disturbing activities are on a continuum. The most disturbing activities are likely to be those that involve irregular, infrequent, unpredictable loud noise events, movement or vibration of long duration (such as those often associated with construction activities). Birds are least likely to be disturbed by activities that involve regular, frequent, predictable, quiet patterns of sound or movement or minimal vibration. The further any activity is from the birds, the less likely it is to result in disturbance.
- 3.2.12 The factors that influence a species response to a disturbance are numerous, but the three key factors are species sensitivity, proximity of disturbance sources and timing/duration of the potentially disturbing activity.
- 3.2.13 It should be emphasised that recreational use is not inevitably a problem. Many internationally designated sites are also nature reserves managed for conservation and public appreciation of nature. The Lee Valley Regional Park that encompasses the SPA and Ramsar sites is such an example. At these sites, access is encouraged and resources are available to ensure that recreational use is managed appropriately.
- 3.2.14 Where increased recreational use is predicted to cause adverse impacts on a site, avoidance and mitigation should be considered. Avoidance of recreational impacts at internationally designated sites involves location of new development away from such sites; Local Development Frameworks (and other strategic plans) provide the mechanism for this. Where avoidance is not possible, mitigation will usually involve a mix of access management, habitat management and provision of alternative recreational space.
- Access management – restricting access to some or all of a internationally designated site - is not usually within the remit of the Council and restriction of access may contravene a range of Government policies on access to open space, and Government objectives for increasing exercise, improving health etc. However, active management of access may be possible, for example as practised on nature reserves.
 - Habitat management is not within the direct remit of the Council. However the Council can help to set a framework for improved habitat management by promoting cross-authority collaboration and S106 funding of habitat management. Provision of alternative recreational space can help to attract recreational users away from sensitive internationally designated sites, and reduce pressure on the sites. For example, some species for which internationally designated sites have been designated are particularly sensitive to dogs, and many dog walkers may be happy to be diverted to other, less sensitive, sites. However the location and type of alternative space must be attractive for

²⁵ Shaw, P.J.A., K. Lankey and S.A. Hollingham (1995) – Impacts of trampling and dog fouling on vegetation and soil conditions on Headley Heath. *The London Naturalist*, **74**, 77-82.

²⁶ Underhill-Day, J.C. (2005). A literature review of urban effects on lowland heaths and their wildlife. Natural England Research Report 623.

²⁷ Gill et al. (2001) - Why behavioural responses may not reflect the population consequences of human disturbance. *Biological Conservation*, **97**, 265-268

²⁸ Woodfield & Langston (2004) - Literature review on the impact on bird population of disturbance due to human access on foot. *RSPB research report* No. 9.

users to be effective. In the case of both Epping Forest and Lee Valley SPA and Ramsar sites, dog-walking, walking and cycling are likely to be the major site usages, and so alternative space needs to cater for this.

- 3.2.15 The Lee Valley SPA and Ramsar site lies immediately adjacent to the London Borough of Haringey and Epping Forest SAC is located 3km from the Borough, as such they are theoretically vulnerable, to the effects of recreational pressure and/ or disturbances from construction activities resulting from development within Haringey.
- 3.2.16 It is therefore necessary to perform an initial screening exercise to determine whether Haringey's Alterations to Strategic Policies document contains policy measures that could lead to a likely significant effects, either alone or 'in combination' with other plans and projects, through recreational pressure, on these internationally designated sites.

3.3 Urbanisation

- 3.3.1 This impact is closely related to recreational pressure, in that they both result from increased populations within close proximity to sensitive sites. Urbanisation is considered separately as the detail of the impacts is distinct from the trampling, disturbance and dog-fouling that results specifically from recreational activity. The list of urbanisation impacts can be extensive, but core impacts can be singled out:
- Increased fly-tipping - Rubbish tipping is unsightly but the principle adverse ecological effect of tipping is the introduction of invasive non-native species with garden waste. Non-native species can in some situations, lead to negative interactions with habitats or species for which internationally designated sites may be designated. Garden waste results in the introduction of invasive non-native species precisely because it is the 'troublesome and over-exuberant' garden plants that are typically thrown out²⁹. Non-native species may also be introduced deliberately or may be bird-sown from local gardens.
 - Cat predation - A survey performed in 1997 indicated that nine million British cats brought home 92 million prey items over a five-month period³⁰. A large proportion of domestic cats are found in urban situations, and increasing urbanisation is likely to lead to increased cat predation
- 3.3.2 The most detailed consideration of the link between relative proximity of development to internationally designated sites and damage to interest features has been carried out with regard to the Thames Basin Heaths SPA.
- 3.3.3 After extensive research, Natural England and its partners produced a 'Delivery Plan' which made recommendations for accommodating development while also protecting the interest features of the internationally designated site. This included the recommendation of implementing a series of zones within which varying constraints would be placed upon development. While the zones relating to recreational pressure expanded to 5km (as this was determined from visitor surveys to be the principal recreational catchment for this internationally designated site), that concerning other aspects of urbanisation (particularly predation of the chicks of ground-nesting birds by domestic cats) was determined at 400m from the SPA boundary. The delivery plan concluded that the adverse effects of any development located within 400m of the SPA boundary could not be mitigated since this was the range over which cats could be expected to roam as a matter of routine and there was no realistic way of restricting their movements, and as such, no new housing should be located within this zone.
- 3.3.4 As such, screening is undertaken to determine whether Haringey's Alterations to Strategic Policies document contains policy measures that could lead to likely significant effects upon Lee Valley internationally designated site, either alone or 'in combination' with other plans and projects, through impacts of urbanisation.

²⁹ Gilbert, O. & Bevan, D. 1997. The effect of urbanisation on ancient woodlands. *British Wildlife* 8: 213-218.

³⁰ Woods, M. et al. 2003. Predation of wildlife by domestic cats *Felis catus* in Great Britain. *Mammal Review* 33, 2 174-188

3.4 Atmospheric Pollution

3.4.1 The main pollutants of concern for internationally designated sites are oxides of nitrogen (NO_x), ammonia (NH₃) and sulphur dioxide (SO₂). NO_x can have a directly toxic effect upon vegetation. In addition, greater NO_x or ammonia concentrations within the atmosphere will lead to greater rates of nitrogen deposition to soils. An increase in the deposition of nitrogen from the atmosphere to soils is generally regarded to lead to an increase in soil fertility, which can have a serious deleterious effect on the quality of semi-natural, nitrogen-limited terrestrial habitats.

Local air pollution

3.4.2 According to the Department of Transport's Transport Analysis Guidance, "Beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is not significant"³¹. This is therefore the distance that has been used throughout this HRA in order to determine whether internationally designated sites are likely to be significantly affected by development under the Local Plan.

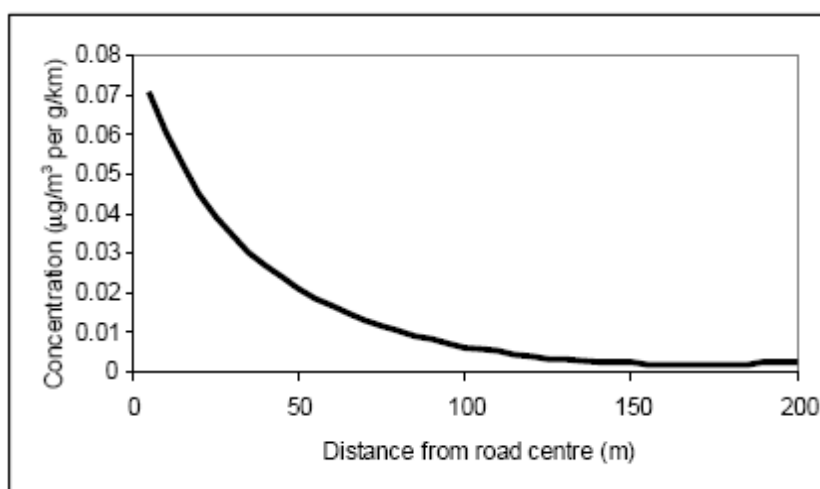


Figure 3: Traffic Contribution to Concentrations of Pollutants at Different Distances from a Road (Source: Dft)

3.4.3 Lee Valley internationally designated site lies within 200m of two major roads (A503 and A1055) that are likely to be regularly used by vehicle journeys within the Borough as a result of the increased population, and potentially other development plans. As such, it can be concluded that air quality should be included within the scope of this assessment. The location of these roads in relation to the internationally designated sites is illustrated in Appendix B, Figure 1.

