

Welwyn Hatfield Borough Council

**Welwyn Hatfield Local Plan
Main Modification
Habitats Regulations
Assessment Report**

Final report
Prepared by LUC
December 2022



Welwyn Hatfield Borough Council

**Welwyn Hatfield Local Plan Main Modification
Habitats Regulations Assessment Report**

Version	Status	Prepared	Checked	Approved	Date
1.	Draft Report	Sarah Smith Kate Nicholls	Katherine Sydney	Helen Kent	29.11.2022
2.	Final Report	Sarah Smith Kate Nicholls	Katherine Sydney	Helen Kent	01.12.2022

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Chapter 1

Introduction

1.1 Welwyn Hatfield Borough Council is preparing a new Local Plan in order to provide the policy framework for development in the Borough up to 2036. The Local Plan will set out policies, proposals and actions to meet the economic, social and environmental challenges facing the Borough. It will include policies to support development decisions, place and site-specific policies and proposals including key site allocations, infrastructure requirements necessary to support the delivery of the Local Plan and a monitoring and implementation framework.

1.2 LUC was appointed by Welwyn Hatfield Borough Council in 2008 to undertake a Habitats Regulations Assessment (HRA) of the emerging Local Plan. The Local Plan, along with the HRA and other supporting evidence, was submitted for Examination in May 2017. The HRA report that was submitted alongside the Local Plan was the HRA Report for the Proposed Submission Local Plan (August 2016).

1.3 An updated HRA report was prepared in February 2020 to take into account proposed changes to the Local Plan at that time. The February 2020 HRA, which was consulted upon alongside the proposed changes, also took account of a number of changes to the HRA context since the 2016 report was published. These included the need to consider an updated version of the Habitats Regulations, which was published in 2017 (and amended in 2019), and the emergence of significant case law, including the People Over Wind ruling and the Holohan ruling (see 'Case Law Changes since the HRA of the Proposed Submission Local Plan' section below).

1.4 Welwyn Hatfield Borough Council has now prepared a series of Main Modifications, with advice from the Inspector, in order to address issues arising from the Local Plan Examination and changes to the evidence base (particularly in terms of the housing requirement) since the Local Plan was submitted in 2017. This updated HRA report takes into account these proposed modifications and presents an updated assessment of the Local Plan as proposed to be modified.

The requirement to undertake HRA of Development Plans

1.5 The requirement to undertake HRA of development plans was confirmed by the amendments to the Habitats

Regulations published for England and Wales in 2007¹; the currently applicable version is the Habitats Regulations 2017, as amended². When preparing the development plans, Welwyn Hatfield Borough Council is therefore required by law to carry out an HRA. The Council can commission consultants to undertake HRA work on its behalf and this (the work documented in this report) is then reported to and considered by Welwyn Hatfield Borough Council as the 'competent authority'. The Council will consider this work and would usually only progress a Plan if it considers that the Plan will not adversely affect the integrity³ of any 'European site', as defined below (the exception to this would be where 'imperative reasons of overriding public interest' can be demonstrated; see further ahead in this section). The requirement for authorities to comply with the Habitats Regulations when preparing a Plan is also noted in the Government's online Planning Practice Guidance⁴ (PPG).

1.6 HRA refers to the assessment of the potential effects of a development plan on one or more sites afforded the highest level of protection in the UK: SPAs and SACs. These were classified under European Union (EU) legislation but since 1 January 2021 are protected in the UK by the Habitats Regulations 2017 (as amended). Although the EU Directives from which the UK's Habitats Regulations originally derived are no longer binding, the Regulations still make reference to the lists of habitats and species that the sites were designated for, which are listed in annexes to the EU Directives:

- SACs are designated for particular habitat types (specified in Annex 1 of the EU Habitats Directive⁵) and species (Annex II). The listed habitat types and species (excluding birds) are those considered to be most in need of conservation at a European level. Designation of SACs also has regard to the threats of degradation or destruction to which the sites are exposed and, before EU exit day, to the coherence of the 'Natura 2000' network of European sites. After EU exit day, regard is had to the importance of such sites for the coherence of the UK's 'national site network'.

- SPAs are classified for rare and vulnerable birds (Annex I of the EU Birds Directive⁶), and for regularly occurring migratory species not listed in Annex I.

1.7 The term 'European sites' was previously commonly used in HRA to refer to 'Natura 2000' sites⁷ and Ramsar sites (international designated under the Ramsar Convention). However, a Government Policy Paper⁸ on changes to the Habitats Regulations 2017 post-Brexit states that:

- Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new 'national site network'.
- The national site network includes existing SACs and SPAs; and new SACs and SPAs designated under these Regulations.
- Designated Wetlands of International Importance (known as Ramsar sites) do not form part of the national site network. Many Ramsar sites overlap with SACs and SPAs and may be designated for the same or different species and habitats.

1.8 Although Ramsar sites do not form part of the new national site network, the Government Policy Paper⁹ states that:

"Any proposals affecting the following sites would also require an HRA because these are protected by government policy:

- *proposed SACs*
- *potential SPAs*
- *Ramsar sites - wetlands of international importance (both listed and proposed)*
- *areas secured as sites compensating for damage to a European site."*

1.9 Furthermore, the NPPF¹⁰ and practice guidance¹¹ currently state that competent authorities responsible for carrying out HRA should treat Ramsar sites in the same way as SACs and SPAs.

1.10 The legislative requirement for HRA does not apply to other nationally designated wildlife sites such as Sites of

¹ The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007 (2007) SI No. 2007/1843. TSO (The Stationery Office), London.

² The Conservation of Habitats and Species Regulations 2017 (2017) SI No. 2017/1012, as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579).

³ The integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was designated. (Source: UK Government Planning Practice Guidance)

⁴ <https://www.gov.uk/guidance/appropriate-assessment>

⁵ Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive')

⁶ Directive 2009/147/EC of 30 November 2009 on the conservation of wild birds (the 'Birds Directive')

⁷ The network of protected areas identified by the EU: https://ec.europa.eu/environment/nature/natura2000/index_en.htm

⁸ <https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017>

⁹ <https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017>

¹⁰ NPPF para 176, available from <https://www.gov.uk/guidance/national-planning-policy-framework>

¹¹ UK Government Planning Practice Guidance, available from <https://www.gov.uk/guidance/appropriate-assessment>

Special Scientific Interest (SSSIs) or National Nature Reserves (NNRs). For simplicity, this report uses the term 'European sites' to refer to all types of designated site for which Government guidance requires an HRA.

1.11 The overall purpose of an HRA is to conclude whether or not a proposal or policy, or whole development plan would adversely affect the integrity of the European site in question. This is judged in terms of the implications of the plan for a site's 'qualifying features' (i.e. those Annex I habitats, Annex II

species, and Annex I bird populations for which it has been designated). Significantly, HRA is based on the precautionary principle. Where uncertainty or doubt remains, an adverse impact should be assumed.

Stages in Habitats Regulations Assessment

1.12 Table 1.1 below summarises the stages involved in carrying out HRA, based on various guidance documents^{12,13}.

Table 1.1: Stages in HRA

Stage	Task	Outcome
Stage 1: Screening (the 'Significance Test')	Description of the plan. Identification of potential effects on European Sites. Assessing the effects on European Sites.	Where effects are unlikely, prepare a 'finding of no significant effect report'. Where effects judged likely, or lack of information to prove otherwise, proceed to Stage 2.
Stage 2: Appropriate Assessment (the 'Integrity Test')	Gather information (plan and European Sites). Impact prediction. Evaluation of impacts in view of conservation objectives. Where impacts considered to affect qualifying features, identify alternative options. Assess alternative options. If no alternatives exist, define and evaluate mitigation measures where necessary.	Appropriate assessment report describing the plan, European site baseline conditions, the adverse effects of the plan on the European site, how these effects will be avoided through, firstly, avoidance, and secondly, mitigation including the mechanisms and timescale for these mitigation measures. If effects remain after all alternatives and mitigation measures have been considered proceed to Stage 3.
Stage 3: Assessment where no alternatives exist and adverse impacts remain taking into account mitigation	Identify 'imperative reasons of overriding public interest' (IROPI). Demonstrate no alternatives exist. Identify potential compensatory measures.	This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.

1.13 In assessing the effects of the Welwyn Hatfield Local Plan in accordance with Regulation 105 of the Conservation of Habitats and Species Regulations 2017 (as amended), there are potentially two tests to be applied by the competent authority: a 'Significance Test' followed if necessary by an Appropriate Assessment which will inform the 'Integrity Test'. The relevant sequence of questions is as follows:

- Step 1: Under Reg. 105(1)(b), consider whether the plan is directly connected with or necessary to the management of the sites. If not –
- Step 2: Under Reg. 105(1)(a) consider whether the plan is likely to have a significant effect on the site, either alone or in combination with other plans or projects (the 'Significance Test'). [These two steps are undertaken as

¹² Assessment of plans and projects significantly affecting European Sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Commission Environment DG, November 2001.

¹³ Planning for the Protection of European Sites. Guidance for Regional Spatial Strategies and Local Development Documents. Department for Communities and Local Government (DCLG), August 2006.

part of Stage 1: Screening shown in **Table 1.1** above.] If Yes –

- Step 3: Under Reg. 105(1), make an Appropriate Assessment of the implications for the site in view of its current conservation objectives (the ‘Integrity Test’). In so doing, it is mandatory under Reg. 105(2) to consult Natural England, and optional under Reg. 105(3) to take the opinion of the general public. [This step is undertaken during Stage 2: Appropriate Assessment shown in **Table 1.1** above.]
- Step 4: In accordance with Reg. 105(4), but subject to Reg.107, give effect to the land use plan only after having ascertained that the plan will not adversely affect the integrity of the European site.

1.14 It is normally anticipated that an emphasis on Stages 1 and 2 of this process will, through a series of iterations, help ensure that potential adverse effects are identified and eliminated through the inclusion of mitigation measures designed to avoid, reduce or abate effects. The need to consider alternatives could imply more onerous changes to a plan document. It is generally understood that so called ‘imperative reasons of overriding public interest’ (IROPI) are likely to be justified only very occasionally and would involve engagement with Government.

1.15 The HRA should be undertaken by the ‘competent authority’ - in this case Welwyn Hatfield Borough Council, and LUC has been commissioned to do this on its behalf. The HRA also requires close working with Natural England as the statutory nature conservation body¹⁴ in order to obtain the necessary information and agree the process, outcomes and any mitigation proposals. The Environment Agency, while not a statutory consultee for the HRA, is also in a strong position to provide advice and information throughout the process as it is required to undertake HRA for its existing licences and future licensing of activities.

1.16 A draft of the Proposed Submission HRA Report and the Proposed Submission Local Plan were provided to Natural England for informal review in order to gain an early indication of any issues arising regarding the HRA prior to a meeting of the Cabinet Housing and Planning Panel on 20th July 2016. LUC and the Council would like to express their gratitude to Natural England for enabling this to happen. Natural England was consulted on the February 2020 HRA but did not provide any comments. Natural England will again be consulted on this updated HRA Report.

Case Law Changes Since the HRA of the Proposed Submission Local Plan

1.17 This HRA has been prepared in accordance with case law findings that have emerged since the 2016 HRA of the Proposed Submission Local Plan. This includes most notably the ‘People over Wind’ and ‘Holohan’ rulings from the Court of Justice for the European Union (CJEU).

1.18 The ‘People over Wind, Peter Sweetman v Coillte Teoranta’ judgment ruled that Article 6(3) of the Habitats Directive should be interpreted as meaning that mitigation measures should be assessed as part of an Appropriate Assessment and should not be taken into account at the screening stage. The precise wording of the ruling is as follows:

“Article 6(3)must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of measures intended to avoid or reduce the harmful effects of the plan or project on that site.

1.19 In light of the above, the updated HRA screening exercise has not relied upon avoidance or mitigation measures to draw conclusions as to whether the Local Plan would result in likely significant effects on European sites, with any such measures being considered at the Appropriate Assessment stage as appropriate. This includes mitigation within the Local Plan itself, e.g. the provisions of development management policies, which have not been taken into account at the screening stage.

1.20 This HRA also considers the Holohan v An Bord Pleanala (9 Nov 2018) CJEU judgement which stated that:

Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that an ‘appropriate assessment’ must, on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site.

Article 6(3) of Directive 92/43 must be interpreted as meaning that the competent authority is permitted to grant to a plan or project consent which leaves the developer free to determine

¹⁴ Regulation 5 of The Conservation of Habitats and Species Regulations 2017. HMSO Statutory Instrument 2017 No. 1012.

subsequently certain parameters relating to the construction phase, such as the location of the construction compound and haul routes, only if that authority is certain that the development consent granted establishes conditions that are strict enough to guarantee that those parameters will not adversely affect the integrity of the site.

Article 6(3) of Directive 92/43 must be interpreted as meaning that, where the competent authority rejects the findings in a scientific expert opinion recommending that additional information be obtained, the ‘appropriate assessment’ must include an explicit and detailed statement of reasons capable of dispelling all reasonable scientific doubt concerning the effects of the work envisaged on the site concerned.

