



Report

Submitted to
London Borough of Haringey

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Habitats Regulations Assessment Screening Report – Draft Site Allocations DPD

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1 Introduction

1.1 Background to the project

- 1.1.1 AECOM has been appointed by the 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 Site Allocations DPD on the Natura 2000 network and Ramsar sites in support of the already adopted Haringey Local Plan: Strategic Policies.
- 1.1.2 Haringey’s Local Plan: Strategic Policies document was formally adopted by the Full Council on 18th March 2013. The Local Plan, along with the saved Unitary Development Plan policies, 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. In support of the Local Plan, in 2010 a Habitats Regulations Assessment was undertaken¹. In February 2015, an update to Haringey’s Strategic Policies (Alterations to Strategic Policies document) was published for public consultation. The Alterations to Strategic Policies document reflected the increase in the Borough’s strategic housing delivery target of 19,802 net new dwellings 2011-2026; new Growth Areas; strategic improvements to, or renewal of, Haringey’s housing estates; an additional Locally Significant Industrial Site; and Local Employment Areas. HRA has been undertaken of this document (subject to consultation), which screened out most impact pathways including recreational pressure from the increase in net new dwellings, with the residual likely significant effect remaining of disturbance to internationally designated features resulting from construction activities where sites were located within close proximity to the Lee Valley SPA and Ramsar site². These HRA documents will be used as a basis for this assessment. These documents undertook Habitats Regulations Assessment (HRA) of the following internationally designated sites: The Lee Valley Ramsar Site; The Lee Valley SPA; and Epping Forest SAC.
- 1.1.3 The objective of this assessment is to:
- identify any aspects of Haringey’s Site Allocations DPD that would cause an adverse effect on the integrity of Natura 2000 sites, otherwise known as European sites or internationally designated sites (Special Areas of Conservation (SACs)), Special Protection Areas (SPAs) and, as a matter of Government policy, Ramsar sites³), 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 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 European 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

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]

² AECOM (2015). Habitats Regulations Assessment Screening Report – Alterations to Haringey’s Strategic Policies

³ Wetlands of International Importance designated under the Ramsar Convention 1979

species identified in Annexes I and II of the Directive (as amended)⁴. 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:

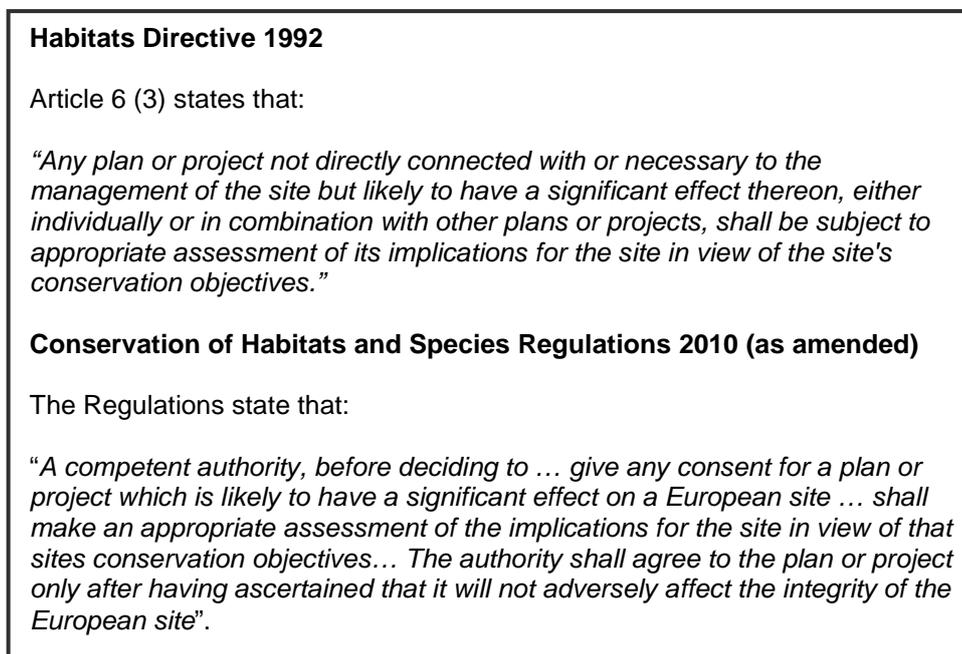


Figure 1: The Legislative Basis for Appropriate Assessment

- 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 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’.