Table 2: Major Roads Within 200m of Lee Valley SPA and Ramsar site

Road	Proximity to Lee Valley SPA and Ramsar site
A503	The A503 bisects the designated site. The A503 is adjacent to Low Maynard and High Maynard Reservoir (located north of the road), and 10m from Reservoir No. 4, and 70m of Reservoir No. 2 (located south of the road) for a distance of approximately 470m.
A1055	The A1055 is located west of the internationally designated site. At its closest the road is located 180m from the site.

3.4.4 Whilst Epping Forest SAC is located within 200m of major roads, due to the convoluted routes for traffic from Haringey to take to Epping Forest SAC, it is unlikely that links exist between

³¹ <http://www.dft.gov.uk/webtag/documents/expert/unit3.3.3.php#013>; accessed 13/04/12

the Haringey DMP and Epping Forest SAC via the an air quality impact pathway. Air quality in relation to Epping Forest SAC is not discussed further.

Table 3: Critical Loads of SPA and Ramsar Features and Existing Nitrogen Deposition Rates Upon Features.

3.4.5 If hi-lighted in red, the feature is already in exceedance of its Critical Load. If hi-lighted in orange, the feature is within its Critical Load limits. If hi-lighted in green, the feature is not below Critical Load limits.

Site	Site Feature	Critical Load (kg N/ha/ya) ³²	Average current levels of N deposition (kg N/ha/ya) ³³
Lee Valley SPA	Wintering bittern	15-30 (Critical load class: rich fen)	16.28 ³⁴
	Migratory gadwall	(Standing open water) No comparable habitat with established critical load estimate available.	No Critical Load has been assigned to the EUNIS classes for meso/eutrophic systems. These systems are often P limited (or N/P co-limiting), therefore decisions should be taken at a site specific level. Furthermore, consideration should also be given to other sources of N, i.e. discharges to water, diffuse agricultural pollution etc.
	Migratory shoveler		
Lee Valley Ramsar	Whorled water-milfoil	3-10 (Critical Load Class: standing open water and canals: mesotrophic standing waters)	16.28
	Waterboatman <i>Micronecta minutissima</i>	(Standing open water) No comparable habitat with established critical load estimate available.	No Critical Load has been assigned to the EUNIS classes for meso/eutrophic systems. These systems are often P limited (or N/P co-limiting), therefore decisions should be taken at a site specific level. Furthermore, consideration should also be given to other sources of N, i.e. discharges to water, diffuse agricultural pollution etc.
	Northern shoveler		
	Gadwall		

3.5 Water abstraction

3.5.1 London is generally an area of high water stress. Development within the London Borough of Haringey will increase water demand.

3.5.2 Haringey lies within Thames Water's supply area, specifically their London Resource Zone. Approximately 80% of London's water supplies come from surface water of the rivers Thames

³² www.APIS.ac.uk [accessed 13/10/15]

³³ www.APIS.ac.uk [accessed 13/10/15]

³⁴ This is an average from 5km grid squares that cover the designated site. As such, these levels do not necessarily reflect exact levels within the parts of the SPA and Ramsar sites where the bittern and whorled water-milfoil are found.

and Lee via reservoirs, and 20% from groundwater sources situated beneath the London Boroughs from the confined chalk aquifer³⁵. Water supply for Thames Water's London Resource Zone does involve some abstraction from the Lee Valley Reservoirs (including Walthamstow Reservoirs), which are also subject to an agreement to (if necessary) supply Essex and Suffolk Water with up to 91Ml/day average bulk transfer. Negotiations are currently being undertaken to reduce this transfer quantity to Essex and Suffolk Water to no less than 60 Ml/d in the period January to March and 75 Ml/d for the remainder of the year. The bulk supply is provided from the King George and William Girling Reservoirs (these reservoirs are not located within the Lee Valley internationally designated site, but are likely to be linked to the reservoirs within the designated site) in the Lee Valley, potentially supported by abstraction directly from the River Lee at defined intakes, if required.

- 3.5.3 Within the London Catchment Abstraction Management Strategy document³⁶, the Environment Agency identifies that within AP8 (the section of the River Lee between Enfield Lock to the north and the Tidal Thames to the south) '*New consumptive surface water abstractions in the Lower Lee catchment will be considered only at times of very high flows. Abstraction at very high flows will not provide a reliable source of water as they may not occur every year. Applicants may need to invest in a water storage reservoir to store water when it's available. Abstractions that are considered to be non-consumptive or small scale consumptive licences that result in an overall net benefit to the water environment may be considered beyond the stated restrictions, subject to a local impact assessment.*'
- 3.5.4 With no other schemes in place, increased residential and employment development as a result of Haringey's Alteration to Strategic Policies document could lead to a need for damaging levels of abstraction from the Lee Valley SPA/Ramsar when considered cumulatively with all other new development in the London WRZ and further north in Hertfordshire that would ordinarily entail water supply from the Lee Valley. However, Thames Water have implemented a major water supply project in London which involves abstraction and desalination of water from the tidal River Thames (the Thames Gateway Water Treatment Plant), such that damaging levels of abstraction from the River Lee to supply the London Borough of Haringey or other parts of London should be avoidable. The Revised Draft Water Resources Management Plan for the London area³⁷ determined that if no action was taken, then the London WRZ supply demand balance would be in deficit of between 55.4ML/d by 2015 and up to 291.7Ml/d by 2030. This was taking into account housing forecasts from then existing Local Plan documents at that time. Thames Water proposes to address this imbalance through a number of changes. These are: demand management, leakage reduction, a new raw water trading agreement with RWE N Power in 2015 and small ground water schemes. Ultimately it is the Environment Agency that is the competent authority that determines licences for abstraction, thus it is not the responsibility of the Council to determine if levels of water abstraction will not lead to likely significant effects. The HRA for the 2013 London Plan³⁸ deferred screening of impacts resulting from the provision of increased housing within the Plan period to 'lower tier HRAs', placing the responsibility at a lower level, such as a Borough level.
- 3.5.5 The London Borough of Haringey Council has been consulting with Thames Water regarding the issue of water supply. It is understood that there is no suggestion that the total quantum of development proposed within Haringey's combined Alterations to Strategic Policies document and the adopted Local Plan cannot be accommodated within existing provisions, but there is recognition that the provision of new mains connections could take some time to implement. The Council will work with Thames Water in updating Haringey's Infrastructure Delivery Plan. As such, it can be determined that no likely significant effects upon the Lee Valley SPA and

³⁵ Thames Water. (2015) Thames Water Final Water Resources Management Plan 2015 – 2040 http://www.thameswater.co.uk/wrmp/Section_0.pdf [Accessed 16/10/15]

³⁶ Environment Agency. (2013) London Abstraction Licencing Strategy https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/289888/LIT_2545_705985.pdf [Accessed 16/10/15]

³⁷ Ibid.

³⁸ Mayor of London (October, 2009). Habitats Regulations Assessment Screening Report. Consultation draft replacement London Plan (Spatial Development Strategy for Greater London). <https://www.london.gov.uk/sites/default/files/archives/uploads-hra-final-report-oct09.pdf> [Accessed 20/10/15]

Ramsar site will result as a consequence of Haringey's Alterations to Strategic Policies document. This is not discussed further within this document.