1.21 In undertaking this updated HRA, LUC has considered the potential for effects on species and habitats, including those not listed as qualifying features, to result in secondary effects upon the qualifying features of European sites, including the potential for complex interactions and dependencies. In addition, the potential for offsite impacts, such as through impacts to functionally linked land, and/or species and habitats located beyond the boundaries of European site, but which may be important in supporting the ecological processes of the qualifying features, has also been considered in this HRA.

1.22 The approach to the HRA also takes into consideration the ‘Wealden’ judgement from the Court of Justice for the European Union.

1.23 Wealden District Council v Secretary of State for Communities and Local Government, Lewes District Council and South Downs National Park Authority (2017) ruled that it was not appropriate to scope out the need for a detailed assessment for an individual plan or project based on the annual average daily traffic (AADT) figures detailed in the Design Manual for Roads and Bridges or the critical loads used by Defra or Environmental Agency without considering the in-combination impacts with other plans and projects.

1.24 In light of this judgement, this HRA therefore considers traffic growth based on the effects of development from the Local Plan in combination with other drivers of growth such as development proposed in neighbouring districts and demographic change.

1.25 The HRA also takes into account the Grace and Sweetman (July 2018) judgement from the CJEU which stated that:

“there is a distinction to be drawn between protective measures forming part of a project and intended avoid or reduce any direct adverse effects that may be caused by the project in order to ensure that the project does not adversely affect the integrity of the area, which are

covered by Article 6(3), and measures which, in accordance with Article 6(4), are aimed at compensating for the negative effects of the project on a protected area and cannot be taken into account in the assessment of the implications of the project”.

“As a general rule, any positive effects of the future creation of a new habitat, which is aimed at compensating for the loss of area and quality of that habitat type in a protected area, are highly difficult to forecast with any degree of certainty or will be visible only in the future”

“A mitigation strategy may only be taken into account at AA (a.6(3)) where the competent authority is “sufficiently certain that a measure will make an effective contribution to avoiding harm, guaranteeing beyond all reasonable doubt that the project will not adversely affect the integrity of the area”

Otherwise it falls to be considered to be a compensatory measure to be considered under a.6(4) only where there are “imperative reasons of overriding public interest”

The Appropriate Assessment of the Local Plan therefore only considers the existence of measures to avoid or reduce its direct adverse effects (mitigation) if the expected benefits of those measures are beyond reasonable doubt at the time of the assessment.

Structure of the HRA Report

1.26 This chapter has introduced the requirement to undertake HRA of the Welwyn Hatfield Local Plan. The remainder of the report is structured as follows:

- **Chapter 2: Previous HRA work on the Local Plan** summarises the HRA work that has been carried out previously in relation to the Core Strategy that was previously being prepared and at earlier stages of the Local Plan preparation.
- **Chapter 3: The Welwyn Hatfield Local Plan** summarises the content of the Local Plan as proposed to be modified, which is the subject of this report.
- **Chapter 4: HRA Screening Methodology** sets out the approach taken to the screening stage of the HRA.
- **Chapter 5: HRA Screening Assessment** assesses whether significant effects on European sites are likely to result from the implementation of the Local Plan as proposed to be modified, either alone or in-combination.
- **Chapter 6: Appropriate Assessment** describes the approach taken during the Appropriate Assessment stage of the HRA and determines whether the Local Plan as proposed to be modified will adversely affect the

integrity of European sites, either alone or in-combination.

- **Chapter 7: Conclusions** summarises the overall HRA conclusions for the Local Plan as proposed to be modified and outlines the next stage in the process.

Chapter 2

Previous HRA Work on the Local Plan

HRA Scoping

2.1 In 2008, LUC commenced work on the HRA of the Welwyn Hatfield Local Development Framework. As this point in time, Welwyn Hatfield Borough Council was intending to prepare a series of Local Development Documents, comprising a Core Strategy, Development Management Policies, Site Allocations, and locationally specific Area Action Plans. Together these would have formed the Local Development Framework (LDF) for the Borough.

2.2 In order to inform this process, a HRA Scoping Report (Stage 1) was prepared¹⁵. This was issued for consultation to Natural England, the Environment Agency, the Hertfordshire Biological Records Centre, and the Herts and Middlesex Wildlife Trust in April 2010.

2.3 The Stage 1 Report focused on the Emerging Core Strategy and drew upon information in the HRA of the East of England Plan¹⁶. The HRA identified the following four European sites as potentially being affected by the Welwyn Hatfield LDF:

- Epping Forest SAC, which lies 8.5 km to the south east of the Borough.
- The Lee Valley SPA, which lies 5.5 km south east of the Borough.
- The Lee Valley Ramsar site, which also lies 5.5 km south east of the Borough.
- Wormley Hoddesdonpark Woods SAC, which lies mainly outside but partly within the south eastern part of the Borough.

2.4 The Stage 1 Report identified the following potential effects arising from the Welwyn Hatfield Emerging Core Strategy:

- Water quality, which was considered to be particularly relevant to sewage treatment capacity relating to the Lee Valley SPA and Ramsar site.

¹⁵ LUC (April 2010) Welwyn Hatfield Local Development Framework - Habitats Regulations Assessment: Stage 1

¹⁶ Scott Wilson (March 2010) East of England Plan Review Habitats Regulations Assessment (incorporating Appropriate Assessment) Final Report. For East of England Regional Assembly

- Water quantity, which was considered particularly relevant to Lee Valley SPA and Ramsar site but also potentially to Epping Forest SAC.
- Air quality, which was considered particularly relevant to Epping Forest SAC and to a lesser extent, Wormley Hoddesdonpark Woods SAC.
- Recreational impacts, which were considered potentially relevant to all four European sites.

2.5 The Stage 1 Report set out the type of impacts that would be considered in the HRA of the Emerging Core Strategy, the information sources that would be used, the measures that might be relevant in order to mitigate any adverse effects identified, and the plans and projects that the HRA would consider for potential in-combination effects.

Consultation responses received on the HRA Stage 1 Report

2.6 Consultation responses were received from three consultees.

Natural England¹⁷

2.7 Natural England considered that the Stage 1 report adequately identified all of the relevant European and international sites, and all of the key issues which have the potential to impact upon the interest features for which these sites are designated.

2.8 With respect to Epping Forest, Natural England stated that air pollution impacts, and especially the large proportion derived from traffic, remain a significant source of concern for Natural England. Natural England was particularly concerned by the potential long-term effects of the deposition of nitrogen and of acidity upon the veteran trees and their associated mycorrhizal fungi. However, Natural England accepted that, for most of Welwyn Hatfield, the main commuting route in/out of London is likely to be the A1(M), with the result that proportionately less traffic is likely to use roads passing through the Forest. Natural England were of the view that recreational pressures, and in particular the growing issue of mountain biking, would probably be best addressed through site management measures and/or the provision of equally attractive alternative venues in less sensitive locations.

2.9 The Lee Valley SPA and Ramsar site, Natural England suggested that the most effective means of avoiding impacts with respect to water resources would be to monitor the per capita water consumption (which is recorded by the water supply companies) and to introduce a clause into the relevant housing policy, such that each successive tranche of new

development would only be permitted to take place if the water efficiency savings laid out in the RSS Review policy WAT2 were being achieved (note: this policy in the East of England Plan has since been revoked). Natural England stated that the assumption that the growth in the number of households requiring water can be offset by the predicted water efficiency savings also underpinned the Water Cycle Study for the Rye Meads catchment area. Natural England stated that such an approach may also assist in addressing some of the water resources and flood risk issues by limiting any increase in the volume of wastewater requiring treatment, although it would not result in any reduction in the total nutrient load

2.10 With respect to recreational pressures on Wormley Hoddesdonpark Woods SAC, such as mountain biking and horse-riding, Natural England were of the view that these would probably be best addressed through site management measures and/or the provision of equally attractive alternative venues in less sensitive locations.

Environment Agency¹⁸

2.11 The Environment Agency was of the view that the principles included in Sections 18-20 of the HRA Stage 1 Report that would be used to inform the preparation of the Emerging Core Strategy mentioned in Sections 18-20 were sensible mechanisms by which to consider further development proposals.

2.12 With regard to pressures of abstraction on the sites, the Environment Agency stated that they have undertaken an exercise to review all the legal abstraction permissions that they are responsible for to ascertain whether these permissions could be considered either individually and/ or in combination to affect sites identified under the Habitats Directive Regulations. The Environment Agency had reviewed the implications of abstraction permissions on the Lee Valley SPA. This looked at four sites. These were Amwell Quarry, Rye Meads, Turnford and Cheshunt Pits and Walthamstow Reservoirs. Epping Forest is situated on a confined aquifer and was not considered to be affected by abstraction permissions. Wormley Hoddesdonpark Woods SAC did not need to be investigated.

2.13 The Environment Agency noted that Natural England had signed-off these reports indicating no further investigation work was required on the existing licensed permissions. All new abstraction proposals were to be screened for their potential impact on these designed sites.

2.14 The Environment Agency stated that it could co-ordinate the release of information linked to these reports and/ or the process that has been undertaken. The Environment Agency

¹⁷ Natural England letter dated 11 May 2010

¹⁸ Environment Agency letter dated 1 June 2010

supported the adoption of water efficiency measures as a mechanism by which to manage demand, and the need to consult the long-term water cycle studies identified in the Stage 1 Report. The Environment Agency concluded by saying that, under the principles of the Water Framework Directive, it would not want to see any elements that are measured within waterbodies in this area deteriorating so careful consultation with the Environment Agency on further aspects of this study will be essential.

Hertfordshire Biological Records Centre¹⁹

2.15 The HBRC stated that they found it difficult to see how Epping Forest (Essex) and Lee Valley Park (District of Broxbourne) are relevant to the Welwyn Hatfield Emerging Core Strategy, and that, whilst the issues of recreation, air quality, water (various issues) and water quality, have some indirect ecological implications, they are all topics that HBRC does not directly get involved with.

2.16 HBRC commented more generally on development pressure in the county, for example their concerns regarding a lack of water resource and a sewage system that is not adequate for the current housing levels and for the numbers being proposed, pressure on land use, increased disturbance to the countryside, wildlife sites and species. HBRC also raised concerns regarding the local impact on County Wildlife Sites and county populations of species and noted that the implications of future development on these local resources can only be dealt with on a site by site basis once the scale of the proposed development is known.

HRA of the Emerging Core Strategy

The Emerging Core Strategy

2.17 The Emerging Core Strategy was published for consultation in November 2012. The Emerging Core Strategy comprised a Vision for the Borough at the end of the plan period in 2029, 13 Strategic Objectives and 20 Core Strategy policies to guide the delivery of development.

2.18 The Emerging Core Strategy provided for the identification of 308 hectares of employment land to maintain a sufficient supply of jobs in the Borough and provide the opportunity for new employment floorspace to be delivered against a monitoring target that around 12,200 jobs could be created between 2011 and 2029. It also provided for the delivery of 6,800 of the 7,200 new homes between 2011 and 2029 (an average of 400 dwellings per year), plus land to meet additional retail needs.

2.19 The Emerging Core Strategy identified Broad Locations for Growth to the north-east of Welwyn Garden City and north-west of Hatfield, and land to the West of Hatfield was identified as a Broad Location for Safeguarded Land.

Key findings of the HRA of the Emerging Core Strategy

2.20 In 2012, LUC carried out an HRA of the Emerging Core Strategy²⁰. The HRA of the Emerging Core Strategy identified potential impacts on the four European sites located within 10km of the Borough that were identified in the Stage 1 Report - Epping Forest SAC, Lee Valley SPA and Ramsar site, and Wormley Hoddesdonpark Woods SAC.

2.21 There were a number of Emerging Core Strategy policies which required Appropriate Assessment to consider the potential impacts of:

- Air pollution and recreational pressure on Epping Forest SAC.
- Water quality, water quantity and recreational pressure on Lee Valley SPA and Ramsar site.
- Air pollution and recreational pressure on Wormley Hoddesdonpark Woods SAC.

2.22 The HRA concluded:

- Potential impacts resulting from the Emerging Core Strategy alone were unlikely to lead to significant effects on the identified European sites.
- Impacts resulting from the Emerging Core Strategy have the potential to elevate to significant levels in combination with other plans, given the extent of the housing growth proposed by surrounding boroughs, including East Hertfordshire, Harlow and Waltham Forest.

2.23 To ensure potential impacts relating to the European sites were avoided, recommendations were made relating to the wording of mitigation policies and for additional measures to be built into the Emerging Core Strategy. The HRA Report suggested that alterations to policy wording should be discussed with Natural England and the Environment Agency.

Consultation responses received on HRA of the Emerging Core Strategy

2.24 A number of consultation responses were received that referenced the HRA, however the majority of these were raising matters that were not relevant to the HRA but were specific concerns regarding development proposals included in the Emerging Core Strategy.

¹⁹ Herts Biological Records Centre email received 4 May 2010

²⁰ LUC (October 2012) Habitats Regulations Assessment of the Welwyn and Hatfield Emerging Core Strategy

2.25 Two consultation responses were of direct relevance to the HRA, being from Natural England and Hertfordshire Biological Records Centre. These supported the work undertaken for the HRA of the Emerging Core Strategy. A key concern highlighted by both consultees was the potential for likely significant effects resulting from the Core Strategy in combination with other plans produced by surrounding districts and boroughs.

