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London Borough of Harrow Council Local Plan Integrated Impact Assessment

Appendix G: Habitats Regulations Report

London Borough of Harrow Council

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Making Sustainability Happen

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Basis of Report

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1.0 Introduction and Approach

1.1 Introduction

This appendix contains a Habitats Regulations Assessment (HRA) Report.

In England, the Habitats Directive (92/43/EEC) was transposed into domestic legislation as the Habitats Regulations 2017 as amended. These Regulations remain in place.

Regulation 63 requires an assessment of any plans which are likely to have a significant effect on any protected Habitat Sites. This is commonly referred to as a Habitats Regulations Assessment (HRA). This requirement includes strategic plans with an impact on land use.

The term Habitat Sites generally refers to Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), however for the purposes of this assessment and report, Habitat Sites also includes Ramsar wetland sites, proposed Ramsar wetland sites, possible SACs and potential SPAs.

HRA can be integrated to a degree within the IIA with regards to setting out the baseline data and reflecting potential effects (a requirement of the SEA Directive (2001/42/EC)), but the legal drivers and consultation requirements differ.

1.2 Methodology

HRA is a staged process as shown in Figure G1-1 which sets out the overall HRA process in accordance with Communities and Local Government draft guidance¹. Current best practice demonstrates that a blurring of the tasks in an iterative manner is the most effective method of assessing a plan as it develops.

¹ English Nature (2006) draft Guidance – The Assessment of Regional Spatial Strategies and Sub-regional strategies under the provisions of the Habitats Regulations



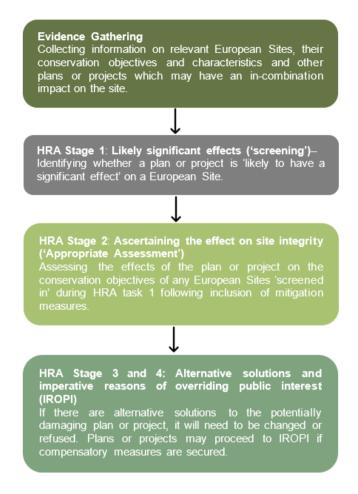


Figure G1-1: The HRA Process

The HRA process requires close working with Natural England in order to agree the process and outcomes and, if necessary, obtain information and agree mitigation proposals.

The following guidance has been referred to in undertaking the HRA to date:

- Department for Communities and Local Government (August 2006) Planning for the Protection of European Sites: Appropriate Assessment. Guidance for Regional Spatial Strategies and Local Development Documents. Draft;
- Scottish Natural Heritage (January 2015) Habitats Regulations Appraisal of Plans Guidance For Plan-Making Bodies In Scotland Version 3.0 originally prepared by David Tyldesley and Associates;
- Government Guidance (July 2019) Appropriate Assessment: Guidance on the use of Habitats Regulations (<u>www.gov.uk/guidance/appropriate-assessment</u>);
- Natural England (April, 2019). Habitats Regulations Assessment. Natural England Standard; and



 European Commission (September 2021). Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC.

The purpose of screening is to identify whether a plan or project could result in Likely Significant Effects (LSE) on any of the Habitat Sites, in terms of the conservation objectives for its qualifying interests.

During screening, the 'Precautionary Principle' needs to be applied: if an effect cannot be ruled out based on objective information, it has been reported as "likely" or not possible to rule out. Furthermore, a judgement² by the Court of Justice of the European Union (People Over Wind) ruled that Article 6(3) of the Habitats Directive3 must be interpreted as meaning that mitigation measures (referred to in the judgment as measures which are intended to avoid or reduce effects on Habitats Sites) should be assessed within the framework of an AA and that it is not permissible to take account of measures intended to avoid or reduce the harmful effects of the plan or project on a Habitats Site at the screening stage. The screening exercise must therefore consider elements of the plan without any proposed mitigation. Measures that reduce impacts on Habitats Sites etc. but form an integral part of the plan, and would have been provided even if there were no LSE on Habitats Sites, can still be included at the screening stage⁴.

Screening needs to consider the plan on its own (in isolation) and in combination with other plans and projects.

The plans considered in relation to in combination effects are:

- London Borough of Ealing Development Plan 2011-2026;
- London Borough of Brent Local Plan 2019-2041;
- London Borough of Hillingdon Local Plan 2011-2026;
- London Borough of Barnet Local Plan 2011-2026;
- London Borough of Barnet Draft Local Plan 2021-2036;
- Three Rivers District Core Strategy 2011-2026;
- Hertsmere Borough Core Strategy 2012-2027; and
- The London Plan 2021.

The projects considered for cumulative effects are listed below:

- The West London Orbital; and
- The Mayors Superloop.

A description of the plans and projects listed above can be found within Section 1.4.

⁴ Simpson, P. (2018) People Over Wind. Habitats Regulations Assessment Handbook Journal. Issue 10. Page 25.



² <u>http://curia.europa.eu/juris/document/document.jsf?docid=200970&doclang=EN</u>

³ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

Screening of the Local Plan policies has used the following criteria which have been adapted from guidance⁵:

Screening Criteria	
LSE	A likely effect is one that cannot be ruled out on the basis of objective information. The test is a 'likelihood' of effects rather than a 'certainty' of effects. Although some dictionary definitions define 'likely' as 'probable' or 'well might happen', in the Waddenzee case ⁶ the European Court of Justice ruled that a project should be subject to appropriate assessment "if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site, either individually or in combination with other plans and projects". A significant effect is one that would undermine the conservation objectives of a European Habitats Site.
No LSE – policy is too general	A general statement of policy sets out a strategic aspiration for the plan-making body for a certain issue. A general 'criteria based' policy expresses the tests or expectations of the plan-making body when it comes to consider particular proposals. Does not necessarily include more site specific criteria based policies which may require AA. Aspects are too general so that it is not known where, when or how the aspect of the plan may be implemented, or where any potential effects may occur, or which Habitats Sites, if any, may be affected.
No LSE – No proposals generated by this plan	Aspects excluded from consideration because they are not proposals generated by this plan.
No LSE - A protection policy	Aspects which protect the natural environment, including biodiversity, or conserve or enhance the natural, built or historic environment.
No LSE - No development or change	Aspects which will not lead to development or other change.
No LSE - Makes provision for change but no impact pathway	Aspects which make provision for change but which could have no conceivable effect on a European site, because there is no link or pathway between them and the qualifying interests, or any effect would be a positive effect, or would not otherwise undermine the conservation objectives for the site.

Should LSEs be identified during screening, an Appropriate Assessment (AA) will need to be undertaken.

The policies screened in are identified within Section 2.

⁵ Scottish Natural Heritage (January 2015) Habitats Regulations Appraisal of Plans Guidance For Plan-Making Bodies In Scotland Version 3.0 originally prepared by David Tyldesley and Associates

⁶ European Union Judgement of 7. 9. 2004 — CASE C-127/02

AA involves further evaluation of the potential pathways for the Local Plan alone and in combination with other plans and projects. If there is no (real) pathway, adverse effects on site integrity can be excluded. For any real pathways identified, it then has to be determined whether the Plan alone, or in combination with other plans and projects, could undermine the Habitats Sites' conservation objectives and therefore affect the Site's integrity. If there is no potential for the conservation objectives to be undermined, an adverse effect can be ruled out.

Where the AA has found that the Local Plan will have no effect at all on a Habitats Site alone, then an adverse effect in combination is ruled out and no further assessment is required. This approach is in accordance with established case law (Foster and Langton⁷). The AA is presented within Section 3.

1.3 Scope of the Assessment

The scope of the HRA was included within the IIA Scoping Report (Appendix B. October 2023).

No designated or proposed/potential Habitats Sites are present within Harrow Borough but the HRA will consider whether there is potential for activities within the Harrow to affect Habitats Sites outside of the Borough. There is potential for impact pathways to exist with the following designated Habitat Sites:

- Epping Forest Special Area of Conservation;
- Wormley-Hoddesdonpark Woods Special Area of Conservation;
- Chiltern Beechwoods Special Area of Conservation;
- Burnham Beeches Special Area of Conservation;
- Wimbledon Common Special Area of Conservation;
- Richmond Park Special Area of Conservation;
- South West London Waterbodies Special Protection Area;
- Windsor Forest & Great Park Special Area of Conservation;
- Thames Basin Heaths Special Protection Area;
- Thursley, Ash, Pirbright & Chobham Special Area of Conservation;
- Thames Estuary and Marshes Special Protection Area and Ramsar;
- Essex Estuaries Special Area of Conservation;
- Medway Estuary & Marshes Special Protection Area; and
- Lee Valley Special Protection Area and Ramsar.

These Habitat Sites are shown in Figure G1-2.

⁷ R (Foster and Langton) v Forest of Dean DC and Homes and Communities Agency [2015] EWHC 2648 (Admin) Cranston J



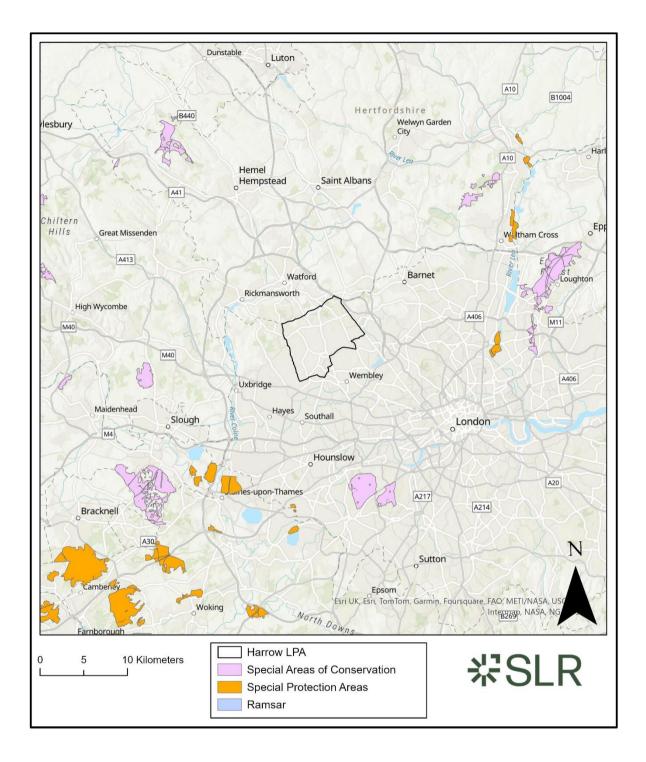


Figure G1-2: Habitat Sites in proximity to Harrow Borough

Wimbledon Common and Richmond Park are the closest SACs to Harrow Borough, located between 11 km and 14 km South of the Borough boundary. South West London Waterbodies is the closest SPA to Harrow, located 13 km South-West of the Borough boundary.



Section 3 of this appendix sets out information about these sites including their location, reasons for designation, current condition, vulnerabilities and factors affecting integrity.

1.4 The Draft Local Plan

The LBHC is preparing a Local Plan for the area, to manage the future development and growth of the area between 2021 and 2041. This is intended to replace the Core Strategy (adopted 2012); Development Management Local Plan (2013); Harrow and Wealdstone Area Action Plan (2013) and Site Allocations Local Plan (2013) document and associated Policies Map; and, potentially, existing Supplementary Planning Documents (SPDs). The draft Local Plan will be produced in general conformity with the London Plan (2021). It will also reflect relevant legislative requirements, as well as those of the National Planning Policy Framework (NPPF) (2023) and National Planning Practice Guidance (NPPG).

As set out in The London Plan (2021), Harrow Borough is expected to deliver a minimum of 8,020 homes in the period 2019-2029. Of these, 3,750 of these are to be delivered on small sites (below 0.25 hectares in size). LBHC have undertaken a Local Housing Needs Assessment (2024) and are proposing to roll forward the London Plan 10-year housing delivery (8,020) and include a housing requirement/target 16,040 within the Local Plan, during the Plan period (2021-41).

Housing needs are expected to be met through new and infill developments, redevelopment of previously developed sites and redundant buildings, conversions, change of uses and extensions to existing buildings. In line with the London Plan (2021), this is primarily expected to take place within the Harrow and Wealdstone Opportunity Area, the redevelopment and mixed-use development of sites within the existing Town Centres, as well as the incremental intensification of small sites within existing residential areas that have good access to local services, facilities, and public transport.

Employment needs are expected to be met through the intensification and redevelopment of existing employment sites; as there is limited scope to provide additional employment floor space due to the tight urban boundary and housing pressure. There is no loss of employment land envisaged given the identified need to retain existing floorspace (including through re-provision as part of any redevelopment). Consistent with the London Plan, LBHC considers that the prioritisation of previously developed sites will have sufficient capacity to fully meet the future development needs of the area within the existing built-up area of the Borough. Therefore, there is no evidence to justify any release of any Greenfield sites within Green Belt or Metropolitan Open Land to meet any residual development needs.

The draft Local Plan preparation has reached the Regulation 19 stage. The draft Local Plan contains strategic objectives covering local identity, infrastructure, transport, air quality, open space, biodiversity, climate emergency, waste and recycling, housing, affordable housing, housing types, mixed and inclusive communities, local economies and town centres. The draft Local Plan also contains preferred policies and site allocation options.

1.5 In Combination effects

Potential in combination effects have been identified with respect to other plans and projects in the Borough and in neighbouring areas. The plans considered for potential in combination effects are listed below and described in Table G1-2:

- London Borough of Ealing Development Plan 2011-2026;
- London Borough of Brent Local Plan 2019-2041;
- London Borough of Hillingdon Local Plan 2011-2026;
- London Borough of Barnet Local Plan 2011-2026;
- London Borough of Barnet Draft Local Plan 2021-2036;
- Three Rivers District Core Strategy 2011-2026;
- Hertsmere Borough Core Strategy 2012-2027; and
- The London Plan 2021.

Table G1-2: Other Plans Considered for In Combination Effects

Organisation	Description of Plan
London Borough of Ealing Local Plan – Draft (Regulation 19)	 Ealing's existing Development Plan was adopted in 2012 and encompasses the period 2011-2026. A new Local Plan is being prepared. Consultation for Reg 19 was undertaken between February and April 2024. Ealing's new Local Plan will shape and guide future development in the area over the next 15 years between 2024 to 2039 and support the delivery of Ealing Council's core themes of tackling the climate crisis, fighting inequality, and creating good jobs and growth.
	The Draft Plan sets out how the Borough aims to deliver 21,570 homes (as identified in the London Plan) for the period 2019-20 to 2028-29 as well as the target for 2,157 units for the remaining plan period. In addition, the Draft Plan sets out employment policies that protect and strengthen the role of industrial land and town centres and nurture the economy to grow, renew and diversify over the plan period.
	Both housing and employment developments aim to be focussed around town centres such as Ealing Metropolitan Town Centre, Southall, Greenford, Northolt and Acton.
	The strategic objectives and policies for Ealing aim to provide new housing, especially affordable homes for local families; sustain and create jobs; protect and enhance green and open space and the Borough's heritage; and ensure that community facilities, services and transport infrastructure are provided where and when needed. The spatial strategy includes improving air quality and enhance the pattern of green spaces and green corridors within the Borough.
London Borough of Brent Local Plan 2019-2041	A new Local Plan was adopted in 2022 and spans the period 2019-2041.

Organisation	Description of Plan
	The Brent Strategic Housing Market Assessment 2018 (SHMA) identified a need for approximately 48,000 additional homes between 2016- 2041 (1,920 dwellings per annum).
	The Local Plan will support higher density development in Brent's town centres, Intensification Corridors and in areas with good accessibility to public transport. For instance, the new Local Plan ⁸ plans for growth concentrated in Wembley Growth Area. The Plan will provide at least 15,000 new homes in this area. A number of additional growth areas have also been identified, including Burnt Oak/Colindale (2,100 new homes), Northwick Park (1,900 new homes) Kenton (proposed as a mixed use development site). At least 50% of housing developed in the Borough up to 2041 will be affordable housing. The Local Plan contains an Air Quality policy intended to reduce pollution across the Borough, by requiring major developments within Growth Areas and Air Quality Focus Areas to be Air Quality Positive and elsewhere Air Quality Neutral. The Local Plan also contains a Sustainable Travel Choice policy which aims to make facilities/ services more accessible by walking, cycling and public transport. The development vision for Brent includes: strong and inclusive communities; making the best use of land; creating a healthy Borough; growing a good economy; increasing efficiency and
London Borough of Hillingdon Local Plan 2011- 2026	resilience; and delivering the homes to meet Brent's needs. Hillingdon's existing Local Plan was adopted in 2012 and encompasses the period 2011-2026. A new Local Plan is being prepared. Regulation 18 consultation was completed in June 2024 with Regulation 19 due mid 2025. It is predicted that Hillingdon's population could exceed 296,000 by 2026.
	By 2026, the current Local Plan ⁹ aims to deliver a minimum of 6,375 new homes, and 358 ha of designated employment land. The Plan aims to provide a net increase of 9,000 jobs. At least 35% of housing developed in the Borough up to 2026 will be affordable housing. 75% of housing growth is focused to the South of the A40, with almost 25% of new homes being allocated to Uxbridge North.
	The Local Plan concentrates employment growth in the Heathrow Opportunity Area, town centres (including Uxbridge and Hayes), and existing Strategic Industrial Locations, Locally Significant Employment Locations, and Locally Significant Industrial Sites. The district centre of Eastcote is closest to Harrow's border.
	The Local Plan contains a Land, Water, Air and Noise policy intended to reduce pollution across the Borough. The Local Plan also contains an Accessible Local Destinations policy which plans for sustainable and active travel which aims to make facilities/ services more accessible by walking, cycling and public transport.
	 25 strategic objectives were developed in Hillingdon's Local Plan, including: SO7: Address housing needs in Hillingdon using appropriate planning measures;

⁸ Brent Local Plan 2019-2041. London Borough of Brent Council (2022).

⁹ A Vision for 2026- Local Plan. London Borough of Hillingdon Council (2012).

