Habitats Regulations Assessment

Regulation 19 Local Plan

London Borough of Hounslow

July 2024

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Quality information

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Revision History

Revision	Revision date	Details	Authorized	Name	Position
0	12/07/2024	Draft for client comment	JR	James Riley	Technical Director
1	16/07/24	Amended	JR	James Riley	Technical Director

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1. Introduction

1.1 Background

1.1.1 The London Borough of Hounslow (LBH) has commissioned AECOM to undertake a Habitats Regulations Assessment (HRA) of the emerging London Borough of Hounslow Local Plan (LP), which will cover the period of 15 years, to 2041. The objective of an HRA is to identify any aspects of a Plan that may result in Likely Significant Effects (LSEs) and, where relevant, adverse effects on the integrity of the National Site Network (NSN), either in isolation or in combination with other plans and projects. The NSN is comprised of Habitats Sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs), and as a matter of Government policy, Ramsar sites). Under the Conservation of Habitats and Species Regulations 2017 (as amended), an Appropriate Assessment of impact pathways is required, where a plan or project is likely to result in Likely Significant Effects (LSEs) upon a Habitats Site, either individually or in combination.

1.2 Legislation

1.2.1 The UK left the European Union (EU) on 31 January 2020 under the terms set out in the European Union (Withdrawal Agreement) Act 2020 ("the Withdrawal Act"). While the UK is no longer a member of the EU, a requirement for Habitats Regulations Assessment will continue as set out in the Conservation of Habitats and Species Regulations 2017 (Amended) (incorporating The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019)

1.2.2 The HRA process applies the 'Precautionary Principle'[1] to Habitats Sites. Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the Habitats Site(s) in question. To ascertain whether or not site integrity will be affected, an Appropriate Assessment should be undertaken of the Plan or project in question. Figure 1 below sets out the legislative basis for Appropriate Assessment.

1.2.3 Plans and projects that are associated with potential adverse impacts on Habitats Sites may still be permitted if there are no reasonable alternatives and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network.

[1] The Precautionary Principle, which is referenced in Article 191 of the Treaty on the Functioning of the European Union, has been defined by the United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2005) as: *"When human activities may lead to morally unacceptable harm* [to the environment] *that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm. The judgement of plausibility should be grounded in scientific analysis".*

Conservation of Habitats and Species Regulations 2017 (as amended)

The Regulations state that:

"*A competent authority, before deciding to … give any consent, permission or other authorisation for, a plan or project which – (a) is likely to have a significant effect on a European site … (either alone or in combination with other plans or project)… must make an appropriate assessment of the implications of the plan or project in view of the site's conservation objectives… The competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site.*"

Figure 1: The legislative basis for Appropriate Assessment[2]

1.2.4 Over time the phrase 'Habitats Regulations Assessment' (HRA) has come into wide currency to describe the overall process set out in the Regulations from screening through to IROPI. This has arisen in order to distinguish the process from the individual stage described in the law as an 'Appropriate Assessment'.

1.2.5 In spring 2018 the 'Sweetman' European Court of Justice ruling[3] clarified that 'mitigation' (i.e., measures that are specifically introduced to avoid or reduce a harmful effect on a Habitats Site that would otherwise arise) should not be taken into account when forming a view on Likely Significant Effects. Mitigation should instead only be considered at the Appropriate Assessment stage. This HRA is cognisant of that ruling.

1.3 Scope of the Project

1.3.1 There is no pre-defined guidance that dictates the physical scope of an HRA of a Plan document. Current guidance suggests that the following Habitats Sites should be included in the scope of an HRA assessment:

- All Habitats Sites within the boundary of the Borough; and,
- Other Habitats Sites shown to be linked to development set out in the LP through a known 'pathway' (discussed below).

1.3.2 Generally, it is uncommon for development plans to be deemed to have significant impacts on Habitats Sites situated more than 10km from areas of growth. For example, most core recreational catchments (except for some coastal sites) are under 10km in size and the average vehicle commuting distance of a UK resident is approx. 10km. It should be noted that the presence of a conceivable impact pathway linking a Plan to a Habitats Site does not mean that Likely Significant Effects (LSEs) will occur.

1.3.3 In some cases, development impacts can extend beyond 10km, particularly where hydrological pathways are involved, which is why the source-pathway-receptor concept is also used to help determine whether there are potential pathways connecting development to Habitats Sites. This takes site-specific

[2] Available at https://www.legislation.gov.uk/uksi/2017/1012/contents/made [accessed 25/06/2024]
[3] People Over Wind and Sweetman v Coillte Teoranta (C-323/17)

sensitivities into account, including issues such as nutrient neutrality or water levels, quantity and flow.

1.3.4 Briefly defined, impact pathways are routes by which the implementation of a policy within a Local Plan document can lead to an effect upon a Habitats Site. An example of this would be new residential development resulting in an increased population and thus increased recreational pressure, which could affect Habitats Sites through, for example, disturbance of ground-nesting birds. Guidance from the Ministry of Housing, Communities and Local Government (MHCLG) 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*' (MHCLG, 2006, p.6).

1.3.5 This basic principle has also been reflected in court rulings. The Court of Appeal[4] has ruled that providing the Council (competent authority) was duly satisfied that proposed mitigation could be 'achieved in practice' to satisfy that the proposed development would have no adverse effect, then this would suffice. This ruling has since been applied to planning permissions (rather than a Plan level document)[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'*.

1.3.6 There are two Habitat sites which fall partially within the London Borough of Hounslow: the South West London Waterbodies SPA and Ramsar site. The South West London Water Bodies SPA and Ramsar comprise a series of reservoirs and former gravel pits that support a range of man-made and semi-natural open water habitats (828ha in total). They comprise important feeding and roosting sites for wintering wildfowl, in particular Gadwall (*Anas Strepera*) and Shoveler (*Anas clypeata*), both of which occur in numbers of European importance.

1.3.7 Within the wider area there are a large number of other non-designated waterbodies, which also support populations of the bird species for which the SPA/Ramsar site is designated. This is relevant because in 2018, the Holohan ECJ ruling[6] was handed down by the Court of Justice of the European Union (CJEU). This determined that a Habitats Site must be considered within the context of its functional relationships in terms of whether any interest features of the Habitats Site may be located outside the site boundary and could be affected by the plan or project.

1.3.8 One part of the SPA/Ramsar site (Kempton Park East Reservoir, also known as Kempton Nature Reserve) lies just within the boundary of Hounslow Borough, while one other part (Red House Reservoir) lies just over the boundary in the London Borough of Spelthorne. In addition to actual parts of the SPA/Ramsar site there are two other waterbodies/complexes that lie

[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] Case C-461/17

wholly or partly within Hounslow Borough and are identified in research[7] as being important functionally-linked habitat for the SPA/Ramsar site. These are Bedfont Lakes Country Park (wholly in Hounslow) and Princes Lake (mainly in Spelthorne). These four lakes/complexes (Kempton Nature Reserve, Red House Reservoir, Bedfont Lakes and Princes Lake) are all therefore considered within this HRA[8].

1.3.9 In addition, Richmond Park SAC (designated for its population of stag beetle (*Lucanus cervus*)) lies 2.4km from the Borough boundary (on the opposite side of the River Thames), while Wimbledon Common SAC (designated for its heathland and its population of stage beetle) lies 3.4km from the Borough boundary (also on the opposite side of the River Thames). Richmond Park SAC is solely designated for its population of stag beetle. Stag beetle populations are primarily dependent on a suitable supply of buried and partially buried dead wood. There is no way in which Local Plan development in Hounslow could affect this supply. Richmond Park is therefore not discussed further in this document. Since Wimbledon Common SAC is designated for its heathland as well as its stag beetle, that site has been included within the scope of this HRA.

1.3.10 Given an initial assessment of the relevant Habitats Sites and the impact pathways present, this HRA will discuss three Habitats Sites:

- South West London Waterbodies SPA and Ramsar Site (partially located within the Borough); and,
- Wimbledon Common SAC (located 3.4km from the London Borough of Hounslow. It is located within the London Borough of Wandsworth and the London Borough or Merton).

1.3.11 In order to fully inform the HRA, several studies and online information databases have been consulted. These include:

- Future development proposed (and, where available, HRAs) for the adjoining authorities of the London Borough of Hillingdon, the London Borough of Ealing, the London Borough of Hammersmith and Fulham, the London Borough of Richmond upon Thames and the London Borough of Spelthorne.
- The London Plan 2021
- Site Improvement Plans and Supplementary Conservation Advice Notes for relevant Habitats Sites published by Natural England;
- The UK Air Pollution Information System (www.apis.ac.uk); and
- Multi Agency Geographic Information for the Countryside (MAGIC) and its links to SSSI citations and the JNCC website (www.magic.gov.uk).

1.4 Quality Assurance

1.4.1 This report was undertaken in line with AECOM's Integrated Management System (IMS). Our IMS places great emphasis on professionalism, technical

[7] Brian Briggs, Wolfson College, 2007. The use of waterbodies in South-West London by Gadwall and Shoveler; implications for nature conservation

[8] Kempton Racecourse gravel pit also lies close to the Hounslow borough boundary but is entirely contained within Kempton Racecourse and is not open to the general public as a rule. As such, there is no pathway linking this waterbody to development in Hounslow and it is not considered further.

excellence, quality, environmental and Health and Safety management. All staff members are committed to establishing and maintaining our certification to the international standards BS EN ISO 9001:2008 and 14001:2004 and BS OHSAS 18001:2007. In addition, our IMS requires careful selection and monitoring of the performance of all sub-consultants and contractors.

1.4.2 All AECOM Ecologists working on this project are members (at the appropriate level) of the Chartered Institute of Ecology and Environmental Management (CIEEM) and follow their code of professional conduct[9].

[9] Available at Code-of-Professional-Conduct-January-2023-Update.pdf (cieem.net) [accessed 25-06-2024]

2. Methodology

2.1 Introduction

2.1.1 The HRA has been carried out with reference to the general European Commission guidance on HRA[10] and general guidance on HRA published by government in July 2019[11]. AECOM has also been mindful of the implications of European case law in 2018, notably the Holohan ruling and the People over Wind ruling, both discussed below.

2.1.2 Figure 2 below outlines the stages of HRA according to most recent European Commission guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations and any relevant changes to the Plan.

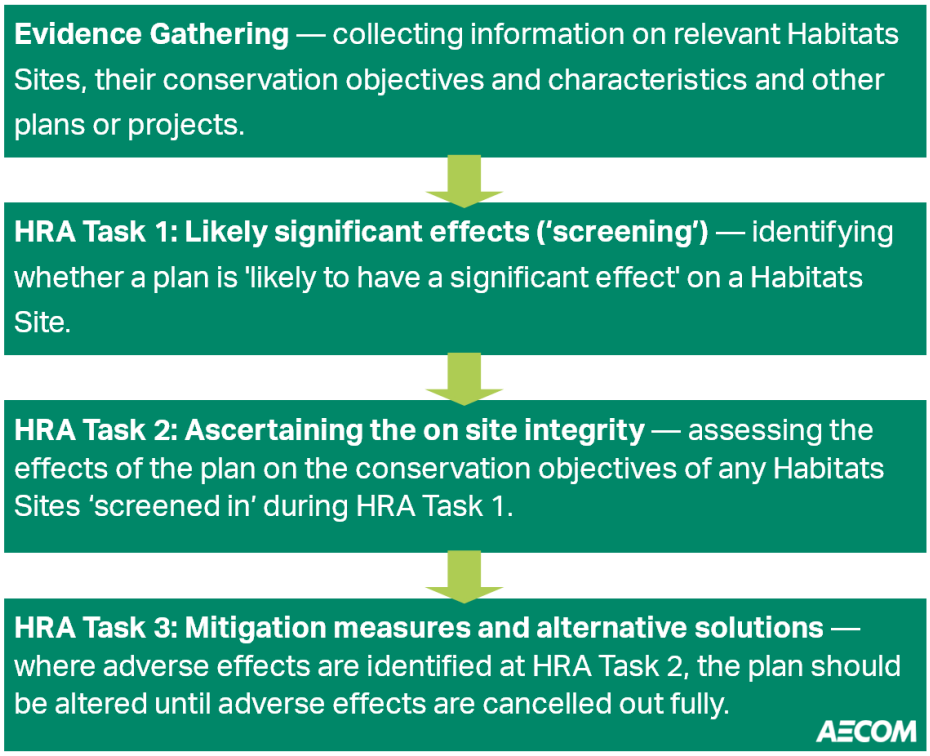

Figure 2: Four Stage Approach to Habitats Regulations Assessment. Source EC, 2001[6].