2.26 Table 2.1 presents both consultees' comments.

Table 2.1: Consultation responses received in relation to the HRA Report 2012 for the Emerging Core Strategy

Consultee	Comments
Natural England	<p>Supports the HRA of the Emerging Core Strategy and considers the proposed safeguards as discussed below will be sufficient to minimise any adverse impacts that may arise as a result of the plan's proposals.</p> <p>Acknowledges that the HRA has concluded that the potential impacts from the plan are unlikely to lead to significant effects on the European sites which were considered within 10km of the Welwyn Hatfield boundary. However there is concern that the in combination effect with other plans from nearby boroughs may prove to be significant.</p> <p>Concurs with the recommendations for mitigating measures which will help to reduce the impact that the development proposed within the emerging core strategy may have on the European sites which are summarised as follows:</p> <ul style="list-style-type: none"> ■ Ensuring that Appropriate Assessment(HRA) on subsequent development plans is carried out, particularly alerting the need for Green Infrastructure and sustainable transport. ■ The need for water efficiency to be more fully reflected in the Emerging Core strategy. ■ Developing Green Infrastructure in a timely manner. ■ Recognition of Ellenbrook Fields as a key piece of Green Infrastructure. ■ Monitoring Green Infrastructure in the future to ensure that it is of a sufficient size and scale to attract local recreational visits which will avoid additional visits to the European sites; Monitoring of measures to encourage sustainable travel. <p>Also agrees with the additional measures that the report suggests should be built into the Emerging Core Strategy. These include the monitoring of water efficiency/ resources to ensure there are no adverse impacts on the Lee Valley SPA/ Ramsar; monitoring of sustainable transport and its impact on air quality; the sub-regional co-ordinated approach to Green Infrastructure provision as alternative recreation areas and the monitoring of green infrastructure to ensure its effectiveness as a mitigation measure.</p>
Hertfordshire Biological Records Centre	<p>The HRA is considered to be reasonable and sound. The standard approach has been followed and this has resulted in the conclusions as outlined.</p> <p>The plan will not directly impact on any European Site as none are wholly or partly within Welwyn Hatfield, apart from tiny fragments of Broxbourne Woods SAC. However generic examples of development impacts with the potential to combine with the effects of nearby plans or projects include:</p> <ul style="list-style-type: none"> ■ Increased local air pollution due to increased road traffic. ■ Increased water abstraction due to increased usage for domestic water supply. ■ Increased water pollution due to increased effluent discharges from sewage treatment works or from contaminated surface run-off. ■ Increased damage and disturbance to habitats and species due to increased recreation.

Consultee	Comments
	<p>Epping Forest SAC, Wormley Hoddesdonpark Woods SAC and the Lee Valley SPA / Ramsar Site were the sites assessed. The only other European site in Hertfordshire is the Chiltern Beechwoods SAC but this is over 18km from any the western WHDC boundary.</p> <p>A number of strategic and spatial policies were not screened out and subjected to full appropriate assessment - CS 2, CS 3, CS 8, CS 15, CS 18, CS 19 and CS 20.</p> <p>It was concluded in Section 7 that potential impacts resulting from the Emerging Core Strategy alone are unlikely to lead to significant effects on the three European sites which were considered within 10 km of the Welwyn Hatfield boundary (8.4).</p> <p>Given the extent of housing growth proposed in surrounding boroughs, however, the marginal impact of Welwyn Hatfield's Core Strategy alone may be elevated to significant levels in combination with other plans (8.5).</p> <p>For each of the three European sites, mitigation is likely to be feasible to avoid potential impacts, however, given the current policy wording in certain places uncertainty still remains as to the likely effectiveness of Mitigation (8.6). Before a conclusion of no significant effects may be reached we suggest that the potential issues arising are discussed with Natural England and the Environment Agency.</p> <p>There do not appear to be any reasons to dispute these conclusions. However further recommendations are given to ensure that broader issues, additional information and subsequent development plan documents maintain this position (8.6).</p>

HRA of the Proposed Submission Local Plan (2016)

2.27 LUC prepared the HRA report for the Proposed Submission Local Plan in August 2016. This report set out HRA Screening and Appropriate Assessment for the Proposed Submission Local Plan and concluded that adverse effects on the integrity of any European sites were able to be ruled out from the Local Plan, both alone and in combination with other plans.

2.28 The HRA report at this stage drew heavily on the HRA work that had previously been carried out in relation to the Core Strategy. It was published for consultation alongside the Proposed Submission Local Plan between August and October 2016. Natural England responded to the consultation and stated '*Natural England finds the HRA to be well-evidenced and logically presented. Natural England supports the HRA's conclusion that the implementation of the policies contained within the Welwyn Hatfield Proposed Submission Local Plan would not result in an adverse effect on the integrity of any European site, either alone or in combination with other plans or projects.*'

HRA of the Proposed Changes to the submitted Draft Local Plan (2020)

2.29 In February 2020, LUC prepared an updated HRA Report for the Local Plan. This was based on the 2016 HRA Report but was fully updated to take into account changes to

the Local Plan that were proposed at the time. It was also amended to take account of a number of changes to the HRA context since the 2016 report was published (summarised earlier in this chapter).

2.30 The updated HRA report was published for consultation between February and May 2020; however no responses were received in relation to the HRA.

Chapter 3

The Welwyn Hatfield Local Plan

3.1 The Welwyn Hatfield Local Plan (as proposed to be modified) presents the development strategy and site allocations and the planning (development management) policies that were consulted on separately at the early stages of plan making. While much of the content of the Local Plan as proposed to be modified is unchanged from when it was submitted for Examination, changes are proposed which will facilitate the delivery of the revised housing target of 9,209 dwellings between 2023/24 and 2032/33 and 13,392 dwellings over the plan period 2016-36. The proposed Main Modifications include additional housing sites in both the urban areas and villages, as well as revised site capacities on some sites that were included in the submitted Local Plan. The new village that was previously proposed at Symondshyde to the north-west of Hatfield is proposed to be removed from the Local Plan.

Structure of the Local Plan

3.2 The Local Plan (as proposed to be modified) covers the period up until 2036 and sets out:

- The overarching strategy for the Borough, including the vision for the Borough and Borough-wide objectives, the delivery of sustainable development, and the amount of growth that the Borough needs to accommodate during the Local Plan period.
- The Settlement Strategy, and approach to Green Belt boundaries.
- Topic specific policies, relating to movement (e.g. transport and access), centres, services and facilities including retail development, the type and mix of housing, the economy, the quality of development, environmental assets and infrastructure.
- Settlement policies, focusing on Welwyn Garden City and Hatfield, but also a number of villages, the rural areas and neighbourhood planning.
- Implementation and monitoring of the Local Plan.

Overarching Strategy

Vision

3.3 The Vision for the Borough set out in the Local Plan as proposed to be modified is as follows:

Welwyn Hatfield will be a vibrant and culturally rich place where people choose to live, work and spend their leisure time.

Welwyn Garden City and Hatfield will continue to be the main focus for shopping, leisure, housing and employment opportunities and the larger villages will continue to be the centres for local shops, services and community facilities for their parish areas. The borough will have a prosperous local economy, which makes best use of its links to London and Cambridge and the benefits associated with being the centre for higher education in the county.

15,200 new homes will be built on a range of sites, about two thirds of which will be within and adjoining Welwyn Garden City and Hatfield. New employment opportunities will be provided both within our existing employment areas and in a new life science park at Marshmoor, Welham Green. Partnerships with service providers, government bodies, the Local Enterprise Partnership, developers, other local authorities and other key bodies will ensure the timely delivery of the necessary supporting infrastructure.

Opportunities for development within settlement boundaries will be maximised but a planned release of a limited amount of land from the Green Belt will take place to meet the need for 4,734 dwellings up to year 10 which cannot be provided for within the existing towns and villages. Partnerships with Hertfordshire County Council, adjoining local authorities and landowners will deliver new and improved strategic green infrastructure, to improve access and biodiversity and reinforce the role of the Green Belt between Welwyn Garden City and Hatfield and surrounding towns.

A partnership with landowners, local businesses and the community will ensure that Welwyn Garden City town centre continues to be an attractive destination for shopping and new investment will be attracted to deliver a more vital evening economy and reinforce its role as a shopping destination both within and outside the borough. A similar partnership for Hatfield Town Centre will lead to its regeneration, creating a vibrant and successful centre which meets the community's needs for retail, leisure and community service provision.

The Garden City and New Town heritage with their attractive open spaces, well designed good quality housing, pattern of neighbourhoods providing small-scale shops, services and community facilities, and opportunities for a wide range of employment will be reinforced. The distinctive character and role of our towns and village will be maintained by bringing forward well designed developments. Strategic sites will have been masterplanned along garden city principles.

The quality and attractiveness of the countryside for farming, recreation and as a habitat for wildlife will be

reinforced. The natural and historic environment in both urban and rural areas will be protected, maintained and enhanced. The borough will play its part in addressing climate change by improving opportunities for travelling by public transport, walking and cycling, using natural resources more efficiently, securing high quality sustainable design and managing the risk of flooding.

Borough-wide Strategic Objectives

3.4 The Local Plan as proposed to be modified sets out 13 Strategic Objectives:

1. To provide for the borough's development needs over the plan period, in a form which maintains the existing settlement pattern, protects areas of highest environmental value, prevents coalescence of our towns and villages and releasing a limited amount of land from the Green Belt.
2. To deliver a sustainable pattern of development by directing the majority of new development to the main towns and limited development to the excluded villages where it can be supported by the timely delivery of the appropriate infrastructure, the need to travel is minimised and opportunities for redevelopment on previously developed land can be maximised.
3. Working in partnership with service providers and others to deliver mixed and sustainable communities which are well planned, healthy, active, inclusive and safe, environmentally sensitive, accessible, culturally rich, vibrant and vital, well served, built to high design standards reflecting local character and fair for everyone.
4. To support and reinforce the role of the borough's villages and neighbourhoods and create a new sustainable neighbourhood to the north west of Hatfield.
5. To reduce people's impact on the environment by reducing the need to travel, through the prudent use of natural resources, through minimising waste, by managing the risk of flooding and by designing development to take into account future changes to the climate.
6. To maximise the opportunities to travel by sustainable transport modes and manage parking demand.
7. To provide an adequate supply and mix of housing types and tenures.
8. To protect, maintain and where possible enhance the borough's historic and natural environment, its cultural

assets and network of open spaces, urban and rural landscapes.

9. To enhance opportunities for and access to recreation, heritage, arts and cultural activities and improve green links both within and between urban and rural areas.
10. To sustain the vitality of our villages and the rural economy, maintaining a supply of land for agriculture and for other uses appropriate to the countryside.
11. To maintain and enhance the vitality and viability of our town, neighbourhood and village centres.
12. To enable Welwyn Garden City and Hatfield to fulfil their role as the main centres of economic activity in the borough, working in partnership with relevant bodies to support growth in the local economy and lifting areas out of deprivation by providing opportunities to improve training, education, health and economic prosperity.
13. To work with and support locally established companies, employers and higher education providers to encourage new investment in the borough.

Level of growth and distribution of development

3.5 The overall level of growth and distribution of development is set out in Policy SP2: Targets for Growth. The key points of relevance to the HRA are as follows:

- The provision of at least 59,000 sqm of new floorspace for industry, offices and warehousing over the plan period from designated employment areas and mixed use sites including the strategic development site at Marshmoor, Welham Green and North West Hatfield.
- The delivery of 9,209 dwellings between 2023/24 and 2032/33 and 13,392 dwellings over the plan period 2016-36 in and around the towns and excluded villages.
- The delivery of around 1,350 new dwellings plus associated development on land to the east of Welwyn Garden City within the administrative area of East Herts, which would act as an extension to Welwyn Garden City and will help to meet the need for housing within East Herts and within the Welwyn Hatfield Housing Market Area.
- The identification of opportunities to facilitate the provision of 12,500 square metres of new retail floorspace to meet predicted expenditure growth in the Borough to 2026 through the allocation of sites within existing centres and new centres in some of the Strategic Development Sites and through existing permissions.
- The Employment Areas, Strategic Development Sites, Mixed Use Sites and other housing sites that are key to

the delivery of the growth strategy have been allocated or designated are to be shown on the Policies Map.

3.6 Policy SP3 Settlement Strategy and Green Belt Boundaries states that the primary focus for development will be in and around the two towns of Welwyn Garden City and Hatfield where accessibility to strategic transport networks and public transport is good and the greatest potential exists to maximise accessibility to job opportunities, shops, services and other facilities, and to create new neighbourhoods with supporting infrastructure.

3.7 The secondary focus for development will be in and around the excluded villages at a more limited scale, compatible with the more limited range of job opportunities, shops, services and other facilities available in these locations.

3.8 In villages and other rural areas of the Borough that lie within the Green Belt, development will be restricted so as to be consistent with the type of development envisaged in national planning policy and other policies of the plan.

3.9 Figures 3.1 and at the end of this section show the proposed distribution of development across the Borough, reflecting the proposed Main Modifications.

Topic-specific policies

3.10 The Local Plan as proposed to be modified includes a number of policies relating to transport and access, centres, services and facilities, employment development, design quality, and environmental topics.