Organisation	Description of Plan
<u> </u>	SO14: Provide 9,000 new jobs and accommodate most economic growth in Uxbridge and the Heathrow Opportunity Area;
	 SO15: Protect land for employment uses to meet the needs of different sectors of the economy and manage the release of surplus employment land for other uses; and SO16: Manage appropriate growth, viability and regeneration of town and neighbourhood centres.
London Borough of Barnet Local Plan 2011-2026	town and neighbourhood centres. Barnet's existing Local Plan was adopted in 2012 and encompasses the period 2011-2026. A new Local Plan is being prepared, that has been submitted for examination. It is predicted that Barnet's population could exceed 384,000 by 2026.
	By 2026/27 the current Local Plan aims to deliver approximately 16,000 new homes and a net increase of 20,000 jobs. At least 50% of housing developed in the Borough up to 2026 will be affordable housing.
	The existing Local Plan concentrates housing and employment growth in the Colindale Opportunity Area, including Edgware, with the previous London Plan (2008) identifying a minimum target of 10,000 new homes and 500 new jobs to be provided in this area by 2026.
	The previous London Plan (2008) also identified Mill Hill East (48 hectares) as an Area for Intensification with a minimum target of 3,500 new homes and 500 new jobs delivered between 2001 and 2026. A new mixed use high street comprising around 1,000m ² of retail floorspace was proposed to be delivered in Mill Hill East, by 2024.
	The Local Plan contains details on how the Borough aims to reduce air pollution, by adhering to Air Quality Action Plans and carrying out Air Quality Assessments where needed. The Local Plan also details how the Borough aims to make facilities/ services more accessible by walking, cycling and public transport.
	The core objectives for Barnet are to manage housing growth to meet housing aspirations; to meet social infrastructure needs; to promote Barnet as a place of economic growth and prosperity; and to promote healthy living and well-being, among others.
London Borough of Barnet	Barnet's new Local Plan has been submitted for examination.
Local Plan 2021-2036	Barnet proposes to meet the London Plan target of 35,460 new homes over the Plan Period up to 2036, while providing a supply of sites for up to 46,000 new homes.
	The Local Plan aims to locate development in key Growth Areas, in areas that require regeneration and that are in areas of good public transport provision. The Colindale Growth Area has the capacity to deliver 4,100 new homes within the Plan Period, while the Edgware Growth Area has the capacity to deliver 5000 new homes. Edgware Town Centre and Edgware Underground and Bus Station are identified as key regeneration sites within the Edgware Growth Area. The Council will seek a minimum of 35% affordable housing from all developments of 10 or more dwellings.
	During the Plan period Barnet will deliver more than 27,000 new jobs, with the majority of these to be generated in the Brent Cross Growth Area where permission has been granted for 395,000 m2 of

Organisation	Description of Plan
	offices which now forms part of Use Class E – Commercial, Business and Service Uses.
	The Local Plan contains an Environmental Considerations policy intended to reduce pollution across the Borough. The policy highlights that development should be designed to reduce exposure to air pollutants and not contribute to poor air quality. The Local Plan also contains a Sustainable and Active Travel policy which plans for sustainable and active travel which aims to make facilities/ services more accessible by walking, cycling and public transport. 12 strategic objectives were developed in the new Barnet Local Plan, including:
	• To deliver growth to meet housing aspirations and needs;
	• To improve the quality and types of housing across the Borough in response to resident needs and demographic change; and
	• To make Barnet a place of economic growth and prosperity where space for commercial, business and service uses are fit for a post COVID19 recovery.
Three Rivers District Core Strategy 2011-2026	The existing Local Plan for Three Rivers District was adopted in 2011 and encompasses the period 2011-2026.
	By 2026, the current Local Plan ¹⁰ aims to deliver a minimum of 4,500 new homes. The Plan aims to provide a net increase of 2,378 jobs. At least 45% of housing delivered in the Borough up to 2026 should be affordable housing.
	The Local Plan directs housing and employment growth towards previously developed land (including surplus employment land) and appropriate infilling opportunities, such as the Principal Town (Rickmansworth) and Key Centres (South Oxhey, Croxley Green, Abbots Langley, Chorleywood, Leavesden and Garston and Mill End). The spatial vision includes:
	• To provide growth required to support local communities and provide for their needs in the most sustainable way possible;
	• To locate growth in the most sustainable locations in terms of access to services and transport networks and impact on the environment; and
	• To locate growth in the most sustainable locations in terms of access to services and transport networks and impact on the environment.
	12 strategic objectives were developed in Three Rivers Core Strategy, including:
	• To balance the community's need for future homes and jobs;
	To increase levels of affordable housing in the District; and
	• To facilitate the provision of services and infrastructure to meet the needs of existing and new development.
	A new Local Plan is being prepared. Consultation for Regulation 18 concluded in December 2023.
Hertsmere Borough Core Strategy 2012-2027	Hertsmere's existing Local Plan was adopted in 2013 and encompasses the period 2012-2027. A new Local Plan is being prepared. Adoption of the new Local Plan is expected by 2026, with

¹⁰ Local Development Framework- Core Strategy. Three Rivers District Council (2011).

Organisation	Description of Plan	
Ŭ	the Plan covering development until 2040. It is predicted that Hertsmere's population could exceed 116,500 by 2028.	
	By 2027, the current Core Strategy ¹¹ aims to deliver a minimum of 3,990 new homes. At least 35% of housing developed in the Borough up to 2027 should be affordable housing. Up to 60% of new housing will be sought in Borehamwood, at least 10% in Potters Bar, up to 25% in Bushey and at least 5% in Radlett and other suitable locations	
	Provision will be made for the supply of at least 110 ha of designated employment land for B-class development within the Borough up to 2027. The Plan proposes 2.3ha of additional employment land at Otterspool Way Employment Area. And 6.8ha of new employment land at Tylers Way Employment Area.	
	The vision for Hertsmere is for the delivery of a high quality, accessible, safe and economically viable environment to be achieved through a commitment to the principles of sustainable development. 15 strategic objectives were developed in Hertsmere's existing Core Strategy, including:	
	 To maintain an adequate supply of suitable land, focused on brownfield sites within the principal towns, to accommodate expected development needs and supporting community infrastructure; 	
	• To work towards meeting the community's need for Affordable Housing;	
	• To reduce dependence on private car and achieve modal shift to more sustainable transport modes;	
	To minimise water consumption;	
	To improve local air quality; and	
	• To provide the spatial policies necessary to deliver the land use requirements of the Hertsmere Together Community Strategy.	
	Air quality is a key consideration in considering planning applications and associated traffic volumes.	
The London Plan, 2021	The London Plan (2021) sets out development expectations across London. The Plan has set Harrow a ten year housing target (2019/20-2028/29) of 8,020, with 3,750 of these expected to be developed on small sites (below 0.25 ha in size). 165 specialist older person housing developments should be built between 2017-2029. The London Plan (2021) highlights that the majority of development should take place in the Harrow and Wealdstone Opportunity Area, which holds an indicative capacity of 5000 homes and 1000 jobs, along the Highspeed 2/Thameslink Growth Corridor. This Growth Corridor comprises of designated opportunity areas within a number of London Boroughs.	
	The plan also identifies Honeypot Lane (Stanmore) and Wealdstone Industrial Area as Strategic Industrial Locations in Harrow, highlighting that significant amount of industrial development will take place in these areas.	

¹¹ Hertsmere Local Plan Development Plan Document- Core Strategy. Hertsmere Borough Council (2013).



Organisation	Description of Plan
Affinity Water draft Water Resource Management Plan 2024 ¹²	The revised draft Water Resource Management Plan 2024 (rdWRMP24) outlines plans to provide a reliable, resilient, efficient, and affordable water supply to customers between 2025 and 2075 and sets out how Affinity Water intends to maintain the balance between water supply and demand. It was submitted to Defra (Department for the Environment, Food and Rural Affairs) for their approval in 2023 and is expected to be published as a final version in 2024. The rdWRMP24 has been subject to HRA ¹³ .

¹³ revised draft Water Resource Management Plan 2024, Appendix 7.2.3 SEA Environmental Report D (HRA) <u>https://affinitywater.uk.engagementhq.com/wrmp</u>



¹² <u>https://affinitywater.uk.engagementhq.com/wrmp</u>

The projects considered for cumulative effects are listed below and described in Table G1-3:

- The West London Orbital; and
- The Mayors Superloop.

Table G1-3: Other Projects Considered for In Combination Effects

Key Project	Description
West London Orbital	The West London Orbital is a key strategic transport infrastructure project, that aims to implement a new Overground network on existing, underused rail lines in West London. This project will help bring forward 8,800-29,300 new homes and workspace for 23,000 new jobs. Delivery of the project is expected by 2029 at the earliest.
	The project will support growth along the Highspeed 2/Thameslink Growth Corridor, supporting housing/employment growth in areas including Burnt Oak, Colindale, Brent Cross and Cricklewood. It will also support connectivity across West London, including Harrow. This will support the use of sustainable transport, as well reduce the need to travel by car.
The Mayors Superloop	As part of the Major's Transport Plan (2018), a new 'Superloop' bus network is being created. As part of this network, a new route is proposed (X183) linking Harrow to North Finchley, adding to the existing 39 routes across the Borough. The new service would provide additional bus capacity in busy locations and encourage more sustainable journeys. The proposed route would also allow for quicker journeys and more transport options to move between town centre locations in Harrow, Brent and Barnet.

1.6 Assessment Limitations

The Harrow Local Plan is a strategic document containing policy considerations developed locally but also informed by other strategies and policies, such as the London Plan 2021¹⁴ and associated guidance documents¹⁵ and the West London Waste Plan 2015¹⁶.

The Harrow Local Plan contains allocation sites identified as suitable for the development of housing and employment uses as well as other supporting infrastructure. The timing of the development of each site and the exact nature, form, quantum of development may only be determined through the planning permission process. However, as no LSEs relating to the allocation sites within the Local Plan have been identified in HRA screening, this lack of detail has not presented a limitation to the HRA.

Best endeavours have been made to ensure that this HRA is proportionate and has been based on best scientific information available at the time of writing.



¹⁴ <u>https://www.london.gov.uk/programmes-strategies/planning/london-plan/new-london-plan/london-plan-2021</u>

¹⁵ <u>https://www.london.gov.uk/programmes-strategies/planning/implementing-london-plan/london-plan-guidance</u>

¹⁶ <u>https://www.harrow.gov.uk/downloads/file/23279/west-london-waste-plan.pdf</u>

1.7 Consultation

The HRA process requires close working with Natural England in order to agree the process and outcomes and, if necessary, obtain information and agree mitigation proposals.

Natural England acknowledged receipt of the Regulation 18 IIA Report (February 2024) and stated that the organisation had 'no comments to make' on the IIA and the HRA Screening for the Harrow Local Plan. Natural England will be consulted again, on this report, at the Regulation 19 stage.

2.0 Screening Findings and Conclusions

2.1 Screening Findings

The Regulation 18 draft Local Plan was subject to screening in February 2024. Each preferred policy was screened to identify pathways between the policies and the Habitat Sites, in isolation and/or in combination with other plans or projects.

There are no Habitats and Ramsar sites within Harrow Borough and the nearest is 11km away with two other London Borough Local Plan areas in between Harrow and the Habitats Site. Other such sites are further away and with the same or greater number of Local Plan areas located in between. Therefore, LSEs are only likely in combination with other Plans and Projects, rather than from the Harrow Local Plan alone.

The screening identified potential pathways in relation to:

- Recreation the Plan in combination, potentially affecting all of the Habitats Sites considered within the HRA, namely:
 - Epping Forest SAC;
 - Wormley-Hoddesdonpark Woods SAC;
 - Chiltern Beechwoods SAC;
 - Burnham Beeches SAC;
 - Wimbledon Common SAC;
 - Richmond Park SAC;
 - South West London Waterbodies SPA;
 - Windsor Forest & Great Park SAC;
 - Thames Basin Heaths SPA;
 - Thursley, Ash, Pirbright & Chobham SAC;
 - Thames Estuary & Marshes SPA and Ramsar;
 - Essex Estuaries SAC;
 - Medway Estuary & Marshes SPA; and
 - Lee Valley SPA and Ramsar.
- Air quality the Plan in combination, potentially affecting all of the Habitats Sites considered within the HRA (as listed above).
- Water quality the Plan in combination, potentially affecting the following Habitats Sites:
 - Thames Estuary Marshes SPA and Ramsar.
- Water resources the Plan in combination, potentially affecting the following Habitats Sites:
 - Lee Valley SPA and Ramsar.

The Regulation 19 draft Local Plan was subject to screening in August 2024. This version of the Local Plan contained site allocation options and new policies in relation to the site allocations, inclusive design, basement development, and safety and security. Circa 30 Regulation 18 policies had also been subject to minor modifications. No new LSEs were identified.



The potential risks to Habitat Sites relate to the quantum of development proposed in combination with growth and activities in other areas. The policies that have a direct relationship to the quantum of development are those listed below and therefore these are the policies that need to be considered further in relation to potential impact pathways.

The policies for which potential pathways could exist leading to LSEs on recreation, air quality, water quality and water resources, are as follows:

- Spatial Strategy Policy
- Strategic Policy 01: High Quality Growth
- Strategic Policy 03: Meeting Harrow's Housing Needs
- HO1 Dwelling Size Mix
- HO3 Optimising the use of small housing sites
- Strategic Policy 04: Local Economy
- Strategic Policy 05: Harrow & Wealdstone Opportunity Area
- LE3 Industrial Land
- LE4 Culture and Creative Industries
- LE5 Tourism and Visitor Accommodation

2.2 Screening Conclusions

As impact pathways have been identified in screening, the next step in the HRA, AA, needs to be undertaken. This is because the Plan has the potential for impact pathways to undermine the conservation objectives of the Habitats Sites identified above and therefore likely significant effects cannot be excluded. All impact pathways are in combination and therefore the AA has considered effects of the Local Plan in combination only.

3.0 Appropriate Assessment

3.1 Introduction

This section presents the AA. The AA involves further evaluation of the potential pathways for the Local Plan in combination with other plans and projects. This stage follows on from the screening stage and aims to examine those identified likely significant effects on European Sites in more detail and the impacts on the integrity of the site and its conservation objectives.

For any pathways identified, it then has to be determined whether the Plan, in combination with other plans and projects, could undermine the Habitats Sites' conservation objectives and therefore affect the Site's integrity. If there is no potential for the conservation objectives to be undermined, an adverse effect can be ruled out. Each potential impact pathway identified in screening as requiring further investigation (see Section 2) is considered in turn within this section.

3.2 Recreation

Screening identified that the Plan in combination has potential to affect the following Habitats Sites, should it lead to an increase in recreational pressure:

- Epping Forest SAC;
- Wormley-Hoddesdonpark Woods SAC;
- Chiltern Beechwoods SAC;
- Burnham Beeches SAC;
- Wimbledon Common SAC;
- Richmond Park SAC;
- South West London Waterbodies SPA;
- Windsor Forest & Great Park SAC;
- Thames Basin Heaths SPA;
- Thursley, Ash, Pirbright & Chobham SAC;
- Thames Estuary & Marshes SPA and Ramsar;
- Essex Estuaries SAC;
- o Medway Estuary & Marshes SPA; and
- Lee Valley SPA and Ramsar.

3.2.1 Potential Effect In-Combination

Some Habitats Sites have an established 'Zone of Influence' (ZOI) informed by targeted visitor surveys within which increases in population would be expected to result in adverse effects on site integrity. ZOIs are specific to each European site (and often to specific component sites of a Habitats Site) and as such it is not always appropriate to apply a generic or non-specific ZOI to a European Site. ZOIs are a guide of average distance travelled to a Habitat Site; it is acknowledged that individuals may travel further than this distance however. Typically, within the ZOI, existing pressures, Projects and Plans are already having an adverse effect on the integrity of the relevant site, and any new residential development would therefore contribute to this 'in combination' effect even if it would not have such an effect on its own. However, new residential developments outside the ZOI would not usually



contribute to this in combination effect as the Site is beyond the distance typically travelled locally for recreation.

Several of the Habitats Sites screened in have established recreational ZOI for recreation. For **Epping Forest SAC** the ZOI is a 6.2km radius¹⁷ from the boundaries of the site. For **Chiltern Beechwoods SAC**, the ZOI is 12.6km around the Ashridge Commons and Woods SSSI component sites. The Tring Woodlands SSSI component is subject to a 1.7km ZOI¹⁸. LBH is approximately 25km from the nearest component sites of the Chiltern Beechwoods SAC and approximately 19km from the nearest component sites of Epping Forest SAC.

Epping Forest SAC is designated for primary beech forests, non-primary Northern Atlantic wet heaths and European dry heaths. The site is also designated under article 4(4) of the Directive (92/43/EEC) as it hosts Stag beetle. The Stag beetle itself is not sensitive to recreational disturbance. The following targets define the conservation objectives for the Epping Forest SAC in relation to recreation¹⁹:

• Maintain and restore the vegetation structure of Qualifying Features.

Chiltern Beechwoods SAC is designated for semi-natural dry grasslands and scrubland, beech forests, and Stag beetle. The following targets define the conservation objectives for the Chiltern Beechwoods SAC in relation to recreation²⁰:

• Maintain and restore the distribution and structure of Qualifying Features.

As LBH is outside of the established ZOI for **Epping Forest SAC** and **Chiltern Beechwoods SAC**, development as a result of the Harrow Local Plan- in combination with other Plans and Projects- will not undermine the achievement of the conservation objectives of these sites through recreation pressure and adverse effects on the integrity of the sites can be therefore excluded.

A core principle of the approach to mitigating the impact of new residential development on the **Thames Basin Heath SPA** is the existence of three buffer zones around the SPA, also referred to as ZOI. These zones are divided as follows:

- From 0m to 400m;
- From 400m to 5km; and
- From 5km to 7km²¹.

Within the 5km to 7km zone applications for large scale residential development (50 units or more) will need to be assessed on an individual basis, in consultation with Natural England, to ascertain whether the proposal would have an adverse effect on

¹⁷ https://www.enfield.gov.uk/services/planning/epping-forest-special-area-of-

conservation#:~:text=To%20find%20out%20if%20your,(PDF%2C%201452.69%20KB).

¹⁸ <u>https://aspect-ecology.com/march-2022-natural-england-introduces-a-12-6km-zone-of-influence-around-chiltern-beechwoods-sac-where-mitigation-will-be-required-for-residential-development/</u>

¹⁹ UK0012720_Epping Forest_SAC_Published 10 Jul 2024 (naturalengland.org.uk)

²⁰ UK0012724 Chilterns Beechwoods SAC Published 10 Jul 2024 (naturalengland.org.uk)

²¹ https://www.rbwm.gov.uk/planning-and-building-control/planning-policy/non-development-plan/biodiversity-andthames-basin-heath-spa/zones-influence

the integrity of the SPA. LBH is 24km from the nearest component site of the Thames Basin Heaths SPA.