2.2 Description of HRA Tasks

HRA Task 1 – Screening for Likely Significant Effects (LSEs)

2.2.1 Following evidence gathering, the first stage of any Habitats Regulations Assessment is the screening for Likely Significant Effects (LSEs), essentially a high-level assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:

[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] https://www.gov.uk/guidance/appropriate-assessment

"Is the project, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon Habitats Sites?"

2.2.2 The objective is to filter out those Plans and projects that can, without any detailed appraisal, be concluded to be unlikely to result in any impacts upon Habitats Sites, usually because there is no mechanism for a negative interaction. This stage is undertaken in Appendix B of this report and discussed in Chapter 4.

HRA Task 2 – Appropriate Assessment (AA)

2.2.3 Where it is determined that a conclusion of 'no Likely Significant Effects (LSEs)' cannot be drawn, the analysis proceeds to the next stage of HRA known as Appropriate Assessment. Case law has clarified that 'Appropriate Assessment' is not a technical term. In other words, there are no particular technical analyses, or level of technical analysis, that are classified by law as belonging to Appropriate Assessment compared to the screening stage.

2.2.4 By virtue of the fact that it follows screening for LSEs, there is a clear implication that the analysis will be more detailed than undertaken at the previous stage. One of the key considerations during Appropriate Assessment is whether there is available mitigation that would entirely address the potential effect. In practice, the Appropriate Assessment would take any policies or allocations that could not be dismissed following the high-level screening and assess the potential for an effect in more detail, with a view to concluding whether there would be a potential for an adverse effect on site integrity (in other words, disruption of the coherent structure and function of the Habitats Site(s)). A decision by the European Court of Justice[12] concluded that measures intended to avoid or reduce the harmful effects of a proposed Plan or project on a Habitats Site may no longer be considered by competent authorities at the screening for LSEs stage of HRA. That ruling has been taken into account in producing this HRA.

2.2.5 Also. in 2018 the Holohan ruling[13] was handed down by the European Court of Justice. Among other provisions paragraph 39 of the ruling states that '*As regards other habitat types or species, which are present on the site, but for which that site has not been listed, and with respect to habitat types and species located outside that site, … typical habitats or species must be included in the appropriate assessment, if they are necessary to the conservation of the habitat types and species listed for the protected area'* [emphasis added]. Due account of this decision has been given in this HRA in relation to the Thames Basin Heaths SPA, which is designated for mobile ground-nesting birds (although it is to be noted that the qualifying species are not considered to be critically dependent on functionally linked habitats).

HRA Task 3 – Avoidance and Mitigation

2.2.6 Where necessary, measures are recommended for incorporation into the Plan in order to mitigate and / or avoid adverse effects on Habitats Site. There is considerable precedent concerning the level of detail that a Local Plan document needs to contain regarding mitigation for impact pathways on Habitats Sites (e.g. regarding recreational pressure). The implication of this

[12] People Over Wind and Sweetman v Coillte Teoranta (C-323/17)
[13] Case C-461/17

precedent is that it is not necessary for all measures to be fully developed prior to adoption of the Plan, but the Plan must provide an adequate policy framework within which these measures can be delivered.

2.2.7 When discussing mitigation for a Local Plan, one is concerned primarily with the policy framework to enable the delivery of such mitigation rather than the details of the mitigation measures themselves since a Local Plan document is a high-level policy document.

2.2.8 In any Local Plan, there are numerous policies for which there is a limit to the degree of assessment that is possible at the Plan level. This is because either:

- *The policy in question does not contain any specifics as to what will be delivered or where, and so cannot be assessed in detail at the Plan level. In these cases, the Appropriate Assessment focusses on precautionary mitigation that can be included in the plan to ensure that whatever proposals come forward will not result in adverse effects on integrity; or*
- *The nature of potential impacts (e.g. visual and noise disturbance arising from construction or loss of functionally linked habitat) are related to how the development will be designed and constructed, and therefore cannot be assessed in detail at the plan level. In these instances, the Appropriate Assessment focusses on available mitigation measures, the extent to which such measures would be achievable and effective, and whether an adequate protective framework exists to ensure that the policy would not lead to an adverse effect on the integrity of any internationally designated sites.*

2.2.9 In these instances, the advice of Advocate-General Kokott[14] is also worth considering. She commented that: *'It would …hardly be proper to require a greater level of detail in preceding plans* [rather than planning applications] *or the abolition of multi-stage planning and approval procedures so that the assessment of implications can be concentrated on one point in the procedure. Rather, adverse effects on areas of conservation must be assessed at every relevant stage of the procedure to the extent possible on the basis of the precision of the plan*.

2.3 Other Plans and Projects

2.3.1 In practice, in combination assessment is of greatest relevance when the plan would otherwise be screened out because its individual contribution is inconsequential. 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 Table 1, transportation and commercial/industrial allocations proposed for other neighbouring authorities around the Habitats Sites over the lifetime of the Local Plan.

[14] Opinion of Advocate General Kokott, 9th June 2005, Case C-6/04. Commission of the European Communities v United Kingdom of Great Britain and Northern Ireland, paragraph 49
http://curia.europa.eu/juris/document/document.jsf?docid=58359&doclang=EN

Table 1: Housing levels that are to be delivered in authorities adjacent to relevant Habitats Sites according to adopted Core Strategies and Local Plans

Local Authority	Total housing provided
Spelthorne	9,270 (2022 – 2037) Pre-submission Local Plan[15]
Elmbridge	6,785 (2021 - 2037) (Regulation19 draft) [16]
Kingston-upon-Thames	5,625 (2012/13 – 2026/27). An updated Regulation 18 consultation has taken place for the 2019 to 2037 Local Plan, however the quantum of housing to be provided is not currently publicly available.
Wandsworth	20,311 (2023-2038)[17]
Richmond-upon-Thames	7,018 (2023 - 2039) Regulation 19 [18]
Merton	11,374 (2022-2037)[19]

2.3.2 The London Plan 2021[20] sets short-term housing targets for several of these authorities, where they lie within London. Of most relevance to 'in-combination' assessment is the fact that the new London Plan sets a target of 14,100 dwellings between 2019 and 2029 for the Borough of Kingston-upon-Thames.

[15] Available at Submission and Examination Documents - Spelthorne Takes Shape (spelthornelocalplan.info) [Accessed 25/06/2024]
[16] Available at Regulation 19: Draft Elmbridge Local Plan 2037 - Elmbridge Borough Council Consultations [Accessed 25/06/2024]
[17] https://www.wandsworth.gov.uk/planning-and-building-control/planning-policy/local-plan/the-adopted-local-plan/ [Accessed 16/07/24]
[18] Available at https://www.richmond.gov.uk/media/layarymx/sd_019_background_paper_housing_delivery_october_2023.pdf[Accessed 25/06/2024]
[19] 0D4i Merton's Local Plan incorporating proposed modifications updated 02March2022.pdf [accessed 16/07/24]
[20] Available at the_london_plan_2021.pdf [Accessed 25/06/2024]

3. Potential 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 screening of the Plan, the following impact pathways are considered within this document.

3.1.2 Impact pathways relevant to the Local Plan we consider here are:

- Disturbance from recreational activities including urbanisation
- Adverse effects on water quality
- Changes to water levels
- Decrease in air quality

3.2 Background to Recreational Pressure

3.2.1 Recreational use of an internationally designated site has the 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.

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 land based 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 vehicles, walkers, horses and cyclists can cause damage to vegetation in a variety of habitats:

- Wilson & Seney (1994) 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 horses and hikers disturbed more sediment

on wet tracks, and therefore caused more erosion, than motorcycles and bicycles.

- Cole et al (1995a, b)[21] 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)[22] 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 tramplers caused a greater reduction in vegetation height than lighter tramplers, but there was no difference in effect on cover.
- Cole & Spildie (1998)[23] 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, Barnard[24] estimated the total amounts of urine and faeces from dogs as 30,000 litres and 60 tonnes respectively.

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 feeding[25]. Disturbance therefore risks

[21] 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
[22] 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
[23] 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
[24] 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
[25] Riddington, R. *et al*. 1996. The impact of disturbance on the behaviour and energy budgets of Brent geese. *Bird Study* 43:269-279

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 birds[26].

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 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 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 al[27] 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 & Warrington[28] 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 al[29] 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 al[30] 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, Ravenscroft[31] 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

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

[27] 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

[28] 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

[29] 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

[30] 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.

[31] 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.

seemed to habituate to frequent 'benign' events such as those involving 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 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 near paths. Nutrient-poor habitats such as heathland are particularly sensitive to the fertilising effect of inputs of phosphates, nitrogen and potassium from dog faeces[32] .

3.2.9 Underhill-Day[33] 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 population[34] . A literature review undertaken for the RSPB[35] 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

[32] 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.
[33] Underhill-Day, J.C. (2005). A literature review of urban effects on lowland heaths and their wildlife. Natural England Research Report 623.
[34] Gill et al. (2001) - Why behavioural responses may not reflect the population consequences of human disturbance. *Biological Conservation,* **97**, 265-268
[35] Woodfield & Langston (2004) - Literature review on the impact on bird population of disturbance due to human access on foot. *RSPB research report* No. 9.

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.

Urbanisation

3.2.14 This impact is closely related to recreational pressure, in that they both result from increased populations within close proximity to sensitive sites. The two impact pathways (recreation and urbanisation) are therefore discussed together in this report. One example of an effect of urbanisation is fly-tipping. The principal 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 out[36]. Non-native species may also be introduced deliberately or may be bird-sown from local gardens.

3.2.15 Urbanisation effects are linked with recreational pressure effects and potentially arise from the core recreational catchment of protected sites.

3.3 Background to Water Quality

3.3.1 The quality of the water that feeds European sites is an important determinant of the nature of their habitats and the species they support. Poor water quality can have a range of environmental impacts:

3.3.2 At high levels, toxic chemicals and metals can result in immediate death of aquatic life, and can have detrimental effects even at lower levels, including increased vulnerability to disease and changes in wildlife behaviour.

- Eutrophication, the enrichment of plant nutrients in water, increases plant growth and consequently results in oxygen depletion. Algal blooms, which commonly result from eutrophication, increase turbidity and decrease light penetration. The decomposition of organic wastes that often accompanies eutrophication deoxygenates water further, augmenting the oxygen depleting effects of eutrophication. In the marine environment, nitrogen is the limiting plant nutrient and so eutrophication is associated with discharges containing available nitrogen.
- Some pesticides, industrial chemicals, and components of sewage effluent are suspected to interfere with the functioning of the endocrine system, possibly having negative effects on the reproduction and development of aquatic life.

3.3.3 Sewage and some industrial effluent discharges contribute to increased nutrients in the European sites and particularly to phosphate levels in watercourses.