3.11 Of particular relevance to the HRA are the following policies:

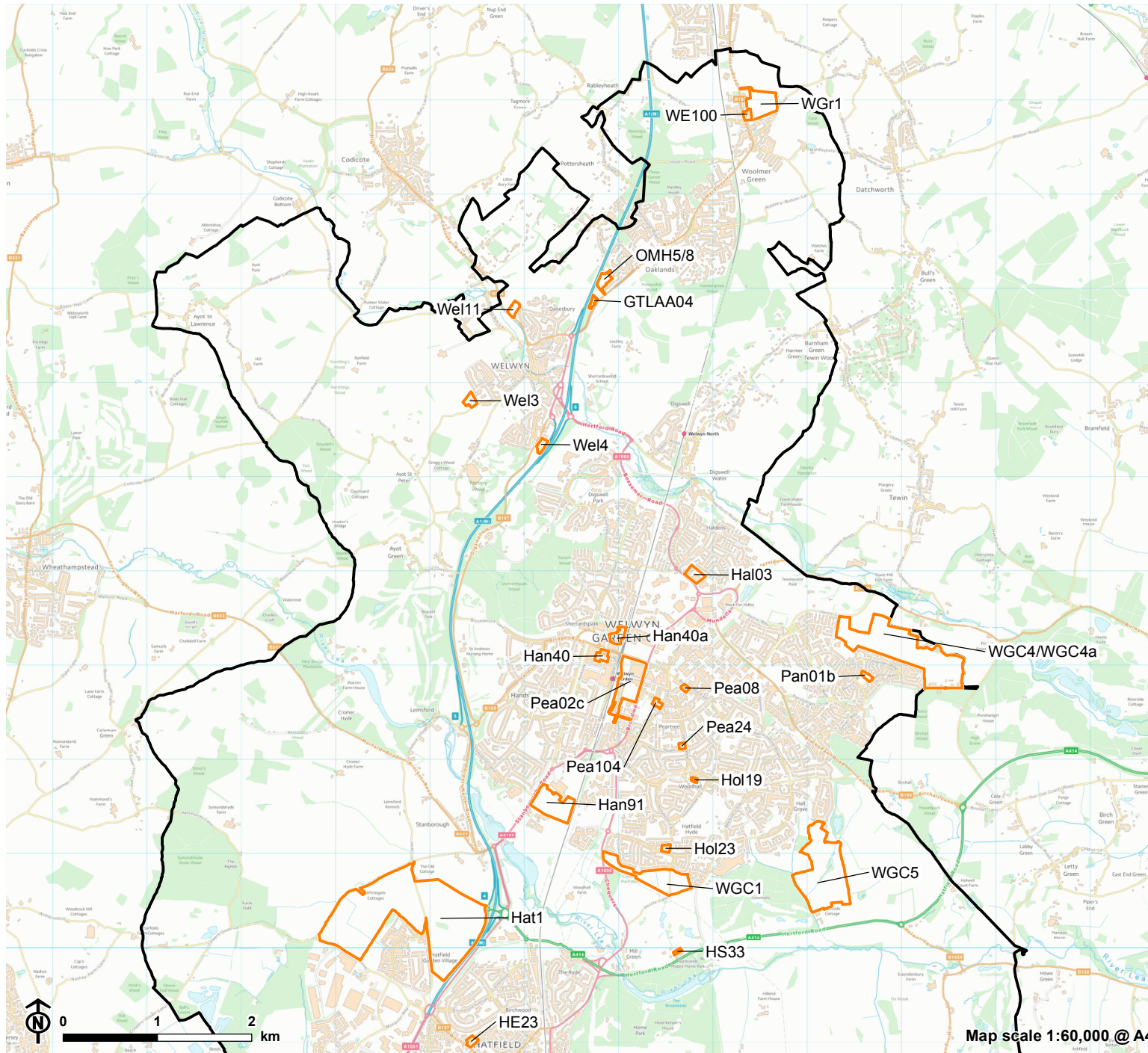
- SP1: Delivering Sustainable Development
- SADM3: Sustainable Travel for All
- SP10: Sustainable Design and Construction
- SADM13: Sustainability Requirements
- SADM14: Flood Risk and Surface Water Management
- SP11: Protection and Enhancement of Critical Environmental Assets
- SADM16: Ecology and Landscape
- SADM17: Urban Open Land
- SADM18: Environmental Pollution
- SP12: Green Infrastructure
- SP13: Infrastructure Delivery.

3.12 These policies are relevant to the HRA because they provide policy guidance on the factors that will be taken into

account when delivering development within the Borough and as a result provide mitigation for environmental impacts associated with development that could potentially affect European sites.

3.13 In addition, the detailed policies relating to the Strategic Development Sites include criteria that will be applied to development proposals, including in relation to the provision of open and recreational space. Site specific considerations are also set out for a number of the other development locations included in the Local Plan as proposed to be modified.

Figure 3.1: Allocated sites (North)

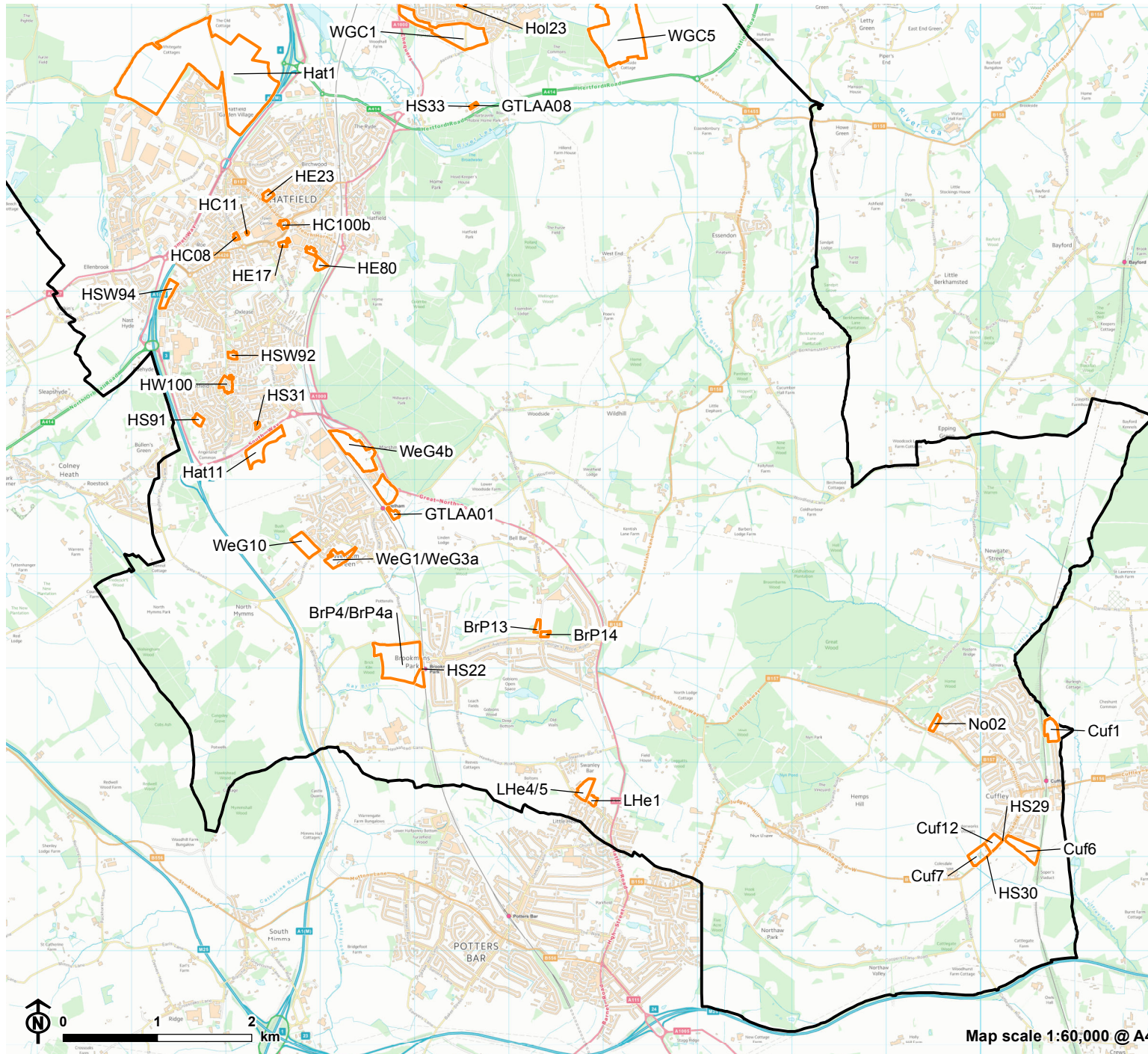


- Welwyn Hatfield Borough boundary
- Allocated site

Map scale 1:60,000 @ A4



Figure 3.2: Allocated sites (South)



- Welwyn Hatfield Borough boundary
- Allocated site

Map scale 1:60,000 @ A4

Chapter 4

HRA Screening Methodology

4.1 HRA Screening of the Local Plan as proposed to be modified has been undertaken in line with current available guidance and to meet the requirements of the Habitats Regulations. The tasks that have been undertaken during the screening stage of the HRA are described in detail below.

4.2 As described in **Chapter 2**, HRA work had previously been undertaken in relation to a Stage 1 Scoping Report and the Emerging Core Strategy. As such, certain tasks involved in the HRA such as identifying the European sites within and around the Borough, did not need to be undertaken again in relation to the Local Plan as the findings from the earlier stages remain valid.

Identification of European sites which may be affected by the Local Plan

4.3 An initial investigation was undertaken to identify European sites within or adjacent to the Welwyn Hatfield Borough boundary which may be affected by the Local Plan. This involved the use of GIS data to map the locations and boundaries of European sites using publicly available data from Natural England. All European sites lying partially or wholly within 10km from the Borough boundary were included as a starting point in order to address the fact that Local Plan policies may affect European sites which are located outside the administrative boundary of the plan. This distance was previously used in the HRA of the Emerging Core Strategy and was deemed sufficient to ensure that all designated sites that could potentially be affected by development are identified and included in the assessment.

4.4 The following four European sites are located within 10km of Welwyn Hatfield Borough. Their location is shown in **Figure 4.1** at the end of this section:

- Epping Forest SAC
- Lee Valley SPA
- Lee Valley Ramsar site
- Wormley Hoddesdonpark Woods SAC

4.5 As well as the location of the sites themselves in relation to Welwyn Hatfield Borough, this HRA also considers the potential for effects on functionally linked habitat that may be used by the transient species of the Lee Valley SPA and Ramsar site.

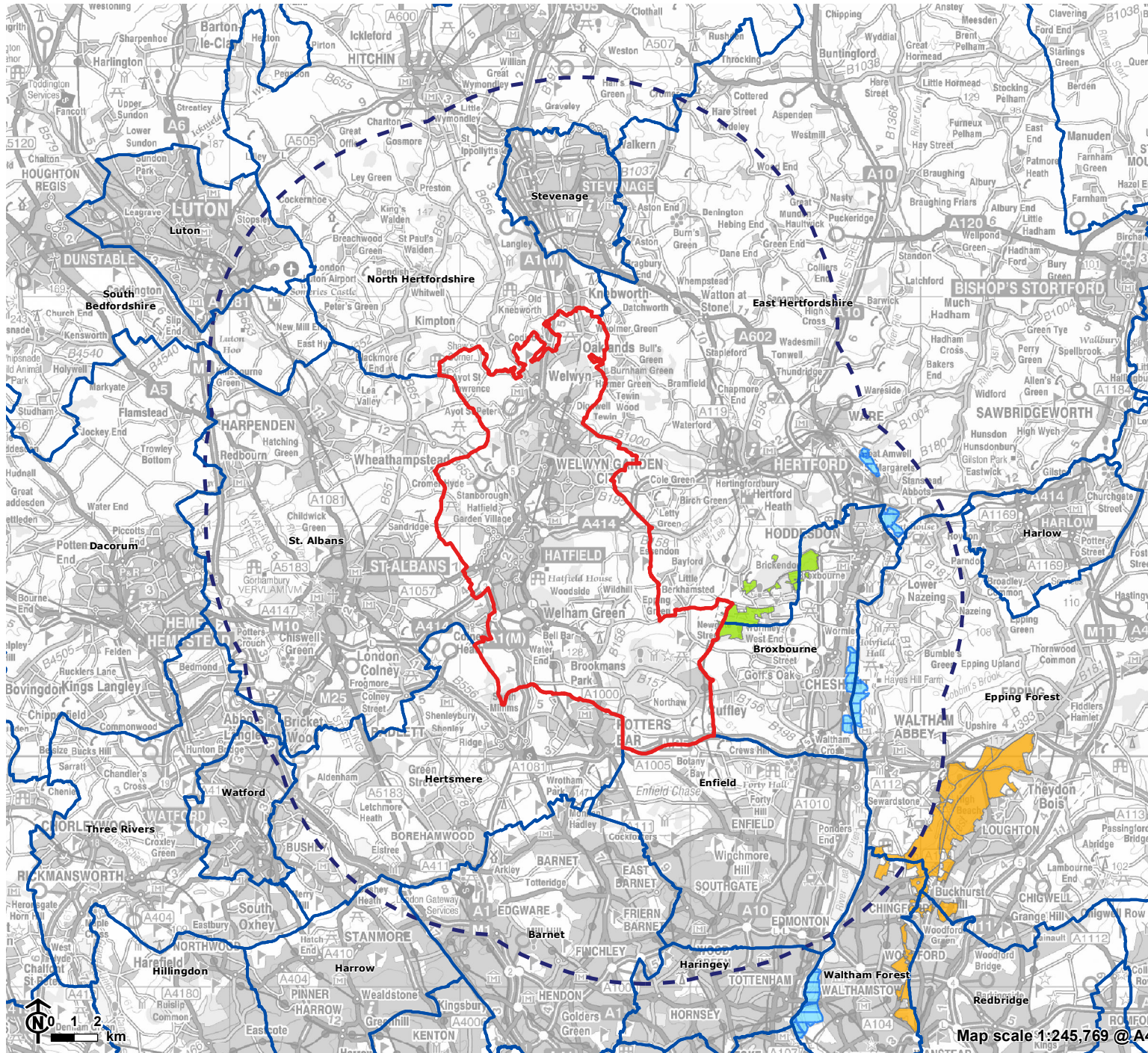
4.6 The attributes of these sites which contribute to and define their integrity are described in **Appendix A**. In compiling this information, reference was made to Standard Data Forms for SACs and SPAs²¹ as well as Natural England's Site Improvement Plans²². This analysis enabled European site interest features to be identified, along with the features of each site which determine site integrity and the specific sensitivities and threats facing the site.