Thames Basin Heaths SPA is designated for European nightjar (Breeding), Woodlark (Breeding) and Dartford warbler (Breeding). The following target defines the conservation objectives for the Thames Basin Heaths SPA in relation to recreation²²:

• Supporting habitat: Minimise disturbance caused by human activity.

As LBH is well beyond the establish ZOI of the Thames Basin Heaths SPA, development as a result of the Harrow Local Plan- in combination with other Plans and Projects- will not undermine the achievement of the conservation objectives of this Habitats Site through recreation pressure and adverse effects on the integrity of the site can be therefore excluded.

A ZOI of 5.6 km for the **Burnham Beeches SAC** has been established²³. This zone represents the core area around the SAC where increases in the number of residential properties will require HRA and mitigation measures to avoid adverse effects on the integrity of the SAC from the cumulative impacts of development, including recreation. LBH is approximately 16km from the nearest component of Burnham Beeches SAC.

Burnham Beeches SAC is designated for Beech forests on acid soils. The following target defines the conservation objectives for the Burnham Beeches SAC in relation to recreation²⁴:

• Maintain the distribution and structure of Qualifying Features.

As LBH is well beyond the establish ZOI of the Burnham Beeches SAC, development as a result of the Harrow Local Plan- in combination with other Plans and Projects- will not undermine the achievement of the conservation objectives of this Habitats Site through recreation pressure and adverse effects on the integrity of the site can be therefore excluded.

There is no established ZOI for the remaining Habitats Sites screened into the AA, however, the SSSI IRZ's can be used to provide some indication of whether Natural England considers the risks of residential development within certain distances of the SSSIs is likely.

SSSI Impact Risk Zones (IRZs) are a GIS tool developed by Natural England to help assess the potential risks of development on Sites of Special Scientific Interest (SSSIs). The IRZs create a series of zones around each SSSI that indicate the types of development that could have adverse impacts at different distances. The zones reflect the sensitivities of the features for which the SSSI is notified. Developers, consultants, and the public can use the IRZs to help them decide if a proposed

²² UK9012141 Thames Basin Heaths SPA Published 10 Jul 2024 (naturalengland.org.uk)

²³ Buckinghamshire Council Burnham Beeches Special Area of Conservation Strategic Access Management and Monitoring Strategy Supplementary Planning Document Adopted November 2020 <u>https://buckinghamshire-gov-uk.s3.amazonaws.com/documents/Burnham_Beeches_Adopted_SPD_1_ur0JiMw_HURqdJZ.pdf</u>

²⁴ UK0030034 Burnham Beeches SAC Published 10 Jul 2024 (naturalengland.org.uk)

development might affect an SSSI. They can also use the IRZs to decide whether to seek pre-application advice from Natural England.

When establishing IRZs, Natural England assesses the sensitivities of the notified features against potential impacts from development proposals. These impacts could include:

- Changes in air quality;
- Changes in water quality and water supply;
- Disturbance of notified species, such as birds, bats, and reptiles; and
- Loss or damage of offsite habitats that the notified species depend on.

Although IRZs do not necessarily relate to the reasons for designation of Habitats Sites, they can provide information about risks to the habitats and species on SSSI component sites of Habitat Sites.

For Wormley-Hoddesdonpark Woods SAC, Wimbledon Common SAC, Richmond Park SAC and South West London Waterbodies SPA, at locations which are immediately adjacent to their SSSI component sites, the advice from Natural England regarding the SSSI IRZ's is:

> "The Impact Risk Zones for Sites of Special Scientific Interest (SSSI IRZs) indicate that at the location selected, the proposed development is unlikely to have a harmful effect on terrestrial Sites of Special Scientific Interest (SSSIs) and the Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites that they underpin. Therefore, you do not need to consult Natural England on the likely impacts of development on terrestrial SSSIs and the SACs, SPAs or Ramsar sites that they underpin."

Wormley-Hoddesdonpark Woods SAC is designated for Sub-Atlantic and medio-European oak or oak-hornbeam forests. The following target defines the conservation objectives for the Wormley-Hoddesdonpark Woods SAC in relation to recreation²⁵:

• Maintain and restore the distribution and structure of Qualifying Features.

On the basis of the advice from Natural England regarding the SSSI IRZ for the Wormley-Hoddesdonpark Woods SAC, which identifies that development adjacent to the Habitats Site is unlikely to have a harmful effect on the SAC, and given LBH is 17 km from the SAC, the population increase in LBH as a result of the Harrow Local Plan will not undermine the achievement of the conservation objectives of this Habitats Site through recreation pressure and adverse effects on the integrity of the site can be therefore excluded.

Wimbledon Common SAC is designated for Northern Atlantic wet heaths, European dry heaths and stag beetle. Stag beetles themselves are not sensitive to recreational disturbance. The following target defines the conservation objectives for the Wimbledon Common SAC in relation to recreation²⁶:

²⁵ UK0013696_Wormley-Hoddesdonpark Woods_SAC_Published 10 Jul 2024 (naturalengland.org.uk)

²⁶ UK0030301 Wimbledon Common SAC Published 10 Jul 2024 (naturalengland.org.uk)

• Maintain and restore the distribution and structure of Qualifying Features (wet heath, dry heath and stag beetle).

On the basis of the advice from Natural England regarding the SSSI IRZ for the Wimbledon Common SAC, which identifies that development adjacent to the Habitats Site is unlikely to have a harmful effect on the SAC, and given LBH is 14km from the SAC, it is considered that population increase in LBH as a result of the Harrow Local Plan- in combination with other Plans and Projects- will not undermine the achievement of the conservation objectives of this Habitats Site through recreation pressure and adverse effects on the integrity of the site can be therefore excluded.

Richmond Park SAC is designated for stag beetle. Stag beetles themselves are not sensitive to recreational disturbance. The following target defines the conservation objectives for the Richmond Park SAC in relation to recreation²⁷:

• Maintain and restore the distribution and structure of Qualifying Features (stag beetle).

As the qualifying feature is stag beetle and this species is not sensitive to recreational disturbance, development as a result of the Harrow Local Plan will not undermine the achievement of the conservation objectives of Richmond Park SAC through recreation pressure and adverse effects on the integrity of the site can be therefore excluded. This is also supported by the advice from Natural England regarding the SSSI IRZ for this site.

South West London Waterbodies SPA is designated for Gadwall and Northern shoveler. The following target defines the conservation objectives for the South West London Waterbodies SPA in relation to recreation²⁸:

• Supporting habitat: Minimise disturbance caused by human activity .

On the basis of the advice from Natural England regarding the SSSI IRZ for the South West London Waterbodies SPA, which identifies that development adjacent to the Habitats Site is unlikely to have a harmful effect on the SPA, and given LBH is 13km from the SAC, the population increase in LBH as a result of the Harrow Local Plan will not undermine the achievement of the conservation objectives of this Habitats Site through recreation pressure and adverse effects on the integrity of the site can be therefore excluded.

For Essex Estuaries SAC, Medway Estuary & Marshes SPA, Thames Estuary & Marshes SPA and Ramsar, Thursley, Ash, Pirbright & Chobham SAC, Lee Valley SPA and Ramsar, the same advice is provided by Natural England at distances further from the boundaries of SSSI component sites. The distances do not intercept with the boundary of Harrow Borough, as shown below:

• Essex Estuaries SAC is located 58 km to the northeast of the Harrow Local Plan Area. The Natural England requirement for consultation applies up to 40km from the nearest SSSI component sites.

²⁸ UK9012171 South West London Waterbodies SPA Published 10 Jul 2024 (naturalengland.org.uk)



²⁷ UK0030246_Richmond Park_SAC_Published 10 Jul 2024 (naturalengland.org.uk)

- Medway Estuary & Marshes SPA is located 60 km to the north east of the Harrow Local Plan Area. The Natural England requirement for consultation applies up to 20km from the nearest SSSI component sites.
- Thames Estuary & Marshes SPA and Ramsar is located 50 km to the northeast of the Harrow Local Plan Area. The Natural England requirement for consultation applies up to 15km from the nearest SSSI component sites.
- **Thursley, Ash, Pirbright & Chobham SAC** is located 24 km to the northeast of the Harrow Local Plan Area. The Natural England requirement for consultation applies up to 16km from the nearest SSSI component sites.
- Lee Valley SPA and Ramsar is located 45 km to the northeast of the Harrow Local Plan Area. The Natural England requirement for consultation applies up to 14km from the nearest SSSI component sites.

South West London Waterbodies SPA, Medway Estuary and Marshes SPA and Thames Estuary and Marshes SPA and Ramsar and Lee Valley SPA and Ramsar sites all have targets which define their conservation objectives which are to minimise disturbance caused by human activity.

Essex Estuaries SAC has a target which defines its conservation objectives to maintain the distribution and structure of qualifying features (Atlantic salt meadows, estuaries, scrubs, mudflats and sandflats not covered by seawater at low tide, Salicornia and other annuals colonising mud and sand, sandbanks which are slightly covered by sea water all the time and Spartina swards).

Thursley, Ash, Pirbright and Chobham SAC has a target which defines its conservation objectives to maintain and restore the distribution and structure of qualifying features (Northern Atlantic wet heaths, European dry heaths and depressions on peat substrates).

No visitor survey data is available to determine any site-specific ZOIs for the sites listed above. However, the distances of these Habitats Sites from LBH are greater than any of the ZOIs that have been published based on studies of visitor travel distances (e.g. for Epping Forest SAC, Chiltern Beechwoods SAC and Thames Basin Heaths SPA), and therefore whilst the people of LBH might travel to these sites in small numbers occasionally, the contribution to any disturbance effects (and therefore the undermining of any conservation objectives to minimise recreation, maintain habitats or restore habitats) would be imperceptible. The distance that residents might be prepared to travel may be related to the availability of open space locally and therefore the remainder of this section examines recreation space within LBH.

Notwithstanding the lack of implications for the conservation objectives of any European site, the Harrow Local Plan identifies that open space is a vital component of London's open space network and the West London Green Grid, which contributes significantly to the environmental quality and natural capital of the Borough and surrounds.

Much of Harrow is relatively well served by parks and open spaces as shown in **Error! Reference source not found.**.

*Pocket Parks – The Weald Village Tenants' and Residents' Association made a successful application for a grant for a pocket park in 2013 but there's no information available about it at present.

Several areas within the Borough have a deficiency in access to green space. The Local Plan supporting text discusses the need to improve the number and quality of open spaces in the south and central areas of the borough in line with the Harrow Open Space PPG17 Study (2011), and the Harrow Sports Facilities Strategy (2023).

However, there are also many opportunities for residents and visitors to access and enjoy areas of special character within the Borough. The London Loop strategic walking route passes through Pinner Hill and Harrow Weald Ridge, whilst the Capital Ring is routed through Harrow on the Hill. Bentley Priory Open Space, Stanmore Country Park and Stanmore Common all provide opportunities for the appreciation of the natural environment in Harrow Weald. The extension to Stanmore Country Park, known as Wood Farm, has recently been delivered. This asset both increases public access to land within the Harrow Weald and provides a new, public viewpoint towards Harrow on the Hill and central London.

Additionally, the Harrow Green Grid, which forms part of the wider All London Green Grid, provides a network of interlinked multipurpose open spaces with good connections to the areas where people live and work, public transport and the green belt.

Where development is proposed on existing open space, sports pitches, recreational buildings, and playing fields, the Local Plan requires an assessment that demonstrates that the space is surplus to requirements. Open space is also required to be taken into account in planning for new development and considering proposals that may affect existing open space in the Borough. A number of larger site allocations, such as Poet's Corner and Milton Road and Grange Farm, have been identified as being potentially suitable for provision of open space to assist in the application of Policy GR1.

Policy GR1: Achieving a High Standard of Development in the Harrow Local Plan requires *"amenity space and play space to support the overall quality of a successful development"* in criterion C.

Policy GI2: Open Space states that "development proposals must:

- a. Contribute to the provision, protection and enhancement of high quality, multi-functional, publicly accessible open space, particularly in areas of deficiency;
- b. Not result in the net-loss of open space;
- c. Improve access to green space where appropriate, including natural green space, particularly in areas where deficiencies in access have been identified; and
- d. Enhance biodiversity and improve access to biodiversity and natural capital.

Major development proposals must incorporate new publicly accessible open space unless it can be clearly demonstrated that this is not feasible, in which case off-site contributions will be required."

The Local Plan policies GR1: Achieving a High Standard of Development and Policy GI2: Open Space also resist loss of open space within the Borough and require residential developments to provide new and enhanced open space and green infrastructure.

Existing open space provision within the Borough of Harrow is good. Although several areas within the Borough have a deficiency in access to green space, strategies (Harrow Open Space PPG17 Study (2011), the Harrow Sports Facilities Strategy (2023) and the Harrow Green Grid have been developed to improve the number and quality of open spaces in the south and central areas of the borough. Several Local Plan policies (GR1: Achieving a High Standard of Development and Policy GI2: Open Space) protect from the loss of open space within Harrow and require residential developments to provide new and enhanced open space and green infrastructure.

The current open space within Harrow and the requirements of Local Plan policies will avoid any potential increase in recreational use of Essex Estuaries SAC, Medway Estuary & Marshes SPA, Thames Estuary & Marshes SPA and Ramsar, Thursley, Ash, Pirbright & Chobham SAC, and Lee Valley SPA and Ramsar from the quantum of development within Harrow resulting from the Harrow Local Plan.

As the Local Plan aims to improve the quality of open space for recreation within the Borough, and due to the distance of LBH from Essex Estuaries SAC, Medway Estuary & Marshes SPA, Thames Estuary & Marshes SPA and Ramsar, Thursley, Ash, Pirbright & Chobham SAC, and Lee Valley SPA and Ramsar, adverse effects on the integrity of these sites can be excluded from further consideration in the AA.

3.2.2 Conclusions

It can be determined that there is no adverse effect on the integrity of any Habitat Sites alone or in combination arising from recreational pressure.

3.3 Air quality

Screening identified that the Plan in combination has potential to have an adverse effect on the following Habitats Sites, should it lead to an increase in air pollution:

- Epping Forest SAC;
- Wormley-Hoddesdonpark Woods SAC;
- Chiltern Beechwoods SAC;
- Burnham Beeches SAC;
- Wimbledon Common SAC;
- Richmond Park SAC;
- South West London Waterbodies SPA;
- Windsor Forest & Great Park SAC;
- Thames Basin Heaths SPA;
- Thursley, Ash, Pirbright & Chobham SAC;
- Thames Estuary & Marshes SPA and Ramsar;
- Essex Estuaries SAC;
- o Medway Estuary & Marshes SPA; and
- Lee Valley SPA and Ramsar.

3.3.1 Potential Effect In Combination

A likely significant effect was identified in screening in relation to air quality, as an impact pathway could potentially exist with air pollution generated by the Local Planin combination with other Plans and Projects- and all of the Habitats Sites considered in the screening.

Without appropriate mitigation in place, the developments associated with the Local Plan could subsequently undermine the following targets that define the conservation objectives for the Habitat Sites outlined above²⁹,³⁰,³¹,³²,³³,³⁴,³⁵,³⁶,³⁷,³⁸,³⁹,⁴⁰,⁴¹,⁴²:

• Supporting processes: Maintain or, where necessary, restore air quality.

The Harrow Local Plan, together with policy SI1 of the London Plan 2021, contain measures which will ensure that air pollution generated by activities within Harrow

²⁹ UK0012720 Epping Forest SAC Published 10 Jul 2024 (naturalengland.org.uk)

³⁰ UK0013696 Wormley-Hoddesdonpark Woods SAC Published 10 Jul 2024 (naturalengland.org.uk)

³¹ UK0012724_Chilterns Beechwoods_SAC_Published 10 Jul 2024 (naturalengland.org.uk)

³² UK9012171 South West London Waterbodies SPA Published 10 Jul 2024 (naturalengland.org.uk)

³³ UK0030034 Burnham Beeches SAC Published 10 Jul 2024 (naturalengland.org.uk)

³⁴ UK0030301 Wimbledon Common SAC Published 10 Jul 2024 (naturalengland.org.uk)

³⁵ UK9012171_South West London Waterbodies_SPA_Published 10 Jul 2024 (naturalengland.org.uk)

³⁶ UK0012586_Windsor Forest & Great Park_SAC_Published 10 Jul 2024 (naturalengland.org.uk)

³⁷ UK9012141_Thames Basin Heaths_SPA_Published 10 Jul 2024 (naturalengland.org.uk)

³⁸ UK0012793 Thursley, Ash, Pirbright & Chobham SAC Published 10 Jul 2024 (naturalengland.org.uk)

³⁹ Designated Sites View (naturalengland.org.uk)

⁴⁰ Designated Sites View (naturalengland.org.uk)

⁴¹ Designated Sites View (naturalengland.org.uk)

⁴² UK9012111 Lee Valley SPA Published 10 Jul 2024 (naturalengland.org.uk)

will be reduced and therefore support the achievement of maintaining or restoring air quality in Habitats Sites.

The Harrow Local Plan plans for growth of a minimum of 16,040 (net) homes during the Plan period (2021/22 – 2040/41), of which at least 8,020 new homes (net) will be delivered between 2019 - 2029 (in accordance with Policy H1 of the London Plan 2021). In addition, it aims to ensure sufficient employment floorspace is provided to enable a strong and flexible economy, including a minimum of 1,000 jobs into the Harrow and Wealdstone Opportunity Area. The growth set out within the Harrow Local Plan has potential to increase emissions to air from transport, buildings and industrial processes.

The Harrow Local Plan Spatial Strategy is reproduced in Table G3-1.

Table G3-1: Harrow Local Plan Spatial Strategy

Harrow Spatial Strategy

By 2041, new development and economic growth will provide a minimum 16,040 (net) new low-carbon homes, create over 1,000 additional new jobs and fund significant local infrastructure improvements that benefit Harrow's diverse community.

The high-quality carbon neutral design of new development will contribute to local distinctiveness, creating clean, green and healthy spaces that foster community pride, whilst also delivering on the council's climate and nature objectives.

Comprehensive and coordinated regeneration activity will continue to positively transform the Harrow & Wealdstone Opportunity Area, delivering a minimum of 8,750 additional new homes, and 1,000 additional new jobs.