3.3.4 The Local Plan assessed in this report provides for development in the Thames Water catchment, which is responsible for the public water supply and wastewater treatment within Greater London. The potential implications of

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

residential and industrial development for Habitats sites are outlined in Table 2.

Table 2: Wastewater Treatment Works with catchments serving areas that are to provide new development in the Local Plan.

WwTW Catchment	Local Plans to Provide Residential Development and Approximate Quantum	HRA implications
Mogden Sewage Treatment Works (operated by Thames Water)	Hounslow Local Plan 28,840	Discharge of sewage and industrial pollutants into local watercourses (ultimately entering the River Thames)

3.4 Background to Atmospheric Pollution

3.4.1 The main pollutants of concern for European sites are oxides of nitrogen (NOx), ammonia (NH3) and sulphur dioxide (SO2) and are summarised in Table 3. Ammonia can have a directly toxic effect upon vegetation, particularly at close distances to the source such as near road verges37. NOx can also be toxic at very high concentrations (far above the annual average critical level). However, in particular, high levels of NOx and NH3 are likely to increase the total N deposition to soils, potentially leading to deleterious knock-on effects in resident ecosystems. Increases in nitrogen deposition from the atmosphere is widely known to enhance soil fertility and to lead to eutrophication. This often has adverse effects on the community composition and quality of semi-natural, nitrogen-limited terrestrial and aquatic habitats[38] [39].

Table 3: Main sources and effects of air pollutants on habitats and species[40]

Pollutant	Source	Effects on Habitats and Species
Sulphur Dioxide (SO_2)	The main sources of SO_2 are electricity generation, and industrial and domestic fuel combustion. However, total SO_2 emissions in the UK have decreased substantially since the 1980's. Another origin of sulphur dioxide is the shipping industry and high	Wet and dry deposition of SO_2 acidifies soils and freshwater, and may alter the composition of plant and animal communities. The magnitude of effects depends on levels of deposition, the

[37] http://www.apis.ac.uk/overview/pollutants/overview_NOx.htm.
[38] Wolseley, P. A.; James, P. W.; Theobald, M. R.; Sutton, M. A. **2006.** Detecting changes in epiphytic lichen communities at sites affected by atmospheric ammonia from agricultural sources. Lichenologist 38: 161-176
[39] Dijk, N. **2011.** Dry deposition of ammonia gas drives species change faster than wet deposition of ammonium ions: evidence from a long-term field manipulation Global Change Biology 17: 3589-3607
[40] Information summarised from the Air Pollution Information System (http://www.apis.ac.uk/)

Pollutant	Source	Effects on Habitats and Species
	atmospheric concentrations of SO_2 have been documented in busy ports. In future years shipping is likely to become one of the most important contributors to SO_2 emissions in the UK.	buffering capacity of soils and the sensitivity of impacted species. However, SO_2 background levels have fallen considerably since the 1970's and are now not regarded a threat to plant communities. For example, decreases in Sulphur dioxide concentrations have been linked to returning lichen species and improved tree health in London.
Acid deposition	Leads to acidification of soils and freshwater via atmospheric deposition of SO_2, NOx, ammonia and hydrochloric acid. Acid deposition from rain has declined by 85% in the last 20 years, which most of this contributed by lower sulphate levels. Although future trends in S emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, increased N emissions may cancel out any gains produced by reduced S levels.	Gaseous precursors (e.g. SO_2) can cause direct damage to sensitive vegetation, such as lichen, upon deposition. Can affect habitats and species through both wet (acid rain) and dry deposition. The effects of acidification include lowering of soil pH, leaf chlorosis, reduced decomposition rates, and compromised reproduction in birds / plants. Not all sites are equally susceptible to acidification. This varies depending on soil type, bed rock geology, weathering rate and buffering capacity. For example, sites with an underlying geology of granite, gneiss and quartz rich rocks tend to be more susceptible.
Ammonia (NH_3)	Ammonia is a reactive, soluble alkaline gas that is released following decomposition and volatilisation of animal wastes. It is a naturally occurring trace gas, but ammonia concentrations are directly related to the distribution of livestock. Ammonia reacts with acid pollutants such as the products of SO_2 and NO_X emissions to produce fine ammonium (NH_4+) - containing aerosol. Due to its significantly longer lifetime, NH_4+ may be transferred much longer distances (and can therefore be a significant trans-boundary issue).	The negative effect of NH_4+ may occur via direct toxicity, when uptake exceeds detoxification capacity and via N accumulation. Its main adverse effect is eutrophication, leading to species assemblages that are dominated by fast-growing and tall species. For example, a shift in dominance from heath species (lichens, mosses) to grasses is often seen. As emissions mostly occur at ground level in the rural environment and NH_3 is rapidly deposited, some of the most acute

Pollutant	Source	Effects on Habitats and Species
	While ammonia deposition may be estimated from its atmospheric concentration, the deposition rates are strongly influenced by meteorology and ecosystem type.	problems of NH_3 deposition are for small relict nature reserves located in intensive agricultural landscapes.
Nitrogen oxides (NO_x)	Nitrogen oxides are mostly produced in combustion processes. Half of NO_X emissions in the UK derive from motor vehicles, one quarter from power stations and the rest from other industrial and domestic combustion processes. In contrast to the steep decline in Sulphur dioxide emissions, nitrogen oxides are falling slowly due to control strategies being offset by increasing numbers of vehicles.	Direct toxicity effects of gaseous nitrates are likely to be important in areas close to the source (e.g. roadside verges). A critical level of NOx for all vegetation types has been set to 30 ug/m3. Deposition of nitrogen compounds (nitrates (NO_3), nitrogen dioxide (NO_2) and nitric acid (HNO_3)) contributes to the total nitrogen deposition and may lead to both soil and freshwater acidification. In addition, NO_x contributes to the eutrophication of soils and water, altering the species composition of plant communities at the expense of sensitive species.
Nitrogen deposition	The pollutants that contribute to the total nitrogen deposition derive mainly from oxidized (e.g. NO_X) or reduced (e.g. NH_3) nitrogen emissions (described separately above). While oxidized nitrogen mainly originates from major conurbations or highways, reduced nitrogen mostly derives from farming practices. The N pollutants together are a large contributor to acidification (see above).	All plants require nitrogen compounds to grow, but too much overall N is regarded as the major driver of biodiversity change globally. Species-rich plant communities with high proportions of slow-growing perennial species and bryophytes are most at risk from N eutrophication. This is because many semi-natural plants cannot assimilate the surplus N as well as many graminoid (grass) species. N deposition can also increase the risk of damage from abiotic factors, e.g. drought and frost.
Ozone (O_3)	A secondary pollutant generated by photochemical reactions involving NOx, volatile organic compounds (VOCs) and sunlight. These precursors are mainly released by the combustion of fossil fuels (as discussed above).	Concentrations of O_3 above 40 ppb can be toxic to both humans and wildlife, and can affect buildings. High O_3 concentrations are widely documented to cause damage to vegetation, including visible leaf damage, reduction in floral

Pollutant	Source	Effects on Habitats and Species
	Increasing anthropogenic emissions of ozone precursors in the UK have led to an increased number of days when ozone levels rise above 40ppb ('episodes' or 'smog'). Reducing ozone pollution is believed to require action at international level to reduce levels of the precursors that form ozone.	biomass, reduction in crop yield (e.g. cereal grains, tomato, potato), reduction in the number of flowers, decrease in forest production and altered species composition in semi-natural plant communities.

3.4.2 Sulphur dioxide emissions overwhelmingly derive from power stations and industrial processes that require the combustion of coal and oil, as well as (particularly on a local scale) shipping41. Ammonia emissions originate from agricultural practices42, with some chemical processes also making notable contributions. As such, it is unlikely that material increases in SO_2 or NH_3 emissions would be associated with implementation of the Local Plan reviews. NOx emissions, however, are dominated by the output of vehicle exhausts (more than half of all emissions). A 'typical' housing development will contribute by far the largest portion to its overall NOx footprint (92%) through associated road traffic. Other sources, although relevant, are of minor importance (8%) in comparison[43]. Emissions of NOx could therefore be reasonably expected to increase because of a higher number of vehicle movements due to implementation of the Local Plan reviews.

3.4.3 According to the World Health Organisation, the critical NOx concentration (critical threshold) for the protection of vegetation is 30 μgm^{-3}; the threshold for sulphur dioxide is 20 μgm^{-3}. In addition, ecological studies have determined 'critical loads'[44] of atmospheric nitrogen deposition (that is, NOx combined with ammonia NH_3).

3.4.4 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[45] (see Figure 3). This is therefore the distance that has been used throughout this HRA in order to determine whether European sites are likely to be significantly affected by development outlined in the Local Plan reviews.

[41] http://www.apis.ac.uk/overview/pollutants/overview_SO2.htm.
[42] Pain, B.F.; Weerden, T.J.; Chambers, B.J.; Phillips, V.R.; Jarvis, S.C. 1998. A new inventory for ammonia emissions from U.K. agriculture. Atmospheric Environment 32: 309-313
[43] Proportions calculated based upon data presented in Dore CJ et al. 2005. UK Emissions of Air Pollutants 1970 – 2003. UK National Atmospheric Emissions Inventory. http://www.airquality.co.uk/archive/index.php
[44] The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur
[45] http://www.dft.gov.uk/webtag/documents/expert/unit3.3.3.php#013; accessed 12/05/2016

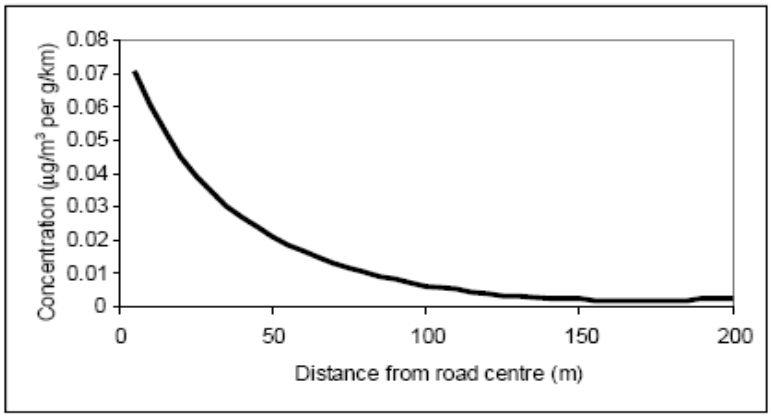

Figure 3: Traffic contribution to concentrations of pollutants at different distances from a road (Source: DfT[46])

3.4.5 Exhaust emissions from vehicles are capable of adversely affecting heathland habitats. Considering this, an increase in net population and employment growth within the London Borough of Hounslow could result in increased traffic along Wimbledon Common SAC, which is designated both for its wet and dry heathland habitats.

[46] http://www.dft.gov.uk/ha/standards/dmrb/vol11/section3/ha20707.pdf; accessed 13/07/2018

4. Screening of Likely Significant Effects (LSEs)

4.1.1 In order to screen for Likely Significant Effects (LSEs) we have considered all Habitats Sites within 10km of the London Borough of Hounslow. The Location of the Habitats Sites discussed are Illustrated in Appendix A, Figure A1.

4.1.2 The London Borough of Hounslow Regulation 19 Local Plan was subjected to a full Test of Likely Significant Effects to identify any Local Plan policies that could be dismissed as having no scope for a likely significant effect. This is provided in Appendix B.

4.1.3 The Local Plan seek to deliver various provisions including delivering at least 28,840 new homes and 262,000 m2 (net) of industrial and office employment space in Hounslow borough by 2041. It is the delivery of new housing and the associated increase in population that presents the greatest scope for potential effects on European sites.