⁴ <http://jncc.defra.gov.uk/>

- 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. 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 Appeal⁵ 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)⁶. 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 the presence of impact pathways linking to Haringey's Site Allocations DPD cannot be screened out. 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 Lee Valley SPA and Ramsar sites and Epping Forest SAC can be found in Appendix A. Appendix B, Figure 1 illustrates the location of the internationally designated site in relation to the London Borough of Haringey's boundary.
- 1.3.9 The Habitats Regulations Assessment undertaken for the Local Plan in 2010⁷ and of the Alterations to Haringey' Strategic Policies document (subject to consultation)⁸, investigated the following impact pathways upon the Lee Valley and Epping Forest internationally designated sites:
- 1.3.10 Epping Forest SAC:
- Disturbances from recreational activities.

⁵ No Adastral New Town Ltd (NANT) v Suffolk Coastal District Council Court of Appeal, 17th February 2015

⁶ High Court case of R (Devon Wildlife Trust) v Teignbridge District Council, 28 July 2015

⁷ 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]

⁸ AECOM (2015). Habitats Regulations Assessment Screening Report – Alterations to Haringey's Strategic Policies

1.3.11 Lee Valley SPA and Ramsar site:

- Disturbances from recreational activities;
- Disturbances from construction activities;
- Urbanisation;
- Atmospheric Pollution;
- Water abstraction; and,
- Water quality.

1.3.12 The HRA for Haringey's Strategic Policies documents resulted in a single residual impact pathway unable to be screened out from further consideration. This was disturbances from construction activities impacting on avian features of the Lee Valley SPA and Ramsar site. These overarching Local Plan HRA documents should be referred to for further background to this DPD

1.3.13 As previously noted, Haringey's Strategic Policies documents reflect the increase in the Borough's strategic housing delivery target to 19, 802 net new dwellings to the end of the Plan period (to 2026). The HRA's for these documents screened out all impact pathways upon Epping Forest SAC.

1.3.14 Haringey's Site Allocations DPD provides for 7,698 net new dwellings through the Plan period⁹. It is noted that not all site allocations are for residential development. Additionally, some site allocations only detail the location and do not provide details for use. It is assumed, that where this detail is lacking, these sites will provide either new residential development, or employment uses, in line with the levels detailed within Haringey's Local Plan: Strategic Policies documents and will not deviate from this overarching document. In other words, the overall housing number for Haringey is not changed from that in the Strategic Policies document.

1.3.15 Impact pathways relating to increases in levels of housing, and employment uses were screened out within the higher tier documents. As such, this HRA document effectively only screens impact pathways relating to the locations of the specific site allocations identified within Haringey's Site Allocations DPD upon the Lee Valley SPA and Ramsar site. The impact pathway to be assessed is:

- Disturbance from construction activities
- Water quality from construction activities in close proximity to the Lee Valley SPA and Ramsar site.