Harrow town centre will continue to be a vibrant and attractive Metropolitan Centre having benefited from additional arts, leisure, and culture facilities. Adaptable mixed-use and residential development will ensure that there is continued vibrancy in the centre. Employment uses will be bolstered attracting and retaining an array of adaptable businesses and workers to the area. The centre will be the primary location for central public services ensuring high-quality services and facilities are accessible to all. The town centre will benefit from increased connectivity with other parts of the borough, and beyond through sustainable transport linkages.

Wealdstone will strive to become a vibrant centre, with its own distinctive identity. The centre will be a vibrant hub supported by local residents and a strong business community, whose presence has been transformed by the intensification of employment and carefully managed redevelopment of surrounding industrial estates.

The Station Road corridor will have benefited from redevelopment and environmental improvement linking the Wealdstone and Harrow town centres together.

Harrow-on-the-Hill Station, Harrow Bus Station and Harrow & Wealdstone Station will be accessible major public transport nodes with step free access. Harrow-on-the-Hill station and surrounding area will benefit from a comprehensive redevelopment providing a new focal point for the Harrow Town Centre comprising retail, leisure, office and residential

Harrow Spatial Strategy

uses. This redevelopment will have contributed to a vibrant new character achieving high standards of sustainability, public realm and residential quality.

Improved pedestrian connectivity and wayfinding between Harrow town centre and Harrow-on-the-Hill will increase legibility in both locations.

The Borough's other town centres will accommodate development opportunities commensurate to their character, role, and function.

The Borough's Metropolitan Open Land, Green Belt and other open space will be maintained and enhanced as an interconnected network of green infrastructure and open watercourses supporting biodiversity and healthy lifestyles. Access to green infrastructure will be enhanced.

The quality and accessibility of open space will be maintained, and better provision for children's and teenagers' accessible recreation and play space will have been made.

Harrow's identified heritage assets and historic environment will continue to be valued, conserved, enhanced and celebrated. Areas of special character and architectural significance will be protected. The significance of Harrow's historic environment and its constituent heritage assets, will continue to be valued, conserved, enhanced and celebrated. Specific conservation and enhancement measures identified within Harrow's Conservation Area Appraisals and Management Strategies (CAAMS) and SPDs will be carried out as opportunities arise.

North Harrow District Centre will be restored as a vibrant local shopping and service centre meeting the needs of residents and supporting local business.

The vitality and character of Pinner High Street will have been preserved and enhanced.

In Stanmore, mixed use retail and residential development will have strengthened its function as a District Centre, access to natural green space will be maintained and accessible to residents and visitors.

Partnership working with the neighbouring boroughs of Barnet and Brent will have secured co-ordinated public realm enhancements to Edgware, Burnt Oak, Kingsbury and Kenton centres, and will have provided improved pedestrian and cycle connectivity between Kenton Station and Northwick Park Station.

Appropriate development will occur on small, brownfield sites in sustainable locations close to town centres, and train and underground stations.

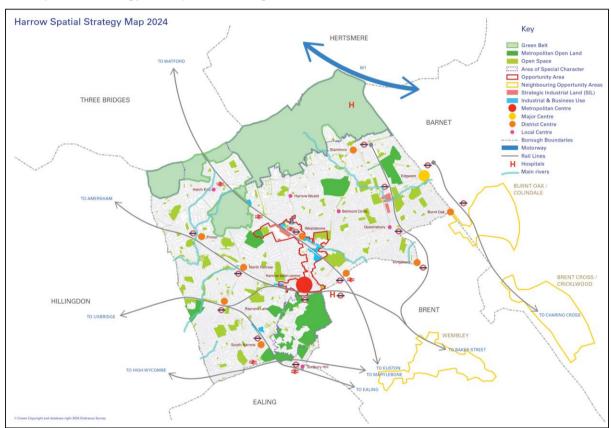
The leafy, suburban character of the Borough's residential Metroland areas, outside sustainable locations, will have been safeguarded as areas of low density, family housing.

Optimising development opportunities on sites across the Borough will provide high quality housing to suit the needs of a range of residents, while respecting the appearance of residential character areas.

Harrow Spatial Strategy

Employment land will be directed to appropriate locations remaining flexible and adaptable to meet current and future needs. A sufficient supply of industrial land will be provided and maintained to meet current and future needs.

Harrow will maintain or increase its market share of retail expenditure to secure the vitality and viability of the Borough's town centre network and meet local needs



The spatial strategy is depicted in Figure G3-1.

Figure G3-1: New Harrow Local Plan Spatial Strategy

The spatial strategy of the new Local Plan directs the majority of growth (a minimum of 8,750additional new homes and all new employment space) into the Harrow & Wealdstone Opportunity Area, where new development will be more intensive than elsewhere in the borough. The Opportunity Area is well located with good public transport connections. Elsewhere in the Borough, appropriate development will occur on small, brownfield sites in sustainable locations close to town centres, and train and underground stations. The more suburban character of the Borough's residential Metroland areas, outside sustainable locations, will be safeguarded as areas of low density, family housing.



With reference to published PTAL⁴³, the majority of allocation sites are located in areas with good PTAL scores in the central parts of the Borough, where the Harrow & Wealdstone Opportunity Area is. The IIA (IIA Objective 6 Sustainable Travel) predicts that 12 of the allocation sites should result in significant positive effects with regards to sustainable travel as they are in close walking distance to local facilities and services, and/or hold a PTAL score of either 5 or 6. Potential significant negative effects are identified for 3 of the 41 allocation sites in relation to access by sustainable transport, as they are not in walking distance to a number of local facilities and services, and/or have a PTAL score of 1 or 2, suggesting significant issues with accessibility to public transport. In order to mitigate these significant negative effects, the IIA has identified that developments on these sites should be required to make contributions to improve the local public transport and active travel network, either on or offsite.

In addition to locating the majority of development in locations with good access to sustainable transport modes, the Harrow Local Plan contains a number of policies which provide mitigation for any potential increases in transport-related air pollution associated with new development, as follows:

Local Plan Policy M1: Sustainable Transport ensures that cycle and pedestrian links to key destinations and amenities are enhanced, existing routes are enhanced and new connections through development sites are created in order to facilitate and encourage residents to use non-car based transport to access day to day facilities and services.

Local Plan Strategic Policy 10: Movement outlines how transport infrastructure will be enhanced within the Borough, including promoting active travel and public transport. In line with the policy developments must make effective use of land use, to support connectivity to public transport and walking and cycling routes. The policy will improve access to public transport, through the provision of fully accessible stepfree station links. The policy will also support low-emission vehicles through delivery of EV charging points.

Local Plan Policy M3: Deliveries, Servicing and Construction states that minimising freight, servicing and delivery trips during construction and operational phases of new development must occur in order to reduce the impact to transport.

The Harrow Local Plan contains a number of policies which provide mitigation for any potential increases in buildings-related air pollution associated with new development, as follows:

Local Plan Policy CN1: Sustainable Design and Retrofitting requires all new buildings achieve Net Zero Carbon and this will be achieved through utilising ultralow energy design, low carbon heat sources, and on-site renewable energy generation. New development projects must comply with stringent EUI standards for different types of buildings, limiting the amount of energy buildings can use relative to their size.

⁴³ 'PTAL' is a measure which rates locations by distance from frequent public transport services <u>https://tfl.gov.uk/info-for/urban-planning-and-construction/planning-with-webcat/webcat?intcmp=25932</u>



Local Plan Policy CN1 Sustainable Design and Retrofitting requires new buildings to meet strict standards for energy efficiency and water use. Retrofit projects should use sustainable methods and achieve high BREEAM ratings unless infeasible. Offsetting is permitted only if other criteria are met.

Local Plan Strategic Policy 08: Responding to the Climate and Nature Emergency requires all developments to be significantly reduce greenhouse gas emissions by prioritising energy efficiency, low carbon heating and renewable energy. It also emphasizes minimizing the embodied carbon and ecological footprint by using sustainably sourced materials, employing sustainable construction techniques, and recycling or reusing waste.

Local Plan Policy HO5: Housing estate renewal and regeneration states that regeneration projects should be part of a comprehensive masterplan, which facilitates the integration of energy-efficient infrastructure and sustainable building practices across the entire development.

The Harrow Local Plan contains a number of policies which provide mitigation for any potential increases in air pollution from industrial processes associated with new development, as follows:

Strategic Policy 09: Managing Waste and Supporting the Circular Economy ensures that development proposals for new waste management sites will be stringently assessed using the West London Waste Management Plan, and the London Plan 2021, including impacts of the proposal on the local environment and residential amenity. Proposals for new waste management facilities, extensions and alterations should be appropriately designed and contribute positively to local character.

Strategic Policy 08: Responding to the Climate and Nature Emergency requires all developments to contribute to an objective to where possible, avoid or otherwise minimise light and noise pollution, and improving **air**, water and soil quality.

Other Local Plans, such as Ealing, Barnet, Brent and Hillingdon, contain similar spatial strategies and policies aiming to achieve modal shift and improve local air quality. Three Rivers and Hertsmere are less urban areas. The Local Plans for these areas also include vision statements and spatial strategies which aim to reduce reliance on cars.

The London Plan 2021 requires all applicable developments within London to be Air Quality Neutral or Air Quality Positive. In relation to Air Quality Neutral, London Plan guidance requires for assessment against 'benchmarks' which cover the two main source of air pollution from new development: building emissions, and transport emissions. A development must meet both benchmarks separately in order to be considered 'Air Quality Neutral'. Where either/or benchmarks are not met, appropriate mitigation or offsetting measures are required. London Plan guidance identifies that mitigation measures are required to be agreed, based upon the following principles:

- Measures should be demonstrably effective and show how they will reduce local emissions or concentrations;
- Measures should relate to the type of excess emissions for example, measures to reduce building emissions should not be used to compensate for



excess transport emissions. Similarly, measures should be specific to target a specific required pollutant;

- The measures should be genuinely additional to all the measures already accounted for in the air quality assessment accompanying the planning application;
- The measures should be in place by the time the development is occupied; and
- Implementation of the measures must be robustly secured via planning condition or legal agreement.

Offsetting measures are required where mitigation measures cannot be identified / agreed, and relate to financial contributions following the approach identified within Defra a*ir quality appraisal: damage cost guidance*⁴⁴.

The Air Quality Neutral benchmarks are required to be met for the following development:

- Residential development: ≥10 dwellings, or an area ≥0.5 hectares where the number of dwellings to be constructed is not given in the application; or
- Non-residential development: where the floor space to be built is ≥1,000 m2 or where the site area is ≥1.0 hectare.

In relation to Air Quality Positive, London Plan guidance requires for this to be applied to masterplans and development briefs for large-scale development proposals subject to an EIA. An Air Quality Positive Statement is required to accompany the planning application, which demonstrates how benefits to local air quality have been maximised, and how measures to minimise pollution exposure will be implemented. The following measures should be considered within an Air Quality Positive Statement to identify how development implements measures to push beyond compliance with the Air Quality Neutral benchmarks:

- Better design and reducing exposure;
- Building emissions;
- Transport emissions; and
- Innovation and futureproofing.

Measures that promote a modal shift to non-car-based or more sustainable modes of transport, and which lead to a reduction in road traffic emissions, are likely to have consequential and beneficial effects on adjacent habitat sites. A modal shift from carbased transport to more sustainable options (such as public transportation, walking, cycling, or electric vehicles for example) reduces direct road-traffic emissions, including oxides of nitrogen (NOx). Reductions in road traffic emissions can decrease nitrogen deposition, acidification, and other harmful effects on adjacent habitat sites which are sensitive to air pollution. The benefits are most significant for sensitive habitats located near major roads, where transport emissions are likely to have a direct impact. However, the extent of the beneficial effects would depend on the specific context—such as the nature of the habitat, existing pollution levels, and

⁴⁴ https://www.gov.uk/government/publications/assess-the-impact-of-air-quality/air-quality-appraisal-damage-cost-guidance.

the magnitude of traffic reduction. Mechanisms to encourage such modal shift are contained within the Harrow Local Plan and London Plan 2021.

The Harrow Local Plan- in combination with other Plans and Projects- contain sufficient mitigation to avoid increasing air pollution, through the location of the majority of new development in sustainable locations, requirements for developments to contribute to enhancing cycle and pedestrian links to key destinations and amenities, enhancing existing routes and new connections through development sites in order to facilitate and encourage residents to use non-car based transport to access day to day facilities and services.

3.3.2 Conclusions

With the mitigation in place, within the Harrow Local Plan policies (Spatial Strategy, Policy M1: Sustainable Transport, Strategic Policy 10: Movement, Policy M3: Deliveries, Servicing and Construction, Policy CN1: Sustainable Design and Retrofitting, Strategic Policy 08: Responding to the Climate and Nature Emergency, HO5: Housing estate renewal and regeneration, Policy 09: Managing Waste and Supporting the Circular Economy, and Policy 08: Responding to the Climate and Nature Emergency), it is determined that there would be no adverse effect on site integrity between the Harrow Local Plan- in combination with other Plans and Projects- and the Habitats Sites screened in with regards to air pollution.

3.4 Water Quality

Screening identified that the Plan in combination has the potential to affect the Thames Estuary Marshes SPA and Ramsar, should it lead to an effect on water quality.

3.4.1 Potential Effect In Combination

The growth set out within the Local Plan- in combination with other Plans and Projects- will require the development of infrastructure such as transport and buildings, which is likely to create large amounts of dust, debris and site run-off. Due to this development being in locations which could affect tributaries flowing into the River Thames, dust, debris and site run-off created from construction could enter this watercourse, and thus affect water quality within the Thames River Basin catchment.

Additionally, Harrow's sewerage service is provided by Thames Water. An increase in wastewater requiring treatment, as a result of predicted population growth, alongside extreme weather events such as heavy rain, may lead to wastewater treatment centres becoming overwhelmed. This may subsequently lead to unregulated wastewater discharges into the River Thames.

Without appropriate mitigation in place, the developments associated with the Local Plan- in combination with other Plans and Projects- could subsequently undermine the following targets that define the conservation objectives for Thames Estuary and Marshes SPA⁴⁵:

⁴⁵ Designated Sites View (naturalengland.org.uk)

- Supporting habitat: Restore water quality (contaminants);
- Supporting habitat: Maintain water quality (dissolved oxygen);
- Supporting habitat: Maintain water quality (nutrients); and
- Supporting habitat: Maintain water quality (turbidity).

The Harrow Local Plan contains policies which will help to avoid increasing water pollution and therefore support conservation objectives to maintain water quality.

The Harrow Borough Local Plan provides mitigation for this factor through **Policy CN4: Sustainable Drainage**, which requires developments to incorporate Sustainable Urban Drainage Systems (SuDS) and ensure the separation of surface and foul water systems. The development of SuDS will help to mitigate against a decrease in water quality as a result of the Local Plan, as they will help to divert surface water away from the mains drainage system, reducing the risks of wastewater treatment centres becoming overwhelmed. Therefore, unregulated discharges into the River Thames should be minimised. It is also highlighted that for **Policy CN3: Reducing Flood Risk**, Harrow will work with the West London Alliance and Strategic Flood Group to adopt a catchment-based approach to flood alleviation, and the collection and use of developer contributions to fund mitigation measures such as SuDS.

The Local Plan states that Thames Water has raised concerns around drainage and sewer network capacity across several proposed development sites identified in their Drainage and Wastewater Management Plan⁴⁶. For major applications, the Harrow Local Plan supporting text to **Policy CN4: Sustainable Drainage** states that a Surface Water Drainage Strategy will need to be produced by developers in liaison with Thames Water Development Services. This is to include a detailed model of the network capacity to determine if mitigation is required. It is the responsibility of a developer to make proper provision for surface water drainage to ground, water courses or surface water sewer. It must not be allowed to drain to the foul sewer, as this is the major contributor to sewer flooding. The Harrow Local Plan supporting text indicates that a Drainage Strategy is required to ensure any appropriate mitigation, including network upgrades, are undertaken ahead of occupation of the development, and should detail:

- (a) Pre and post development runoff rates and water quality impacts, ensuring run-off is clean and safe; and
- (b) Ownership, management and maintenance plan arrangements of any Sustainable Urban Drainage System features.

The supporting text also states that surface water drainage system discharge rates should be restricted to the equivalent Greenfield Qbar⁴⁷ runoff rate or as close as practically possible, but never greater than 2 litres per second per hectare (2l/s/Ha), in line with CIRIA guidance.

⁴⁶ Our Drainage and Wastewater Management Plan 2025-2050 (Thames Water, May 2023)

⁴⁷ Qbar, or the mean annual flood, is the average annual flood event recorded in a river

Harrow Local Plan policies CN3: Reducing Flood Risk and CN4: Sustainable Drainage and the further detailed requirements set out within the supporting text provide measures to reduce surface water runoff, reduce risks of wastewater treatment centres being overwhelmed and maintain water quality. The policies therefore avoid an adverse effect on the integrity of the Thames Estuary and Marshes SPA and Ramsar in relation to water quality through supporting the achievement of the conservation objectives, to maintain water quality.

The recent development of the Thames Tideway Tunnel should also help to minimise contamination from sewage. The 25km pipe will divert sewage from being discharged into 34 combined sewer overflows when treatment centres become overwhelmed. This project should contribute to any overall improvement in water quality within the River Thames and the Thames Estuary and Marshes SPA and Ramsar and therefore supports the achievement of the conservation objectives, to restore water quality.

3.4.2 Further Mitigation

It is recommended that the Local Plan requires all developments follow best practice pollution prevention guidelines, such as adherence with the following CIRIA guidance documents to manage construction run-off:

- CIRIA C532 (2001). Control of water pollution from construction sites. Guidance for consultants and contractors;
- CIRIA C648 (2006) Control of Water Pollution from Linear Construction Projects; and
- CIRIA C741 (2015) Environmental Good Practice on site. 4th Edition.

Additionally, the incorporation and management of interceptors (e.g.: SuDS) into development schemes to trap the silt, oil and other possible contaminants in run-off to prevent pollution and degradation of the downstream habitats should be designed in accordance with current best practice, including adherence to CIRIA C753 (2015) The SuDS Manual and the Design Manual for Roads and Bridges (DMRB) Volume 11 Section 3 Part 10 HD 45/09 Road Drainage and the Water Environment.

These requirements should be added to Local Plan **Strategic Policy 08: Responding to the Climate and Nature Emergency** and with details provided within the policy supporting text.