²¹ These were obtained from the Joint Nature conservation Committee and Natural England websites (www.jncc.gov.uk and www.naturalengland.org.uk)

²² Natural England is in the process of compiling Site Improvement Plans for all Natura 2000 sites in England as part of the Improvement programme for England's Natura 2000 sites (IPENS).



Figure 4.1: Location of European Sites within 10km of Welwyn Hatfield



-  Welwyn Hatfield Borough
-  Surrounding Local Authorities
-  10km buffer of Welwyn Hatfield BC
- European Site**
-  Epping Forest SAC
-  Wormley-Hoddesdonpark Woods SAC
-  Lee Valley Ramsar site
-  Lee Valley SPA

Potential impacts of the Local Plan on European sites

4.7 Table 4.1 below sets out the range of potential impacts that development in general and related activities may have on European sites.

Table 4.1: Potential impacts and activities adversely affecting European Sites

Broad categories and examples of potential impacts on European sites	Examples of activities responsible for impacts
<p>Physical loss</p> <ul style="list-style-type: none"> ■ Removal (including offsite effects, e.g. foraging habitat) ■ Smothering ■ Habitat degradation 	<p>Development (e.g. housing, employment, infrastructure, tourism)</p> <p>Infilling (e.g. of mines, water bodies)</p> <p>Alterations or works to disused quarries</p> <p>Structural alterations to buildings (bat roosts)</p> <p>Afforestation</p> <p>Tipping</p> <p>Cessation of or inappropriate management for nature conservation</p> <p>Mine collapse</p>
<p>Physical damage</p> <ul style="list-style-type: none"> ■ Sedimentation / silting ■ Prevention of natural processes ■ Habitat degradation ■ Erosion ■ Trampling ■ Fragmentation ■ Severance / barrier effect ■ Edge effects ■ Fire 	<p>Flood defences</p> <p>Dredging</p> <p>Mineral extraction</p> <p>Recreation (e.g. motor cycling, cycling, walking, horse riding, water sports, caving)</p> <p>Development (e.g. infrastructure, tourism, adjacent housing etc.)</p> <p>Vandalism</p> <p>Arson</p> <p>Cessation of or inappropriate management for nature conservation</p>
<p>Non-physical disturbance</p> <ul style="list-style-type: none"> ■ Noise ■ Vibration ■ Visual presence ■ Human presence ■ Light pollution 	<p>Development (e.g. housing, industrial)</p> <p>Recreation (e.g. dog walking, water sports)</p> <p>Industrial activity</p> <p>Mineral extraction</p> <p>Navigation</p> <p>Vehicular traffic</p> <p>Artificial lighting (e.g. street lighting)</p>
<p>Water table/availability</p>	<p>Water abstraction</p>

Broad categories and examples of potential impacts on European sites	Examples of activities responsible for impacts
<ul style="list-style-type: none"> ■ Drying ■ Flooding / stormwater ■ Water level and stability ■ Water flow (e.g. reduction in velocity of surface water) ■ Barrier effect (on migratory species) 	<p>Drainage interception (e.g. reservoir, dam, infrastructure and other development)</p> <p>Increased discharge (e.g. drainage, runoff)</p>
<p>Toxic contamination</p> <ul style="list-style-type: none"> ■ Water pollution ■ Soil contamination ■ Air pollution 	<p>Agrochemical application and runoff</p> <p>Navigation</p> <p>Oil / chemical spills</p> <p>Tipping</p> <p>Landfill</p> <p>Vehicular traffic</p> <p>Industrial waste / emissions</p>
<p>Non-toxic contamination</p> <ul style="list-style-type: none"> ■ Nutrient enrichment (e.g. of soils and water) ■ Algal blooms ■ Changes in salinity ■ Changes in thermal regime ■ Changes in turbidity ■ Air pollution (dust) 	<p>Agricultural runoff</p> <p>Sewage discharge</p> <p>Water abstraction</p> <p>Industrial activity</p> <p>Flood defences</p> <p>Navigation</p> <p>Construction</p>
<p>Biological disturbance</p> <ul style="list-style-type: none"> ■ Direct mortality ■ Out-competition by non-native species ■ Selective extraction of species ■ Introduction of disease ■ Rapid population fluctuations ■ Natural succession 	<p>Development (e.g. housing areas with domestic and public gardens)</p> <p>Predation by domestic pets</p> <p>Introduction of non-native species (e.g. from gardens)</p> <p>Fishing</p> <p>Hunting</p> <p>Agriculture</p> <p>Changes in management practices (e.g. grazing regimes, access controls, cutting/clearing)</p>

Assessment of 'likely significant effects' of the Local Plan

4.8 As required under Regulation 105 of the Conservation of Habitats and Species Regulations 2017²³ (as amended²⁴) an assessment of the 'likely significant effects' of the Local Plan (as proposed to be modified) has been undertaken. A screening matrix has been prepared in order to assess which policies and site allocations would be likely to have a significant effect on European sites, either alone or in combination with other plans and projects. The findings of the screening assessment are summarised in **Chapter 4** and the full matrix can be found in **Appendix B**.

4.9 A risk-based approach involving the application of the precautionary principle was adopted in the assessment, such that a conclusion of 'no significant effect' was only reached where it was considered very unlikely, based on current knowledge and the information available, that a policy or site allocation would have a significant effect on the integrity of a European site.

Interpretation of 'likely significant effect'

4.10 Relevant case law helps to interpret when effects should be considered as being likely to result in a significant effect, when carrying out a HRA of a plan.

4.11 In the Waddenzee case²⁵, the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 105 in the Habitats Regulations), including that:

- An effect should be considered 'likely', "if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site" (para 44).
- An effect should be considered 'significant', "if it undermines the conservation objectives" (para 48).
- Where a plan or project has an effect on a site "but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the site concerned" (para 47).

4.12 An opinion delivered to the Court of Justice of the European Union²⁶ commented that:

"The requirement that an effect in question be 'significant' exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3),

activities on or near the site would risk being impossible by reason of legislative overkill."

4.13 This opinion (the 'Sweetman' case) therefore allows for the authorisation of plans and projects whose possible effects, alone or in combination, can be considered 'trivial' or de minimis; referring to such cases as those "which have no appreciable effect on the site". In practice such effects could be screened out as having no likely significant effect; they would be 'insignificant'.

Mitigation at the screening stage

4.14 A judgment from the Court of Justice of the European Union 'People over Wind, Peter Sweetman v Coillte Teoranta' ruled that Article 6(3) of the Habitats Directive should be interpreted as meaning that mitigation measures should be assessed as part of an Appropriate Assessment and should not be taken into account at the screening stage. The precise wording of the ruling is as follows:

"Article 6(3)must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of measures intended to avoid or reduce the harmful effects of the plan or project on that site."

4.15 Potential effects identified could be mitigated through the implementation of policies within the Local Plan itself. These include policies relating to sustainable development principles, which may help reduce resource use and pollution, and the provision of green infrastructure within new developments, which may help to relieve increases in visitor pressure at European sites. However, in line with the 'People over Wind' judgment, this HRA has not taken into account potential mitigation included in the Local Plan (as proposed to be modified) in the screening assessment. Potential mitigation included in the plan itself is considered only at the Appropriate Assessment stage, thereby ensuring compliance with the judgment.

²³ SI No. 2017/2012

²⁴ SI No. 2019/579

²⁵ ECJ Case C-127/02 "Waddenzee" Jan 2004.

²⁶ Advocate General's Opinion to CJEU in Case C-258/11 Sweetman and others v An Bord Pleanála 22nd Nov 2012.

Chapter 5

HRA Screening Assessment

Scoping

5.1 For some types of impacts, the potential for likely significant effects has been determined on a proximity basis, using GIS data to determine the proximity of potential development locations to the European sites that are the subject of the assessment. However, there are many uncertainties associated with using set distances as there are very few standards available as a guide to how far impacts will travel. Therefore, some initial HRA scoping was undertaken before the screening stage, which involved applying a number of assumptions in relation to the likely significant effects on European sites that may result from the Local Plan (as proposed to be modified), as described below. These assumptions have been informed by the information gathered during the earlier HRA work undertaken for the Emerging Core Strategy where appropriate. This allowed each type of effect to be scoped in or out of further assessment.

Physical damage/loss (onsite)

5.2 Any development resulting from the Local Plan would take place within Welwyn Hatfield Borough; therefore only European sites within the Borough boundary could be affected through physical damage or loss of habitat from within the site boundaries.

5.3 Epping Forest and Lee Valley SPA and Ramsar site are situated outside of the Borough and can be screened out of the assessment for onsite physical damage/loss.

5.4 Wormley Hoddesdonpark Woods SAC lies almost entirely outside the Borough's boundary, with a few very small fragments extending to just within Welwyn Hatfield in the south east (these fragments of the SAC are outside of the built up areas of the borough). As development in the Borough is largely focussed to the west of the Borough in Welwyn Garden City and Hatfield with smaller areas of development in excluded villages, all of which are away from the SAC, there will be no physical damage or physical loss to the SAC and it can be scoped out of the assessment.

Physical damage/loss (offsite)

5.5 Loss of habitat from outside the boundaries of a European site could still have an effect on site integrity if that habitat supports qualifying species from within the European sites, for example habitat that is used for foraging or roosting

by birds. Lee Valley SPA and Ramsar site both lie within 10km of Welwyn Hatfield Borough and include bird species amongst their qualifying features; therefore consideration needs to be given to the potential for offsite habitat used by those birds to be located in Welwyn Hatfield Borough.

5.6 Epping Forest SAC and Wormley Hoddesdonpark Woods SAC do not include transient species amongst their qualifying features; therefore offsite habitat loss or damage resulting from development in Welwyn Hatfield will not affect the integrity of those sites.

5.7 Therefore, likely significant effects relating to physical loss of or damage to habitat need to be considered only in relation to Lee Valley SPA and Ramsar site and only in relation to offsite habitat.

Non-physical disturbance (noise, vibration and light)

5.8 Noise and vibration effects, e.g. during the construction of new housing or employment development, are most likely to disturb bird species and are thus a key consideration with respect to European sites where birds are the qualifying features, although such effects may also impact upon some mammals and fish species. Artificial lighting at night (e.g. from street lamps, flood lighting and security lights) is most likely to affect bat populations, and therefore have an adverse effect on the integrity of European sites where bats are a qualifying feature (this does not apply to any of the sites in this HRA).

5.9 It has been assumed that the effects of noise, vibration and light are most likely to be significant within a distance of 500m. There is also evidence of 300m being used as a distance up to which certain bird species can be disturbed by the effects of noise²⁷; however, it has been assumed (on a precautionary basis) that the effects of noise, vibration and light pollution are most likely to cause an adverse effect if development takes place within 500m of a European site with qualifying features sensitive to these disturbances, or mapped off-site breeding, foraging or roosting areas.

5.10 Epping Forest SAC and Lee Valley SPA and Ramsar site lie approximately 8.5km and 5.5km away from the Borough respectively. Due to that distance, these European sites will not be affected by non-physical disturbance caused by development within Welwyn Hatfield. Whilst Wormley Hoddesdonpark Woods SAC does lie very slightly within the Borough and so could in principle be within 500m of development proposed through the Local Plan, it is designated for a habitat, oak-hornbeam forests, which is not affected by noise, vibration and light. Whilst some species living within the site may be sensitive to non-physical disturbance, the

qualifying features and ecosystem as a whole are unlikely to be affected by noise, vibration and light pollution. All European sites can therefore be scoped out in relation to onsite impacts.

5.11 However, as described above, there may be areas of habitat within Welwyn Hatfield Borough which are used by the qualifying bird species of Lee Valley SPA and Ramsar site; therefore development and related activities within 500m of those areas of habitat could affect the integrity of those designations as a result of noise, vibration and light. Offsite impacts can be scoped out in relation to Epping Forest SAC, due to its distance from Welwyn Hatfield Borough and given the nature of the qualifying species. Similarly, non-physical disturbance can be scoped out for Wormley Hoddesdonpark Woods SAC, due to the nature of the qualifying species.