4.1.4 The Local Plan contain a total of 123 site allocations, of which 73 allocate new homes (summarised in Table 4). Where individual allocations (rather than the overall quantum of development) are considered relevant they are discussed below. This section discusses the potential impact pathways resulting from the Local Plan in relation to the relevant Habitats sites.

4.1 South-West London Water Bodies (SPA / Ramsar)

Introduction

4.1.1 The South-West London Water Bodies SPA comprises a series of embanked water supply reservoirs and former gravel pits that support a range of man-made and semi-natural open water habitats. The reservoirs and gravel pits function as important feeding and roosting sites for wintering wildfowl, in particular Gadwall (*Anas Strepera*) and Shoveler (*Anas clypeata*), both of which occur in numbers of European importance.

4.1.2 One part of the SPA/Ramsar site (Kempton Park East Reservoir, also known as Kempton Nature Reserve) lies just within the boundary of Hounslow borough, while one other part (Red House Reservoir) lies just over the boundary in Spelthorne. In addition to actual parts of the SPA/Ramsar site there are two other waterbodies/complexes that lie wholly or partly within Hounslow borough and are identified in research as being important functionally-linked habitat for the SPA/Ramsar site. These are Bedfont Lakes Country Park (wholly in Hounslow) and Princes Lake (mainly in Spelthorne).

Designated Features

4.1.3 South West London Waterbodies SPA qualifies under Article 4.1 of the Birds Directive (79/409/EEC) for supporting populations of international importance

of species listed on Annex I of the Directive47. It also qualifies under Ramsar Criteria 6[48]:

4.1.4 Over-winter:

- Gadwall (*Anas strepera*)
- Northern Shoveler *(Anas clypeata*)

SPA Conservation Objectives[49]

4.1.5 "*With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;*

4.1.6 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*."

Potential Effects of the Local Plan

4.1.7 The Site Improvement Plan (SIP)[50], Supplementary Advice on Conservation Objectives (SACO)[51] and Ramsar Information Sheet (RIS)[52] identify potentially linking impact pathways that could link the Habitats Sites to the Local Plan. These are:

- Recreational disturbance
- Water quality impacts
- Water level impacts.

4.1.8 Traffic-related air quality was also considered because Staines Reservoirs and King George VI Reservoir both lie within 200m of the A30. In the case of Kempton Park Reservoirs (the other component of the SPA in Hounslow) there are no significant roads within 200m of the site boundaries. Although Staines Reservoirs and King George VI Reservoir are adjacent to the A30, they are behind 5-6m high embankments, which will provide a significant buffer for atmospheric pollutants originating from the A30.

[47] Available at https://publications.naturalengland.org.uk/file/6663157678342144 [Accessed 25/06/2024]
[48] Available at South West London Waterbodies | Ramsar Sites Information Service [Accessed 25/06/2024]
[49] Available at https://publications.naturalengland.org.uk/file/5411059804667904 [Accessed 25/06/224]
[50] Available at https://publications.naturalengland.org.uk/publication/6662064386867200 [Accessed 25/06/2024]
[51] Available at https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK9012171.pdf [Accessed 25/06/2024]
[52] Available at South West London Waterbodies | Ramsar Sites Information Service [Accessed 25/06/204]

4.1.9 Moreover, the South West London Waterbodies SPA/Ramsar site, like most freshwater environments, is a phosphate limited system rather than a nitrogen limited system, meaning that the growth of macrophytes and algae primarily depends on the availability of phosphate[53]. Since the Local Plan will not affect phosphate availability within any of the component waterbodies (as this does not derive from atmosphere), no likely significant effects will arise through atmospheric pollution. This reflects the conclusion also reached in the London Plan HRA, which underwent consultation with Natural England. This conclusion is supported in the Air Pollution Information System (APIS), which highlights that the susceptibility of the SPA to atmospheric pollution depends on whether it is nitrogen or phosphate limited. APIS does not provide a critical nitrogen level for open, standing water, which is the habitat present in the South West London Waterbodies SPA / Ramsar, instead stating 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'.

4.1.10 Given the above, it is considered that detailed traffic modelling would not add materially to the impact assessment and is not necessary in order to conclude no likely significant effect regarding the South-West London Waterbodies SPA / Ramsar.

Recreational Disturbance

4.1.11 The components of the South West London Waterbodies (and the other supporting waterbodies) are susceptible to disturbance. If that disturbance is sufficiently extensive, lengthy in duration or large enough in magnitude it may deter a significant proportion of the gadwall and shoveler that utilise those waterbodies, thus impacting the qualifying features of the SPA / Ramsar. Therefore, the Local Plan might increase recreational pressure on the South West London Waterbodies SPA via the residential site allocations (Table 4).

Table 4: Summary of the total number of residential site allocations and the number of new homes across the Local Plan.

Site Allocation No.	Site Name	Total Number of New Homes
2	Tesco Osterley	1,030
3	Gillette Factory	240
5	West Cross Campus	1,800
6	BSS Brentford	120
7	Profile West Brentford Car Park	30
11	Homebase Syon Lane	370

[53]Available at http://www.apis.ac.uk/node/983 [Accessed 25/06/2024]

Site Allocation No.	Site Name	Total Number of New Homes
13	Harlequin Avenue Sub Station	10
16	Brentside Park	390
17	Great West Plaza	380
18	Great West House	70
25	Land at Layton Road	110
26	Phoenix Business Park	260
27	Kew Bridge Distribution Centre	750
28	28 Great West Road	500
29	EMC Tower	420
30	Vantage West	130
32	Brentford Fountains Leisure Centre	Appropriate for residential
33	Esso Filling Station Chiswick Roundabout	30
34	Former Natwest Bank Site, Chiswick	120
35	B&Q Chiswick	270
37	Gunnersbury Station Car Park	60
50	Tesco Dukes Green Avenue	210
51	Network House Feltham	200
52	Lidl Feltham	220
55	Scout Hut Bedfont Lane	30
59	Tesco Feltham	170
61	Council Depot, Ashmead Road	50

Site Allocation No.	Site Name	Total Number of New Homes
62	Manor Park, Feltham	80
63	80-86 High Street Feltham	200
64	MOD Feltham	1,370
65	Leisure West	310
67	UPS House	170
69	Land at 2 High Street Feltham	90
70	Royal Naval Association Club	20
72	St. Catherine's House and Car Park	20
73	Land at Nene Gardens	40
74	Hounslow West Station	360
75	Land to the rear of HCC Sports and Social Club	10
76	Lampton House	90
80	34 Staines Road	120
81	80-82 Staines Road	50
82	206-210 Hanworth Road	80
83	Vacant Land Clarence Terrace	30
84	Hounslow Cavalry Barracks	1,000
85	Builders Yard, 379-389 Staines Road	20
87	Euro House, Hounslow	150
88	Land at Bridge Road Depot	10

Site Allocation No.	Site Name	Total Number of New Homes
89	Land at James Street	70
90	Inwood Business Park	30
91	Hounslow Bus Garage	830
92	Upstage	50
93	Land at Kingsley Road	30
95	Tesco Mogden Lane	340
96	Europa House	20
97	30 Rugby Road	60
98	Osterley Station Car Park	50
99	Feltham Coach Works	10
100	Osterley Park Hotel	80
101	Brentford Group Practice	60
103	West Middlesex Hospital	250
105	Chiswick Telephone Exchange	40
106	Royal Mail, Chiswick Delivery Office	30
107	Sainsbury's Chiswick	300
110	Albany Riverside (2015-11)	190
111	Brentford Police Station (2015-15)	100
113	69-77 Boston Manor Road	20
114	Royal Mail Delivery Office	140
115	Vacant Site, Hanworth Road, Hanworth	90
116	1 Burlington Lane	90

Site Allocation No.	Site Name	Total Number of New Homes
117	The Treaty Centre	750
118	GSK	Suitable for mixed use with residential
119	Convent Way Estate	310
123	1-83 High Street	120

4.1.12 The different waterbodies have different access arrangements: Some are closed to the public, while others have controlled public access and a minority have unrestricted access. The latter sites are the ones most likely to experience a significant increase in visitor pressure as a result of the proposed Local Plan.

4.1.13 A doctoral study, detailing these different water bodies and the susceptibility of gadwalls and shovelers to disturbance[54], was consulted to determine whether the four waterbodies/complexes forming part of the SPA (Kempton Park East Reservoir, Red Lodge Reservoir, Bedfont Lakes, and Princes Lake) would likely be subject to an increase in visitor disturbance as a result of the Local Plan development in Hounslow borough.

4.1.14 Due to several of the residential site allocations being located closer to component waterbodies of the SPA, we provide a more detailed discussion of the allocations in the following paragraphs.

Table 5: Summary of the closest distance between allocated residential sites in the Local Plan and components of the South-West London Waterbodies. * = Functionally-linked habitat + = South-West London Waterbodies SPA/Ramsar

Potentially Sensitive Sites	Approximate Distance to Nearest Allocated Residential Sites
Bedfont Lakes *	1,681m (Site 52 Lidl Feltham) 1,538m (Site 64 – MOD Feltham) 1,393m (Site 59 - Tesco Feltham) 1,361m (Site 55 – Scout Hut Bedfont Lane)
Princes Lake *	3,185m (site 67 UPS House) 2,710m (Site 64 – MOD Feltham) 2,573m (Site 59 – Tesco Feltham) 2,488m (Site 55 - Scout Hut Bedfont Lane)
Kempton East +	1,723m (Site 67 – UPS House) 1,701m (Site 73 – Land at Nene Gardens) 1,606m (Site 64 – MOD Feltham)

[54] Briggs, B. Wolfson College, 2007. The use of waterbodies in South-West London by Gadwall and Shoveler; implications for nature conservation. Unpublished PhD dissertation, University of Oxford. www.environmentbank.com/docs/Brian-Briggs-DPhil.pdf [Accessed: 09/04/2019]

	905m (Site 70 – Royal Naval Association Club)
Red House Reservoir +	2,385m (Site 67 – UPS House) 2,269m (Site 64 – MOD Feltham) 2,248m (Site 73 – Land at Nene Gardens)1,525m (Site 70 – Royal Naval Association Club)

Kempton Park East Reservoir (SPA)

4.1.15 This reservoir is situated in the Hanworth part of the borough. There are several closely located residential site allocations in the Local Plan, which are likely to lead to increased recreational demand in the area. They are shown in Table 5 and are located at the following approximate linear distances from Kempton Park Reservoir: 905m (Site 70 - 20 homes), 1,606m (Site 64 - 1,370 homes), 1,701m (Site 73 - 40 homes) and 1,723m (Site 67 - 170 homes).

4.1.16 However, Kempton Park East Reservoir (also known as Kempton Nature Reserve) is owned by Thames Water and managed by a warden. Due to its urban location, and to prevent disturbance, site access is restricted to the 'Friends of Kempton Nature Reserve' ('*Access to Kempton Nature Reserve is restricted to members of our Friends scheme, to limit disturbance to wildlife and protect public from the open water bodies on site*'[55]). As such, public access to the reservoir is possible but is strictly controlled by on-site management measures. This has important implications for the Local Plan, because an increase in the local population cannot be assumed to result in significantly higher numbers of visitors. Site access can be, and is, limited to a degree that safeguards the ecological interest features of the site.

4.1.17 Given this, it is considered that there will be no significant increase in recreational disturbance and, therefore, no likely significant effect from the delivery of the Local Plan.

Red House Reservoir (SPA)

4.1.18 This waterbody is situated adjacent to the Hanworth part of the borough. There are several allocated housing sites in the Local Plan that are potentially relevant. They are shown in Table 5 and are located at the following linear distances from the Red House Reservoir: 1,525m (Site 70 – 20 homes), 2,248m (Site 73 – 40 homes), 2,269m (Site 64 – 1,370 homes), 2,385m (Site 67 – 170 homes).