3.6 Water quality

- 3.6.1 Wastewater from Haringey is processed in Sewage Treatment Works (STWs). Discharges from STWs into watercourses such as Salmons Brook and the River Lee have potential to impact upon the Lee Valley SPA and Ramsar site. STWs that treat water from the London Borough of Haringey include Deephams STW and Beckton STW. These have both recently been subject to major improvement schemes by Thames Water to increase their capacities. Thames Water are undertaking a range of works across London to improve its sewage treatment network, increasing its capacity and improving the water quality within waterways such as the River Lee and the River Thames.
- 3.6.2 Deephams STW: Planning Permission has been granted for the upgrade to the Deephams STW within the London Borough of Enfield, for completion in 2018. The planned upgrade will help increase capacity and improve water quality³⁹ within Salmons Brook (where water is discharged into) and the River Lee (Salmons Brook flows into the River Lee). These improvement works will enable Thames Water to treat greater quantities of wastewater to a higher standard than is currently the case.
- 3.6.3 Beckton STW: This is being expanded by '60 per cent to enable it to deal with the increased volumes of sewage and allow for a ten per cent population increase until 2021 so it can:
- Fully treat increased flows during heavy rainfall, which currently discharge into the River Thames when the site becomes overloaded to prevent streets and homes from flooding.
 - Treat additional storm flows from the Lee Tunnel, a new four-mile sewer which will capture storm sewage that currently overflows into the River Lee when the sewerage system gets overwhelmed during heavy rainfall.
 - Accommodate additional flows from the proposed Thames Tideway Tunnel.⁴⁰
- 3.6.4 Beckton STW discharges in the tidal stretches of the River Thames, located downstream from the River Lee SPA and Ramsar site. As such, there are no impact discharge pathways present to the River Lee SPA and Ramsar site.⁴¹ A pathway does exist, in the sense that this project will reduce sewerage outflows into the River Lee, thus improving water quality within the River Lee. This is a positive impact pathway that will not result in detrimental likely significant effects upon the Lee Valley SPA and Ramsar site.
- 3.6.5 Lee Tunnel: The Lee Tunnel is currently under construction. It will tackle discharges from London's largest Combined Sewerage Overflow (CSO) at Abbey Mills Pumping Station in Stratford, which accounts for 40 per cent of the total discharge. It will help prevent more than 16 million tonnes of sewage mixed with rainwater overflowing into the River Lee each year, by

³⁹ Thames Water. (2015). Planning Permission Granted.

<http://www.thameswater.co.uk/deephams/16659.htm> [Accessed 19/10/15]

Thames Water. (2014). A630 Deepham Sewage Works Upgrade. Project Overview report. Phase 2 Public Consultation Version.

⁴⁰ Thames Water. (2015). Sewage Works upgrades: Beckton Sewage treatment Works

<http://www.thameswater.co.uk/about-us/10098.htm> [Accessed 19/10/15]

⁴¹ According to the Environment Agency's Stage 3 Appropriate Assessment for the Thames Estuary and Marshes SPA/Ramsar site, that lies downstream from Beckton, current consented discharges do not have a significant adverse impact upon the Thames Estuary & Marshes SPA, with the exception of slightly elevated levels of elemental copper (Cu) derived from pipes at Reading and Slough. Moreover, development within Haringey will take place at a time when a range of water quality improvements to the Thames Tideway as a whole will be implemented through various Thames Water/Environment Agency schemes including the interception and storage of wastewater from a large number of Combined Sewer Overflows (CSO's) in London and expansions to the treatment capacity of Thames Water's Sewage treatment Works, including at Beckton which will enable them to treat greater quantities of wastewater to a higher standard than is currently the case. As such, the overall water quality of the River Thames should actually improve over the delivery period.

capturing it and transferring it to Beckton Sewage Treatment Works⁴². This is expected to be operational by the end of 2015. A pathway does exist, in the sense that this project will reduce sewerage outflows into the River Lee, thus improving water quality within the River Lee. This is a positive impact pathway that will not result in detrimental likely significant effects upon the Lee Valley SPA and Ramsar site.

- 3.6.6 Thames Tideway Tunnel: It is planned that construction works will commence in 2016. The tunnel will be a sewer the width of three London buses, which will run up to 20 miles from west to east London. It is designed to reduce the amount of raw sewage overflow into the Thames (currently this happens up to 60 times a year). *'The Thames Tideway Tunnel will deal with this problem for at least the next 100 years. It will connect up to the 34 most polluting sewer overflows, as identified by the Environment Agency, to capture sewage which would otherwise spill into the river Thames, before transferring it to our Beckton sewage works to be treated.'*⁴³ Ultimately, this project will improve water quality of the River Thames, downstream of the Lee Valley SPA and Ramsar site. This project does not contain impact pathways that link with the Lee Valley SPA and Ramsar site.
- 3.6.7 In conclusion, the Deephams STW, Beckton STW and Lee Tunnel will all result in improvements to water quality downstream of these STWs within the River Lee and thus the Lee Valley SPA and Ramsar site. These works have been designed to cope with future increases in sewage resulting from future increases in sewage output.
- 3.6.8 The provision for the increases in housing supply to meet the strategic housing delivery requirement of 19,802 net new dwellings through to the end of the Plan period (2026) and an increase in Local Employment Areas outlined within Haringey's Alterations to Strategic policies document, have potential to increase the sewage output from within the London Borough of Haringey. The projects noted above will improve the capacity of the STWs and improve the quality of the water discharged. However, no data is available to determine exact capacities.
- 3.6.9 As noted in the previous section, the HRA for the 2013 London Plan⁴⁴ deferred screening of impacts from increased sewage resulting from the provision of increased housing within the Plan period to 'lower tier HRAs', placing the responsibility at a lower level, such as a Borough level. The London Borough of Haringey Council has been consulting with Thames Water regarding the issue of dealing with waste water. It is understood that there is no suggestion that the total quantum of development proposed within Haringey's combined Alterations to Strategic Policies document and the adopted Local Plan cannot be accommodated within existing provisions, but there is recognition that the provision of new mains connections could take some time to implement. The Council will work with Thames Water in updating Haringey's Infrastructure Delivery Plan. As such, it can be determined that no likely significant effects upon the Lee Valley SPA and Ramsar site will result as a consequence of Haringey's Alterations to Strategic Policies document. This is not discussed further within this document.

Location specific site runoff

- 3.6.10 The Walthamstow Reservoirs portion of the Lee Valley SPA and Ramsar site lies in close proximity to the A503, and therefore there is potential for point source pollution events to arise from accidental spillages from increases in the number of vehicles on this route resulting from Haringey's Alterations to Strategic policies document. In reality the implementation by transport operators of measures to avoid point source pollution is not the responsibility of the Council, and it is also likely that the levels of development promoted within the Plan will lead to a minimal increase in risk of such events occurring, given that the likelihood of a catastrophic spillage event may already be considered low. The River Lee and River Lee Navigation separate the reservoirs from most development identified within Haringey's Alterations to Strategic Policies document such as the Local Employment Areas of Hale Wharf, Central Leaside, and South Tottenham and housing estates identified for improvement works (Northumberland Park, and Leabank View / Lemsford Close), and do not in themselves form a part of the SPA or Ramsar within Haringey, whilst it is noted that these will be

⁴² Thames Water. (2015). Lee Tunnel. <http://www.thameswater.co.uk/about-us/10113.htm> [Accessed 19/10/15]

⁴³ Thames Water. (2015). Thames Tideway Tunnel. <http://www.thameswater.co.uk/about-us/10115.htm> [Accessed 19/10/15]

connected to the reservoirs of the SPA and Ramsar site. Standard construction methodologies and standard operational phase requirements include provisions to ensure no runoff leaves the site.

- 3.6.11 In conclusion, no internationally designated sites are susceptible to reduced water quality through STW discharges or direct run-off arising from development within Haringey's Alterations to Strategic Policies document, and therefore such considerations are not considered further within this HRA.

⁴⁴ Ibid

4 Screening Assessment

4.1.1 As a first step, an initial screening exercise was undertaken in order to identify any changes to the Policies that required more detailed screening and discussion. This exercise is set out in Appendix C Table 1. The initial screening of Haringey's Alterations to Strategic policies document identified 3 policies that contain a potential linking pathway that could result in a likely significant effect upon Lee Valley SPA and Ramsar site and/ or Epping Forest SAC. The following amended policies within Haringey's Alterations to Strategic Policies document have potential to result in likely significant effects upon the internationally designated sites and are therefore subject to a more detailed discussion of likely significant effects in this chapter:

- Policy SP1: Managing Growth
- Policy SP2: Housing
- Policy SP8: Employment

4.1.2 These policies provide for an increase in net new residential development within Haringey and new Local Employment Areas are identified.