5.12 Therefore, likely significant effects resulting from noise, vibration and light need to be considered only in relation to Lee Valley SPA and Ramsar site, in relation to offsite areas of habitat only.

Air pollution

5.13 Air pollution is most likely to affect European sites where plant, soil and water habitats are the qualifying features, but some qualifying animal species may also be affected, either directly or indirectly, by any deterioration in habitat as a result of air pollution. Deposition of pollutants to the ground and vegetation can alter the characteristics of the soil, affecting the pH and nitrogen availability that can then affect plant health, productivity and species composition.

5.14 In terms of vehicle traffic, nitrogen oxides (NO_x, i.e. NO and NO₂) are considered to be the key pollutants. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and NO_x can cause eutrophication of soils and water.

5.15 Based on the Highways Agency Design Manual for Road and Bridges (DMRB) Manual Document LA105: Air Quality²⁸ (which was produced to provide advice regarding the design, assessment and operation of trunk roads (including motorways)), it is assumed that air pollution from roads is unlikely to be significant beyond 200m from the road itself. Where increases in traffic volumes are forecast, this 200m buffer needs to be applied to the relevant roads in order to make a judgement about the likely geographical extent of air pollution impacts.

5.16 The DMRB Guidance for the assessment of local air quality in relation to highways developments provides criteria that should be applied at the scoping/screening stage of an

²⁷ British Wildlife Magazine. October 2007.

²⁸ Design Manual for Road and Bridges: LA105, Air Quality. Highways Agency

(2019).
<https://www.standardsforhighways.co.uk/dmrb/search/10191621-07df-44a3-892e-c1d5c7a28d90>

assessment of a plan or project, to ascertain whether there are likely to be significant impacts associated with routes or corridors. Based on the DMRB guidance, affected roads which should be assessed are those where:

- Daily traffic flows will change by 1,000 AADT (Annual Average Daily Traffic) or more; or
- Heavy duty vehicle (HDV) flows will change by 200 AADT or more; or
- A change in speed band; or
- A change in carriageway alignment by 5m or more.

5.17 It has been assumed that only those roads forming part of the primary road network (motorways and 'A' roads) are likely to experience any significant increases in vehicle traffic as a result of development (i.e. greater than 1,000 AADT). As such, where a site is within 200m of only minor roads, no significant effect from traffic-related air pollution is considered to be the likely outcome.

5.18 The key commuting corridor for new housing and employment development in Welwyn Hatfield Borough will be the A1(M) and associated A-roads, such as the A414.

5.19 The European sites within 10km of Welwyn Hatfield Borough that are also within 200m of strategic roads are:

- Lee Valley SPA and Ramsar site (a small portion of the SPA and Ramsar site is within 200m of the A414).
- Wormley Hoddesdonpark Woods SAC (a small portion of the SAC is within 200m of the A10).

5.20 There are no A roads that link directly with Epping Forest SAC and the site can therefore be scoped out.

5.21 Therefore, likely significant effects relating to increased air pollution need to be considered in relation to Lee Valley SPA and Ramsar site and Wormley Hoddesdonpark Woods SAC.

Impacts of recreation

5.22 Recreation activities and human presence can have an adverse impact on the integrity of a European site as a result of erosion and trampling or general disturbance. Where Local Plan policies are likely to result in an increase in the local population, or where an increase in visitor numbers to the area

is considered likely, the potential for an increase in visitor numbers and the associated potential impacts at sensitive European sites is identified in the screening matrix.

5.23 Epping Forest SAC, Lee Valley SPA and Ramsar site and Wormley Hoddesdonpark Woods SAC are located within 10km of Welwyn Hatfield Borough and therefore need to be considered in relation to likely significant effects arising from increased recreation pressure.

Water quantity and quality

5.24 An increase in demand for water abstraction and treatment resulting from the growth proposed in the Welwyn Hatfield Local Plan could result in changes in hydrology at European sites, specifically a decrease in water quality or changes to water levels. Depending on the qualifying features and particular vulnerabilities of the European sites, there could be a likely significant effect on the site.

5.25 Epping Forest SAC is located approximately 8.5km from the Borough boundary. Given this distance and the lack of direct hydrological connectivity between Welwyn Hatfield Borough and the SAC, likely significant effects on this site as a result of changes in water quality and quantity due to Local Plan proposals have been scoped out.

5.26 Although, Wormley Hoddesdonpark Woods SAC is likely to have hydrological connectivity to Welwyn Hatfield Borough, due to the nature of its qualifying features, likely significant effects due to changes in water quality and quantity can be scoped out.

5.27 Lee Valley SPA and Ramsar site are located within 10km of the Welwyn Hatfield Borough boundary and are vulnerable to changes in hydrology.

5.28 Therefore, likely significant effects associated with changes in water quality and quantity need to be considered in relation to Lee Valley SPA and Ramsar site.

Summary of Scoping

5.29 Table 5.1 below summarises the conclusions above regarding which types of effect need to be considered further in relation to each European site.

Table 5.1: Summary of Scoping findings

European site	Physical damage/loss of habitat (onsite)	Physical damage/loss of habitat (offsite)	Non-physical disturbance (onsite)	Non-physical disturbance (offsite)	Air pollution	Impacts of recreation	Water quantity and quality
Epping Forest SAC	Scoped out	Scoped out	Scoped out	Scoped out	Scoped out	Scoped in	Scoped out
Lee Valley SPA	Scoped out	Scoped in	Scoped out	Scoped in	Scoped in	Scoped in	Scoped in
Lee Valley Ramsar site	Scoped out	Scoped in	Scoped out	Scoped in	Scoped in	Scoped in	Scoped in
Wormley Hoddesdonpark Woods SAC	Scoped out	Scoped out	Scoped out	Scoped out	Scoped in	Scoped in	Scoped out

HRA screening

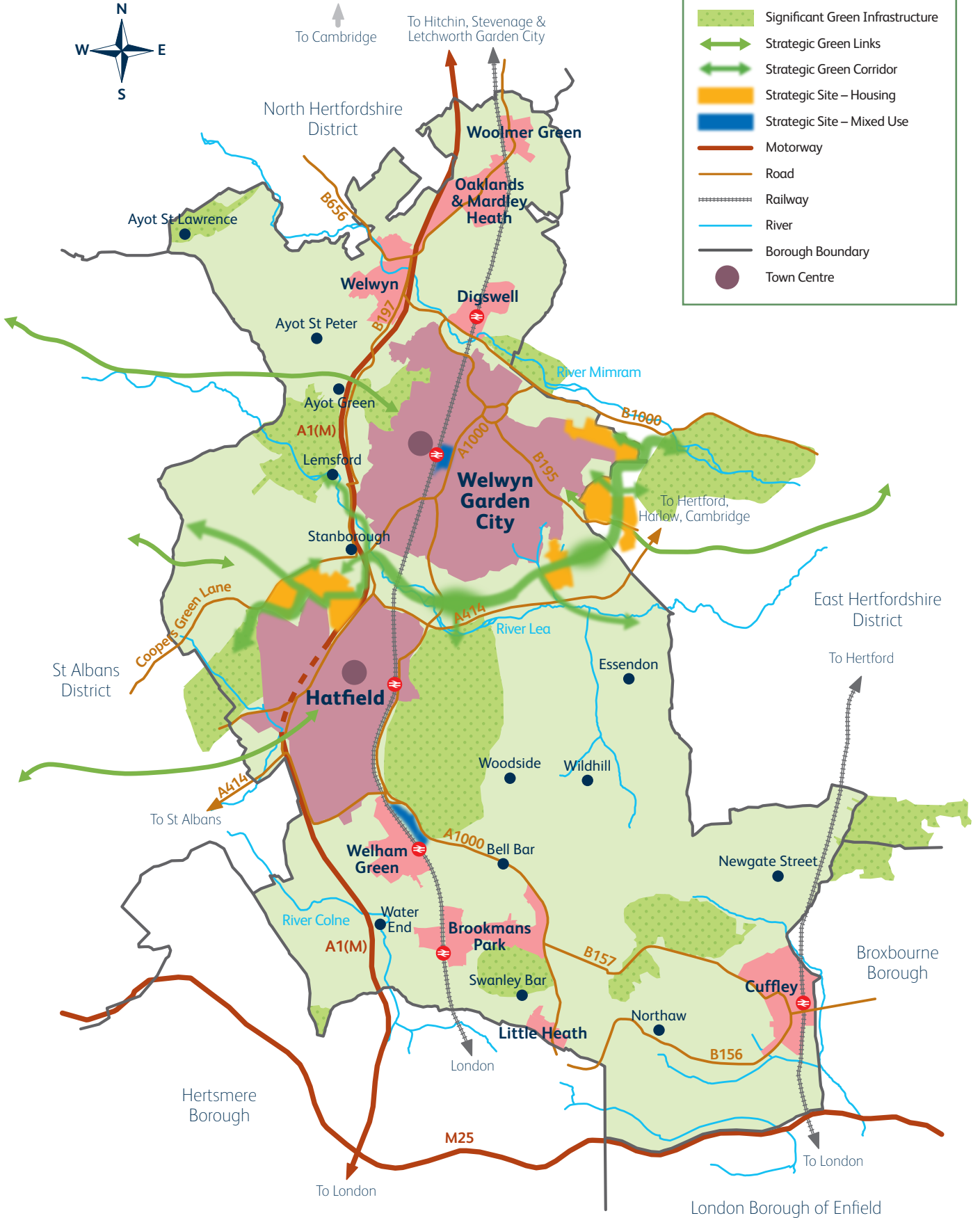
5.30 Once specific types of effect were scoped in or out, each policy was screened individually for its potential to contribute to the types of effect that were scoped in. The full screening matrix, which sets out the decision-making process used for this assessment, can be found in **Appendix B** and the findings are summarised in the next section.

5.31 The Key Diagram in **Figure 5.1** overleaf shows location of Key Spatial Policy Proposals in the Local Plan as proposed to be modified.

Welwyn Hatfield Key Diagram



KEY	
	Green Belt
	Town
	Excluded Village
	Village
	Significant Green Infrastructure
	Strategic Green Links
	Strategic Green Corridor
	Strategic Site – Housing
	Strategic Site – Mixed Use
	Motorway
	Road
	Railway
	River
	Borough Boundary
	Town Centre



Significant effects unlikely

5.32 There are 34 policies in the Local Plan (as proposed to be modified) that are not expected to have significant effects on European sites.

5.33 The following policies would not result in development because they either set out criteria relating to development proposed under other policies (which have themselves been subject to screening), or they seek to protect the natural environment:

- SADM2: Highway Network and Safety
- SADM5: Development Outside Designated Centres
- SADM6: Shopfronts, Adverts and Signage
- SP6: Community Services and Facilities
- SP7: Type and Mix of Housing
- SADM9: Loss of Residential
- SADM12: Parking, Servicing and Refuse
- SADM15: Heritage
- SP15: The Historic Environment of Welwyn Garden City
- SADM20: Acceptable Uses Outside the Primary Retail Core (The Campus, Parkway and Church Road)
- SADM23: Acceptable Uses Outside the Core Retail Zone (The Common and Queensway Opportunity Areas)
- SADM24: Acceptable Uses Outside the Core Retail Zone (Lemsford Road Opportunity Area)
- SADM34: Development within the Green Belt
- SP26: Neighbourhood Planning

5.34 The following policies could result in some development, but the development arising would be located away from sensitive European sites and would not be expected to contribute significantly to increased traffic, recreation pressure or demand for water abstraction or treatment:

- SP5: Quantity and Location of Retail Development
- SADM4: Development in Designated Centres
- SADM7: New Community Services and Facilities and Losses of Community Services
- SP16: Welwyn Garden City Town Centre Strategy
- SP20: Hatfield Town Centre Strategy
- SP21: University of Hertfordshire
- SP25: Rural Development

5.35 In addition, a number of the policies would not result in development and could also help to mitigate the potential effects of development proposed elsewhere in the Local Plan as proposed to be modified (although this potential for mitigation has not been taken into account in reaching screening conclusions):

- SP1: Delivering Sustainable Development
- SADM3: Sustainable Travel for All
- SP9: Place Making and High Quality Design
- SP10: Sustainable Design and Construction
- SADM11: Amenity and Layout
- SADM13: Sustainability Requirements
- SADM14: Flood Risk and Surface Water Management
- SP11: Protection and Enhancement of Critical Environmental Assets
- SADM16: Ecology and Landscape
- SADM17: Urban Open Land
- SADM18: Environmental Pollution
- SP12: Green Infrastructure
- SP13: Infrastructure Delivery

Significant effects likely or uncertain

5.36 While no policies in the Local Plan as proposed to be modified are certain to result in a significant effect, there is uncertainty associated with some policies and therefore, in line with the precautionary approach being applied in the HRA, until significant effects can be ruled out they are treated as 'likely significant effects'.