1.4 This Report

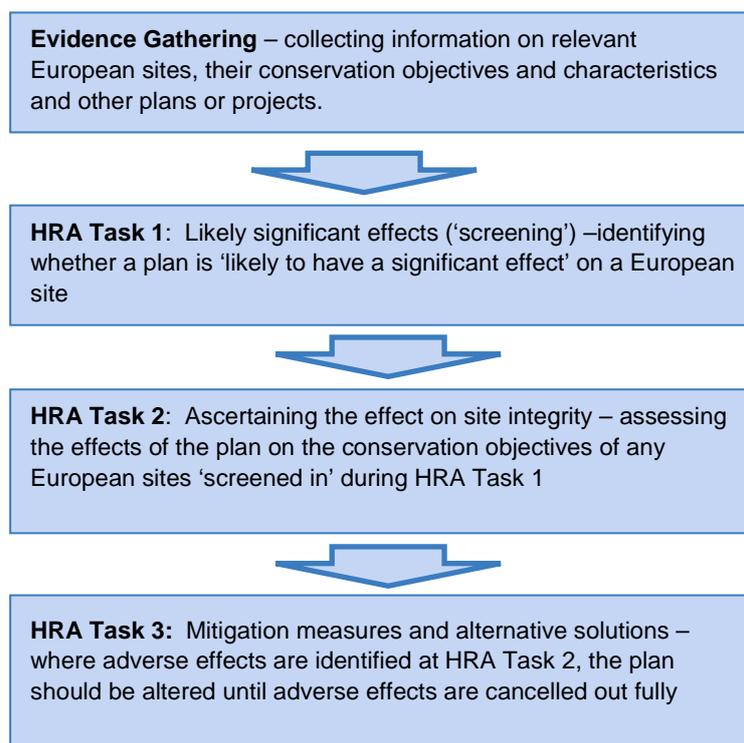
1.4.1 Chapter 2 of this report summarises the methodology for the assessment. Chapter 3 identifies the possible pathways by which adverse effects on European protected sites could arise. This chapter also considers each policy amendment within Haringey's Site Allocations DPD document, assessing possible 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 Chapter 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.

⁹ Not all the additional housing Haringey expects over the plan period will be specifically allocated in the Site Allocations DPD. Housing will also be delivered through site allocations in Area Action Plans as well as through windfall development of smaller and non-strategic sites. In addition, a number of housing developments have already been completed within the plan period.

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 exist¹⁰. The former Department for Communities and Local Government released a consultation paper on the Appropriate Assessment of Plans in 2006¹¹. As yet, no further formal guidance has emerged. However, Natural England has produced its own internal guidance¹² as has the RSPB¹³. 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?"

- 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

¹⁰ 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.

¹¹ CLG (2006) Planning for the Protection of European Sites, Consultation Paper

¹² http://www.ukmpas.org/pdf/practical_guidance/HRGN1.pdf

¹³ 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.

stage is the subject of Chapter 3 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 paragraphs 1.3.5 and 1.3.10. 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 DPD 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 Plan. A good place to start is the London Plan (2015)¹⁴
- 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 ¹⁵) 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:

Plans

- **London Borough of Haringey Local Plan: Strategic Policies.** Adopted March 2013.
- **London Borough of Haringey Local Plan: Alterations to Strategic Policies.** September 2015 (not yet subject to consultation).
- **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.

¹⁴ 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)

¹⁵ Ibid

- **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 Likely Significant Effects

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 (Plan) can lead to an effect upon an internationally designated site. Following the HRA of Haringey's Local Plan: Strategic documents and a brief sieve of Haringey's Site Allocation DPD, the following impact pathways are considered within this document:
- Disturbance from construction activities in close proximity to the Lee Valley SPA and Ramsar site; and,
 - Water quality from construction activities in close proximity to the Lee Valley SPA and Ramsar site.
- 3.1.2 The screening assessment (see Appendix C, Table 1) identified one site allocation that has potential to result in impact pathways that link to Lee Valley SPA and Ramsar site. These are:
- Leabank and Lemsford Close (SA65), located 0.03km west of the designated site
- 3.1.3 These site allocations are for residential development within close proximity to the SPA and Ramsar site. They provide for development either between the rail line and the SPA and Ramsar site, or in very close proximity to the SPA and Ramsar site. Works in these locations have potential to cause disturbance to avian bird features of the internationally designated site (sites such as shoveler, gadwall and bittern) during the construction phase of the development. In addition to this, there is potential for surface runoff from these sites to enter the designated sites.
- 3.1.4 The remainder of the Site Allocations within the DPD were screened out from further consideration as they were either located west of the rail line to the west of the designated site as this line will already provide levels of noise and visual disturbance, or were considered to be a large enough distance away from the designated site that disturbances from construction activities cannot conceivably link to the SPA and Ramsar site.