4.2 Disturbance (from Recreational and Construction Activities)

4.2.1 Policies SP1 (Managing Growth) and SP2 (Housing) provide for meeting the strategic housing requirement of 19,802 net new dwellings to the end of the Plan period (2026). This is an increase of 11,602 net new dwellings from the 8,200 outlined within Haringey's adopted Strategic Policies document. The HRA for Haringey's adopted Strategic Policies document⁴⁵ determined no likely significant effects upon either Lee Valley SPA and Ramsar site and Epping Forest SAC resulting from an increase in recreational pressure resulting from the 8,200 net new dwellings provided for within the policies. However, in light of the not insignificant increase in proposed net new dwellings within the Borough, this will need to be re-assessed.

Epping Forest SAC

Recreational Activities

4.2.2 At its closest, Epping Forest SAC is located 3km east of the London Borough of Haringey. Epping Forest SAC receives millions of visits per year. A programme of detailed formal visitor surveys has been undertaken in recent years and these have considerably refined our understanding of visitor catchments for Epping Forest. One visitor survey report⁴⁶ identified that those living within 2km of the edge of the Forest comprise at least 95% of all visitors. As such, nowhere within the London Borough of Haringey lies within the core recreational catchment for Epping Forest SAC. No likely significant effects upon Epping Forest SAC will arise as a result of increases in recreational pressure from Haringey's Alteration to Strategic Policies document. This pathway is therefore not considered further with regard to this internationally designated site.

4.2.3 There are no other potential impact pathways present between Epping Forest SAC and Haringey's Alteration to Strategic Policies document. This site can be screened out from further assessment.

In-combination with other projects and plans

4.2.4 As identified above, 5% of visitors to Epping Forest SAC come from beyond 2km of the designated site, the London Borough of Haringey is located 3km from the SAC. Epping Forest SAC is located within the Boroughs of Waltham Forest and Epping Forest, in part lies

⁴⁵ Ibid

⁴⁶ Alison Millward Associates. 2011. Epping Forest Visitor Survey 2011: Results Summary

adjacent to Redbridge, and within 300m of the London Borough of Enfield. Whilst there are no details currently available, it is feasible to conclude that the increase in recreational pressure resulting from the increase in dwellings provided within Haringey's Alterations to Strategic Strategies document, alone or in combination with other projects or plans, (including the London Plan) would not result in an increase in recreational pressure upon Epping Forest SAC that would result in likely significant effects. This is because recreational activities within Epping Forest are managed by the City of London. As such, there no likely significant effects will result alone or in combination with other projects or plans.

Lee Valley SPA and Ramsar site

Recreational Activities

- 4.2.5 At its closest, Lee Valley SPA and Ramsar site is located adjacent to the London Borough of Haringey. The citations for these sites⁴⁷, identify that they are vulnerable to increases in recreational pressure. The Strategic Policies document identifies that the majority of new housing will be provided for within Growth Areas. One of these is Tottenham Hale, located adjacent to the SPA and Ramsar site. Currently, access to the Walthamstow reservoirs is by key-holder only, and access is controlled by a permit basis, such that the exposure of the reservoirs to human activity is very limited, unlike the rest of the Regional Park (much of which lies outside of the SPA/Ramsar). Policy SP1 (Managing Growth) states that '*The Council will expect development in the Growth Areas to... Be in accordance with the full range of the Council's planning policies and objectives*', thus ensuring for the protection of Internationally designated sites and biodiversity resources within the borough in accordance with SP13 (Open Space and Biodiversity). As such this impact pathway upon Lee Valley SPA and Ramsar site can be screened out.
- 4.2.6 It should be noted that there is an inherent conflict between Government policy to increase public access to the natural environment (as embodied in the Countryside and Rights of Way Act) and existing policy SP13 (Open Spaces and Biodiversity), and the requirements of internationally designated site management which often require visitor numbers to be controlled. Policy SP13 states 'Working with Lee Valley Regional Park Authority to protect and enhance access to the park, its waterside open spaces and habitats, recreational and sporting facilities.' Further details of the project at Walthamstow Wetlands (reservoir) are detailed as follows:
- 4.2.7 *'The Heritage Lottery Fund (HLF) approved the Walthamstow wetlands project in the summer of 2014 and confirmation of the grant was received in March 2014. The project, working with The London Borough of Waltham Forest and the London Wildlife Trust, will see the refurbishment of the Marine Engine House to create a café, exhibition space and an educational classroom, alongside a network of paths and two new access points to allow people to enjoy the site. Habitat creation and enhancement are also planned, to improve and enhance the biodiversity on site. Construction on site has started, including new native species planting along the Victorian reservoir banks and the banks of the River Lee. The spinal footpath running from the north to the south of the site has also been completed. The site is due to open formally to the public in 2017.'*⁴⁸
- 4.2.8 However, increased access to a site such as Walthamstow Reservoirs does not automatically lead to increased levels of disturbance, particularly if access is well designed and managed. The Walthamstow Wetlands project that provides this new access to the SPA and Ramsar site is supported by Natural England. The project will provide pathways with four access points and a viewing tower and visitor centre. The access pathways will consist of a single primary pathway running from north to south through the centre of the site. Secondary

⁴⁷ JNCC (2006). Lee Valley SPA Citation. <http://jncc.defra.gov.uk/pdf/SPA/UK9012111.pdf> [Accessed 18/09/15]

JNCC (2008). Information Sheet on Ramsar Wetlands: Lee Valley. <http://jncc.defra.gov.uk/pdf/RIS/UK11034.pdf> [Accessed 18/09/15]

⁴⁸ Thames Water. Access recreation and heritage (2015). <http://www.thameswater.co.uk/cr/Responsibleoperations/Accessrecreationheritage/index.html> [Accessed 22/10/15]

pathways will have the ability to be closed as required seasonally to account for sensitive features of the SPA and Ramsar site, and following monitoring. In addition to this, habitats within the wetland site will be enhanced.

- 4.2.9 As this project has the support of Natural England, it is assumed that Ultimately, the legal requirements of the Conservation (Natural Habitats &c) Regulations should override policy where such a conflict exists unless the policy is considered to represent an Imperative Reason of Overriding Interest as defined in the Regulations. As such, this impact pathway can be screened out.

Construction Activities

- 4.2.10 Disturbances from construction activities such as noise and visual disturbances have potential to result in likely significant effects upon internationally designated sites such as the Lee Valley SPA and Ramsar site features (wintering bittern, and migratory gadwall and shoveler). Alterations to policy SP2 (Housing) include for the provision of '*strategic improvements to, or renewal of, Haringey's housing estates*', this includes Northumberland Park (located approximately 440m north west of Lee Valley SPA and Ramsar site), and Leabank View / Lemsford Close area (located within 30m of Lee Valley SPA and Ramsar site). In addition to this, alterations to policy SP8 (Employment) identify locations for Local Employment Areas. These include Hale Wharf N17 (located within 15m from Lee Valley SPA and Ramsar site), Central Leaside (located 350m from the designated site), and South Tottenham (located 28m from the designated site).
- 4.2.11 Lee Valley internationally designated site is located within an urban area so will already be subject to existing levels of visual disturbance and noise and vibrations. However, impacts from construction and operational activities in close proximity to the designated site still have potential to impact upon the site's features. SP13 (Open Spaces and Biodiversity) includes the following text: '*All development shall protect and improve sites of biodiversity and nature conservation*'. Whilst this does not refer directly to internationally designated sites, it does provide for sufficient protection for biodiversity and nature conservation sites such as Lee Valley SPA and Ramsar site.
- 4.2.12 Recommendation:

It is recommended that text is included within SP13 (Open Spaces and Biodiversity) to include reference to construction activities within close proximity of the SPA and Ramsar site and specifically that each application will need to consider the requirement for sensitive construction management such as timings of works (outside of wintering bird season which is November to February), and any need for acoustic and visual screening as required if works are to be undertaken between November and February. In addition, the sites in close proximity to the SPA and Ramsar site should be designed so as not to cause visual or acoustic disturbance to the designated site during the development's operational phase.