5.37 The screening assessment identified a lack of certainty as to whether the following policies would result in likely significant effects on European sites:

- SP2: Targets for Growth
- SP3: Settlement Strategy and Green Belt Boundaries
- SADM1: Windfall Development
- SP4: Transport and Travel
- SADM8: Cemetery Extension at Southway, Hatfield (CEM01)
- SP8: Local Economy
- SADM10: Employment Development
- SP14: New Schools
- SADM19: Town Centre North Development Site (MUS1)

- SADM21: Housing Allocations in Welwyn Garden City
- SP17: Mixed Use Development Site at Broadwater Road West (SDS3 and SDS4)
- SP18: North East of Welwyn Garden City (SDS1)
- SP19: South East of Welwyn Garden City (SDS2)
- SADM22: Development within Hatfield Town Centre Core Retail Zone
- SADM25: High View Neighbourhood Shopping Centre (MUS3)
- SADM26: New Dwellings in Hatfield
- SP22: North West Hatfield (SDS5)
- SADM27: Woolmer Green
- SADM28: Oaklands and Mardley Heath
- SADM29: Welwyn
- SADM30: Welham Green
- SP23: Marshmoor Policy Area (SDS7 and wider area)
- SADM31: Bell Bar and Brookmans Park
- SADM32: Little Heath
- SADM33: Cuffley
- SADM35: Site Allocations within the Rural Areas

5.38 These policies could result in the development of housing, Gypsy and Traveller sites, retail-related development and/or employment land which could have significant effects in relation to offsite physical disturbance/loss of habitat and offsite non-physical disturbance from development, erosion/trampling or general disturbance from increased recreation activities, air pollution from increased vehicle traffic, and changes to hydrology as a result of increased demand for water consumption and treatment.

Potential for likely significant effects as a result of damage to/loss of offsite habitat and non-physical disturbance offsite

5.39 The potential for loss of or damage to functionally linked habitat and non-physical disturbance outside the site boundaries was scoped in for Lee Valley SPA and Ramsar

site in the previous section. Lee Valley SPA and Ramsar site supports valuable habitats for qualifying bird species, such as Bittern, Gadwall and Northern Shoveler. All three species require specific habitats, with Bittern heavily reliant on reed bed habitat whilst Gadwall and Northern Shoveler, which are waterfowl species, require lakes and wetland habitat. Despite the specific needs of these species, due to their transient nature there is potential for these species to forage and shelter in suitable habitat in the surrounding area.

5.40 As part of screening the proposed site allocations in the Local Plan as proposed to be modified, an analysis of aerial photography of all the proposed development sites was undertaken. This found that there were no sites within the Welwyn Hatfield Local Plan (as proposed to be modified) that would result in the physical damage or loss of habitat suitable for the SPA and Ramsar sites' qualifying bird species. Site HS6: Land at Gosling Sports Park, Stanborough Road is within approximately 350m of Stanborough Park lakes, Stanborough reedmarsh and Lemsford Springs. Although this area provides potentially suitable habitat for species such as Bittern, Gadwall and Northern Shoveler, given the urban location and the distance of approximately 13.5km from the SPA and Ramsar site, it is unlikely this will provide a key habitat for these species.

5.41 As such, likely significant effects on Lee Valley SPA and Ramsar site as a result of offsite habitat damage/loss and non-physical disturbance can be ruled out.

Summary of screening conclusions

5.42 Table 5.2 below summarises the outcomes of the screening stage. Where effects are screened out in **Table 5.2**, they did not need to be considered further so are not referred to in the screening matrix in **Appendix B**.

Table 5.2: Summary of Screening conclusions

European site	Physical damage/loss of habitat (onsite)	Physical damage/loss of habitat (offsite)	Non-physical disturbance (onsite)	Non-physical disturbance (offsite)	Air pollution	Impacts of recreation	Water quantity and quality
Epping Forest SAC	No LSE	No LSE	No LSE	No LSE	No LSE	LSE uncertain	No LSE
Lee Valley SPA	No LSE	No LSE	No LSE	No LSE	LSE uncertain	LSE uncertain	LSE uncertain
Lee Valley Ramsar site	No LSE	No LSE	No LSE	No LSE	LSE uncertain	LSE uncertain	LSE uncertain
Wormley Hoddesdonpark Woods SAC	No LSE	No LSE	No LSE	No LSE	LSE uncertain	LSE uncertain	No LSE

Identification of other plans and projects which may have 'in-combination' effects

5.43 Regulation 105 of the Habitats Regulations 2017 requires an Appropriate Assessment where 'a land use plan is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is not directly connected with or necessary to the management of the site'. Therefore, it is necessary to consider whether there may be significant effects from the Welwyn Hatfield Local Plan in-combination with other plans or projects.

5.44 Where the Local Plan is likely to have an effect on its own (due to impact pathways being present), whether significant or not, there may also be the same types of effects from other plans or projects that could combine with the Local Plan to produce adverse effects on integrity, and therefore these need to be considered through the Appropriate Assessment stage. Where the screening assessment has concluded that there is no impact pathway between development proposed in the Local Plan and the conditions necessary to maintain qualifying features of a European site, then there will be no in-combination effects to assess.

5.45 The screening assessment has concluded that the Welwyn Hatfield Local Plan as proposed to be modified will not result in any effects on European sites due to a lack of impact pathway in relation to the following impacts; therefore, in-combination assessment is not required for these sites in relation to:

- Physical damage and loss of habitat (both onsite and offsite).
- Non-physical disturbance (both onsite and offsite).

5.46 The screening assessment has also concluded that the Welwyn Hatfield Local Plan as proposed to be modified will not result in any effects (significant or not) in relation to air quality at Epping Forest SAC or water quality at Epping Forest SAC or Wormley Hoddesdonpark Woods SAC due to a lack of impact pathway, and therefore in-combination effects are not predicted in relation to those sites.

5.47 The screening assessment has identified potential likely significant effects arising in relation to increased air pollution at Lee Valley SPA and Ramsar site and Wormley Hoddesdonpark Woods SAC; recreational disturbance at Epping Forest SAC, Lee Valley SPA and Ramsar site and Wormley Hoddesdonpark Woods SAC; and changes in hydrology at Lee Valley SPA and Ramsar site. Significant effects in relation to air pollution and recreational disturbance at these sites could potentially occur as a result of the plan alone. However, it is also possible that the plan could give rise to small, but not significant effects alone, but that significant effects could come forward in-combination with other, neighbouring plans.

5.48 The potential for in-combination effects to occur is considered further in the Appropriate Assessment (**Chapter 6**).

Chapter 6

Appropriate Assessment

6.1 Following the screening stage, the plan-making authority is required under Regulation 105 of the Habitats Regulations 2017 (as amended) to make an 'Appropriate Assessment' of the implications of the plan for European sites, in view of their conservation objectives. The Appropriate Assessment must be undertaken where likely significant effects were identified, or were not able to be ruled out, during the screening stage.

6.2 EC Guidance²⁹ states that the Appropriate Assessment should consider the impacts of the plan (either alone or in combination with other projects or plans) on the integrity of European sites with respect to their conservation objectives and to their structure and function.

6.3 A site's integrity depends on it being able to sustain its 'qualifying features' (i.e. those Annex 1 habitats, Annex II species, and Annex 1 bird populations for which it has been designated) and to ensure their continued viability. A high degree of integrity is considered to exist where the potential to meet a site's conservation objectives is realised and where the site is capable of self-repair and renewal with a minimum of external management support. The Appropriate Assessment therefore needs to focus on those impacts judged likely to have an effect on the qualifying features of European sites, or where insufficient certainty regarding this remained at the screening stage.

6.4 An Appropriate Assessment has therefore been undertaken for all of the European sites within 10km of Welwyn Hatfield Borough where likely significant effects from the Local Plan (as proposed to be modified) were not able to be ruled out during the screening stage. The Appropriate Assessment findings are set out in this chapter.

6.5 The Appropriate Assessment focuses on those impacts that are judged to have a likely significant effect on the qualifying features of a European site, or where insufficient certainty regarding this remained at the screening stage. As described in **Chapter 1**, a conclusion needs to be reached as to whether or not a policy or site allocation in the Local Plan as proposed to be modified would adversely affect the integrity of a European site. In order to reach a conclusion, consideration was given to whether the predicted impacts of the proposals (either alone or in combination) have the potential to:

²⁹ Assessment of plans and projects significantly affecting European sites. Methodological guidance on the provisions of Article 6(3) and (4)

of the Habitats Directive 92/43/EEC. European Commission Environment DG, November 2001.

- Delay the achievement of conservation objectives for the site.
- Interrupt progress towards the achievement of conservation objectives for the site.
- Disrupt factors that help to maintain the favourable conditions of the site.
- Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site.

6.6 In order to make a judgement about the likelihood of proposals having an adverse effect on the integrity of a European site, the Appropriate Assessment considers each site which may be affected by the Local Plan separately, allowing for the fact that the qualifying features of each site vary. The conservation objectives for each European site are generally to maintain the qualifying features in favourable condition.

6.7 For each European site where a potential likely significant effect was identified at the screening stage in relation to proposals in the Local Plan as proposed to be modified, the potential impacts are set out and judgements made (based on the information available) regarding whether the impact is likely to affect the integrity of the site and if mitigation measures are likely to be implemented to reduce the likelihood or severity of the potential impact.

Epping Forest SAC

6.8 At the screening stage, likely significant effects on Epping Forest SAC were identified in relation only to increased recreation pressure.

Recreational Pressure

6.9 Epping Forest SAC is subject to high recreational pressure from a range of activities and impacts including walking, mountain biking and unmanaged fires. An increase in recreational pressure in the surrounding area therefore has potential to have likely significant effects on qualifying habitats such as wet heathland with cross-leaved heath, European dry heaths and Beech forests on acid soils.

6.10 A Memorandum of Understanding has been established between Epping Forest District Council, Natural England, City of London Corporation (Conservators of Epping Forest) and surrounding local authorities, which commits to developing a

joint mitigation strategy for the effects of development on the SAC³⁰. Visitor surveys³¹ at Epping Forest SAC found that the majority (75%) of visitors travel to the SAC from within 6.2km, and Welwyn Hatfield lies well beyond this distance. An updated visitor strategy is being used to inform a recreational pressure mitigation strategy for the SAC³², but the interim strategy only requires contributions to mitigation from developments within 3km of the SAC.

6.11 Epping Forest SAC is situated approximately 9.5km from the closest site allocation in the Welwyn Hatfield Local Plan as proposed to be modified (site Cuf6 at Cuffley), with most of the proposed development being located over 20km away from the SAC. The SAC lies to the east of the Borough, and most development is allocated to the west and north. Given the distance of development proposed in the Local Plan from the SAC, and the accessibility of other attractive countryside and woodland in and around Welwyn Hatfield Borough, such as Sherrardspark Wood SSSI, and Northaw Great Wood SSSI (which was designated as a Country Park in 1971), it is reasonable to assume that any increase in people visiting the SAC from the Borough will be negligible. The visitor survey evidence provided by Footprint Ecology clearly demonstrates that the Welwyn Hatfield Local Plan is unlikely to result in significant effects on the Epping Forest SAC due to distance involved. The ongoing work to establish a joint mitigation strategy (relating to the Memorandum of Understanding referred to above) should ensure there are no significant effects in combination with other plans.

6.12 In addition, the Local Plan as proposed to be modified includes the following policies which provide for increased provision of green infrastructure and require that new housing development within Welwyn Hatfield Borough provides accessible high quality green space for local residents:

- SP9: Place Making and High Quality Design
- SP10: Sustainable Construction and Design
- SP12: Green Infrastructure
- SADM11: Amenity and Layout

6.13 In addition, policy SADM17: Urban Open Land promotes the provision of urban open land and thus has the potential to offset recreational impacts.

6.14 The Strategic Development Site policies SP17: Mixed Use Development Site at Broadwater Road West, SP18: North East of Welwyn Garden City, SP19: South East of Welwyn

³⁰ <http://www.efdclocalplan.org/wp-content/uploads/2018/02/EB1200-MoU-Impacts-of-Growth-within-the-W-Essex-E-Herts-HMA-on-EF-SAC-February-2017.pdf>

³¹ Epping Forest Visitor Survey 2017: <https://www.footprint-ecology.co.uk/reports/Liley%20et%20al.%20-%202018%20-%20Epping%20Forest%20Visitor%20Survey%202017.pdf>

³² Epping Forest District Council; the current position in relation to recreation pressure (2020): <https://www.eppingforestdc.gov.uk/wp-content/uploads/2020/05/Epping-Forest-Special-Area-of-Conservation-April-2020.pdf>

Garden City, and SP22: North West Hatfield, all require open space to be incorporated into the development proposals, as do a number of site-specific considerations set out for proposed smaller housing sites around the excluded villages.

6.15 In light of the distance between Epping Forest SAC and proposed housing developments within Welwyn Hatfield Borough, together with the protective policies and proposals for green infrastructure and open space provided within the Plan, **no adverse effect on the integrity of Epping Forest SAC is predicted as a result of recreational pressures either alone or in-combination with other plans and projects.**

Lee Valley SPA and Ramsar site

6.16 At the screening stage, likely significant effects on Lee Valley SPA and Ramsar site were not able to be ruled out in relation to air pollution, recreation pressure and changes to water quality and quantity.

Air pollution

6.17 Increased air pollution has the potential to adversely affect reed bed habitat used by Bittern, as a result of increased deposition of nitrogen. The majority of the Lee Valley SPA and Ramsar site is situated away from A roads that are likely to be affected by increased vehicle traffic resulting from development in Welwyn Hatfield Borough. There is, however, a small fragment of the SPA and Ramsar site that is located within 200m of the A414.