3.4.3 Conclusions

Local Plan policies CN3: Reducing Flood Risk and CN4: Sustainable Drainage- in combination with similar policies within other Plans- will provide mitigation against the deterioration of water quality- particularly if the wording is strengthened- making it possible to avoid an adverse effect on the Thames Estuary Marshes SPA and Ramsar. Additionally, the employment of standard construction techniques, as well as avoidance measures put in place during construction and in operation (developed



as a result of project-level HRAs), should make it possible to avoid an adverse effect on the Thames Estuary and Marshes SPA and Ramsar with regards to water quality. Therefore, it can be determined that, with the suggested further mitigation in place, the Harrow Local Plan- in combination with other Plans and Projects- will not have an effect on the integrity of the Thames Estuary and Marshes SPA and Ramsar will be avoided with regards to water quality, both alone and in combination.

3.5 Water resources

Screening identified a potential LSE in relation to water resources on Lee Valley SPA and Ramsar from the Harrow Local Plan in combination with growth in other areas.

3.5.1 Potential Effect in Combination

The Borough of Harrow lies within the Affinity Water supply area, within the Pinn Water Resource Zone (WRZ) 4. Affinity Water abstracts approximately 65% of water from groundwater sources and the remainder is from surface water, principally from the River Thames. The company also receives water from and provides water to neighbouring water companies, known as 'bulk supplies'.

Water companies have a statutory obligation to prepare and maintain a Water Resources Management Plan (WRMP), setting out how they will ensure that they have sufficient water resources to meet the current and future demands of their customers, over a minimum 25-year period while looking forwards 50 years. WRMPs are published on a five-yearly basis. The revised draft Water Resource Management Plan 2024⁴⁸ (rdWRMP24) outlines plans to provide a reliable, resilient, efficient, and affordable water supply to customers between 2025 and 2075 and sets out how Affinity Water intends to maintain the balance between water supply and demand. This is critical as there is likely to be an increased demand for water abstraction over the Local Plan period.

To provide a base to forecast future household consumption, the likely growth in population and the number of households forecast for the future needs to be understood.

To develop the population and housing forecast, Affinity Water participated in a project undertaken by Edge Analytics to produce a set of Population and Property Forecasts which used the latest available Local Plan and ONS trend-based data, as well as other sources, including those from the Greater London Authority (GLA).

This work involved producing forecasts for a wide range of scenarios, by using a combination of trends (ONS, GLA), housing-led forecasts (incorporating housing need, housing requirements and actual planned scenarios) and employment-led forecasts, to account for the considerable uncertainty in the projections.

For the dWRMP24, this work was commissioned in 2020. The project used these three groups of forecasts to produce 19 main scenarios up to 2050. Three further projections (principal, high and low) were developed for each of the 19 scenarios for

⁴⁸ <u>https://affinitywater.uk.engagementhq.com/wrmp</u>

the period 2050-2100, during which growth was underpinned by fertility, mortality, and migration assumptions.

Since the 2020 delivery of the forecasts for the dWRMP, there have been a number of important data releases such as the Census 2021 results and more up to date Local Plan Housing Growth information. Therefore, in February 2023, updated population and property forecasts were produced to take account of the latest demographic and housing statistics for inclusion in the rdWRMP24.

A Housing-led scenario, with population growth underpinned by each local authority's Local Plan housing growth trajectory was chosen as the central scenario to inform the first 10 years of the rdWRMP24. From 2050 to 2101, growth under this scenario is trended in line with the 2018-based NPP from ONS. The rdWRMP24 future 'situations' cover the different levels of challenge from growth and climate change.

The draft WRMP24 (dWRMP24) was published for consultation in November 2022. The rdWRMP24 reflects the changes made in light of that consultation and further updates based on new information and updated model outputs. It was submitted to Defra (Department for the Environment, Food and Rural Affairs) for their approval in 2023 and is expected to be published as a final version in 2024.

The rdWRMP24 has been subject to HRA⁴⁹. Potential effects on Lee Valley SPA and Ramsar were considered in the HRA.

The HRA considered construction and operation effects of infrastructure options, including abstraction. An impact pathway was identified with the Lee Valley SPA and Ramsar due to the construction of the River Lee Intake, which is one of the options assessed for the rdWRMP24. Without appropriate mitigation in place, the developments associated with the Local Plan- in combination with other Plans and Projects in the Affinity Water area- could subsequently undermine the following targets that define the conservation objectives for the Lee Valley SPA⁵⁰:

- Supporting habitat: Maintain water quality/quantity;
- Supporting habitat: Maintain water area; and
- Supporting habitat: Maintain water depth.

Assuming that all proposed mitigation measures are implemented, the HRA of the rdWRMP24 concludes that it will not, in relation to their conservation objectives, adversely affect the integrity of any Habitats Site. The HRA Report states that there is confidence that the measures detailed in the HRA can avoid and/or mitigate for all potential effects and therefore, adverse in-combination effects are not anticipated, including with other plans, programmes and projects.

The Lee Valley SPA comprises a series of embanked water supply reservoirs, sewage treatment lagoons and former gravel pits that display a range of man-made

⁴⁹ revised draft Water Resource Management Plan 2024, Appendix 7.2.3 SEA Environmental Report D (HRA) <u>https://affinitywater.uk.engagementhq.com/wrmp</u>

⁵⁰ UK9012111 Lee Valley SPA Published 10 Jul 2024 (naturalengland.org.uk)

and semi-natural wetland and valley bottom habitats. The site is important for overwintering bittern as well as an internationally important population of two duck species⁵¹. The SPA has the same footprint as the Lee Valley SPA.

Thames Water manage water supplies in the WRZ in which the Lee Valley SPA is located. As there is an existing bulk transfer agreement between Affinity Water and Thames Water⁵², and the Pinn WRZ 4 is the receiving area, this HRA of the Harrow Local Plan has considered how water resources are managed within the Thames Water WRZ.

Thames Water's water supplies are derived from a mixture of surface water sources (mostly from large storage reservoirs supplied from the River Lee and the River Thames) and groundwater sources. Thames Water also have a desalination water treatment works on the River Thames (Tideway) that can supplement water supplies at times of high demand and/or during drought conditions.

The HRA of the Thames Water Final Water Resources Management Plan 2019⁵³ considered continued utilisation of Thames Water's existing licensed abstraction sources (which underpin the WRMP19) on European sites. This was based on the 'Review of Consents' process undertaken by the Environment Agency. The Environment Agency is the 'competent authority' for the regulation of the impact of abstraction on the natural environment. The Environment Agency carried out the Review of Consents in accordance with requirements of the European Habitats Directive over the period 2004 to 2008.

The Environment Agency's Review of Consents was undertaken by considering all European sites within Thames Water's supply area, including the Lee Valley SPA and Ramsar. The European sites were initially screened to identify all sites with water dependent habitat within the Thames Water's supply area. Those sites that contained water dependent habitat were then reviewed to assess whether Thames Water abstractions were located within the same groundwater or surface water catchment and therefore could have potential to affect the hydrogeological or hydrological regime of the sites. Any sites that were in the same catchment as a Thames Water licensed abstraction source were assessed in more detail to determine whether the abstraction would be likely to have a significant effect. The Environment Agency looked in more detail at the sensitivities of the European site to water supply, and at the local hydrology. For example, a European site may be fed by surface water and the abstraction may be downstream, or the abstraction may be from a confined aquifer which could not impact the water supply at the protected site.

⁵¹ Adapted from Site Improvement Plan – Lee Valley SPA (Natural England, 2014) http://publications.naturalengland.org.uk/publication/5864999960444928

⁵² Affinity Water, Revised Draft Water Resources Management Plan 2024, Table 5.16

⁵³ Thames Water Final Water Resources Management Plan 2019 Technical Appendices Appendix C: Habitats Regulations (Ricardo Energy & Environment, April 2020)

In addition, the Environment Agency was also able to use simple drawdown calculations to conclude that the impact would be insignificant.

The Lee Valley SPA was included in the Environment Agency's Review of Consents and an AA was required as part of the review process (in 2008). The review concluded that no abstraction reduction was required in relation to the Lee Valley SPA in order to avoid a significant effect on European sites⁵³.

Affinity Water has committed to reducing the volume of water abstracted from the environment by 36.31 million litres per day (MI/d) by December 2024. The water company is undertaking an abstraction reduction programme which is being driven by the Water Framework Directive (WFD). The WFD states that all rivers are required to achieve good ecological status by 2027, or good ecological potential if designated as heavily modified or artificial.

Within this programme, Affinity Water aims to:

- Leave more water in the environment;
- Re-introduce natural processes to the chalk streams in the supply regions which support a diverse range of habitats.
- Understand the nature of each of their drinking water catchments; how the land is being managed, what the likely risks to water quality are and what opportunities there are to mitigate any existing issues.

This programme will contribute to an improvement in the water levels within the SPA.

Policy CN1: Sustainable Design and Retrofitting within the Local Plan includes the following requirement in order to ensure that all new development within the Borough encourages sustainable water use:

"B. All new buildings must minimise the use of mains water achieving a maximum consumption of 105 litres per head per day, excluding allowance of up to five litres for external water consumption."

Affinity Water aims to fit smart meters in all new homes. Smart meters encourage more efficient water use by charging customers for water consumed thus reducing water use within Harrow. Smart meters can help consumers become more aware of their water use and adjust their habits to reduce waste.

With regards to reducing existing demand within the water supply region Affinity Water also plans to install 400,000 smart meters for customer households and businesses in 2025-2030 and a further 100,000 in 2030-2040. This is in order to achieve water consumption of 110 l/h/d per capita consumption (PCC) by 2050 within communities. This will also be coupled with helping businesses to reduce their water use through self-audits and retailer audits.

3.5.2 Conclusions

On the basis of the rdWRMP24 which aims to reduce water abstraction and water demand within the River Lee catchment and as the Harrow Local Plan provides mitigation to minimise water consumption in new developments within the Borough, it is concluded that the Harrow Local Plan will not have an adverse effect on the integrity of the Lee Valley SPA and Ramsar either in isolation or in combination.

4.0 Summary and Conclusions

4.1 Screening

Screening identified LSEs in relation to:

- Recreation the Local Plan in combination, potentially affecting all of the Habitats Sites considered within the HRA, namely:
 - Epping Forest SAC;
 - Wormley-Hoddesdonpark Woods SAC;
 - Chiltern Beechwoods SAC;
 - Burnham Beeches SAC;
 - Wimbledon Common SAC;
 - Richmond Park SAC;
 - South West London Waterbodies SPA;
 - Windsor Forest & Great Park SAC;
 - Thames Basin Heaths SPA;
 - Thursley, Ash, Pirbright & Chobham SAC;
 - o Thames Estuary & Marshes SPA and Ramsar;
 - Essex Estuaries SAC;
 - Medway Estuary & Marshes SPA; and
 - Lee Valley SPA and Ramsar.
- Air quality the Local Plan in combination, potentially affecting all of the Habitats Sites considered within the HRA (as listed above).
- Water quality the Local Plan in combination, potentially affecting the following Habitats Sites:
 - Thames Estuary Marshes SPA and Ramsar.
- Water resources the Local Plan in combination, potentially affecting the following Habitats Sites:
 - Lee Valley SPA and Ramsar.

The potential risks to Habitats Sites relate to the quantum of development proposed.

Screening of the Regulation 19 version of the draft Local Plan took place in August 2024. This contained four new policies, 41 site allocation options and circa 30 modified Regulation 18 policies. The new policies relate to site allocations, inclusive design, basement development, and safety and security. No new LSEs were identified.

4.2 Appropriate Assessment

As LSEs have been identified in screening, Appropriate Assessment (AA) has been undertaken. The AA has considered the potential for impact pathways to undermine the conservation objectives of the Habitats Sites identified above and to ascertain whether adverse effects on site integrity can be excluded. The AA has considered potential effects in relation to recreation, air quality, water quality and water resources. Adverse effects on the integrity of Habitats Sites in relation to recreation, air quality and water resources have not been identified in the AA.

In relation to water quality, in order to conclude that there will be no adverse effects on the integrity of Habitats Sites, further mitigation has been put forward within the AA for inclusion within Local Plan Strategic Policy 08: Responding to the Climate and Nature Emergency and supporting text, as follows:

HRA Recommended Mitigation

It is recommended that the Local Plan requires all developments follow best practice pollution prevention guidelines, such as adherence with the following CIRIA guidance documents to manage construction run-off:

- CIRIA C532 (2001) Control of water pollution from construction sites. Guidance for consultants and contractors;
- CIRIA C648 (2006) Control of Water Pollution from Linear Construction Projects; and
- CIRIA C741 (2015) Environmental Good Practice on site. 4th Edition.

Additionally, the incorporation and management of interceptors (e.g. SuDS) into development schemes to trap the silt, oil and other possible contaminants in run-off to prevent pollution and degradation of the downstream habitats should be designed in accordance with current best practice, including adherence to CIRIA C753 (2015) The SuDS Manual and the Design Manual for Roads and Bridges (DMRB) Volume 11 Section 3 Part 10 HD 45/09 Road Drainage and the Water Environment.

These requirements should be added to Local Plan Strategic Policy 08: Responding to the Climate and Nature Emergency with the details provided within the policy supporting text.

In response to this suggested mitigation, criterion H-2 in Local Plan Strategic Policy 08: Responding to the Climate and Nature Emergency has been amended to include:

"2. Where possible avoiding or otherwise minimising light and noise pollution, and improving air, water and soil quality <u>through the adoption of appropriate best practice pollution prevention guidelines;</u>"

The following text has also been added to the supporting text of Local Plan Strategic Policy 08: Responding to the Climate and Nature Emergency:

"The Habitats Regulations Assessment (HRA) identified Likely Significant Effects (LSEs) in relation to air quality and water quality, with these risks relating to the quantum of development proposed in this Plan. As the Plan must be in general conformity with the London Plan with respect to the quantum of development proposed, the plan mitigates the identified risk through the adoption of appropriate best practice pollution prevention guidelines."

In addition, Local Plan CN4: Sustainable Drainage has been amended to include the following text as criterion H:

<u>"H. Proposals for major devevelopment should ensure appropropiate best</u> practice is followed with respect to the control of water pollution."

And additional text has been added to the supporting text of Policy CN4: Sustainable Drainage:

"Major developments must follow appropriate best practice pollution prevention guidelines; these include adherence with the following Construction Industry Research and Information Association (CIRIA) guidance documents to manage construction run-off: CIRIA C532 (2001) -Control of water pollution from construction sites. Guidance for consultants and contractors; CIRIA C648 (2006) – Control of Water Pollution from Linear Construction Projects; and CIRIA C741 (2015) – Environmental Good Practice on site. 4th Edition. Additionally, the incorporation and management of interceptors (e.g. SuDS) into development schemes to trap the silt, oil and other possible contaminants in run-off to prevent pollution and degradation of the downstream habitats should be designed in accordance with current best practice, including adherence to CIRIA C753 (2015), the SuDS Manual and the Design Manual for Roads and Bridges (DMRB) Volume 11 Section 3 Part 10 HD 45/09 Road Drainage and the Water Environment."

With the proposed mitigation (above) in place, it can be determined that adverse effects on the integrity of the Habitat Sites (as listed below) can be excluded from the Harrow Local Plan, alone and in combination with other plans and projects:

- Epping Forest SAC;
- Wormley-Hoddesdonpark Woods SAC;
- Chiltern Beechwoods SAC;
- Burnham Beeches SAC;
- Wimbledon Common SAC;
- Richmond Park SAC;
- South West London Waterbodies SPA;
- Windsor Forest & Great Park SAC;
- Thames Basin Heaths SPA;
- Thursley, Ash, Pirbright & Chobham SAC;
- Thames Estuary & Marshes SPA and Ramsar;
- Essex Estuaries SAC;
- Medway Estuary & Marshes SPA; and
- Lee Valley SPA and Ramsar.

5.0 Information about Habitats Sites

This section presents information about the European designated Habitats Sites Information about Habitats Sites.

Table G5-1: Epping Forest Special Area of Conservation

Name		Epping Forest SAC (UK0012720)	
Location with regards to plan area		The site occurs approximately 19 km to the north east of the Plan Area.	
Reason(s) for de	esignation:		
 SAC: Qualifying Features: The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I: Primary: 9120 Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrublayer (<i>Quercion robori-petraeae</i> or <i>Ilicic-Fagenion</i>) Non-Primary: 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> 4030 European dry heaths The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II: 			
-	 • 1083 Stag beetle Lucanus cervus 		
SSSI component site	Epping Forest SSSI		
Conservation objectives54Ensure that the inter and ensure that the Conservation Statu• The extent and qualifying speci• The structure a natural habitats• The structure a natural habitats• The supporting habitats of qual• The populations		nd function (including typical species) of qualifying	

⁵⁴ Natural England Epping Forest conservation objectives.

http://publications.naturalengland.org.uk/publication/5908284745711616 (Accessed 14/07/2023)

Current condition⁵⁵

9120 Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrublayer (*Quercion robori-petraeae* or *Ilicic-Fagenion*)

• The condition of this feature was assessed at 17 locations across the site. Four locations were considered to be in a favourable condition, whist the remaining 13 were in an unfavourable condition.

4010 Northern Atlantic wet heaths with Erica tetralix

• This feature is present in four sections of the SAC and is in an unfavourable condition in three of these locations.

4030 European dry heaths

• The condition of this feature was recorded as either unfavourable with no change, unfavourable or was not recorded.

1083 Stag beetle Lucanus cervus

• For all areas of the site in which this qualifying feature is present, it is in a favorable condition.