3.2 Location specific site runoff

- 3.2.1 The Walthamstow Reservoirs portion of the Lee Valley SPA and Ramsar site lies in close proximity to the Leabank and Lemsford Close (SA65) site allocation. There is potential for point source pollution events to arise from construction activities within this site. The River Lee and River Lee Navigation separate the reservoirs from the allocated sites, and do not in themselves form a part of the SPA or Ramsar within Haringey. It is acknowledged that these waterways will be 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 a site. As such, this impact pathway can be screened out from further consideration. And provided standard methodologies are followed, no likely significant effects will result.

3.3 Disturbance from Construction Activities

- 3.3.1 As previously noted, the Lee Valley SPA and Ramsar site lies immediately adjacent to the London Borough of Haringey and is theoretically vulnerable, to the effects of disturbances from construction activities resulting from development in close proximity to the internationally designated site within Haringey.
- 3.3.2 It is therefore necessary to perform a further screening assessment to determine whether site allocations from Haringey's Site Allocations DPD identified in paragraph 3.1.2 could lead to a likely significant effects, either alone or 'in combination' with other plans and projects, through disturbance from construction activities, on this internationally designated site.
- 3.3.3 Construction activities within close proximity of an internationally designated site have potential to:
- Cause disturbance to sensitive species, particularly ground-nesting birds and wintering wildfowl resulting from visual and acoustic disturbances.

- 3.3.4 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 feeding¹⁶. 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 pressure on the resources available within the remaining sites, as they have to sustain a greater number of birds¹⁷.
- 3.3.5 The potential for disturbance may be less in winter than in summer. 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) activity (recreational) can result in quantifiable disturbance:
- Underhill et al¹⁸ 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 & Warrington¹⁹ 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 al²⁰ 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 al²¹ 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.
 - A three-year study of wetland birds at the Stour and Orwell SPA, Ravenscroft²² 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.
- 3.3.6 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

¹⁶ Riddington, R. *et al.* 1996. The impact of disturbance on the behaviour and energy budgets of Brent geese. *Bird Study* 43:269-279

¹⁷ Gill, J.A., Sutherland, W.J. & Norris, K. 1998. The consequences of human disturbance for estuarine birds. *RSPB Conservation Review* 12: 67-72

¹⁸ 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

¹⁹ Evans, D.M. & Warrington, S. 1997. The effects of recreational disturbance on wintering waterbirds on a mature gravel pitlake near London. *International Journal of Environmental Studies* 53: 167-182

²⁰ 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

²¹ 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.

²² 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.

population²³. A literature review undertaken for the RSPB²⁴ 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.

- 3.3.7 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.
- 3.3.8 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.
- 3.3.9 Disturbances from construction activities such as noise and visual disturbances have potential to result in likely significant effects upon avian features of an internationally designated site such as the Lee Valley SPA and Ramsar site features (wintering bittern, and migratory gadwall and shoveler). Construction activities associated with land in close proximity to the internationally designated site such as Leabank and Lemsford Close (SA65) have potential to result in these disturbances.
- 3.3.10 Lee Valley internationally designated site is located within an urban area so will already be subject to existing levels of visual and acoustic disturbance. However, impacts from construction activities in close proximity to the designated site still have potential to impact upon the site's features.
- 3.3.11 DMP 19 (Nature Conservation) of Haringey's overarching Local Plan: Development Management Policies document states:
- 3.3.12 *'B. Development that has a direct or indirect negative impact upon important ecological assets will only be permitted where the harm cannot reasonably be avoided and it has been demonstrated that appropriate mitigation can address the harm caused.'*
- 3.3.13 SP13 (Open Space and Biodiversity) of Haringey's overarching Local Plan: Strategic Policies documents states:
- 3.3.14 *'All development shall protect and improve sites of biodiversity and nature conservation...'*
- 3.3.15 At an overarching level, these policies provide protection for conservation sites from construction activities. However, at this higher tier it was not appropriate to assess site specific impacts, such as those identified within the Site Allocations DPD.
- 3.3.16 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 Appeal 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). 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'*. At the Plan level (including the Site Allocations DPD), specific details relating to construction activities and practices have not been identified. However, it can be determined that appropriate avoidance measures such as appropriate timing of works, pertinent choice of machinery and the use of acoustic and visual hording could feasibly be incorporated within the site specific Planning Application for Leabank and Lemsford Close (SA65) to prevent likely significant effects from resulting.
- 3.3.17 The avoidance measures noted above do not provide deliverability issues for the individual site allocations. It is valid to defer detailed site specific screening of disturbances resulting from construction activities to the project planning stage of the site specific application. As such, this impact