4.1.19 Red House Reservoir is located just over the borough boundary in Spelthorne. It is still operational as a water supply resource and access is only possible by arrangement. As such, an increase in the population cannot be assumed to result in a significant increase in visitors since access can essentially be managed to a degree that balances the ecological interest of the site.

[55] https://www.thameswater.co.uk/kemptonnaturereserve

4.1.20 Given this, it is considered that excessive recreational disturbance will not arise and there will therefore be no likely significant effect due to the delivery of the Local Plan.

Bedfont Lakes Country Park (functionally-linked habitat)

4.1.21 In the Local Plan, a minimum of 16,250 residential dwellings are allocated, some of which will be delivered in the area around Bedfont. The closest allocated housing sites lie within the following distances to Bedfont Lakes Country Park which is a popular visitor destination and may increase visitor numbers: 1,681m (Site 52 - 220 homes), 1,538m (Site 64 - 1,370 homes), 1,393m (Site 59 - 170 homes), 1,361m (Site 55 - 30 homes). All of which are over 1km from the site and thus beyond the standard definition of easy walking distance. These residential sites are shown in Table 5.

4.1.22 Bedfont Lakes are the centrepiece of the Bedfont Lakes Country Park. They lie in the London Borough of Hounslow and constitute functionally-linked habitat for the SPA, although are not of particular importance. According to Briggs '*Bedfont Lakes is managed as a nature reserve and supports small numbers of Gadwall throughout the winter. Birds also use this site as a refuge when disturbed at Princes Lake or the Staines reservoirs.*' The study also indicates that, while the park is open to and popular with the general public, the population of gadwall that uses the lakes have become habituated to the presence of people. Indeed, gadwall seem to have become sufficiently habituated that, although this site is well used for recreation by dog walkers and joggers, it also traditionally serves as a refuge for birds displaced from Princes Lake.

4.1.23 The Hounslow countryside ranger team consists of five full-time rangers and is based at Bedfont Lakes Country Park visitor centre. As a result, the site is patrolled daily throughout the year. The recreational focus of the country park is the terrestrial habitats around the main footpath network. Public access to the lakes themselves (for swimming, fishing, boating etc.) is prohibited and the on-site rangers based at the visitor centre ensure that this rule is followed. The exception is Chattern Hill Lake in the south of the site, which has occasional use for open water swimming and kayaking but which, unlike the other lakes in the north of the site, is not identified by Briggs as being significant for gadwall and shoveler. The rangers also ensure that dogs off-lead are confined to the secure dog parks, which are away from the lakes in the eastern and southern parts of the park. There are few footpaths around the main lakes and the lakes themselves are largely sheltered by surrounding dense tree cover except for specific viewing locations, most with hides. The park is closed at night, which thus provides a long period without any human activity each day.

4.1.24 It is also to be noted that the landscape and habitats in the Bedfont Lakes Country Park are actively managed to enhance species diversity. The Country Park has a long history of involving visitors in nature conservation[56]. Both the Parks Team and the Countryside Team run weekly sessions to recruit and train volunteers. The training involves being taught about the wildlife on site and the conservation work that supports resident species. The Countryside Service collaborates with local volunteer groups such as the Runnymede Ringing Group and bat conservation experts to deliver monitoring programmes for bats and birds in the nature reserve. The Country Park also

[56] For details see the 2019 / 2020 Bedfont Lakes Country Park Management Plan. London Borough of Hounslow. 41pp.

encourages participation of its site visitors in recording wildlife sightings in the Wildlife Log Book and supplies a quarterly wildlife information sheet to visitors that are interested in wildlife. Therefore, while the Bedfont Lakes Country Park is subject to considerable recreational pressure, it provides a framework in which this recreational footprint can be sustainably managed. Public engagement is generally regarded as a particularly effective means to reducing negative impacts of nature tourism.

4.1.25 Moreover, the lakes have their greatest (limited) value for gadwall in winter, which is when visitor numbers are lowest. While a significant increase in the immediate local population may put some additional pressure on ranger resources in summer (although the rangers already manage a large number of summer visitors due to the popularity of the park for people living across the borough), it is not expected to do so in winter, or result in water-based recreation on lakes that are not currently used for that purpose, which are also those of identified value for gadwall and shoveler.

4.1.26 Given that the site is already well-used for recreation and this appears to be compatible with its value for gadwall due in particular to the fact that the lakes in the north of the site are not used for water-based recreation, it is considered that the possible increase in visitors would not have measurable disturbance effects on the resident gadwall population. Furthermore, previous research has identified specific water-based activities as having the highest adverse effects on gadwall, but there are no plans to introduce such activities given that the site is managed as a nature reserve.

1.1.1 It is therefore considered that there will be no LSEs on this site due to the Local Plan.

Princes Lake (functionally-linked habitat)

4.1.27 All allocations within the Local Plan are allocated over 2km from Princes Lake. The closest allocated housing sites lie within the following distances to Princes Lake: 3,185m (Site 67 - 170 homes), 2,710m (Site 64 – 1,370 homes), 2,573m (Site 59 – 170 homes), 2,488m (Site 55 – 30 homes).

4.1.28 Princes Lake was a large waterski site (Princes Club Water Skiing), which at times during the Briggs study supported large numbers of feeding and roosting gadwall and shoveler. This was because the area in the northwest corner of the site was largely undisturbed, unlike most other parts of the site, which were used regularly for waterskiing. The site, therefore, served to support both high populations of gadwall and shoveler alongside water-skiing largely due to the physical separation between the two activities. The waterski centre closed in 2011 following a fatality and the site is no longer open to the public. Although a substantial amount of housing is planned for delivery in Hounslow north of Princes Lake none is particularly close and the boundary of Princes Lakes is security-fenced (including razor wire in places) and will therefore not be accessible to new residents.

4.1.29 It is therefore considered that there will be no LSEs on Princes Lake due to the Local Plan.

Water Quality

4.1.30 In the winter months gadwall inhabit highly productive, eutrophic lakes. Their diet is almost entirely green plant-based, mainly consisting of submerged or

emergent macrophytes[57]. Gadwalls rely on the consumption of large amounts of poor-quality food sources, indicating they are potentially susceptible to pollution and resultant changes in the macrophyte communities.

4.1.31 Shoveler duck have morphological traits that facilitate a different feeding ecology. Their specialised bill enables these ducks to filter out zooplankton, their main food source, mainly caught in productive habitats bordered by vegetation[58]. Although shoveler are not directly dependent on macrophytes, zooplankton (their main food) depend on macrophytes as a source of food and for their microhabitats[59].

4.1.32 Several studies have demonstrated that high levels of phosphorus lead to a loss of biodiversity in aquatic macrophytes[60] [61]. There is now a scientific consensus that wetland systems operate on an optimum range of nutrient levels, beyond which there might be a reduction in system functionality[62]. Delivery of the Local Plan, and resultant influx of sewage and industrial pollutants, might potentially result in adverse effects on the water quality of the South-West London Waterbodies SPA.

4.1.33 Sewage from the Borough of Hounslow is treated in the Mogden Wastewater Treatment Works, which discharges treated effluent into the tidal part of the Thames downstream of Teddington Weir. In contrast, the South-West London Waterbodies SPA is in continuity with the non-tidal part of the Thames upstream of the weir. There is therefore, no connectivity between the SPA and waste water originating from Hounslow.

4.1.34 It is therefore concluded that there will be no likely significant effects on the water quality of the residential and industrial development provided as part of the Local Plan.

Water Level

4.1.35 Several reservoirs that constitute the South West London Waterbodies SPA/Ramsar site are still utilised for operational water supply by Thames Water. Since Thames Water is the statutory water company for the London Borough of Hounslow an increase in the population of the borough (coupled as it would be with population growth throughout the Thames Water area) over the Local Plan period could theoretically result in a potential effect on the South West London Waterbodies SPA and their ability to support their qualifying features.

4.1.36 This would be particularly the case if they required the top level of any of the reservoirs to be increased (to improve their capacity), which would result in the loss of habitat around the reservoir margins used by gadwall and shoveler. Particularly gadwall, and to a lesser extent shoveler, are known to require terrestrial fringe habitats to rest up out of the water. These typically include

[57] Fox. (2005). Gadwall. In Ducks, Geese and Swans; Volume 2: Species accounts (ed J. Kear), pp. 491-94. Oxford University Press, Oxford.
[58] Mitchell. (2005). Shoveler. In Ducks, Geese and Swans; Volume 2: Species accounts (ed J. Kear), pp. 560-64. Oxford University Press, Oxford.
[59] Choi et al. 2014. Role of macrophytes as microhabitats for zooplankton community in lentic freshwater ecosystems of South Korea. *Ecological Informatics* 24: 177-185.
[60] Lambert & Davy. 2010. Water quality as a threat to aquatic plants: discriminating between the effects of nitrate, phosphate, boron and heavy metals on charophytes. *New Phytologist* 189: 1051-1059.
[61] Roelofs et al. 1984. Impact of acidification and eutrophication on macrophyte communities in soft waters. II. Experimental studies. *Aquatic Botany* 18: 389-411.
[62] Balmer & Rehfisch. 1999. An assessment of the feeding requirements of overwintering waterfowl at Hickling Broad. BTO Research Report No. 220. Available at: https://www.bto.org/file/335743/download?token=TeUZy_i0

areas of short vegetation, such as grassland, rush pasture and waterside scrub.[63]

4.1.37 However, the Thames Water revised draft Water Resource Management Plan 2024 and its HRA[64] does not indicate that this is part of their intended solution for water supply in London or elsewhere in their area.

4.1.38 As such it is considered that there would be no likely significant effect on gadwall and shoveler through this impact pathway.

In-Combination Effects with Other Plans

4.1.39 Most of the waterbodies that constitute the South West London Waterbodies lie in either Spelthorne or Elmbridge. A total of 12,225 dwellings are likely to be delivered in those two boroughs over the period to 2035. Both Spelthorne and Elmbridge have adopted Core Strategies (in 2009 and 2011 respectively) and undertook Habitat Regulations Assessments prior to adoption. In both cases it was concluded that the level of development proposed would not result in a likely significant effect on the SPA, either alone or in combination with other projects or plans.

4.1.40 Both Affinity Water and Thames Water have identified several schemes in their revised draft Water Resource Management Plans that would involve construction works relatively close to the South West London Waterbodies SPA. These schemes are: Abingdon Reservoir to Harefield Transfer (50Ml/d), Abingdon to Iver 2 (50Ml/d), Datchet Groundwater, Kempton WTW and South West London Pipelines (Chalk Streams). The first two are Affinity Water schemes while the last three are Thames Water schemes. However, the HRAs for both revised draft Water Resource Management Plans[65] set out the mitigation measures that would be implemented during construction to ensure no adverse disturbance effect on the SPA or Ramsar site arose.

4.1.41 Given this, and the conclusion that the housing to be delivered in Hounslow will not lead to a likely significant effect (due to a combination of the majority of housing being located away from the lakes, the controls and management of recreational access and the compatibility of both recreational usage and bird interest on other waterbodies such as Bedfont Lakes), it is considered that no 'in combination' recreational effect would arise.

4.2 Wimbledon Common SAC

Introduction

4.2.1 Wimbledon Common supports the most extensive area of open, wet heath on acidic soil in Greater London. The site also contains a variety of other acidic heath and grassland communities reflecting the variations in geology, drainage and management. Associated with these habitats are a number of plants uncommon in the London area.