Key current and predicted issues affecting the condition of the SAC features and/or the conservation objectives⁵⁶:

- 1. Air pollution Poor air quality is cited in the most recent condition assessment process (2010) as a primary factor for unfavorable conditions at this site. There are localised concerns over recreational pressure, but the condition assessment reports state that the site would be able to withstand this in a more robust manner were it not for the stress imposed by atmospheric pollutants.
- 2. Undergrazing is cited as one of two key pressures that currently affect the site. Maintain appropriate grazing levels;
- 3. Recreational pressure is having significant impact in certain areas of the SAC. Funding of management is governed largely by donation and Corporation of London and it is likely that the ability to adequately manage recreation on the SAC will come under increasing pressure as the population of northeast London, Epping Forest and east Hertfordshire increases.
- 4. Changes in species distribution Maintain extent and distribution of beech trees by managing beech tree health and beech sapling recruitment;
- 5. Hydrological changes maintain hydrological conditions within the site;
- 6. Water pollution ensure water pollutants do not enter the site;
- 7. Invasive species ensure invasive species do not spread i.e. heather beetle and grey squirrel; and
- 8. Disease ensure disease does not spread within the site i.e. Phytopthora

⁵⁵ Epping Forest Designated Sites View <u>Designated Sites View (naturalengland.org.uk)</u> (Accessed 20/07/2023)
 ⁵⁶ Site Improvement Plan Epping Forest. <u>Site Improvement Plan: Epping Forest - SIP076 (naturalengland.org.uk)</u> (Accessed 20/07/2023)



Table 5-2: Wormley- Hoddesdonpark Woods Special Area of Conservation

Name	Wormley Hoddesdonpark Woods SAC (UK0013696)
Location with regards to plan area	The site occurs approximately 17 km to the north east of the Plan Area.

Reason(s) for designation:

SAC:

Qualifying Features:

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

Primary:

• 9160 Sub-Atlantic and medio-European oak or oak-hornbeam forests of the *Carpinion betuli*

SSSI component sites	 Wormley-Hoddesdonpark Wood North Wormley-Hoddesdonpark Wood South
Conservation objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;
	The extent and distribution of qualifying natural habitats;
	The structure and function (including typical species) of qualifying natural habitats; and
	• The supporting processes on which qualifying natural habitats rely. ⁵⁷

Current condition58

9160 Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli

• The condition of this feature was assessed across 23 areas within the SAC. 18 locations were identified as in a favorable condition, one was considered unfavorable and two were assessed as unfavorable and declining.

Key current and predicted issues affecting the condition of the SAC features and/or the conservation objectives⁵⁹

The majority of the woods in the complex are in sympathetic ownership with no direct threat. There is some pressure from informal recreation, and there has been limited damage in the past (for example from four-wheel drive vehicles). However, most recreation is concentrated on well-established paths. Most of the complex is covered by a High Forest Zone Plan (Hertfordshire County Council 1996) which sets out a framework for woodland management across the whole area. It aims to restore a varied age structure and natural stand types through sustainable forestry. There have been some instances of fly-tipping in the recent past, and this does increase the risk on non-native species, such as cherry laurel and privet

⁵⁹ Site Improvement Plan Wormley Hoddesdonpark Woods <u>Site Improvement Plan: Wormley Hoddesdonpark</u> <u>Woods - SIP265 (naturalengland.org.uk)</u> (Accessed 20/07/2023)



⁵⁷ Natural England 30 June 2014 – version 2. http://publications.naturalengland.org.uk/publication/4919819195383808

⁵⁸ Wormley-Hoddesdonpark Woods SAC Designated Sites View <u>Designated Sites View (naturalengland.org.uk)</u> (Accessed 20/07/2023)

from garden waste. Coupled with instances of car dumping, this does indicate that the site attracts some urbanisation pressures.

- Disease ensure disease does not spread within the woodland. Acute Oak Decline is present in at least two parts of the site and affects both native oak species;
- Invasive species ensure invasive species do not spread. Invasive species currently within the site include sycamore, turkey oak, rhododendron and snowberry;
- Air pollution ensure no further increase in atmospheric nitrogen deposition;
- Deer minimise deer browsing within the woodland;
- Vehicles ensure no further fly tipping occurs within the site and illegal vehicles are not used within the site;
- Woodland management ensure appropriate woodland management continues within the site; and
- Recreational pressures maintain visitor management practices and review monitoring regularly and change management to adapt to changes in visitor activity. ⁶⁰

Table G5-3: Chiltern Beechwoods Sp	pecial Areas of Conservation
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Name		Chiltern Beechwoods SAC (UK0012724)	
Location with re area	egards to plan	The site occurs approximately 25 km to the north east of the Plan Area.	
Reason(s) for de	esignation:		
SAC:			
Qualifying Featur	res		
The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:			
Primary			
9130 Asperulo-Fagetum beech forests			
Non-Primary			
 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>; important orchid sites) 			
The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:			
Non-Primary			
 1083 Stag 	1083 Stag beetle Lucanus cervusbraden		
SSSI	Ashridge Comm	nons and Woods SSSI	
component	Aston Rowant V	Voods SSSI	
sites	Bisham Woods SSSI		

⁶⁰ Adapted from Site Improvement Plan – Wormsley Hoddesdonpark Wood (Natural England, 2015) <u>http://publications.naturalengland.org.uk/publication/6314181103976448</u> (Accessed 14/07/2023)

	Bradenham Woods, Park Wood and The Coppice SSSI
	Ellesborough and Kimble Warrens SSSI
	Hollowhill and Pullingshill Woods SSSI
	Naphill Common SSSI
	Tring Woodlands SSSI
	Windsor Hill SSSI
Conservation objectives ⁶¹	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;
	 The extent and distribution of qualifying natural habitats and habitats of qualifying species;
	 The structure and function (including typical species) of qualifying natural habitats;
	• The structure and function of the habitats of qualifying species;
	 The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;
	The populations of qualifying species, and,
	The distribution of qualifying species within the site.
Current condition	on ⁶² :

9130 Asperulo-Fagetum beech forests

- This feature was assessed for its condition access 26 locations.
- 23 locations were considered favourable and three unfavourable.

6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*; important orchid sites)

• This feature was assessed in four locations across the SAC. In three instances, the feature was assessed as being in an unfavourable condition and in one instance it was favourable.

1083 Stag beetle Lucanus cervusbraden

• This feature was assessed for its condition in one location and was deemed favourable.

Key current and predicted issues affecting the condition of the SAC features and/or the conservation objectives⁶³

The majority of Beechwoods in the Chilterns are very uniform in terms of age-class and species composition, as a result of historical promotion of beech as a timber tree. Significant changes to the structural and species diversity of these woods are required in order to promote a more natural composition. Beech woodland in the Chilterns is currently facing a decline due to a very low market value for timber and damage to young trees by grey squirrels. The availability of financial support through the Woodland Grant Scheme goes

⁶³ Site Improvement Plan Chilterns Beechwoods <u>Site Improvement Plan: Chilterns Beechwoods - SIP045</u> (naturalengland.org.uk) (Accessed 20/07/2023)



⁶¹ Chiltern Beechwoods SAC conservation objectives

https://publications.naturalengland.org.uk/file/4961243408629760 (Accessed 14/07/2023)

⁶² Chilterns Beechwoods SAC Designated Sites View <u>Designated Sites View (naturalengland.org.uk)</u> (Accessed 20/07/2023)

some way in helping to address this issue but it is not clear whether this offers sufficient incentive to woodland managers to continue to manage in ways which will promote an increase in structural and species diversity of the characteristic beechwood communities. In particular, there may be a lack of sufficient financial support to provide for the retention of a larger proportion of mature trees in order to increase the provision of deadwood habitat. This latter issue is the subject of a joint national review by Natural England and the Forestry Commission.

- Forestry and woodland management: woodland management has resulted in a uniform age structure in parts with few gaps in the canopy and restricted regeneration. Climate change may also impact on woodland regeneration and species composition.
- Deer: browsing prevents or hinders natural regeneration of trees and ground flora.
- Changes in species distributions: appropriate monitoring of stag beetle population is not being undertaken, making it difficult to manage the population or its habitat.
- Invasive species: grey squirrels and edible dormouse damage growing trees by bark stripping.
- Disease: box blight has been recorded on part of the SAC which could affect species composition of the site.
- Public access/disturbance: removal of dead wood by the public is an issue on some parts of the SAC which could impact saproxylic invertebrate fauna.
- Air pollution: impacts of atmospheric nitrogen deposition. Atmospheric nitrogen deposition exceeds the critical loads for ecosystem protection. Some parts of the site are recorded as unfavourable (recovering), but impacts associated with nitrogen deposition are unclear.

Table	G5-4:	Burnham	Beaches	Special	Areas o	f Conservation
	•••	_ a a	2000100	opeena		

Name		Burnham Beeches SAC (UK0030034)	
Location with regards to plan area		The site occurs approximately 16 km to the west of the Plan Area.	
Reason(s) for de	esignation:		
 <u>SAC</u> <u>Qualifying Features:</u> The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I: 9120 Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrublayer (<i>Quercion robori-petraeae</i> or <i>Ilicic-Fagenion</i>) 			
SSSI component site	Burnham Beeches SSSI		
Conservation objectives ⁶⁴	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;		

⁶⁴ Burnham Beeches conservation objectives <u>https://publications.naturalengland.org.uk/file/5680758811525120</u> (Accessed 14/07/2023)



- The extent and distribution of qualifying natural habitats;
- The structure and function (including typical species) of qualifying natural habitats;
 - The supporting processes on which qualifying natural habitats rely.65

Current condition⁶⁶

9120 Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrublayer (*Quercion robori-petraeae* or *Ilicic-Fagenion*)

• This qualifying feature was assessed for its condition at four separate locations. Three locations were in a favourable condition and one unfavourable.

It should be noted that discussions detailed in Liley et al (2012)⁶⁷ suggest that despite the majority of the SAC habitat being assessed by Natural England as being in favourable condition, there are concerns due to an increased rate of veteran tree loss caused by inappropriate veteran tree management and an increasing gap between young and ancient trees.

Health monitoring of trees is carried out at Burnham Beeches, with staff undertaking detailed surveys of ancient pollards on a 10 year cycle, a less intensive check for management Members of staff who carry out the health monitoring have noticed that the young trees are showing signs of ill health.

Key current and predicted issues affecting the condition of the SAC features and/or the conservation objectives⁶⁸

- Air pollution: risk of atmospheric nitrogen deposition lichen communities associated with trees are sensitive to nitrogen deposition.
- Public access/disturbance veteran trees are vulnerable to damage as a result of soil compaction due to trampling or vehicle movement over the root zone.
- Habitat fragmentation pressure from new housing development risks isolating the site from surrounding countryside.
- Deer numerous in parts of the site and causing adverse impacts on tree regeneration and ground flora.
- Species decline the number of veteran trees on site are declining and there is a significant age gap between these and the next generation.
- Invasive species oak processionary moth occurs nearby. Rhododendron occurs across the site which also act as a host for the pathogens causing sudden oak death (which also affects beech).

⁶⁵ Natural England 30 June 2014 – version 2.

http://publications.naturalengland.org.uk/publication/6014456282742784

⁶⁶ Burnham Beaches SAC Designated Sites View <u>Designated Sites View (naturalengland.org.uk)</u> (Accessed 20/07/2023)

⁶⁷ Liley, D., Hoskin, R., Fearnley, H., White, J. & Underhill-Day, J. (2012) Urban development and Burnham Beeches SAC. Unpublished report for Corporation of London.

⁶⁸ Site Improvement Plan Burnham Beeches <u>Site Improvement Plan: Burnham Beeches - SIP032</u> (<u>naturalengland.org.uk</u>) (0/07/2023)

Table G5-5: Wimbledon Common Special Area of Conservation

Name		Wimbledon Common SAC (UK0030301)	
Location with regards to plan area		Wimbledon Common SAC is located 14 km south of the Plan Area and 2 km south of the river Thames.	
Reason(s) for de	esignation:		
 <u>SAC:</u> <u>Qualifying habitats:</u> The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:⁶⁹ Primary: 1083 Stag beetle <i>Lucanus cervus</i> Non-primary: 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> 4030 European dry heaths 			
SSSI component site	Wimbledon Common SSSI		
Conservation objectives ⁷⁰	 and ensure that the Conservation Statu The extent and qualifying speci The structure at natural habitats The structure at the supporting habitats of qual The populations The distribution 	nd function (including typical species) of qualifying	
	Current condition ⁷¹		
This quali	<i>Lucanus cervus</i> ifying feature was as which it was assess	sessed as being in a favorable condition in all three ed in.	
4010 Northern At	tlantic wet heaths wit	th <i>Erica tetralix</i>	
This feature is in an unfavourable condit		condition in the two sites they were assessed at.	
4030 European dry heaths			

⁶⁹ JNCC Wimbledon Common SAC <u>Wimbledon Common - Special Areas of Conservation (jncc.gov.uk)</u> (Accessed 14/07/2023)

⁷⁰ Wimbledon Common conservation objectives

https://publications.naturalengland.org.uk/file/6215672493506560 (Accessed 14/07/2023)

⁷¹ Wimbledon Common SAC Designated Sites View <u>Designated Sites View (naturalengland.org.uk)</u> (Accessed 20/07/2023)

The site was assessed as being in an unfavourable condition in all three locations where they were assessed.

Key current and predicted issues affecting the condition of the SAC features and/or the conservation objectives⁷²

- Habitat fragmentation is currently threatening the Stag Beetle population at Wimbledon • Common.
- The Stag beetle remains vulnerable to extinction in the UK as a result of habitat loss and • fragmentation of populations. Much work has been carried out to improve understanding of the distribution and habitat requirements of the species. Effective conservation is dependent upon protection not only of core sites such as Wimbledon Common, but public awareness of the value of gardens and retention of dead wood. Continuation of work by the Peoples Trust for Endangered Species is likely to play an important role.
- Invasive species, most notably the Oak processionary moth is now well-established at • Richmond Park and are threatening the Wet heathland with cross-leaved heath, European dry heaths and the Stag beetle. This species represents a serious threat to human health. Control is potentially damaging to invertebrate populations and is expensive which may result in reduced nature conservation management.
- Public access and disturbance is putting pressure on the wet heathland with cross-leaved • heath, European dry heaths and the Stag beetle. High visitor use of the site causes damage to sensitive habitats, and results in adverse impacts such as compaction around the base of mature trees and removal of fallen timber.
- Air pollution is putting pressure on the wet heathland with cross-leaved heath and the • European dry heaths. Nitrogen deposition exceeds site relevant critical loads. Wimbledon Common is subject to high levels of atmospheric nitrogen oxide and ammonia deposition which is likely to be having deleterious effects on sensitive habitats, particularly the heath and mire vegetation.

	Table G5-6: Richmond Park Special Area of Conservation		
Name Location with regards to plan		Richmond Park SAC (UK0030246)	
		Richmond Park is located 11 km south of the Plan	

Reason(s) for designation:

SAC:

area

Qualifying features:

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:73

Thames.

Area and approximately 2 km south of the river

1083 Stag beetle Lucanus cervus •

⁷³ JNCC Richmond Park SAC Richmond Park - Special Areas of Conservation (incc.gov.uk) (Accessed 14/07/2023)



⁷² Site Improvement Plan Wimbledon Common Site Improvement Plan: Wimbledon Common - SIP262 (naturalengland.org.uk) (20/07/2023)

SSSI component site ⁷⁴	Richmond Park SSSI	
Conservation objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring ⁷⁵ :	
	The extent and distribution of the habitats of qualifying species;	
	• The structure and function of the habitats of qualifying species;	
	 The supporting processes on which the habitats of qualifying species rely; 	
	The populations of qualifying species; and	
	The distribution of qualifying species within the site.	
Current condition: ⁷⁶		
1083 Stag beetle	83 Stag beetle Lucanus cervus	
• 13 areas	13 areas of the SAC were assessed for their condition. Five areas were considered	

deemed favorable whilst eight were unfavorable.

Key current and predicted issues affecting the condition of the SAC features and/or the conservation objectives⁷⁷

According to Natural England's Site Improvement Plan for Richmond Park SAC, no current issues affecting the qualifying feature have been identified.

Table G5-7: South West London Waterbodies Special Protection Area

Name	South West London Waterbodies SPA (UK9012171)	
Location with regards to plan area	South West London Waterbodies SPA is located approximately 13 km south west of the Plan Area.	
Reason(s) for designation:		
SPA:		
Article 4.2 qualification (79/409/EEC). Over winter the area regularly supports ⁷⁸ :		
A056: Northern Shovekers; Anas clypeata		

• A051: Gadwall; Anas strepera

⁷⁴ Richmond Park Site Improvement Plan <u>https://publications.naturalengland.org.uk/file/4641498714865664</u> (Accessed 14/07/2023)

⁷⁵ Natural England European Site conservation objectives for Richmond Park SAC <u>https://publications.naturalengland.org.uk/file/5521612917178368</u> (Accessed 14/07/2023)

⁷⁶ Designated Sites View Richmond Park <u>Designated Sites View (naturalengland.org.uk)</u> (Accessed 20/07/2023)

⁷⁷ Site Improvement Plan: Richmond Park <u>https://publications.naturalengland.org.uk/file/4641498714865664</u> (Accessed 20/07/2023)

⁷⁸ JNCC Natura 2000 Standard Form <u>UK9012171.pdf (jncc.gov.uk)</u> (Accessed 14/07/2023)

SSSI component sites	 Kempton Park Reservoirs SSSI Knight & Bessborough Reservoirs SSSI Thorpe Park No. 1 Gravel Pit SSSI Wraysbury No. 1 Gravel Pit SSSI Wraysbury Reservoir SSSI Wraysbury & Hythe End Gravel Pits SSSI Staines Moor SSSI 	
Conservation objectives ⁷⁹	n Ensure that the integrity of the site is maintained or restored as appropria and ensure that the site contributes to achieving the aims of the Wild Bird 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.		
Current condition	0n ⁸⁰ :	

Current condition⁸⁰:

A056: Northern Shovekers; Anas clypeata

- The condition of this feature was assessed as unfavourable, recovering
- A051: Gadwall; Anas strepera
 - The condition of this feature was assessed as favourable

Key current and predicted issues affecting the condition of the SAC features and/or the conservation objectives^{81:}

Public access/disturbance: Most of the sites have some level of formal or informal public access, including water-based activities on some waterbodies (angling, sailing, waterskiing). People can potentially disturb wintering Gadwall and Shoveler, and management for recreational uses may reduce the area of suitable habitat.

Changes in species distributions Research has showed that Gadwell numbers have been in decline on this SPA (51% over 10 years up to 2009/10) which is not consistent with upwards national population trend. The reason for this decline is currently disputed, however mineral restoration schemes at the site and the presence of other waterbodies nearby which support the SPA population are considered factors which have influenced this decline.

There are concerns that Egyptian geese are showing significant increases and there is potential that geese are competing with Gadwall and Shoveler for habitat and food.