²³ Gill et al. (2001) - Why behavioural responses may not reflect the population consequences of human disturbance. *Biological Conservation*, 97, 265-268

²⁴ Woodfield & Langston (2004) - Literature review on the impact on bird population of disturbance due to human access on foot. *RSPB research report* No. 9.

pathway can be screened out from further consideration, both alone, and in-combination with other projects or plans.

4 In-combination with Other Projects or Plans

- 4.1.1 The HRA's for Haringey's Local Plan: Strategic Policies assessed the quantum of development within the London Borough of Haringey. It assessed the impacts upon both the Lee Valley and Epping Forest internationally designated sites resulting from an increase in residential, employment and industrial development. Within the Local Plan: Strategic Policy HRAs the following quantum of development was assessed:
- 19,802 net new dwellings
 - 23,000 m² of employment floorspace (including Class B uses including light industry, logistics, warehousing and storage facilities)
- 4.1.2 This provision of development has the potential to link with internationally designated sites as follows:
- 4.1.3 Epping Forest SAC:
- Disturbances from recreational pressure.
- 4.1.4 Lee Valley SPA and Ramsar site:
- Disturbances from recreational pressure;
 - Disturbances from construction activities;
 - Urbanisation;
 - Atmospheric Pollution;
 - Water abstraction; and,
 - Water quality.
- 4.1.5 The HRA for Haringey's Local Plan: Strategic Policies documents screened out all impact pathways with the exception of a single residual impact pathway; disturbance from construction activities (as discussed in Chapter 3).
- 4.1.6 Haringey's Site Allocations DPD provides for 7,698 net new dwellings, which is in line with the figures identified in the overarching Local Plan: Strategic Policies documents. This DPD does not define a specific quantum for employment development; however, it is assumed that any quantum of employment development within Site Allocations will be in line with the 23,000m² of employment floorspace outlined within the Local Plan: Strategic Policies documents. The HRAs for Haringey's Local Plan: Strategic Policies documents, screened out the impact pathways noted above in paragraphs 4.1.3 and 4.1.4, alone and in-combination with other projects or plans. As such, there are no in-combination residual impact pathways that could result in likely significant effects upon the Lee Valley and Epping Forest designated sites alone or in-combination with other projects or plans.

5 Conclusion

5.1.1 Impact pathways assessed against Lee Valley SPA and Ramsar site are:

- Disturbance from construction activities
- Water quality from construction activities in close proximity to the Lee Valley SPA and Ramsar site.

5.1.2 Both these impact pathways can be screened out both alone and in-combination with other projects or plans. This is due to the following factors:

- Standard construction methodologies and standard operational phase requirements include provisions to ensure no runoff leaves a site, enabling this pathway to be screened out
- The ability of project specific mitigation measures to be feasibly incorporated at the appropriate level (e.g. not at the Plan level, but rather at the site specific project level) where the competent authority (Council) is satisfied that proposed mitigation could be '*achieved in practice*'; and,
- The urban setting of Lee Valley SPA and Ramsar site and Stoke Newington reservoirs.