In-combination with other projects and plans

- 4.2.14 As detailed above, access to the Walthamstow reservoirs is by key-holder only, and access is controlled by a permit basis, so the exposure of the reservoirs to human activity is very limited, and is managed. As a result, it can be concluded that recreational disturbance will not result in a likely significant effect alone or in-combination with other projects or plans.

4.3 Urbanisation

- 4.3.1 This impact is closely related to recreational pressure, in that urbanisation and recreational pressure both result from increased populations (including industrial and employment sites) within close proximity to sensitive sites. As such, Epping Forest SAC (located 3km from the London Borough of Haringey) is not linked to this impact pathway resulting from Haringey's Alterations to Strategic Policies document.
- 4.3.2 Given that the Lee Valley SPA and Ramsar sites lie immediately adjacent to the London Borough of Haringey boundary, it is theoretically vulnerable, from a geographic perspective, to the effects of urbanisation from development within Haringey. Lee Valley SPA and Ramsar

site is ecologically vulnerable, (via direct habitat degradation). However, it is unlikely that the SPA and Ramsar site's designated features would be directly vulnerable to urbanisation impacts, as they are species that favour aquatic environments. In addition, the features are unlikely to suffer from significant cat predation or fly tipping as the River Lee (River Lea) and River Lee Navigation flows along the eastern extent of the London Borough of Haringey, between the Borough and Lee Valley SPA and Ramsar acting as a barrier to the dispersal of cats from Haringey. In addition to this, Waltham Wetlands project will provide for greater public access to the site via a small network of routes. However, this will be restricted by walkways and vegetation planting. The project will not provide for increased vehicular access by the public within the designated site, thus reducing the likelihood of activities such as fly-tipping within the designated site. As such, this impact pathway can be screened out.

In-combination with other projects and plans

- 4.3.3 As noted above, the Waltham reservoirs are separated from the London Borough of Haringey by the presence of the River Lee, and River Lee Navigation. The eastern boundary of the reservoirs is separated from the London Borough of Walthamstow by the Lee Flood Relief Channel, which also prevents urbanisation impacting upon the Lee Valley designated sites. As such, likely significant effects both alone and in-combination with other projects and plans can be screened out.

4.4 Atmospheric pollution

- 4.4.1 As noted in Section 3.4: Table 3, parts of the Lee Valley SPA and Ramsar site are sensitive to deterioration in air quality, as the supporting habitat consists of features that can be degraded by excessive deposition of pollutants. All forms of development identified within Haringey's Amended Strategic Policies document have potential to lead to increases in vehicle emissions within 200m of Lee Valley SPA and Ramsar site, thus reducing air quality. Haringey's Amendment to Strategic Policies document, provides for an additional 11,602 net new dwellings to meet the strategic housing requirement (beyond the 8,200 detailed in Haringey's adopted Strategic Policies) (a total of 19,802 net new dwellings during the Plan period to 2026) (SP1 and SP2) with approximately 13,500 of the new dwellings located with Growth Areas (North Tottenham, Wood Green and Tottenham Hale) (provided within SP1- Managing Growth), and the inclusion of thirteen Local Employment Areas (provided within SP8- Employment). All these additions have potential to lead to increases in traffic along routes within 200m of the SPA and Ramsar site (A503 and A1055) and thus increases in air pollution.
- 4.4.2 Haringey's adopted Strategic Policies document includes policy text that aims to reduce air pollution, thus improving air quality. Policy SP7 (Transport), includes improvements to underground, overground and bus transportation within the Borough. It also provides policy text to promote travel demand management schemes to *'tackle climate change, improve local place shaping and public realm, and environmental and transport quality and safety'* such as *'minimising congestion and addressing the environmental impacts of travel; promoting public transport, walking and cycling (including minimum cycle parking standards); promoting road safety and pedestrian movement particularly in town centres and close to local services; promoting car sharing and establishing car clubs; seeking to locate major trip generating developments in locations with good access to public transport and so better integrate transport and land use planning; adopting maximum car parking standards and car free housing wherever feasible; seeking to mitigate the impact of road based freight and promote alternatives; supporting measures to influence behavioural change such as promoting low carbon vehicles; and requiring the submission of transport assessments and travel plans for large scale proposals in line with TfL guidance.'* This policy text, goes some- way to improve air quality. In addition to this, supporting text within Haringey's adopted Strategic Policies (para 4.4.8) notes that Haringey is an Air Quality Management Area (AQMA) for pollutants such as NO₂. The Council's Air Quality Action Plan outlines measures to aid in improving air quality, this is supported by the above policy text detailing the requirement for developers to submit transport assessments and travel plans.
- 4.4.3 Changes in air quality will occur wherever 'affected roads' are identified and increases in airborne pollutants from car exhausts and construction activities are possible. Effects of these

increases are limited to areas within 200m of the road (DMRB, Volume 11⁴⁹). The Air Pollution Information System (APIS) website provides details of critical loads of atmospheric pollution which if exceeded could lead to habitat damage. At this stage it is worth noting that both the breeding bittern (SPA feature) and the whorled water-milfoil (Ramsar feature) are not present within the Walthamstow reservoirs parcel of the Lee Valley internationally designated sites (as identified within SSSI citations). These two species are present within the northern parcel of the Lee Valley internationally designated sites, associated with the Turnford and Cheshunt Pits SSSI located approximately 9.5km north (in a straight line) from the London Borough of Haringey. As such, due to the distance involved, the air quality impact pathway to these vulnerable features cannot be linked to Haringey's Alterations to Strategic policies document and no likely significant effects will arise.

- 4.4.4 No critical loads are provided for the habitat 'open standing water' (water boatman, shoveler and gadwall features rely upon this habitat) to allow for an assessment. The APIS website states that '*No Critical Load has been assigned to the EUNIS classes for meso/eutrophic systems. These systems are often phosphorus limited; therefore decisions should be taken at a site specific level.*' In this case, no likely significant effects are anticipated since the Walthamstow reservoirs associated with the Lee Valley SPA and Ramsar site, like most freshwater environments, are essentially phosphate limited, rather than nitrogen limited, meaning that it is phosphate availability that controls the growth of macrophytes and algae. The main source of phosphates is from wastewater, agriculture and mining. As such, these features (the water boatman, gadwall and shoveler) are not sensitive to pathways linked to air quality and there is no potential for likely significant effects to arise as a result of Haringey's Alterations to Strategic Policies document.
- 4.4.5 Further to this, transport modelling has been undertaken by the Council for the preparation of the Tottenham Area Action Plan (AAP). It is acknowledged that the numbers in the table are only AM peak flows so it is not possible to calculate AADT. However, the figures provided take into account all expected growth (not just that provided within the Tottenham AAP) and does provide a broad indication of whether flows are likely to go up or down as a result of the AAP and if so, to what degree. Tottenham is located adjacent to the SPA and Ramsar site. Results of the Transport modelling are illustrated in Table 4.

Table 4: Change in AM peak hour [08.00 – 09.00]

Road section	Do minimum	Do something	Change	% change
Ferry Lane (A503)	2100	1700	-400	-19
Watermead Way (A1055)	2280	1920	-360	-16
High Road, south Tottenham (A10)	2160	2230	+70	+3
Tottenham High Road	3130	2970	-160	-5

- 4.4.6 Table 4 illustrates that, taking into account all expected growth within Haringey and the surrounding authorities, AM peak flows will decrease by 19% on the A503 (the road that passes through the SPA and Ramsar site) over the plan period. Similarly, a 16% decrease is expected on the A1055 (the road located within 200m of the SPA and Ramsar site). The traffic modelling indicates that rather than resulting in a net increase in traffic flows along these sensitive roads (A503 and A1055); and hence reduced air quality, development over the plan period will in fact result in a decrease in transport flows along these sensitive routes in close proximity to the Lee Valley SPA and Ramsar site, and has potential to improve air quality along these sensitive transport routes.