[63] Natural England. 2018. European Site Conservation Objectives: Supplementary Advice on Conserving and Restoring Site Features. The South-West London Waterbodies SPA. Accessed at: http://publications.naturalengland.org.uk/publication/4901473695563776?cache=1552996770.7.
[64] Document library - Thames Water Resources Management Plan (thames-wrmp.co.uk)
[65] https://corporate.thameswater.co.uk/-/media/Site-Content/Your-water-future-2018/Appendices/dWRMP19-Appendix-C---HRA---Stage-1-screening-151217
https://stakeholder.affinitywater.co.uk/docs/rdWRMP19-Habitats-regulation-assessment-March-2019v2.pdf

4.2.2 A summary of the qualifying features, conservation objectives and pressures / threats to the integrity of Wimbledon Common SAC is provided in Appendix 1.

Designated Features[66]

- Wet and dry heathland
- Stag beetle

Conservation Objectives

4.2.3 The Conservation Objectives for the European interests are, subject to natural changes:

- to maintain*, in favourable condition, the heathland habitat and habitat for stag beetle.

  * maintenance implies restoration if the feature is not currently in favourable condition.

Key Environmental Conditions

4.2.4 The key environmental conditions that support the features of European interest have been defined as:

- Low nutrient inputs
- Managed levels of recreational activity
- Adequate water supply
- Adequate supply of standing dead wood

Potential Effects of The Local Plan

4.2.5 The Plan policies were subjected to a high-level sieve (Appendix 1) to identify those policies that could be dismissed as having no scope for a likely significant effect. As a result of this sieve the focus was placed on housing delivery. The Local Plan seeks to deliver various provisions including delivery of 28,840 new homes and 262,000 of (net) employment space in Hounslow borough by 2041. It is the delivery of housing and employment, with the associated increase in population, that presents the greatest scope for potential effects on European sites. Where individual allocations (rather than the overall quantum of development) are considered relevant they are discussed below.

4.2.6 The potential impacts of the Local Plan upon the SAC site are identified as:

- Recreational disturbance
- Atmospheric pollution

Recreational disturbance

[66] Features of European Interest are the features for which a European site is selected. They include habitats listed on Annex 1 of the Habitats Directive, species listed on Annex II of the EC Habitats Directive and populations of bird species for which a site is designated under the EC Birds Directive.

4.2.7 Both the heathland components and stag beetle (*Lucanus cervus*) population (through removal of deadwood) of Wimbledon Common SAC are potentially vulnerable to recreational pressure and / or incidental fires. Wimbledon Common SAC is located 3.4km in a straight line from Hounslow at its closest.

4.2.8 The stag beetles are dependent on mature trees and deadwood for survival. The Wimbledon Common SAC Site Improvement Plan identifies that removal of dead wood from the site by visitors may reduce the ability of the SAC to support stag beetle. However, the removal of deadwood is based on a personal decision of relatively few visitors and cannot be upscaled with surrounding residential growth.

4.2.9 The heathlands of the SAC are theoretically vulnerable to recreational pressure and Wimbledon Common generally (not just the SAC component) is a popular site for visitors. According to the most recent conservation report on the Wimbledon and Putney Commons website '*Being an unfenced Common the whole area is open to the public 24 hours a day throughout the year'*[67]..

4.2.10 However, according to habitat mapping on MAGIC[68] the heathland is only found in the northern portion of the SAC. In contrast, the main hotspots for recreational usage are the grassland areas further south, which do not contain SAC features.

4.2.11 While the Natural England condition assessment for the SAC states that most of the heath fails to meet key targets for quality, the report also concludes that there are no indications of significant adverse impacts from trampling, burning or other recreational disturbance.

4.2.12 The low heathland quality has been attributed to a lack of traditional management, which has been addressed in recent years. As a result *'there has certainly been no loss of heathland, removal of invasive trees and scrub has been carried out, a mosaic of age and structure for heather and gorse has been achieved, pernicious weeds have been kept under control and many areas of the Commons' heathland and acid grassland are now much improved from the condition they were in 10 years ago'*. [69]

4.2.13 The Wimbledon Common SAC also lies on the other side of the River Thames such that it is only accessible via a relatively convoluted route from Hounslow borough. The actual on-the-road travel distance is approximately 8km from the nearest allocation (Site 116, 1 Burlington Lane) and much further from other allocations.. There are alternative sites of semi-natural green space and heathland present within Hounslow that residents are more likely to use for recreation[70]. For example, parks such as Wyke Green and Hanworth Park are more likely to be visited for activities such as dog walking than undertaking a lengthy, regular trip to the Wimbledon Common SAC. Furthermore, for people with a particular interest in heathland, Hounslow Heath provides a much closer alternative destination than the Wimbledon SAC.

4.2.14 Overall, it is not likely that residents of Hounslow borough would regularly use the Wimbledon Common SAC for dog-walking and other forms of recreation in any considerable numbers. There is therefore no likely significant effect of

[67] https://www.wpcc.org.uk/downloads/nature/annual-conservation-report-.pdf
[68] https://magic.defra.gov.uk/MagicMap.aspx
[69] Ibid
[70] https://www.hounslow.gov.uk/info/20168/parks

the residential site allocations in either of the Local Plan on the Wimbledon Common SAC.

Atmospheric pollution

4.2.15 Both the dry and wet heathland vegetation qualifying features of the Wimbledon Common SAC are potentially sensitive to pollution originating from traffic. For example, both have an annual critical level for NOx of 30 ugm^{-3}, which is a general standard set for all vegetation. Since heathlands contain plant species that are adapted to low-nutrient conditions, these communities are susceptible to high levels of total annual nitrogen deposition. The empirical critical total nitrogen loads for both dry and wet heaths have been identified as 5-15 kg N / ha / yr. The critical levels for all atmospheric pollutants act as indicators for when LSEs and / or adverse effects on site integrity might be expected.

4.2.16 It is well established that traffic pollutants are most relevant within 200m of major roads as beyond that distance the effect of the road reduces to background levels. In cases such as the Local Plan, which allocate development at relatively long distances from Wimbledon Common SAC, the major determinants of LSEs are therefore the commuting patterns of local residents. A suitable tool for investigating whether additional traffic from development plans is likely to affect European sites, is journey-to-work data available online[71].

4.2.17 Wimbledon Common is in the London Boroughs of Merton and Wandsworth. As of the 2011 census, the Borough of Hounslow had 28,714 daily outflows by car. Of these outward commutes, the top 5 destinations were Hillingdon (22%), Ealing (12.7%), Richmond upon Thames (12.5%), Spelthorne (7%) and Slough (5.3%). Daily car commutes *into* Hounslow were undertaken by 43,760 people. The highest number of inflows was from the following 5 authorities: Ealing (11.3%), Spelthorne (10.1%), Hillingdon (9.5%), Richmond upon Thames (9.3%) and Slough (3.8%). In other words, Hounslow is a net recipient (rather than generator) of journey to work vehicle trips by car. This also applies to the relationship with the boroughs of Merton and Wandsworth; according to the 2011 census, not only is the number of trips from Hounslow to these two boroughs very small but there is a net inflow (rather than outflow) of car or van based journeys to work from both boroughs to Hounslow. As already discussed regarding recreation, Wimbledon Common SAC lies on the other side of the River Thames such that it is only accessible via a relatively convoluted route from Hounslow borough. The actual on-the-road travel distance is approximately 8km from the nearest allocation (Site 116, 1 Burlington Lane) and much further from other allocations..

4.2.18 Research into the likely routes taken by inward and outward commuters indicates that the vast majority of this additional travel will not go past Wimbledon Common SAC. Most points of origin and destinations of commuters are to the south-west of Wimbledon Common SAC, with travel routes not extending within 200m of the SAC. The destinations that lie to the east of Hounslow (e.g. Ealing, Hammersmith and Fulham and Westminster) are much more likely to be accessed via the main transport corridors such as

[71] https://www.nomisweb.co.uk/census/2011/WU03UK/chart/1132462389

the M4 just north of Hounslow. It is therefore considered that no likely significant effect will arise.

In-Combination Effects with Other Plans

4.2.19 Wimbledon Common SAC is situated in Wandsworth and Merton boroughs. Wandsworth and Merton Councils have adopted Local Plans that intend to deliver over 33,000 dwellings between c. 2022/23 and c. 2037/38[72]. Both boroughs have submitted Local Plans that were subjected to Habitat Regulations Assessment. The London Plan, which also has been subject to Appropriate Assessment, sets a target for achieving 36,800[73] new dwellings in the London Boroughs of Wandsworth and Merton between 2019 and 2029.

4.2.20 In all cases the HRAs concluded that the scale of housing planned for the boroughs would not result in a likely significant effect on Wimbledon Common SAC either alone or in combination with other projects and plans. According to Natural England's Countryside Stewardship Negotiation Schedule, the aim of the management of Lowland Heath is '*to provide a mosaic of vegetation which allows all heathland features to flourish, including pioneer heath and bare ground which benefits rarer invertebrates, birds, reptiles and plants'.* In response to this, some of the management prescriptions included in the Wimbledon and Putney Commons conservation report for 2016/17 include:

- The creation of bare ground sites through the scraping back of turves.
- The maintenance of a full range of age classes of gorse by cutting and removing arisings.
- The management of dense bracken stands and deep bracken litter layers by rotational cutting, bruising or spraying.

4.2.21 While clearly such measures to open up the sward can be taken to excess, the extent of historic scrub encroachment on the heathland, and these management prescriptions, suggests that in general a lack of physical disturbance and trampling (which would help to retard such encroachment), from both people and grazing animals, is more of a concern for the heathland areas than excessive footfall.

4.2.22 The HRAs for the Wandsworth and Merton Local Plans also assessed atmospheric pollution as potentially resulting in LSEs on the heathland components of Wimbledon SAC. However, in both cases the HRA Appropriate Assessment concluded that there would not be adverse effects on site integrity due to air pollution. For example, the HRA of the Wandsworth adopted Local Plan concluded that '

4.2.23 As the DWLP seeks to accommodate 1,950 net additional dwelling units each year; it is conceivable that there may be an associated increase in vehicle use. However, the DWLP makes clear it seeks to reduce private vehicle use and that growth will be targeted in key locations that are better served by active travel or public transport. . They also noted that despite population growth Wandsworth has seen a significant reduction in private car ownership since

[72] This consists of 20,311 dwellings in Wandsworth between 2023 and 2038 and 11,374 in Merton between 2012 and 2037.
[73] Policy H1: Increasing Housing Supply provides for the following 10-year housing targets: Merton = 14,100; Wandsworth = 23,900

the early 21st century and that trend is likely to continue due to good public transport.

4.2.24 Given the above and the low likelihood that Hounslow residents will: (1) regularly use Wimbledon Common for recreation and / or (2) frequently undertake car commutes within 200m of Wimbledon Common SAC, it is considered that no 'in combination' effect would arise.

5. Summary of Conclusions

5.1.1 It is concluded that the development set out in the Hounslow Local Plan would not result in a likely significant effect, alone or in combination with other plans, on any European sites.

5.1.2 Recreational pressure is unlikely to result in Likely Significant Effects because many of the residential site allocations are located far away from relevant European sites. Notwithstanding, some residential site allocations within close proximity to the South-West London Waterbodies SPA / Ramsar, particularly the Bedfont Lakes Country Park, are to come forward. The HRA has undertaken a detailed assessment of this residential growth. It concludes that the existing access management in the relevant waterbodies of the SPA / Ramsar minimises the susceptibility of the internationally important features of this site to adverse recreational pressure. Furthermore, the Bedfont Lakes Country Park has an established dual role serving both as a wildlife refuge and recreational destination, among other management measures most notably facilitated by the wardening team, which also helps avoid LSEs on this component part of the SPA / Ramsar.