Invasive species: Large areas of wetland and terrestrial habitat are infested with *Crassula helmsii* and this is likely to be reducing invertebrate numbers - Gadwall and Shoveler feed on invertebrates. An eradication project is tackling *Crassula helmsii* but it is not fully effective so far.

⁸¹ Site Improvement Plan South West London Waterbodies <u>Site Improvement Plan: South West London</u> <u>Waterbodies - SIP227 (naturalengland.org.uk)</u> (Accessed 20/07/2023)



⁷⁹ South West London Waterbodies conservation objectives

https://publications.naturalengland.org.uk/file/5411059804667904 (Accessed 14/07/2023)

⁸⁰ South West London Waterbodies SPA Designated Sites View <u>Designated Sites View (naturalengland.org.uk)</u> (Accessed 20/07/2023)

Natural changes to the site: Natural changes to the site such as the inevitable maturation of gravel pits is altering roosting and feeding provision in terms of bankside vegetation, water chemistry and aquatic biodiversity.

Fisheries: fish stocking: The stocking of fish for recreation angling negatively impacts upon SPA bird population and fish de-stocking has been carried out in the past.

Inappropriate weed control: control or removal of waterweed for watersports potentially impacts upon the availability of food for Gadwall and Shoveler.

Table G5-8: Windsor Forest & Great Park Special Area of Conservation

Name	Windsor Forest and Great Park SAC (UK0012586)
Location with regards to plan area	Windsor Forest and Great Park is located approximately 19 km to the south west of the Plan Area

Reason(s) for designation:

SAC⁸²:

Qualifying habitats:

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

Primary:

• 9190: Old acidophilous oak woods with Quercus robur on sandy plains

Non-primary:

• 9120 Atlantic acidophilous beech forests with Ilex and sometimes also *Taxus* in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

1079: Violet click beetle *Limoniscus violaceus*

SSSI component site	Windsor Forest and Great Park SSSI
Conservation objectives ⁸³	 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring: The extent and distribution of qualifying natural habitats and habitats of qualifying species; The structure and function (including typical species) of qualifying natural habitats; The structure and function of the habitats of qualifying species;



⁸² JNCC Windsor Forest and Great Park SAC <u>Windsor Forest and Great Park - Special Areas of Conservation</u> (jncc.gov.uk) (Accessed 14/07/2023)

⁸³ Natural England Windsor Forest and Great Park SAC conservation objectives <u>https://publications.naturalengland.org.uk/file/6569964010209280</u> (Accessed 14/07/2023)

- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;
- The populations of qualifying species; and
- The distribution of qualifying species within the site.

Current condition⁸⁴

9190: Old acidophilous oak woods with Quercus robur on sandy plains

 This species has been assessed as being in a favourable condition across all areas of the designated site

9120 Atlantic acidophilous beech forests with Ilex and sometimes also *Taxus* in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)

• This species has been assessed as being in a favourable condition across all areas of the designated site

1079: Violet click beetle Limoniscus violaceus

 This species has been assessed as being in a favourable condition across all areas of the designated site

Key current and predicted issues affecting the condition of the SAC features and/or the conservation objectives⁸⁵

- 1. Forestry and woodland management is threatening the Beech forests on acid soils, the dry oak-dominated woodland and the Violet click beetle.
- 2. The loss of ancient/veteran beech trees due to gaps in age classes results in loss of the beech forest habitat and reduced habitat for the violet click beetle. There is a lack of understanding of current veteran tree and microhabitat resource, as well as the distribution of violet click beetles, and methods to ensure provision of its habitat requirements. This makes it difficult to establish appropriate management measures (such as the planting or 'promotion' of trees in the right locations).
- 3. The loss of ancient/veteran oak trees, and associated reduction in the abundance and diversity of veteran tree micro habitats, due to gaps in age classes has implications for Old acidophilous oak woods habitat and associated flora (including fungi) and fauna
- 4. Invasive species are threatening the Dry oat-dominated woodland and the Violet click beetle.
- 5. Oak processionary moth is widespread in south west London and is present within 20 miles of the site. If oak processionary moth colonises the site it could accelerate loss of the ancient oak population and/or cause serious management problems. Turkey oak is a significant threat to acorn viability and hence the natural regeneration potential of native oak. Rhododendron represents a threat to scrub /grassland /flower rich supporting habitats of saproxylic species.
- 6. Disease is threatening the Dry oat-dominated woodland.
- 7. Diseases of native oak are known from the local area. It is uncertain how significant this could be for the ancient oak population
- 8. Air pollution is putting pressure on the Dry oat-dominated woodland and the Dry oakdominated woodland.

 ⁸⁴ Designated Sites View Windsor Forest <u>Designated Sites View (naturalengland.org.uk)</u> (Accessed 20/07/2023)
 ⁸⁵ Site Improvement Plan Windsor Forest and Great Park. <u>Site Improvement Plan: Windsor Forest and Great</u> <u>Park - SIP263 (naturalengland.org.uk)</u> (Accessed 20/07/2023)



9. Nitrogen deposition exceeds site relevant critical loads. Likely sources include Heathrow airport which is close to Windsor Forest. Air quality is likely to be an issue for old trees, fungi and lichens

Table G5-9: Thames Basin Heaths Special Protection Area

Name		Thames Basin Heaths SPA (UK0012793)
Location with regards to plan area		Thames Basin Heaths are located approximately 24 km to the south west of the Plan Area
Reason(s) for de	esignation:	
Reason(s) for designation: SPA Qualifying features: • A224 Caprimulgus europaeus; European • A246 Lullula arborea; Woodlark (Breedin • A302 Sylvia undata; Dartford warbler (Brogoto and the system) • SSSI component sites • Chobham Common SSSI • Chobham Common SSSI • Horsell Common SSSI • Hazeley Heath SSSI • Ockham & Wisley Common • Whitmoor Common SSSI • Colony Bog & Bagshot Heath • Bramshill SSSI • Ash to Brookwood Heaths • Broadmoor to Bagshot Wo • Basingstoke Canal SSSI		rk (Breeding) warbler (Breeding) mon SSSI SSSI in SSSI sSSI ey Commons SSSI ey Commons SSSI mon SSSI Bagshot Heath SSSI bood Heaths SSSI bagshot Woods & Heaths SSSI anal SSSI Valley SSSI
	Castle Bottom t	o Yateley and Hawley Commons SSSI
Sandhurst to Owlsmoor Bogs &		wlsmoor Bogs & Heaths SSSI
Conservation objectives ⁸⁶		egrity of the site is maintained or restored as appropriate, e site contributes to achieving the aims of the Wild Birds aining or restoring:
		distribution of the habitats of the qualifying features;
		nd function of the habitats of the qualifying features;
	The supporting features rely	processes on which the habitats of the qualifying
		of each of the qualifying features; and
	The distribution	of the qualifying features within the site.

⁸⁶ European Site conservation objectives for Thames Basin Heaths SPA <u>https://publications.naturalengland.org.uk/file/5048458801315840</u> (Accessed 14/07/2023)

Current condition87

A224 Caprimulgus europaeus; European nightjar (Breeding)

- The condition of this feature was assessed as favourable
- A246 Lullula arborea; Woodlark (Breeding)
- The condition of this feature was assessed as favourable

A302 Sylvia undata; Dartford warbler (Breeding)

• The condition of this feature was assessed as favourable

Key current and predicted issues affecting the condition of the SAC features and/or the conservation objectives⁸⁸

- 1. Public access/disturbance: This SPA is subject to high levels of recreational use, with dog walkers making up a large proportion of visitors which is impacting the distribution and overall numbers of ground-nesting birds (and breeding success).
- 2. Undergrazing: The lack of grazing over a long period has resulted in poor habitat quality and the general undermanagement of the site is putting pressure on some of the features of this SAC. There is scope to improve efficiency in use of resources through improved coordination.
- 3. Forestry and woodland management: Large parts of Thames Basin Heaths are occupied by commercial forestry plantations where the maintenance of suitable conditions for Annex 1 birds is dependent upon rotational felling.
- 4. Inappropriate scrub control and Invasive species: The absence of scrub management plans at most sites is of concern as it is often viewed as a negative aspect with little consideration given for its value to Annex 1 birds. Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection. The aerial pollution may be promoting changes in species composition of mires towards Molinia and sedge dominated systems rather than Sphagnum dominated. The spread of Molinia into wet and dry heath appears to be promoted by high nitrate levels.
- 5. Wildfire/arson: Uncontrolled fires are very damaging as they can have profound impacts on reptile populations, inverts and plant diversity and can result in significant habitat loss for annex 1 birds.
- 6. Air pollution: impact of atmospheric nitrogen deposition
- 7. Military: None of the military training areas in the complex currently have integrated management plans which seek to integrate management of the estate for military training with nature conservation management.
- 8. Habitat fragmentation: Fragmentation of the complex means that recovery after devastating impacts such as fires and severe winters is restricted or prevented altogether, making it difficult for the recolonization of species.



⁸⁷ Thames Basin Heaths SPA Designated Sites View <u>Designated Sites View (naturalengland.org.uk)</u> (Accessed 20/07/2023)

⁸⁸ Site Improvement Plan Thames Basin (Accessed 20/07/2023)

Table G5-10: Thursley, Ash, Pirbright & Chobham Special Area of Conservation

Name		Thursley, Ash, Pirbright & Chobham SAC (UK0012793)	
area		Thursley, Ash, Pirbright & Chobham SAC is located approximately 24 km to the south west of the Plan Area	
Reason(s) for de	esignation:		
 <u>SAC:</u> <u>Qualifying Features:</u> The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I: 4010: Northern Atlantic wet heaths with <i>Erica tetralix</i> 4030: European dry heaths 7150: Depressions on peat substrates of the <i>Rhynchosporion</i> 			
SSSI component sites	Colony Bog & BChobham Comr	ey & Frensham Commons SSSI	
Conservation objectives ⁸⁹	 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; The extent and distribution of qualifying natural habitats; The structure and function (including typical species) of qualifying natural habitats; and The supporting processes on which qualifying natural habitats rely. 		
 Current condition⁹⁰: 4010: Northern Atlantic wet heaths with <i>Erica tetralix</i> Out of the 52 sites assessed for their condition, exactly half were considered favourable, and the other half unfavourable. 4030: European dry heaths Out of the 59 sites assessed for their condition, 35 were considered favourable, 23 were unfavourable and one was unfavourable and declining. 7150: Depressions on peat substrates of the <i>Rhynchosporion</i> Out of the 18 sites assessed for their condition, 13 were considered favourable, whilst the remaining five were deemed unfavourable. 			

⁹⁰ Thursley, Ash and Pirbright Designated Sites View <u>Designated Sites View (naturalengland.org.uk)</u> (Accessed 20/07/2023)



⁸⁹ European Site conservation objectives for Thursley, Ash, Pirbright & Chobham SAC <u>https://publications.naturalengland.org.uk/file/4677991053656064</u> (Accessed 14/07/2023)

Key current and predicted issues affecting the condition of the SAC features and/or the conservation objectives⁹¹

- 1. Undergrazing: The lack of grazing over a long period has resulted in poor habitat quality and the general undermanagement of the site is putting pressure on some of the features of this SAC. There is scope to improve efficiency in use of resources through improved coordination
- 2. Forestry and woodland management: Large parts of Thames Basin Heaths are occupied by commercial forestry plantations where the maintenance of suitable conditions for Annex 1 birds is dependent upon rotational felling.
- 3. Hydrological changes
- 4. Inappropriate scrub control: Ineffective or lack of scrub control affects some areas of dry and wet heath. Rhododendron and Gaultheria control is on-going in parts but difficult to control where access for management is constrained. These invasive species pose a particular threat to dry rather than wet heaths
- 5. Invasive species: Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection. The aerial pollution may be promoting changes in species composition of mires towards Molinia and sedge dominated systems rather than Sphagnum dominated. The spread of Molinia into wet and dry heath appears to be promoted by high nitrate levels
- 6. Wildfire/arson
- 7. Air pollution: impact of atmospheric nitrogen deposition
- 8. Military: None of the military training areas in the complex currently have integrated management plans which seek to integrate management of the estate for military training with nature conservation management.
- 9. Habitat fragmentation: Fragmentation of the complex means that recovery after devastating impacts such as fires and severe winters is restricted or prevented altogether, making it difficult for the recolonization of species.

Table G5-11: Thames Estuary & Marshes Ramsar

Name	Thames Estuary and Marshes Ramsar (UK11069)		
Location with regards to plan area	Thames Estuary and Marshes Ramsar is located approximately 50 km to the east of the Plan Area		
Reason(s) for designation:			
Ramsar The Information Sheet on Ramsar Wetlands states ⁹² Ramsar criterion 5 – assemblages of international importance: Species with peak counts in winter: • 45118 waterfowl			
Ramsar criterion 6 – species/populations occurring at levels of international importance: Qualifying species/populations (as identified at designation):			

⁹¹ Site Improvement Plan Thames Basin (Accessed 20/07/2023)

⁹² Thames Estuary and Marshes Ramsar information sheet: <u>https://jncc.gov.uk/jncc-assets/RIS/UK11069.pdf</u>



Species with peak counts in spring/autumn:

- Ringed Plover, Charadrius hiaticula, Europe/Northwest Africa
- Black-tailed godwit , *Limosa limosa islandica*, Iceland/W Europe
- Species with peak counts in winter:
- Grey plover, Pluvialis squatarola, E Atlantic/W Africa -wintering
- Red knot , Calidris canutus islandica, W & Southern Africa
- Dunlin, Calidris alpina alpina, W Siberia/W Europe
- Common redshank , *Tringa totanus totanus*

SSSI component sites	 Ash to Brookwood Heaths SSSI Colony Bog & Bagshot Heath SSSI Chobham Common SSSI Thursley, Hankley & Frensham Commons SSSI Basingstoke Canal SSSI
Conservation objectives	N/A

Current condition⁹³:

A137 *Charadrius hiaticula*; Ringed plover (Non-breeding)

- The condition of this feature was assessed as favourable
- A141 Pluvialis squatarola; Grey plover (Non-breeding)
- Not recorded
- A143 Calidris canutus; Red knot (Non-breeding)
- Not recorded
- A149 *Calidris alpina alpina*; Dunlin (Non-breeding)
- Not recorded
- A156 Limosa limosa islandica; Black-tailed godwit (Non-breeding)
- The condition of this feature was assessed as favourable
- A162 *Tringa totanus*; Common redshank (Non-breeding)
- The condition of this feature was assessed as unfavourable, declining

Key current and predicted issues affecting the condition of the SAC features and/or the conservation objectives⁹⁴:

1. Erosion: The North Kent Coastal Habitat Management Plan (CHaMP) has been produced. The Environment Agency is producing a Flood Defence Strategy for the Thames (Thames 2100) and decisions on future flood risk management will need to take into account the effects on features within the designated sites. Studies of sediment transport and hydrodynamics within Thames

 ⁹³ Thames Estuary and Marshes Ramsar information sheet <u>UK Thames Estuary and Marshes Final (ramsar.org)</u>
 ⁹⁴ Ramsar RIS Thames Estuary and Marshes <u>UK Thames Estuary and Marshes Final (ramsar.org)</u> (Accessed 17/07/2023)



- 2. Eutrophication: Water quality and sources of nutrient inputs are subject to further investigation by the Environment Agency as part of the Agency's review of consents under the Habitats Regulations. Stage 3 of the Review of Consents (appropriate assessment) is scheduled for completion by March 2006, at which point any consented discharges having an adverse effect on site integrity will be identified.
- 3. General disturbance from human activities: The information sheet on Ramsar Wetlands⁹⁵ states that the site is used for the purpose of yachting, angling, wildfowling, jet-skiing, water-skiing and birdwatching. Bird watching occurs throughout the year and wildfowling is restricted to the period September to February. The remaining activities occur year-round but are more prevalent in the summer months. Disturbance from these activities is a current issue.

Table G5-12: Thames Estuary & Marshes Special Protection Area

Name		Thames Estuary and Marshes SPA (UK9012021A)	
Location with regards to plan area		Thames Estuary and Marshes SPA is located approximately 50 km to the east of the Plan Area	
Reason(s) for d	Reason(s) for designation:		
SPA Qualifying Features: • A082 Circus cyaneus; Hen harrier (Non-breeding) • A132 Recurvirostra avosetta; Pied avocet (Non-breeding) • A137 Charadrius hiaticula; Ringed plover (Non-breeding) • A141 Pluvialis squatarola; Grey plover (Non-breeding) • A143 Calidris canutus; Red knot (Non-breeding) • A149 Calidris alpina alpina; Dunlin (Non-breeding) • A156 Limosa limosa islandica; Black-tailed godwit (Non-breeding) • A162 Tringa totanus; Common redshank (Non-breeding)			
Waterbird assemblage SSSI component sites Waterbird assemblage Mucking Flats & Marshes SSSI South Thames Estuary & Marshes SSSI			
Conservation objectives ⁹⁶	and ensure that the Directive, by maintaThe extent andThe structure and	egrity of the site is maintained or restored as appropriate, e site contributes to achieving the aims of the Wild Birds aining or restoring: distribution of the habitats of the qualifying features; nd function of the habitats of the qualifying features; processes on which the habitats of the qualifying	

⁹⁵ Ramsar RIS Thames Estuary and Marshes <u>UK Thames Estuary and Marshes Final (ramsar.org)</u> (Accessed 17/07/2023)

⁹⁶ Thames Estuary and Marshes SPA conservation objectives

https://publications.naturalengland.org.uk/file/6393717116370944 (Accessed 14/07/2023)

	 The population of each of the qualifying features; and 			
	The distribution of the qualifying features within the site.			
Current condition ⁹⁷ :				
A082	Circus cyaneus; Hen harrier (Non-breeding)			
• No	pt recorded			
A132	Recurvirostra avosetta; Pied avocet (Non-breeding)			
• Th	ne condition of this feature was assessed as favourable			
A137	Charadrius hiaticula; Ringed plover (Non-breeding)			
• Th	ne condition of this feature was assessed as favourable			
A141	Pluvialis squatarola; Grey plover (Non-breeding)			
• No	pt recorded			
A143	Calidris canutus; Red knot (Non-breeding)			
• No	pt recorded			
A149	Calidris alpina alpina; Dunlin (Non-breeding)			
• No	pt recorded			
A156	Limosa limosa islandica; Black-tailed godwit (Non-breeding)			
• Th	ne condition of this feature was assessed as favourable			
A162	Tringa totanus; Common redshank (Non-breeding)			
• Th	ne condition of this feature was assessed as unfavourable, declining			
	urrent and predicted issues affecting the condition of the SAC features and/or the ervation objectives ⁹⁸ :			
1.	Coastal Squeeze: Despite the presence of coastal defences along much of the coastline, sea level rise is occurring. It is likely that the supporting habitats of the SPA birds will be lost/degraded through processes such as: coastal squeeze; sedimentation rates' inability to keep pace with sea level rise; and reduced exposure (the extent and duration) of mudflats and sandflats.			
2.	Public Access/Disturbance: Breeding and overwintering waterbirds are susceptible to human disturbance from a range of land- and water-based activities, including: boating and watersports; walking; bait-digging; fishing, and wildfowling. Some activities such as powerboating, may produce physical disturbance to habitats			
3.	Invasive Species: Freshwater non-native invasive species such as pennywort, crassula, parrots feather etc. can engulf ditches, leading to loss of habitat for diving ducks. Although there are some mechanisms in place to ensure ditch management, more baseline information is needed, particularly on those species for which ditch management is not the solution.			
4.	Changes in Species Distributions: There is a decline in population size for some of the bird species on some of the SPAs. A greater understanding of the relative importance of site-based and wider influences is required in order to identify the potential for further actions that might halt declines, restore populations or identify scenarios where it is thought unlikely that site-based measures will reverse population declines.			