5.1.3 In addition to this, there are no residual impact pathways present that could act 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 and Ramsar site 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 *Microneecta 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 robori-petraeae* or *Illici-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

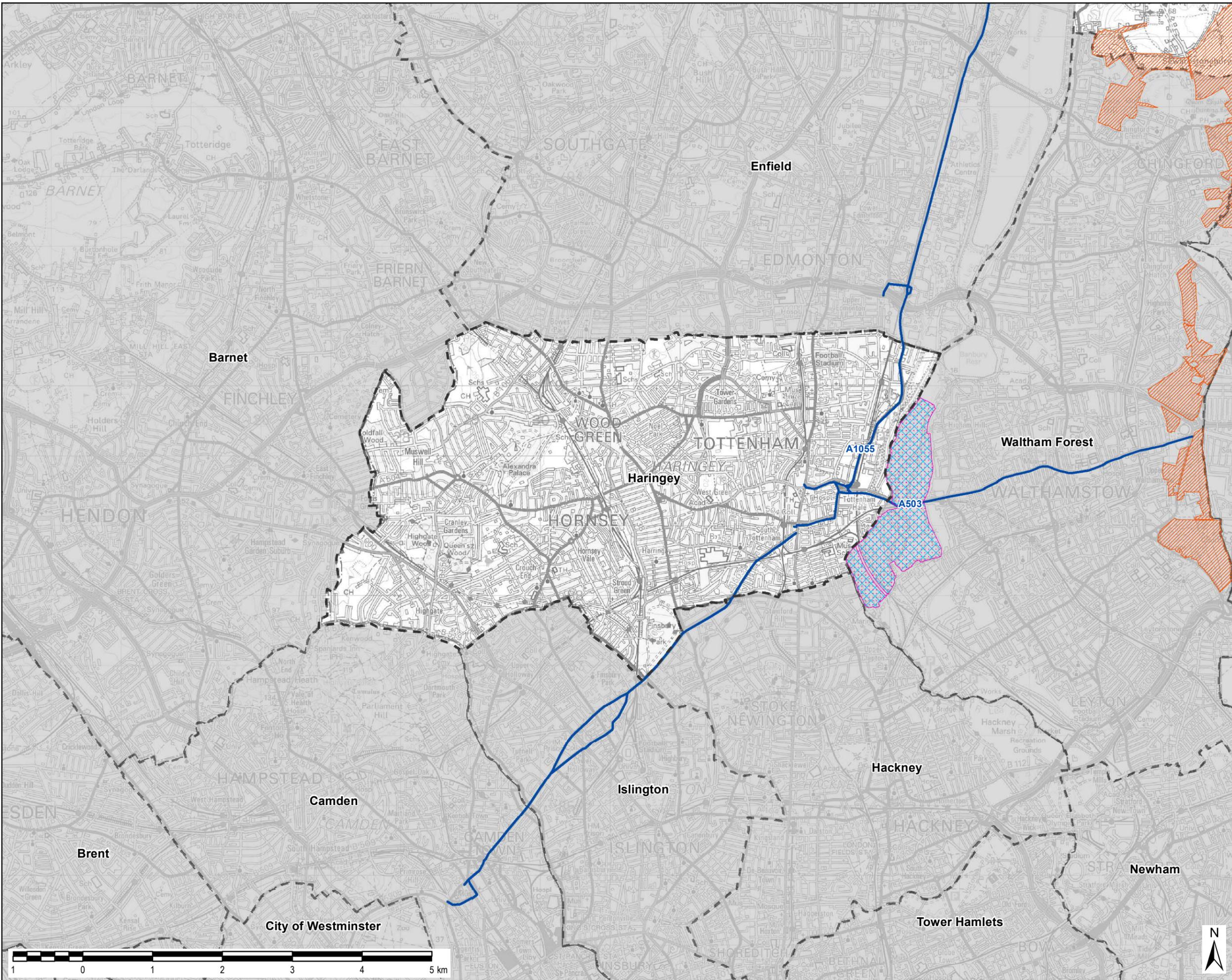
Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- 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. Figure 1: Locations of Internationally Designated Sites



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LEGEND

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

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Drawing Title **HARINGEY COUNCIL ENVIRONMENTAL DESIGNATIONS**