5.1.3 Equally, there are unlikely to be significant effects on the water quality or the availability of surrounding habitat of the South-West London Waterbodies SPA. This is mainly due to there being no connection between wastewater from Hounslow and the SPA, and no indication of introducing changes to the water level in the reservoirs that form part of the SPA.

5.1.4 No LSEs regarding atmospheric pollution on Wimbledon Common SAC are determined, because any traffic journeys arising from the plans are unlikely to occur within 200m of any SAC.

Appendix A Location of Site Allocations and Habitats Sites

Figure A1 – Location of Habitats Sites in Relation to the London Borough of Hounslow

Revision: 0 Drawn: ER Checked: JG Approved: IHH Date: 2024-06-27

Richmond Park SAC

Wimbledon Common SAC

N

1:75,000 @ A3

1 0.5 0 1 2 3 4 5 km

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LEGEND

- Hounslow London Borough Boundary
- Special Area of Conservation (SAC)
- South West London Waterbodies Special Protection Area (SPA)
- South West London Waterbodies Ramsar

NOTES

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PROJECT NUMBER

60718445

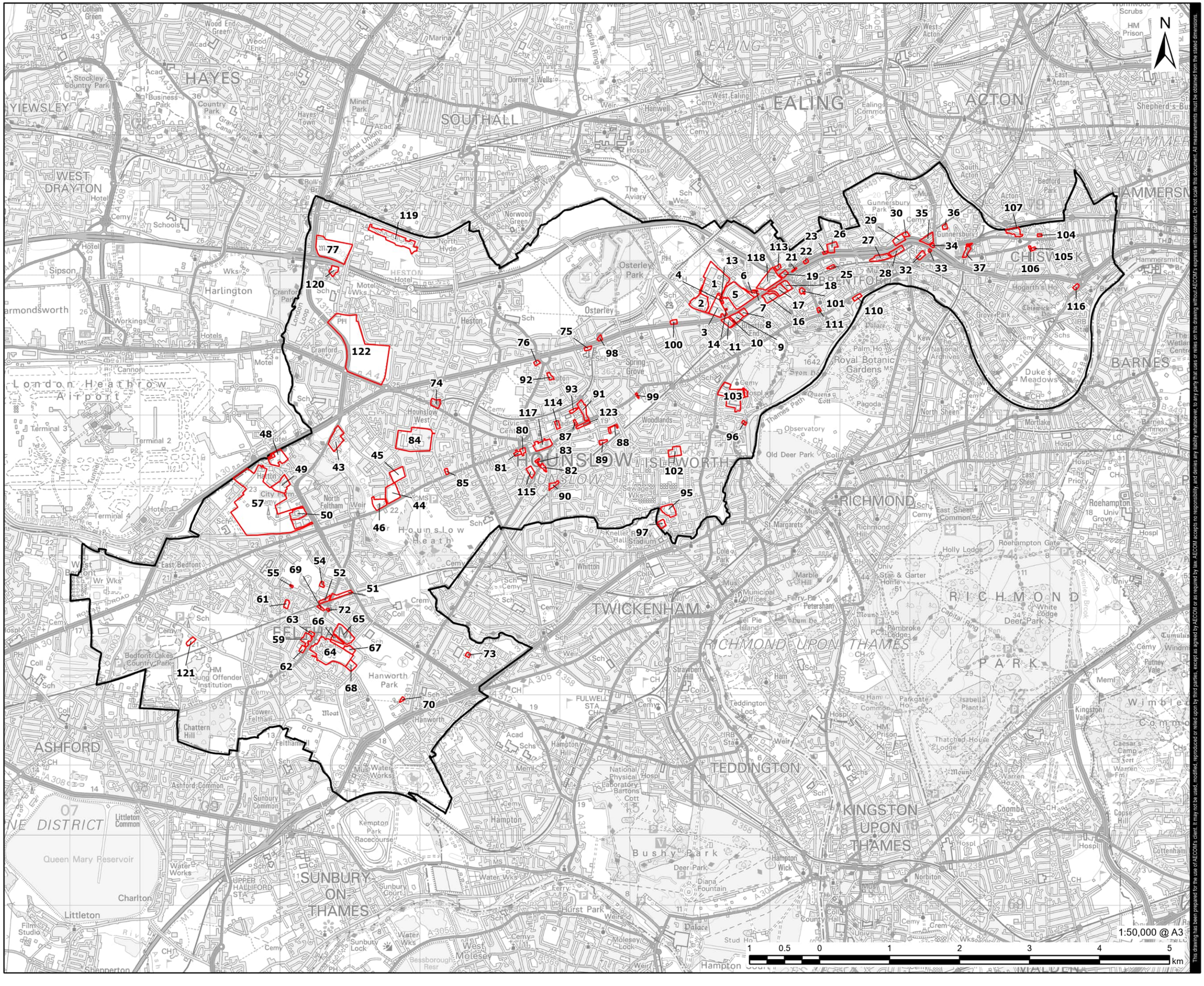
FIGURE TITLE

Habitat Sites

FIGURE NUMBER

Figure A1

Figure A2 Location of Site Allocations Provided by the London Borough of Hounslow Local Plan



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LEGEND

- Hounslow London Borough Boundary
- Site Allocation

NOTES

ISSUE PURPOSE

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PROJECT NUMBER

60718445

FIGURE TITLE

Site Allocations

FIGURE NUMBER

Figure A2

Appendix B LP Test of Likely Significant Effects

B.1 LP Policies Test of Likely Significant Effects

Table 6: Local Plan Policies Test of Likely Significant Effects

5.1.5 Where the HRA Implications cell is coloured **green**, this means that there is no potential for a linking impact pathway between the policy and a Habitats Site; there **is no potential for Likely Significant Effect**, and thus it will not be discussed further within the report. Where the HRA Implications cell is coloured **orange**, this means that there is potential for a linking impact pathway between the policy and a Habitats Site; there **is potential for Likely Significant Effect**, and thus it has been discussed further within the report.

Policy Reference	Policy Summary	HRA Implications
Objective One: Supporting Our Town Centres	This objective strengthens the role of the town and local centres by encouraging a broad range and mix of uses and activities.	No HRA implications. This is a broad objective that does not identify any explicit type, location, or quantum of development.
Objective Two: Promoting Economic Growth and Inward Investment	This objective encourages inward investment and facilitate job growth, to make the Borough an attractive place to do business, to provide a mix of employment sites, to support and encourage economic development and to foster an environment where existing, new, innovative, cultural and creative enterprises cab prosper.	No HRA implications. This is a broad objective that does not identify any explicit type, location, or quantum of development.
Objective Three: Delivering Sustainable Mixed Communities	This objective provides a mix of housing to reflect the needs of the local community by providing a ranges of size, tenures, types of affordable homes, family homes, and quality provision for the elderly, to provide homes in sustainable locations where residents can walk, cycle to desired locations, and to ensure new homes are integrated with shops, businesses and community spaces.	No HRA implications. This is a broad objective that does not identify any explicit type, location, or quantum of development.

Policy Reference	Policy Summary	HRA Implications
Objective Four: Reinforcing Local Character and Context	This objective recognises the varied character of the borough's neighbourhoods and seek to preserve and enhance their special qualities, natural environment, heritage assets, historic environment and overall townscape quality and appearance	No HRA implications. This broad objective does not identify any explicit type, location, or quantum of development.
Objective Five: Maximising The Benefits of Our Green and Blue Infrastructure	This objective is to "*To protect, maintain and improve the quality, openness, accessibility, amenity, biodiversity, function and recreational value of the borough's green and blue spaces to maximise their health and wellbeing benefits to our communities, improve the ecology of the area and ensure an overall net gain in biodiversity*.", enhance green infrastructure and facilitate better access and contribute to biodiversity and wider environmental resilience, and to encourage active lifestyles by the provision of improved outdoor facilities.	No HRA implications. It is noted that encouraging access to green and blue spaces could include access to waterbodies that are used a functionally linked land for South West London Waterbodies habitats site. However, this objective does not detail any specific locations and is merely a development management objective. This is a broad objective that does not identify any explicit type, location, or quantum of development.
Objective Six: Delivering Community Infrastructure	This objective ensures the delivery of appropriate community infrastructure, and to encourage shared facilities	No HRA implications. This broad objective does not identify any explicit type, location, or quantum of development.
Objective Seven: Ensuring Environmental Quality	This objective protects sensitive users from environmental pollution (such as noise and air quality), and to promote the mitigation of, and adaptation to, climate change through requirements for sustainable design and construction; green infrastructure provision; reduced carbon emissions; the management of flood risk; and conservation of resources.	No HRA implications. This broad objective does not identify any explicit type, location, or quantum of development.
Objective Eight: Enhancing Connectivity	This objective promotes ease of movement by identifying the provision of new and enhanced walking and cycling routes, to reduce unnecessary car travel and reduce air pollution, promotes way to reduce the impact of construction, servicing and delivery trips, to positively	No HRA implications. This broad objective does not identify any explicit type, location, or quantum of development.

Policy Reference	Policy Summary	HRA Implications
	deliver growth needs and associated infrastructure and to improve telecommunications infrastructure.	
Policy P1: Great West Corridor	This policy supports the growth objectives of the Great West Corridor Opportunity Area through seeking redevelopment opportunities for high quality mixed tenure housing and employment spaces, including office uses, industrial floorspace and retail, restaurant, café and bar uses	Potential HRA Implications. The policy shows the council's intention to support growth within the Great West Corridor, which could impact linked Habitat sites. .
Policy P1(a): Great West Corridor West	This policy supports the Council's Vision for the Great West Corridor East. It "*supports*" development including the transformation of Boston Manor Park, the need for new development to deliver or support the delivery of public squares, at West Cross Campus and between the Gillette factory and Tesco Osterley sites, the enhancement of the Rover Brent and Grand Union Canal in line with WFD and improving waterfront access at these locations, preservation of art deco buildings, new development along the Greta West Road, the delivery of a rail link from Southall and the new 'Golden Mile' station on the Great West Corridor, the proposed Golden Mile Station, and establishing walking, wheeling, and cycling routes throughout the area.	Potential HRA Implications. The policy shows the council's intention to support growth within the Great West Corridor, which could impact linked Habitat sites. .
Policy P1(b): Great West Corridor Central	This policy supports the Council's Vision for the Great West Corridor Central. It supports the delivery of flagship car showrooms, promotes the greening of streets and public spaces, especially along the A4/M4 corridor, supports flagship commercial developments, supports new development that promotes pedestrian engagement, ensures that mixed-use developments address issues of air and noise pollution, improves	Potential HRA Implications. The policy shows the council's intention to support growth within the Great West Corridor, which could impact linked Habitat sites.

Policy Reference	Policy Summary	HRA Implications
	street access and pedestrian navigation, improving and implementing additional walking and cycling routes and infrastructure, and supports the delivery of the West London Orbital line connection to Brentford Station	
Policy P1(C): Great West Corridor East	This policy supports the Council's Vision for the Great West Corridor East. It supports strengthening Power Road as an employment location and an enhanced hub for creative industries, protects the function of Power Road as a Locally Significant Industrial Site (LSIS) and supporting opportunities for its intensification for broad industrial type uses, supports the delivery of a new local centre in the Brentford Stadium Quarter, ensures that mixed-use developments address issues of air and noise pollution, supports proposals that enhance play and sports facilities and deliver a network of well-connected and varied open spaces including a green link between Gunnersbury Park, Carville Hall Park and other green and blue corridors surrounding the area, improves waterfront accessibility through supporting the completion of the Thames Path, supports the delivery of high quality public realm and open spaces including: Fountain Square; Lionel Road Station Plaza; Gunnersbury Square. The vision supports development that creates a well-defined streetscape, sets out design criteria for new open spaces, supports the delivery of a new West London Orbital rail link and working positively and proactively with stakeholders to deliver a new station at Lionel Road, the creation of well defined streets and spaces for pedestrian and cycle routes, linking new development with a new Lionel station plaza, public squares, parks, the River Thames, Kew Pier River and surrounding neighbourhoods and	Potential HRA Implications. The policy shows the council's intention to support growth within the Great West Corridor, which could impact linked Habitat sites.