⁹⁷ Thames Estuary Condition <u>Site feature condition (naturalengland.org.uk)</u> (Accessed 14/07/2023)

⁹⁸ Site Improvement Plan Greater Thames Complex. (Accessed 17/07/2023)

- 5. Fisheries: Commercial Marine and Estuarine: The extent and impacts of fisheries on private grounds. There are particular concerns regarding the dredging of shellfish within the SPAs which are a food source for the protected birds.
- 6. Vehicles: illicit: The illicit use of motor vehicles (often bikes) occurs across the area. This can cause disturbance to SPA birds. This activity was identified as a medium risk during the 2009 EMS risk review project and is still occurring. Whilst various mechanisms are in place to prevent the use of vehicles they are clearly not entirely effective.
- 7. Air Pollution: Nitrogen deposition exceed site-relevant critical loads

Table G5-13: Essex Estuaries Special Area of Conservation

Name		Essex Estuaries SAC (UK0013690)		
Location with regards to plan area		The Essex Estuaries SAC is located approximately 58 km to the north east of the Plan Area		
Reason(s) for de	esignation:			
SAC				
Qualifying habita	<u>ts:</u>			
The site is desigree habitats listed in		(4) of the Directive (92/43/EEC) as it hosts the following		
Atlantic sa	alt meadows (<i>Glauco</i>	o-Puccinellietalia maritimae);		
 Estuaries 	• ,			
	 Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi). (Mediterranean saltmarsh scrub); 			
	 Mudflats and sandflats not covered by seawater at low tide. (Intertidal mudflats and sandflats); 			
		covered by sea water all the time. (Subtidal sandbanks);		
Spartina s	swards (<i>Spartinion m</i>	naritimae). (Cord-grass swards)		
SSSI	Blackwater Estu	Jary SSSI		
component	Colne Estuary SSSI			
sites	Crouch and Roach Estuaries SSSI			
	Dengie SSSI			
	Foulness SSSI			
objectives ⁹⁹ the site is maintaine contributes to achie		to ensure that, subject to natural change, the integrity of ed or restored as appropriate, and that the site eving the Favourable Conservation Status of its by maintaining or restoring:		

⁹⁹ Conservation objectives Essex Estuaries SAC

https://publications.naturalengland.org.uk/file/5457156304535552 (Accessed 17/07/2023)

	 the extent and distribution of qualifying natural habitats and habitats of the qualifying species; 			
	• the structure and function (including typical species) of qualifying natural habitats;			
	• the structure and function of the habitats of the qualifying species;			
	 the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; 			
	 the populations of each of the qualifying species; and 			
	 the distribution of qualifying species within the site. 			
Current conditio	on ¹⁰⁰			
	data for the site dated March 2021 identifies the following pressures ne site from the following most commonly occurring marine activities:			
Atlantic salt mead	dows (Glauco- <i>Puccinellietalia maritimae</i>);			
The condition	of this feature was assessed as unfavourable			
Estuaries;				
The condition	of this feature was assessed as unfavourable			
Mediterranean ar (Mediterranean s	nd thermo- <i>Atlantic halophilous</i> scrubs (<i>Sarcocornetea fruticosi</i>). altmarsh scrub);			
The condition	of this feature was assessed as unfavorable			
Mudflats and san sandflats);	dflats not covered by seawater at low tide. (Intertidal mudflats and			
The condition	of this feature was assessed as unfavorable			
Salicornia and oth colonising mud and	her annuals colonising mud and sand. (Glasswort and other annuals nd sand);			
The condition	of this feature was assessed as unfavorable			
Sandbanks which are slightly covered by sea water all the time. (Subtidal sandbanks);				
The condition of this feature was assessed as unfavorable				
Spartina swards (Spartinion maritimae). (Cord-grass swards)				
The condition	of this feature was assessed as unfavourable			
Key current and predicted issues affecting the condition of the SAC features and/or the conservation objectives ¹⁰¹ :				
1. Coastal S	•			
	cess/disturbance			
3. Fisheries:	commercial marine and estuarine			
4. Planning r	permission: general			
5. Changes in species distributions				
0. Onunges	····· • • • • • • • • • • • • • • • • •			
6. Invasive s	•			

¹⁰⁰ Essex Estuaries SAC Designated Sites View <u>Designated Sites View (naturalengland.org.uk)</u> (Accessed 20/07/2023)

¹⁰¹ Site Improvement Plan Essex Estuaries. <u>Site Improvement Plan: Essex Estuaries - SIP077</u> (naturalengland.org.uk) (Accessed 20/07/2023)

8. Air pollution: risk of atmospheric nitrogen deposition

Table G5-14: Medway Estuary & Marshes Special Protection Area

Name		Medway Estuary and Marshes SPA (UK9012031)		
Location with regards to plan area		Medway Estuary and Marshes is located approximately 60 km to the south east of the Plan Area.		
Reason(s) for des	Reason(s) for designation:			
SPA Qualifying Features: • A046a Branta bernicla bernicla; Dark-bellied brent goose (Non-breeding) • A048 Tadorna tadorna; Common shelduck (Non-breeding) • A048 Tadorna tadorna; Common shelduck (Non-breeding) • A054 Anas acuta; Northern pintail (Non-breeding) • A132 Recurvirostra avosetta; Pied avocet (Breeding) • A132 Recurvirostra avosetta; Pied avocet (Non-breeding) • A143 Charadrius hiaticula; Ringed plover (Non-breeding) • A141 Pluvialis squatarola; Grey plover (Non-breeding) • A143 Calidris canutus; Red knot (Non-breeding) • A149 Calidris alpina alpina; Dunlin (Non-breeding) • A162 Tringa totanus; Common redshank (Non-breeding) • A195 Sterna albifrons; Little tern (Breeding) • Waterbird assemblage				
SSSI component site				
Conservation objectives102Ensure that the appropriate, and the Wild Birds D• The extent a • The structure • The support features rely • The population		ntegrity of the site is maintained or restored as ensure that the site contributes to achieving the aims of rective, by maintaining or restoring; and distribution of the habitats of the qualifying features and function of the habitats of the qualifying features ing processes on which the habitats of the qualifying on of each of the qualifying features, and, on of the qualifying features within the site.		
 Current condition¹⁰³ A046a Branta bernicla bernicla; Dark-bellied brent goose (Non-breeding) The condition of this feature was assessed as unfavourable, declining 				

¹⁰² Medway Estuary and Marshes SPA conservation objectives
 <u>https://publications.naturalengland.org.uk/file/5579733639364608</u> (Accessed 17/07/2023)
 ¹⁰³ Site improvement plan Greater Thames Complex

https://publications.naturalengland.org.uk/file/5760073666134016 (Accessed 17/07/2023)

A048 *Tadorna tadorna*; Common shelduck (Non-breeding)

- The condition of this feature was assessed as unfavourable, declining
- A054 Anas acuta; Northern pintail (Non-breeding)
- The condition of this feature was assessed as favourable
- A132 Recurvirostra avosetta; Pied avocet (Breeding)
- Not recorded
- A132 *Recurvirostra avosetta*; Pied avocet (Non-breeding)
- The condition of this feature was assessed as favourable

A137 Charadrius hiaticula; Ringed plover (Non-breeding)

- The condition of this feature was assessed as unfavourable, declining
- A141 Pluvialis squatarola; Grey plover (Non-breeding)
- The condition of this feature was assessed as unfavourable, declining
- A143 Calidris canutus; Red knot (Non-breeding)
- Not recorded

A149 Calidris alpina alpina; Dunlin (Non-breeding)

• The condition of this feature was assessed as unfavourable, declining

A162 Tringa totanus; Common redshank (Non-breeding)

- The condition of this feature was assessed as unfavourable, declining
- A195 Sterna albifrons; Little tern (Breeding)
- Not recorded

Key current and predicted issues affecting the condition of the SPA features and/or the conservation objectives¹⁰⁴:

- Coastal squeeze: Despite the presence of coastal defences along much of the coastline, sea level rise is occurring. It is likely that the supporting habitats of the SPA birds will be lost/degraded through processes such as: coastal squeeze; sedimentation rates' inability to keep pace with sea level rise; and reduced exposure (the extent and duration) of mudflats and sandflats.
- 2. Human disturbance: Breeding and overwintering waterbirds are susceptible to human disturbance from a range of land- and water-based activities, including: boating and watersports; walking; bait-digging; fishing, and wildfowling. Some activities such as powerboating, may produce physical disturbance to habitats.
- 3. Changes in species distribution: There is a decline in population size for some of the bird species on some of the SPAs. A greater understanding of the relative importance of site-based and wider influences is required in order to identify the potential for further actions that might halt declines, restore populations or identify scenarios where it is thought unlikely that site-based measures will reverse population declines.
- 4. Fisheries: The extent and impacts of fisheries on private grounds. There are particular concerns regarding the dredging of shellfish within the SPAs which are a food source for the protected birds.
- Invasive Species: Freshwater non-native invasive species such as pennywort, crassula, parrots feather etc. can engulf ditches, leading to loss of habitat for diving ducks. Although there are some mechanisms in place to ensure ditch management,

¹⁰⁴ Site Improvement Plan Greater Thames Complex. (Accessed 17/07/2023)

more baseline information is needed, particularly on those species for which ditch management is not the solution.

- 6. Vehicles: Illicit: The illicit use of motor vehicles (often bikes) occurs across the area. This can cause disturbance to SPA birds. This activity was identified as a medium risk during the 2009 EMS risk review project and is still occurring. Whilst various mechanisms are in place to prevent the use of vehicles they are clearly not entirely effective.
- 7. Air pollution: Nitrogen deposition exceed site-relevant critical loads

Table G5-15: Lee Valley Special Protection Area

Name	Lee Valley SPA UK9012111		
Location with regards to plan area	The site occurs approximately 14 km to the north east of the Plan Area.		
Reason(s) for designation:			
<u>SPA</u>			
This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:			
Over-winter:			
 Bittern Botaurus stellaris 6 individuals representing at least 6.0% of the wintering population in Great Britain (5 year peak mean, 1992/3-1995/6) 			
This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:			
Over-winter;			
 Gadwall Anas strepera, 515 individuals representing at least 1.7% of the wintering Northwestern Europe population (5 year peak mean 1991/2 - 1995/6) 			
 Shoveler Anas clypeata, 748 individuals representing at least 1.9% of the wintering Northwestern/Central Europe population (5 year peak mean 1991/2 - 1995/6) 			
Component SSSI sites	Walthamstow Reservoirs SSSI		
	Amwell Quarry SSSI		
	Rye Meads SSSI		
	Turnford and Cheshunt Pits SSSI		
Conservation objectives for the SPA	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:		
	 The extent and distribution of the habitats of the qualifying features; 		
	 The structure and function of the habitats of the qualifying features; 		

	 The supporting processes on which the habitats of the qualifying features rely; 			
	 The population of each of the qualifying features, and 			
	• The distribution of the qualifying features within the site. ¹⁰⁵			
Vulnerability and current	condition			
of visitor pressure; principa	Ramsar Wetlands ¹⁰⁶ , states that 'the whole site supports high levels ally for purposes of angling, walking, cycling and birdwatching; with nal. These activities are mostly well regulated and at current levels aten the interest'.			
SPA/Ramsar site (Walthar	ndition assessment of the SSSI units that underpin the nstow Reservoirs SSSI 2022, Amwell Quarry SSSI 2009, Turnford he SSSIs were identified as being in favourable condition.			
population of tufted duck (sessment for Rye Meads SSSI in 2013 identifies the non-breeding unit 3-5) and breeding pairs of common tern were unfavourable and estigation with action to address this was identified.			
Key factors affecting site of the site (relating to co	e integrity and objectives to ensure favourable condition status nservation objectives)			
	e water pollutants do not enter the site and nutrient enrichment is lity can adversely affect the availability and suitability of feeding and			
 Hydrological changes - maintain hydrological conditions within the site with consistent freshwater flows and volumes. For many SPA features which are dependent on wetland habitats supported by surface water, maintaining the quality and quantity of water supply will be critical, especially at certain times of year during key stages of their life cycle. Inadequate quantities of water can adversely affect the availability and suitability of feeding and roosting habitats; 				
3. Recreational pressure -	Recreational pressure - manage recreational activities in sensitive locations;			
4. Inappropriate scrub cor	e scrub control - maintain appropriate scrub management;			
5. Fisheries - maintain appropriate fish species and population levels to ensure suitable food and water quality is maintained for designated features;				
 Invasive species - ensure invasive species do not spread, particularly Azolla and invasive aquatic blanket weeds; 				
 Inappropriate cutting/mowing - maintain appropriate cutting/mowing regime for reedbed; and 				

¹⁰⁵ <u>http://publications.naturalengland.org.uk/publication/5670650798669824</u>

¹⁰⁶ <u>http://jncc.defra.gov.uk/pdf/RIS/UK11034.pdf</u>

¹⁰⁷ Adapted from Site Improvement Plan – Lee Valley SPA (Natural England, 2014) http://publications.naturalengland.org.uk/publication/5864999960444928

Table G5-16: Lee Valley Ramsar

Name		Lee Valley Ramsar	
Location with regards to plan area		The site occurs approximately 14 km to the north east of the Plan Area.	
Reason(s) for des	ignation:	·	
Ramsar ¹⁰⁸			
endangered The site sup <i>Myriophyllu</i>	d, or critically enda oports the national	sidered internationally important if it supports vulnerable, ngered species or threatened ecological communities. ly scarce plant species whorled water-milfoil d the rare or vulnerable invertebrate <i>Micronecta</i> n).	
		sidered internationally important if it regularly supports ulation of one species or subspecies of waterbird.	
Species with peak	counts in spring/au	utumn:	
	nas <i>clypeata,</i> 287 i (5 year peak mean	individuals, representing an average of 1.9% of the GB 1998/9-2002/3)	
Species with peak	counts in winter:		
Gadwall Anas strepe peak mean 1998		representing an average of 2.6% of the GB population (5 year	
SSSI component site	Walthamstow Re	eservoirs SSSI	
	Amwell Quarry SSSI		
	Rye Meads SSSI		
	Turnford and Cheshunt Pits SSSI		
Vulnerability and	current condition		
of visitor pressure;	principally for purple of the principality for purple of the principal termination of the principality of the principal termination of	etlands ¹⁰⁹ , states that 'the whole site supports high levels poses of angling, walking, cycling and birdwatching; with activities are mostly well regulated and at current levels erest'.	
During the most red	cent condition asse	essment of the SSSI units that underpin the	

During the most recent condition assessment of the SSSI units that underpin the SPA/Ramsar site (Walthamstow Reservoirs SSSI 2022, Amwell Quarry SSSI 2009, Turnford and Cheshunt Pits 2013) the SSSIs were identified as being in favourable condition.

However, the condition assessment for Rye Meads SSSI in 2013 identifies the non-breeding population of tufted duck (unit 3-5) and breeding pairs of common tern were unfavourable and a need for an ongoing investigation with action to address this was identified.

Key factors affecting site integrity and objectives to ensure favourable condition status of the site (relating to conservation objectives)¹¹⁰

Eutrophication: The site may be affected by the eutrophic condition o fhte water.

¹⁰⁸ Lee Valley Ramsar Wetlands <u>untitled (jncc.gov.uk)</u>

¹⁰⁹ Lee Valley Ramsar Wetlands <u>http://jncc.defra.gov.uk/pdf/RIS/UK11034.pdf</u>

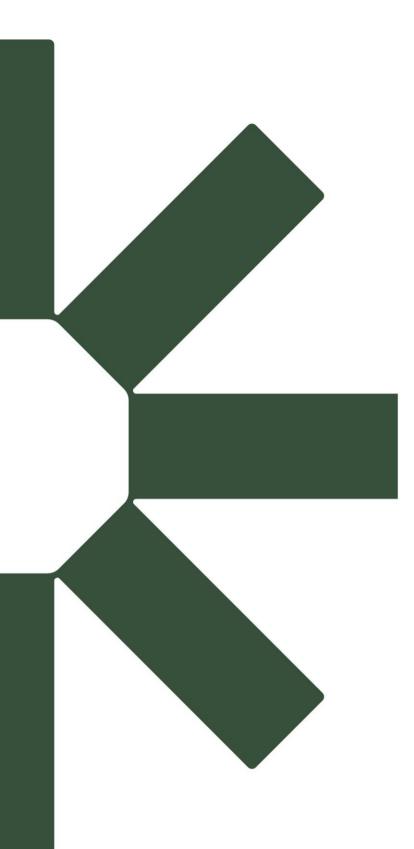
¹¹⁰ Lee Valley Ramsar Information Sheet. <u>GB1037RIS.pdf (ramsar.org)</u>

Over-abstraction: There is a potential problem from over-abstraction of surface water for public supply; particularly during periods of drought.

Development: There is a threat from potential development pressures in this urbanised and urban-fringe area.

Invasive species: Exotic plants including Himalayan balsam *Polygonum polystachym* and Japanese knotweed *Reynoutria japonica* pose a threat to native plant communities and dependent animal species.

Recreational disturbance.



Making Sustainability Happen