Drawn S. Masnikosa	Checked J. Waters	Approved I. Hoffman	Date 10/11/2015
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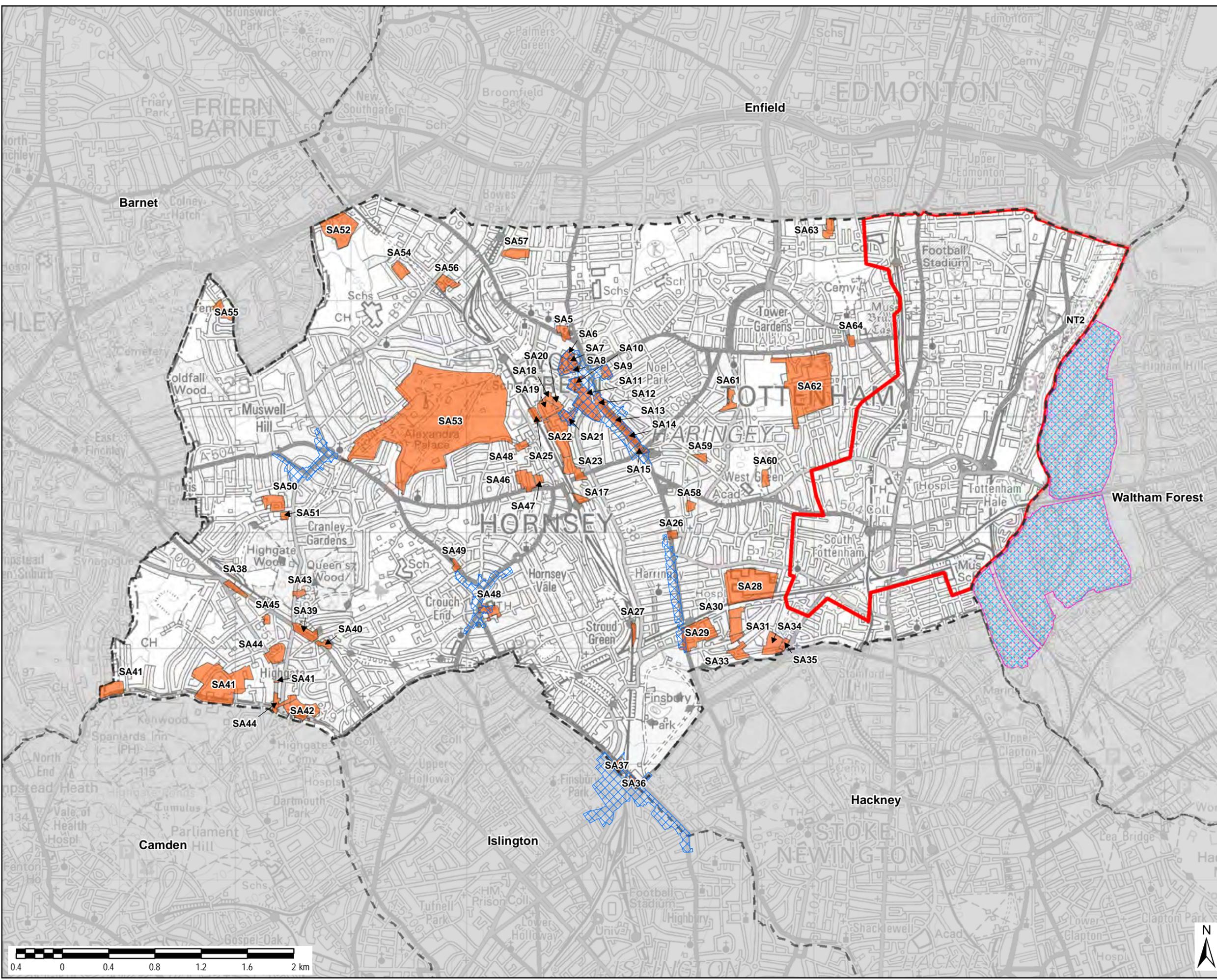
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Appendix B. Figure 2: Locations of Site Allocations

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- LEGEND**
-  Haringey Borough Boundary
 -  London Borough Boundary
 -  Tottenham Area Action Plan
 -  Town Centre
 -  Site Allocation
 -  Lee Valley Ramsar Site
 -  Lee Valley Special Protection Area



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Appendix C. Screening Table of Haringey's Site Allocations

Sites identified in green, can be screened out from further consideration. Sites identified in orange are subject to further assessment within Chapter 3 of this document. It should be noted that this table does not identify in-combination effects. These are discussed in Chapter 4.