Policy Reference	Policy Summary	HRA Implications
	stations, and delivers a high quality, continuous network of walking and cycling routes connecting surrounding areas with Kew Bridge, Wellesley Road, Power Road, Gunnersbury Park and Carville Hall Park including promoting the delivery of a new bridge across the railway lines and new or improved crossings over the A4.	
Policy P2: West of the Borough	The policy states that over the plan period, at least 6,500 new homes will be delivered in the Heathrow Opportunity Area within the West of the Borough, and the council will secure a strong economy by increasing the provision of employment and commercial sites.	Potential HRA Implications. The policy shows the council's intention to support growth within the West of the Borough, which could impact linked Habitat sites. Site allocations that relate to this policy are assessed separately.
Policy P2: Cranford and Heston Neighbourhoods	The council will support small infill development by encouraging new mixed-use development with ground-floor retail and community spaces at local centres along Bath Road, Great West Road and along the western side of North Hyde Lane, providing retail, restaurant, café, and bar floorspace.	Potential HRA Implications. The policy shows the council's intention to support mixed use development and employment in the Cranford and Heston neighbourhoods. Site allocations that relate to this policy are assessed separately.
Policy P3: Feltham	The council aims to support and encourage redevelopment of the allocated sites including redeveloping the area around the station to create a new high-density mixed-use development, the Station Quarter providing 510 new homes and ground floor retail etc., as well as redeveloping and intensifying Feltham town centre with at least 250 new homes and 7,000 sqm of retail space and redeveloping and intensifying the south-east of the high street of the former MOD site,	Potential HRA Implications. The policy shows the council's intention to support mixed use development and employment in the Feltham area. Site allocations that relate to this policy are assessed separately.

Policy Reference	Policy Summary	HRA Implications
	Leisure West, and industrial land to create a mixed-use development of at least 2050 homes, 4820 sqm of office space and 3,910 of industrial space as well as 3420 sqm of retail and 11,600 sqm of leisure facilities and a new school.	
Policy P4: Land at Hatton Fields	The Council is making a selective and limited alteration to the green belt at Hatton Fields to release land to help deliver the borough's requirement for new industrial land during the plan period. The Council will expect to see land in the northern portion of Hatton Fields provide a new logistics and industrial park comprising approximately 63,000 sqm of floor space.	Potential HRA Implications. The policy shows the council's intention to support employment development at Hatton Fields. Site allocations that relate to this policy are assessed separately.
Policy TC1 – Town and Neighbourhood Centre Network	A development management policy to aid the Borough in delivering a network of successful town and neighbourhood centres.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy TC2 – Ensuring the Future Vitality of Town Centres	A development management policy to promote the regeneration of town centres, with a particular emphasis on Hounslow and Brentford, linked to the broader regeneration in these locations. The Borough will support the vitality and viability of centres and promote them as places that offer diverse retail, service, business, cultural and leisure offers.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy TC3 – Managing the Growth of Retail and Other Main Town Centre Uses	A development management policy relating to the managing the growth of retail and other main town centre uses.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.

Policy Reference	Policy Summary	HRA Implications
Policy TC4 – Managing Town Centre Uses	A development management policy relating to the managing town centre uses.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy TC5 – Managing Neighbourhood Centres and Isolated Local Shops	A development management policy relating to the managing neighbourhood centres and isolated local shops.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy ED1 - Promoting Employment Growth and Development	The council will provide land for new employment development through the allocation of existing sites for industrial intensification where capacity has been identified and new sites for additional employment development; including areas released from the green belt.	Potential HRA Implications. The policy shows the council's intention to support employment development. Site allocations that relate to this policy are assessed separately.
Policy ED2 - Maintaining the Borough's Employment Land Supply	In addition to providing land for new employment uses under Policy ED1, we will safeguard the borough's existing major industrial and office sites to secure the continued major representation of international companies, business headquarters and SMEs within the borough, and to ensure that the supply chain opportunities created by Heathrow Airport are retained within the borough. The policy protects designated Strategic Industrial Locations and Locally Significant Industrial Sites.	No HRA Implications. This is a development management policy. It does not allocate any location or quantum of development but protects the sites within which employment development could occur. There are no linking impact pathways present.

Policy Reference	Policy Summary	HRA Implications
Policy ED3 - Hotels and Visitor Accommodation	This is a development management policy relating to hotels and visitor accommodation.	No HRA Implications. This is a development management policy. It does not allocate any location or quantum of development but supports promoting this type of development. There are no linking impact pathways present. Overnight visitor accommodation development brought forward as part of this policy may require a project-level HRA.
POLICY ED4 - Enhancing Local Skills	This is a development management policy relating to enhancing local skills.	No HRA Implications. This is a development management policy. It does not allocate any type, location or quantum of development. There are no linking impact pathways present.
Policy SC1 – Increasing Housing Supply	Identifies the delivery of a minimum of 28,840 dwellings to 2041 (16,038 by 2029). The Council will seek new opportunities to augment this growth where new infrastructure investment creates opportunities for levels of growth previously found to be unsustainable. At least 7,500 of the homes will be within the Great West Corridor Opportunity Area At least 6,500 of the homes will be within the Heathrow Opportunity Area Small sites target of 2,800 new homes by 2029.	Potential HRA implications. Whilst this is a mostly development management policy, it identifies a quantum and broad location of employment growth/ development. Potential linking impact pathways: Atmospheric pollution. Recreation pressure Water quality Water availability
Policy SC2 - Maximising the Provision Of Affordable Housing	A development management policy relating to the provision of affordable housing.	No HRA Implications.

Policy Reference	Policy Summary	HRA Implications
		This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy SC3 - Meeting the Need for A Mix Of Housing Size And Type	A development management policy relating to meeting the need for a mix of housing type and size	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy SC4 - Scale and Density of **New Housing Development**	A development management policy relating to the scale and density of new housing	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy SC5 - Ensuring Suitable Internal and External Space	A development management policy relating to internal and external space requirements.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy SC6 - Managing Building Conversions and Sub-Division of The Existing Housing	A development management policy relating to building conversions and sub-division of existing dwellings	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy SC7 - Residential Extensions and Alterations	A development management policy relating to residential extensions and alterations.	No HRA Implications.

Policy Reference	Policy Summary	HRA Implications
		This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy SC8 - Specialist and Supported Housing for Older People and Vulnerable People	A development management policy relating to the provision of specialist and supported housing for older and vulnerable people.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy SC9 - Gypsy and Traveller and Travelling Showpeople	A development management policy relating to gypsy and traveller and travelling show people.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy SC10 - Housing in Multiple Occupation, **Hostels, Bed** and **Breakfast, Temporary and Emergency Accommodation**	A development management policy relating to HMOs, hostels, bed and breakfasts, and temporary and emergency accommodation.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy SC11 - Other Forms of Housing	A development management policy relating to other forms of housing.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy CC1 Context and Character	A development management policy relating to context and character.	No HRA Implications.

Policy Reference	Policy Summary	HRA Implications
		This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy CC2 - Urban Design and Architecture	A development management policy relating to urban design and architecture	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy CC3 Tall Buildings	A development management policy relating to tall buildings	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy CC4 Heritage	A development management policy relating to tall buildings	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy CC5 Advertisement Panels, Hoardings and Structures	A development management policy relating to advertisement panels, hoardings, and structures.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy GB1 - Green Belt and Metropolitan Open Land	A development management policy that protects and enhances the Green Belt and Metropolitan Open Land.	No HRA Implications.

Policy Reference	Policy Summary	HRA Implications
		This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy GB2 Open Space	A development management policy relating to the protection and enhancement of Open Space	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy GB3 - Open Space in Education Use	A development management policy relating to the management and facilitating Open Space in education use	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy GB4 - The Green Infrastructure Network	A development management policy relating to the network of green infrastructure	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy GB5 – Blue Ribbon Network	A development management policy relating to protecting and enhancing the borough's Blue Ribbon Network, recognising the multifunctional role of rivers, canals and other waterbodies and their potential to contribute to nature recovery and the borough's regeneration.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy GB6 - Residential Moorings	A development management policy relating to residential moorings.	No HRA Implications.

Policy Reference	Policy Summary	HRA Implications
		This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy GB7 – Biodiversity	A development management policy relating to biodiversity. It aims to protect and enhance the London Borough of Hounslow's natural environment and seeks to increase the quantity and quality of the borough's biodiversity through taking a nature recovery network-led approach.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy GB8 - Allotments, Agriculture and Local Food Growing	A development management policy relating to allotments, agriculture and local food growing.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy GB9 - Playspace, Outdoor Sports Facilities and Burial Space	A development management policy relating playspace, outdoor sports facilities and burial spaces.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy CI1 - Providing and Protecting Community Facilities	A development management policy relating to providing and protecting community facilities.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy CI2 - Education and School Places	A development management policy relating to education and school places.	No HRA Implications.

Policy Reference	Policy Summary	HRA Implications
		This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy CI3 - Health Facilities and Healthy Places	A development management policy relating to health facilities and healthy places.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy CI4 - Culture and Leisure Facilities	A development management policy relating to culture and leisure facilities.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy CI5 - Places of Worship	A development management policy relating to places of worship.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy EQ1 - Energy and Carbon Reduction	A development management policy relating to energy and carbon reduction.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy EQ2 - Sustainable Design and Construction	A development management policy relating to sustainable design and construction.	No HRA Implications.

Policy Reference	Policy Summary	HRA Implications
		This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy EQ3 - Flood Risk and Surface Water Management	A development management policy relating to flood risk and surface water management.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy EQ4 - Air Quality	A development management policy relating to air quality. The council will seek to reduce the potential air quality impacts of development and promote improved air quality conditions by taking an air quality positive approach across the borough, in line with the Hounslow Air Quality Action Plan (AQAP).	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy EQ5 – Noise	A development management policy relating to noise	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy EQ6 – Lighting	A development management policy relating to lighting	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy EQ7 - Sustainable Waste Management	A development management policy relating to sustainable waste management	No HRA Implications.

Policy Reference	Policy Summary	HRA Implications
		This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy EQ8 – Contamination	A development management policy relating to contamination	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy EQ9 - Hazardous Substances	A development management policy relating to hazardous substances.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy EQ10 – Minerals	A development management policy relating to the safeguarding of mineral sites.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy EC1 – Strategic Transport Connections	A development management policy relating enhancing and maximising boroughs regeneration potential by supporting investment into existing and future strategic transport connections.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy EC2 – Developing Sustainable Transport Network	A development management policy relating to creating a more sustainable local travel network and maximising	No HRA Implications.

Policy Reference	Policy Summary	HRA Implications
	opportunities for walking, cycling and using public transport.	This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy ED3 – Heathrow Airport	A development management policy to encourage a more sustainable Heathrow Airport.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy EC4 – Telecommunications	A development management policy relating to the enhancement of telecommunications connectivity in the borough.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy IMP1 – Sustainable Development	A development management policy relating to promoting sustainable development	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy IMP2 – Delivering Site Allocations	A development management policy relating to the delivery of site allocations.	No HRA Implications. This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.
Policy IMP3 – Implementing and Monitoring the Local Plan	A development management policy setting out how the Local Plan will be implemented.	No HRA Implications.

Policy Reference	Policy Summary	HRA Implications
		This is a development management policy. It does not allocate any type, location, or quantum of development. There are no linking impact pathways present.