In-combination with other projects and plans

- 4.4.7 As noted above, features that have potential to be sensitive to increases in air pollution are not present within the Waltham Reservoirs portion of the Lee Valley SPA and Ramsar site. As

⁴⁹ Design Manual for Roads and Bridges Volume 11 Section 3 part 1 air quality – procedure for assessing impacts.

such, there are no impact pathways present that will act alone or in combination, resulting in likely significant effects upon the Lee Valley SPA and Ramsar site. As such, this impact pathway can be screened out.

5 Conclusion

- 5.1.1 Haringey's Alterations to Strategic Policies document provides for meeting the strategic housing requirement of 19,802 new dwellings within the lifetime of the Plan (to 2026). The potential impact pathway of recreational pressure upon Epping Forest was screened out, both alone and in-combination with other projects or plans. Following assessment of Lee Valley SPA and Ramsar site, the potential impact pathway of disturbance (from recreational pressure), urbanisation, water abstraction, water quality and air quality were also screened out, both alone and in-combination with other projects or plans. The impact pathway of disturbance to avian features from construction activities is a residual impact pathway as development is proposed within close proximity to the SPA and Ramsar site. The following recommendation is made:
- 5.1.2 'It is recommended that text is included within SP13 (Open Spaces and Biodiversity) to include reference to construction activities within close proximity of the SPA and Ramsar site and the need for sensitive construction management such as timings of works (outside of wintering bird season which is November to February), and the need for acoustic and visual screening as required if works are to be undertaken between November and February. In addition, the sites in close proximity to the SPA and Ramsar site should be designed so as not to cause visual or acoustic disturbance to the designated site during the development's operational phase.'
- 5.1.3 Provided Haringey's Alterations to Strategic Policies document provides clear measures to address potential disturbance to bird features resulting from construction activities, then Haringey's Alterations to Strategic Policies document can be screened from further assessment and no likely significant effects upon internationally designated sites will result, either alone or in combination with other projects or plans.

Appendix A. Background of Internationally Designated Sites

A.1 Lee Valley SPA and Ramsar site

A.1.1 Introduction

The Lee Valley SPA is located to the north-east of London, where a series of wetlands and reservoirs occupy about 20 km of the valley. The site comprises embanked water supply reservoirs, sewage treatment lagoons and former gravel pits that support a range of man-made, semi-natural and valley bottom habitats. These wetland habitats support wintering wildfowl, in particular Gadwall *Anas strepera* and Shoveler *Anas clypeata*, which occur in numbers of European importance. Areas of reedbed within the site also support significant numbers of wintering Bittern *Botaurus stellaris*. Lee Valley SPA is split into two sections, a northern and a southern. The southern section is located adjacent to the eastern boundary of the London Borough of Haringey. It contains Walthamstow Reservoir SSSI and Walthamstow Marshes SSSI. The northern section is located approximately 9.5km north of the Borough which contains Turnford and Chestnut Pits SSSI.

A.1.2 Qualifying Features

The site qualifies as an **SPA** for the following Annex I species:

- Wintering bittern *Botaurus stellaris*. 6 individuals representing at least 6.0% of the wintering population in Great Britain (5 year peak mean, 1992/3-1995/6)
- Migratory gadwall *Anas strepera*. 515 individuals representing at least 1.7% of the wintering Northwestern Europe population (5 year peak mean 1991/2 - 1995/6)
- Migratory shoveler *Anas clypeata*. 748 individuals representing at least 1.9% of the wintering Northwestern/Central Europe population (5 year peak mean 1991/2 - 1995/6)

The site qualifies under the following **Ramsar** criterion

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).

Criterion 6: Species/populations occurring at levels of international importance.

Species with peak counts in spring/autumn:

- Northern shoveler, *Anas clypeata*, (NW & C Europe) 287 individuals, representing an average of 1.9% of the GB population (5 year peak mean 1998/9- 2002/3)

Species with peak counts in winter:

- Gadwall, *Anas strepera strepera*, (NW Europe) 445 individuals, representing an average of 2.6% of the GB population (5 year peak mean 1998/9-2002/3)

A.1.3 Conservation Objectives of the SPA

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring; the extent and distribution of the habitats of the qualifying features.

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

A.1.4 Environmental Vulnerabilities

- Water quality: eutrophication from waste water. This is being addressed by AMP3 funding under the urban Waste Water Treatment Directive
- Water quantity: over extraction of surface water for public consumption, notably during drought periods. This is managed via Environment Agency Review of Consents.
- Recreational pressure: this is managed by zoning of waterbodies within the Lee Valley Regional Park.

A.2 Epping Forest SAC

A.2.1 Introduction

Epping Forest is one of only a few remaining large-scale examples of ancient wood-pasture in lowland Britain and has retained habitats of high nature conservation value including ancient semi-natural woodland, old grassland plains and scattered wetland. The semi-natural woodland is particularly extensive, forming one of the largest coherent blocks in the country. Most is characterised by groves of over-mature pollards and these exemplify all three of the main wood-pasture types found in Britain: beech-oak, hornbeam-oak and mixed oak. The Forest plains are also a major feature and contain a variety of unimproved acid grasslands which have become uncommon elsewhere in Essex and the London area. In addition, Epping Forest supports a nationally outstanding assemblage of invertebrates, a major amphibian interest and an exceptional breeding bird community.

A.2.2 Qualifying Features

The site is designated as an **SAC** for the following features:

Annex I habitats:

- Atlantic *acidophilous* beech forests with *Ilex* and sometimes also *Taxus* in the shrublayer (*Quercion robur-petraeae* or *Ilici-Fagenion*); Beech forests on acid soils
- Northern Atlantic wet heaths with *Erica tetralix*
- European dry heaths

Annex II species:

- Stag beetle *Lucanus cervus*

A.2.3 Conservation Objectives of the SAC

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.

A.2.4 Environmental Vulnerabilities

- Habitat management: After neglect of the pollard cycle for over 100 years, re-pollarding of ancient beech trees was started in the early 1990s, and creation of maiden pollards was begun in 1995.
- Atmospheric pollution
- Lack of deadwood