Table 1: Screening of Haringey's Site Allocations

Allocation Name	Allocation Code	Net Housing	Distance from internationally designated site (km)	Screening outcome (alone, not in-combination)
Leabank and Lemsford Close	SA65	65	0.03	Potential HRA implications. Impact pathways present: <ul style="list-style-type: none"> • Disturbance from construction activities. • Water quality NB: See in-combination assessment section
Summersby Road	SA43	124	5.77	No HRA implications. No impact pathways present. NB: See in-combination assessment section.
Wightman Rd	SA27	60	2.94	
460-470 Archway Rd	SA38	90	6.27	
Clarendon Rd South	SA23	206	3.47	
North of Hornsey Rail Depot	SA17	70	3.4	
Cranwood Care Home	SA51	41	5.96	
Overbury & Eade Roads	SA34	220	1.7	
Land behind Seven Sisters & Tewkesbury Rd	SA35	70	1.65	
Arena Retail Park	SA29	693	2.25	
Vale Rd & Eade Rd	SA33	45	2.02	
Arena Design Centre	SA30	140	1.98	
Omega Works	SA32	66	2.03	
Finsbury Park Bowling Alley	SA36	164	3.27	
18-20 Stroud Green Rd	SA37	63	3.36	
Barber Wilson	SA61	66	2.55	
Bury Rd Car Park	SA13	191	3.31	
Westbury & Whymark Ave	SA15	95	3.09	
Turnpike Lane Triangle	SA16	48	3.03	
16-54 Wood Green High Rd	SA14	334	3.14	
Mecca Bingo	SA9	191	3.6	
Green Riding's House	SA6	93	3.98	
Wood Green Bus Garage	SA7	310	3.92	
Station Rd Offices	SA8	241	3.89	
Morrison's Wood Green	SA10	239	3.8	
WG Cultural Quater (north)	SA18	89	3.97	
NW of Clarendon Square	SA24	22	3.9	
WG Cultural Quarter (east)	SA20	124	3.87	
WG Cultural Quarter (south)	SA19	265	3.9	
Clarendon Square Gateway	SA21	195	3.71	
L/A to Cornonation Sidings	SA25	87	4	
Hillcrest	SA44	34	5.97	
Former Highgate Rail Station	SA39	41	5.68	
The Red House	SA58	33	2.5	

Park View & Durnsford Road	SA56	132	5.14	
Cross Lane	SA47	60	3.83	
LB Civic Centre	SA5	108	4.08	
Hawes & Curtis	SA26	81	2.59	
Haringey Professional Centre	SA59	61	2.54	
Keston Centre	SA60	87	1.97	
Park Road & Lynton Rd	SA49	51	4.43	
Coppetts Wood Hospital	SA55	21	6.81	
Wood Green Library	SA11	358	3.69	
St Ann's Hospital	SA28	456	1.69	
Highgate Bowl	SA42	42	5.75	
The Roundway	SA64	56	1.73	
Highgate School	SA41	0	6.05	
Crusader Industrial Estate	SA31	0	2	
The Mall	SA12	0	3.45	
Alexandra Palace	SA53	0	4.17	
Tunnel Gardens	SA54	0	5.57	
Gonnerman Antiques	SA40	0	5.57	
Clarendon Square	SA22	0	3.66	
Hornsey Town Hall	SA48	0	4.09	
Hornsey Depot	SA46	0	3.88	
St Luke's Hospital	SA50	0	5.99	
Highgate Magistrate Court	SA45	0	6.09	
Pinkham Way	SA52	0	6.15	
Broad Water Farm	SA62	0	1.81	
Myddleton Road	SA57	0	4.65	
The Selby Centre	SA63	0	2.27	

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