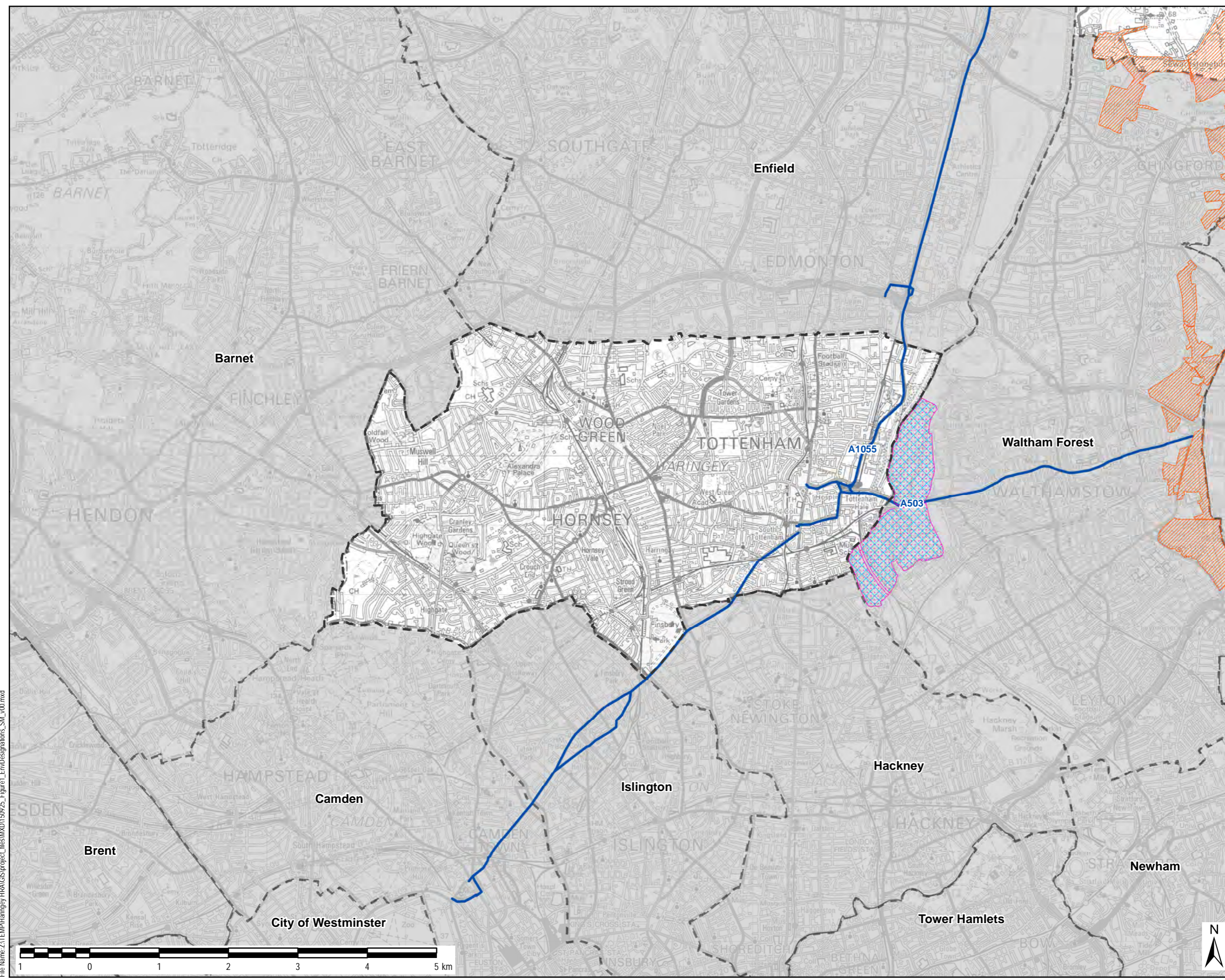
Appendix B. Figures

Figure 1: Locations of Internationally Designated Sites

THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE THAT IT WAS ISSUED FOR AND IS SUBJECT TO AMENDMENT

LEGEND

-  Haringey Borough Boundary
-  Lee Valley Ramsar Site
-  Lee Valley Special Protection Area
-  Epping Forest Special Area of Conservation
-  A Road
-  London Borough Boundary



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Purpose of Issue **DRAFT**

Client **HARINGEY COUNCIL** 

Project Title **HARINGEY HRA**

Drawing Title **HARINGEY COUNCIL ENVIRONMENTAL DESIGNATIONS**

Drawn S. Masnikosa	Checked J. Waters	Approved I. Hoffman	Date 13/10/2015
AECOM Internal Project No. 47076094		Scale @ A3 1:50,000	

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Appendix C. Screening Table of Haringey’s Alteration to Strategic Policies Document

Policies identified in green have been screened from any further assessment due to a lack of realistic impact pathways. Please note that only amendments to policies (rather than supporting text) have been assessed below.

Policies identified in orange have been screened in for further assessment as there is potential for impact pathways to affect internationally designated sites, resulting in likely significant effects.

Regulation 18 amendments: (Text proposed to be inserted in bold black underlined), (~~Text proposed to be removed in red-strikethrough~~)

Regulation 19 further amendments: (New proposed text inserted in bold grey underlined), (Regulation 18 text now proposed to be deleted ~~bold black strikethrough underlined~~), (~~Text proposed to be removed in red-double-strikethrough~~)

Table 1: Screening of Haringey’s Alteration to Strategic Policies Document

Alteration Ref	Section	Policy/Para	Proposed change	HRA implications
Alt30	3.1	Policy SP1: Managing Growth	<p><i>Amend Policy SP1 to read as follows:</i></p> <p>The Council will focus Haringey’s growth in the most suitable locations, and manage it to make sure that the Council delivers the opportunities and benefits and achieve strong, healthy and sustainable communities for the whole of the borough. The Council will maximise the supply of additional housing to meet and exceed <u>its strategic housing requirement of 19,802 homes over the plan period 8,200 homes</u> from 2011-2021 <u>2026</u> (820 per annum). The Council will promote development in the following Growth Areas:</p> <ul style="list-style-type: none"> Haringey Heartlands; and <u>Wood Green Metropolitan Town Centre;</u> Tottenham Hale; and <u>North Tottenham (which includes Northumberland Park, the redevelopment of Tottenham Hotspur Football Stadium, and High Road West).</u> <p>The Council will expect development in the Growth Areas to:</p> <ul style="list-style-type: none"> Provide approximately <u>13,500</u> 13,000 <u>5,000</u> new homes and the majority of new business floorspace up to 2026; Maximise site opportunities; Provide appropriate links to, and benefits for, surrounding areas and communities; Provide the necessary infrastructure; and 	<p>HRA implications</p> <p>The main changes to this policy reflect the new strategic housing target of 1,502 homes per annum for the Borough in the London Plan for the period 2015 – 2025. This includes an increase in housing provision from 8,200 new homes to the end of the Plan period to 19,802 new homes. In addition the end of the Plan Period has changed from 2021 to 2026. An additional main modification is to the number of new homes provided within Growth Areas, from 5000 to 13,500 up to 2026.</p> <p>Impact pathways present include:</p> <ul style="list-style-type: none"> Urbanisation; Disturbance (from recreational and construction activities); Air quality; Water abstraction; and Water quality.

			<ul style="list-style-type: none"> • Be in accordance with the full range of the Council's planning policies and objectives. <p>The Council will promote development in the following Areas of Change:</p> <ul style="list-style-type: none"> • Wood Green Metropolitan Town Centre; • Northumberland Park (which includes the redevelopment of Tottenham Hotspur Football Stadium); • Tottenham High Road Corridor; and • Seven Sisters Corridor. <p>Parts of the borough outside of the Growth Areas and Areas of Change will experience some development and change <u>in contributing towards meeting local development needs</u>. The Council will ensure that development in these Areas of Limited Change will respect the character of its surroundings and provide environmental improvements and services.</p>		
Alt47	3.2	Policy Housing	SP2: <i>Amend the first paragraph of Policy SP2 to read as follows:</i>	<p>The Council will aim to provide homes to meet Haringey's housing needs and to make the full use of Haringey's capacity for housing by maximising the supply of additional housing to meet and exceed the target of 8,200 homes from 2011-21 (820 units per annum) <u>19,802 homes from 2011-2026 (820 units from 2011-2014 and 1,502 units from 2015-2026)</u>.</p>	<p>HRA implications</p> <p>This modification repeats the changes in SP1. It is a factual update based on the latest London Plan strategic housing requirement target figure for the Borough increasing the number of net new dwellings to 19,802 to 2026.</p> <p>Impact pathways present include:</p> <ul style="list-style-type: none"> • Urbanisation; • Disturbance (from recreational and construction activities); • Air quality; • Water abstraction; and • Water quality.
Alt48	3.2	Policy Housing	SP2: <i>Amend Policy SP2 (2) to read:</i>	<p>Complies with <u>is designed having regard to</u> the housing design standards and space standards set out in the Council's Housing SPD 2009 and adopts the GLA housing space and child play space standards 2009 as Haringey's own standards. <u>the Mayor's Housing SPG (2012) and the London Plan and the play space standards set out in the Mayor's Play and Informal Recreation SPG 2012;</u></p>	<p>No HRA implications.</p> <p>This modification is related to housing design. There are no impact pathways present.</p>
Alt49	3.2	Policy Housing	SP2: <i>Amend Policy SP2 (5) to read:</i>	<p>Subject to viability, sites capable of delivering 10 units of more will be required to meet a borough wide affordable housing target of 50 <u>40</u>%, based</p>	<p>No HRA implications.</p> <p>This modification is related to the amount of affordable housing provided. There are no</p>

			<p>on habitable rooms¹;</p> <p><i>Insert the following footnote:</i></p> <p><u>¹ This equate to approximately 7,920 affordable dwellings over the plan period to 2026.</u></p>	impact pathways present.
Alt50	3.2	Policy Housing	SP2: <p><i>Amend Policy SP2 (6) to read:</i></p> <p>Delivering an affordable housing tenure split of 70% 60% affordable rent (including social rent) and 30% 40% intermediate housing;</p>	<p>No HRA implications.</p> <p>This modification is related to the tenure of affordable housing. There are no impact pathways present.</p>
Alt52	3.2	Policy Housing	SP2: <p><i>Amend Policy SP2 (8) to read:</i></p> <p>The preferred affordable housing mix, in terms of unit size and type of dwellings on individual schemes will be determined through negotiation, scheme viability assessments and driven by up-to-date assessments of local housing needs, as set out in the Haringey Housing Strategy-SPD.</p>	<p>No HRA implications.</p> <p>This demonstrates a factual change in the name of a document. There are no impact pathways present.</p>
Alt53	3.2	Policy Housing	SP2: <p><i>Insert the following additional policy following Policy SP2 (10):</i></p> <p><u>The regeneration of Haringey's Housing estates renewal and improvement</u></p> <p><u>The Council will bring forward a programme to undertake regeneration strategic improvements to, or renewal of, Haringey's housing estates, with priority being accorded to those located within wider regeneration proposals and/or identified as being most in need. An initially list is set out below:</u></p> <ul style="list-style-type: none"> • Northumberland Park • Love Lane • Taymar and Reynardson • Holston Court / Culvert Road • Turner Avenue • Leabank View / Lemsford Close • Park Grove and Durnsford Road • Tunnel Gardens, including Blake Road • Noel Park • Broad Water Farm 	<p>Potential HRA implications.</p> <p>It is noted that as an example, the Northumberland Park area is located in close proximity to the Lee Valley internationally designed site.</p> <p>It is assumed that any increase in net number of dwellings will be included within the 19,802 advised above.</p> <p>Northumberland Park is located approximately 440m north west of Lee Valley SPA and Ramsar site, and Leabank View / Lemsford Close are located within 30m of Lee Valley SPA and Ramsar site</p> <p>Impact pathways potentially present are:</p> <ul style="list-style-type: none"> • Disturbance (from construction activities). • Water quality from construction and operational phase of development.
Alt67	4.3	Policy Waste and Recycling	SP6: <p><i>Amend the 7th bullet point of the Policy to read as follows:</i></p> <ul style="list-style-type: none"> • Continue working with its partners in the North London Waste Authority to adopt the North London Waste Plan (NLWP) which has identified locations suitable for waste management facilities to meet the London 	<p>No HRA implications.</p> <p>This is a factual update to reflect the new apportionment targets for North London and Haringey in the Further Alterations to the</p>

			Plan apportionment of 4.9 <u>2.1m</u> tonnes and the Haringey apportionment of 237,000 <u>182,000</u> tonnes.	London Plan. There are no impact pathways present.
Alt70	5.1	Policy SP8: Employment	<p><i>Amend the first paragraph of the Policy to read:</i></p> <p>The Council will secure a strong economy in Haringey and protect the borough's hierarchy of employment land, Strategic Industrial Locations, Locally Significant Industrial Sites, and Local Employment Areas <u>and other non-designated employment sites.</u></p>	<p>No HRA implications.</p> <p>This is a minor change to wording to ensure the policy addresses the full complement of employment land in the borough. There are no impact pathways present.</p>
Alt71	5.1	Policy SP8: Employment	<p><i>Amend the first bullet point of the Policy to read:</i></p> <ul style="list-style-type: none"> Protect B uses (under the Use Classes Order) including light industry, logistics, warehousing and storage facilities to meet the forecast demand of 137,000m² <u>32,000 m²</u> for an additional 23,000 m² of <u>employment</u> floorspace up to 2026 <u>2031</u>; 	<p>No HRA implications</p> <p>This change reflects new evidence from Haringey's Employment Land Study (2014). This is a reduction of proposed employment floorspace to the initial 137,000m² to 23,000m². There are no impact pathways present.</p>
Alt72	5.1	Policy SP8: Employment	<p><i>Amend the list of Locally Significant Industrial Sites within the Policy as follows:</i></p> <ul style="list-style-type: none"> Crusader Industrial Estate, N15; High Road West, N17; Vale Road/Tewksbury Road <u>(Part)</u>, N15; and White Hart Lane, N17; and <u>Willoughby Lane, N17.</u> 	<p>No HRA implications.</p> <p>This reflects changes to LSIS set out in the Site Allocations and Tottenham Area Action Plan documents. There are no impact pathways present.</p>
Alt73	5.1	Policy SP8: Employment	<p><i>Under the sub-heading 'Local Employment Areas' amend the second bullet point of the Policy to read:</i></p> <p>However, the approach to mixed uses in Regeneration Areas must have regard to London Plan town centre and retail policies, so not to encourage retail development outside of town centres, <u>as well as other Local Plan policies.</u></p>	<p>No HRA implications.</p> <p>This change reflects that additional requirements for development within LEA will be included in other Local Plan documents. There are no impact pathways present.</p>
Alt110	5.1	Policy SP8: Employment	<p><i>In the part of the policy on Local Employment Areas, add in the employment sites classified as Employment Land or Regeneration Area, as follows:</i></p> <ul style="list-style-type: none"> Employment Land (EL) is land that is deemed acceptable for other employment generating uses that complement the traditional 'B' use classes, such as a small scale "walk-to-retail", cafes and crèche/nursery. <u>Local Employment Areas classified as EL are:</u> 	<p>Potential HRA implications.</p> <p>Hale Wharf is located within 15m from Lee Valley SPA and Ramsar site, Central Leaside is located 350m from the designated site, and South Tottenham is located 280m for the designated site.</p>

			<ul style="list-style-type: none"> - <u>Bound Green Industrial Estate;</u> - <u>Frien Barnet Sewage Works.</u> <ul style="list-style-type: none"> • A Regeneration Area (RA) is the most flexible of the categories as it can include uses appropriate in a mixed use development, such as small scale “walk-to” retail, community and residential uses. However, the approach to mixed uses in Regeneration Areas must have regard to London Plan town centre and retail policies, so not to encourage retail development outside of town centres, <u>as well as other Local Plan policies</u>. <u>Local Employment Areas classified as RA are:</u> <ul style="list-style-type: none"> - <u>Campsbourne, N8</u> - <u>Central Leaside (Part SIL/RA), N17</u> - <u>Crusader Industrial Estate, N15</u> - <u>Hale Wharf, N17</u> - <u>High Road East, N17</u> - <u>High Road West, N17</u> - <u>Rangemoor Road and Herbert Road, N15</u> - <u>South Tottenham, (Part LSIS/RA), N15</u> - <u>Tottenham Hale, (Part SIL/RA), N17</u> - <u>Vale Road / Tewkesbury Road (Part LSIS/RA), N15</u> - <u>Wood Green, N22</u> 	<p>Impact pathways potentially present are:</p> <ul style="list-style-type: none"> • Disturbance (from construction activities). • Water quality from construction and operational phase of development.
Alt111	6.3	SP13	<p>Amend the bullet point to read as follows:</p> <ul style="list-style-type: none"> • Implementation of the <u>Haringey Green Grid</u> borough’s green infrastructure projects (such as Lordship Recreation Ground Improvements); 	<p>No HRA implications.</p> <p>This text change introduces the concept of the Haringey Green Grid, which builds upon the all London Green Grid and, therein, the Lea Valley & Finchley Ridge Area Framework. Responds to the representation by Natural England. There are no impact pathways present</p>
Alt80	8.2	Policy SP17: Delivering and Monitoring	<p><i>Amend the fifth bullet point of the policy to read:</i></p> <p>Infrastructure Delivery Plan and S106 policy including the development S106 tariffs and a possible community infrastructure levy;</p>	<p>No HRA implications.</p> <p>To reflect the adoption and implementation of Haringey’s Community Infrastructure Levy. There are no impact pathways present.</p>

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