6.18 The A414 runs west-east from Hemel Hempstead, south of St Albans to Junction 3 of the A1(M), and then via Junction 4 of the A1(M) between Welwyn Garden City and Hatfield connecting to the A10 east of Hertford and beyond to Harlow. The fragment of the SPA and Ramsar site that lies within 200m of the A414 lies to the east of the A10. The part of the A414 east of the A10 is unlikely to receive increased levels of vehicle traffic from Welwyn Hatfield Borough. This is because key commuting corridors are the A1(M) and associated A roads, such as the A414 west of the A10, leading to Hertford³³. The section of the A414 adjacent to the SPA and Ramsar is situated to the east of the A10, away from the key commuting corridors.

6.19 Traffic modelling was carried out in 2019 to determine the changes in traffic from the submitted Local Plan, in-combination with other Local Plans and planning commitments in the surrounding authorities. National projections were also included in the model to account for increases in traffic from

further afield. The resulting changes in traffic flows on the part of the A414 adjacent to the SPA and Ramsar site are shown in **Table 6.1**. This shows that at the end of the plan period, traffic flows are expected to have increased by over 4,000 AADT. It is not known how much of this traffic will be generated as a result of site allocations in the Welwyn Hatfield Local Plan. Note that the figures in **Table 6.1** are based on the provision of 16,000 homes in Welwyn Hatfield over the plan period. The Local Plan as proposed to be modified makes provision for 15,200 homes; therefore the figures in **Table 6.1** are likely to be precautionary. The overall distribution of development in the Local Plan as proposed to be modified is very similar to that previously considered (i.e. with a focus on Welwyn Garden City and Hatfield). Therefore, given that the A14 is a key road in the Borough, and runs in close proximity to both Hatfield and Welwyn Garden City, movement patterns under the updated housing distribution are not expected to be substantially different to that modelled in 2019.

Table 6.1: Changes in Annual Average Daily Traffic (AADT) along the A414

A414 between Stanstead Road/Hoddesdon Road and Netherfield Lane	AADT for the base year (2014)	AADT for the end of the plan period (2036)	Change in AADT
Eastbound	9,542	11,279	1,737
Westbound	12,427	14,945	2,518
TOTAL	21,969	26,224	4,255

6.20 However, aerial photography and mapped Priority Habitat Inventory data³⁴ shows that the fragment of the SPA and Ramsar site next to the A414 supports sub-optimal habitat for Bittern, being primarily grassland, whereas Bittern are reedbed specialists. Areas of the SPA and Ramsar site that support optimal habitat for Bittern are over 200m from the A414 (Priority Habitat Inventory data³⁵ shows the nearest reedbeds as being around 530m from the edge of the A414). These areas away from the A414 are likely to support the important populations of Bittern within the SPA and Ramsar site. If the area within 200m of the A414 were enriched with nutrients as a result of increases in vehicle traffic, this may

³³ AECOM (2015) Hertfordshire COMET: TN 07 Pattern of Travel across Hertfordshire, available at: <https://www.hertfordshire.gov.uk/media->

<library/documents/highways/transport-planning/transport-and-accident-data/comet/comet-travel-patterns-executive-summary.pdf>

³⁴ <https://magic.defra.gov.uk/MagicMap.aspx>

³⁵ <https://magic.defra.gov.uk/MagicMap.aspx>

have the potential to alter floral composition but this is unlikely to affect the availability of reedbed habitat or abundance of food species, which are primarily fish. APIS³⁶ suggests that current levels of nitrogen deposition near the road at Rye Meads (grid references TL386108 and TL387107) are a maximum of 17.22 kg N/ha/yr, which is above but at the lower end of the critical loads of 15-30 kg N/ha/yr for Bittern and below the critical loads of 20-30 kg N/ha/yr for Shoveler (critical loads are not available for Gadwall). However, the SSSI units within 200m of the road are in favourable condition, despite current nitrogen levels (Natural England noted that it is not known how much of the current nitrogen levels are a result of road traffic³⁷). As a result, even when considering in-combination increases in traffic as a result of other plans, increases in air pollution are expected to be negligible in terms of effects on the integrity of the SPA and Ramsar site.

6.21 In addition to this, policies SADM3: Sustainable Travel for All and SADM18: Environmental Pollution make provision for sustainable modes of travel to minimise the number of vehicles on the roads and prevents the delivery of proposals with unacceptable risks to the natural environment. Therefore, **no adverse effect on the integrity of Lee Valley SPA and Ramsar site is expected as a result of increased air pollution either alone or in combination with other plans and projects.**

Recreational pressure

6.22 The Lee Valley SPA and Ramsar site are subject to recreational pressures, such as water sports, angling and dog walking. An increase in recreational pressure in the surrounding area therefore has potential to have adverse effects on qualifying species such as Bittern, Gadwall and Northern Shoveler.

6.23 The SPA and Ramsar site are situated approximately 6km from the closest site allocation in the Welwyn Hatfield Local Plan (at Cuffley), with most of the proposed development being located over 10km away in the west and north of the Borough. Given the distance of the new development from the SPA and Ramsar site, it is reasonable to assume that there will only be a small increase in the number of people visiting the sites from the Borough.

6.24 The SPA and Ramsar site are managed by Local Nature Reserves and Lee Valley Park who have produced a Development Framework, which ensures the conservation of biodiversity and provision of access for people to enjoy the site. Increased recreational pressure from formal and informal recreation is best managed by the Local Nature Reserves and

Lee Valley Park. As such, even in-combination with other plans and policies, the small number of visits arising from the Welwyn Hatfield Local Plan (as proposed to be modified) are not expected to result in adverse effects on integrity.

6.25 In addition to this, the Local Plan includes a number of policies which provide for increased provision of green infrastructure and will ensure that new housing development within Welwyn Hatfield Borough will need to provide accessible high quality green space for local residents, as follows:

- SP9: Place Making and High Quality Design
- SP10: Sustainable Construction and Design
- SP12: Green Infrastructure
- SADM11: Amenity and Layout

6.26 In addition, policy SADM17: Urban Open Land promotes the provision of urban open land and thus has the potential to offset recreational impacts.

6.27 The Strategic Development Site policies SP17: Mixed Use Development Site at Broadwater Road West, SP18: North East of Welwyn Garden City, SP19: South East of Welwyn Garden City, and SP22: North West Hatfield, all require open space to be incorporated into the development proposals, as do a number of site-specific considerations set out for proposed smaller housing sites around the excluded villages.

6.28 In light of the considerable distance between the SPA and Ramsar site and the proposed housing developments within Welwyn Hatfield, together with the protective policies and proposals for green infrastructure and open space provided within the Local Plan and the on-site visitor management arrangements at the SPA and Ramsar site, **no adverse effect on the integrity of Lee Valley SPA and Ramsar site is predicted as a result of recreational pressures, either alone or in-combination with other plans and projects.**

Water quality and quantity

6.29 The Lee Valley SPA and Ramsar site are particularly sensitive to changes in water quality and water level associated with water abstraction. Changes in water quality usually arise from a release of sewage effluent. There has previously been concern highlighted by the East of England HRA for the capacity of the Rye Meads Wastewater Treatment Works (WwTW) to deal with increased discharge from wastewater. The Rye Meads WwTW handles wastewater for a catchment area which includes Welwyn, Stevenage and

³⁶ Air Pollution Information Systems (date unavailable) [online], Available at: <http://www.apis.ac.uk/src/select-a->

[feature?site=UK9012111&SiteType=SPA&submit=Next](http://www.apis.ac.uk/src/select-a-), Accessed:18/12/19

³⁷ Personal communication, email to Sarah Smith 16/01/2020

Harlow. As such, the potential for impacts need to be considered in combination. Equally, changes in water levels due to over-abstraction, particularly during droughts, have the potential to affect water levels within the SPA and Ramsar site.

6.30 The Welwyn Hatfield Local Plan describes water as a significant issue in Welwyn Hatfield and identifies that both the River Lee and Mimram are suffering from over abstraction. Indeed, Hertfordshire is one of the driest counties in the UK yet has a population of over one million drawing upon water resources. Welwyn Hatfield (and its two principal towns in particular) has been identified as an area of serious water stress which means that:

- the current household demand for water in the area is a high proportion of the current effective rainfall which is available to meet that demand; or
- the future household demand for water is likely to be a high proportion of the effective rainfall available to meet that demand.

6.31 Policy SP13: Infrastructure Delivery sets out the principles for the delivery of infrastructure to support proposed development in the Local Plan. The supporting text acknowledges that sewerage capacity is a key infrastructure consideration, and specifically lists Rye Meads WwTW, which serves Digswell, Oaklands, Welwyn, Welwyn Garden City, Woolmer Green, as well as a number of other settlements in neighbouring districts and boroughs. The Local Plan recognises that it will be necessary to work with neighbouring local authorities to take forward significant upgrades in order to support the planned levels of housing and employment growth.

6.32 There is potential for water abstraction and pollution to adversely affect the integrity of the Lee Valley SPA and Ramsar site by reducing the level and quality of water upon which the qualifying features depend. For bittern, this may result from the loss or degradation of reed bed and other riparian habitats upon which this species depends as a result of drying, vegetative succession and changes in water chemistry.

6.33 Changes in hydrological conditions may also reduce the extent of suitable habitat conditions for whorled water-milfoil and *Micronecta minutissima* through drying, vegetative succession, shading of water by taller vegetation, and a reduction in appropriate aquatic conditions through changes in water chemistry, for example as a result of pollution and increased nutrient inputs.

6.34 A number of studies have been commissioned in co-operation with others, including Rye Meads Water Cycle Study (2009) Water Cycle Study (2010) and Hertfordshire Water Study (2017).

6.35 This section summarises and draws upon various key sources of information to determine whether the Welwyn Hatfield Local Plan (as proposed to be modified) will result in adverse effects on the integrity on the Lee Valley SPA and Ramsar site, either alone or in-combination, as a result of water related effects. It reviews the consultation responses and findings of relevant HRA work, before examining how the Welwyn Hatfield Local Plan (as proposed to be modified) has considered these previous recommendations. Finally, this section determines whether the protective policies incorporated within the Welwyn Hatfield Local Plan as proposed to be modified are sufficient to conclude no adverse effect or whether further study and/or implementation of additional safeguarding measures are required.

Protective policies within Welwyn Hatfield Local Plan (as proposed to be modified)

6.36 The Welwyn Hatfield Local Plan as proposed to be modified includes the following key policies which are likely to help avoid or mitigate potential water related effects on the Lee Valley SPA and Ramsar site:

- Policy SP1: Delivering Sustainable Development: The natural and heritage assets of the Borough should be protected and enhanced, and its natural resources used prudently. Adaptation and mitigation principles relating to climate change should be incorporated into the design and construction of new development which include energy and water efficiency measures, the use of low carbon and renewable energy, the provision of green infrastructure and sustainable drainage systems (SuDs).
- Policy SP10: Sustainable Design and Construction: (Water sensitive design) - Proposals that adopt sustainable design and construction principles, as set out below, within an integrated design solution will be supported.
 - Water sensitive design principles and practices are integrated into development proposals to sustainably address water supply, consumption and quality, extreme rainfall, drainage and flood risk in a holistic way that supports other design aims and objectives.
 - Development needs to be responsive and resilient to environmental risks and climate change and seek to protect and enhance other aspects of the natural environment.
 - Addressing flood risk and surface water management within Welwyn Hatfield is an important planning objective, as identified within the Council's Strategic Flood Risk Assessment and Hertfordshire County Council's Flood Risk Management Strategy.

Policy SADM14 will promote development that fully takes flood risk into account and manages surface water in a sustainable and holistic way to support the fulfilment of Local Plan Objectives 3 and 5.

- The Council will encourage the use of pre-application consultation and Design Review prior to any planning application being submitted so that sustainable design and construction principles set out in SP10 are integrated into the design of proposals at an early stage.
 - Applicants will be required to submit a Sustainable Design Statement to demonstrate how the principles and requirements set out in the above policies will be implemented.
 - Proposals for non-residential development proposals should submit a BREEAM Pre-Assessment Report, in place of the Sustainable Design Statement, alongside the planning application to demonstrate compliance. Water consumption targets will be enforced via a planning condition requiring the higher standard within the Building Regulations Part G to be met.
 - Where an applicant considers the BREEAM or water efficiency requirements to be unfeasible or unviable, this will need to be supported by a robust viability appraisal.
 - With regards SuDS, these should be designed to take account of the principles set out in SADM14 alongside other policies within the Local Plan that have a relationship with the water environment and general design. Specific regard should be given to the UK Government's non-statutory technical standards, National Planning Practice Guidance, and guidance published by Hertfordshire County Council as the Lead Local Flood Authority including 'SuDS Design Guidance for Hertfordshire, March 2015'.
 - Information demonstrating how SuDS have been integrated in proposals and how proposals will impact upon Ordinary Watercourses should be provided as part of the Sustainable Design Statement.
- Policy SADM13: Sustainability Requirements (Water) - All newly constructed dwellings will be required to achieve an estimated water consumption of no more than 110 litres/person/day, with water reuse and recycling and rainwater harvesting used in addition wherever feasible to reduce demand on mains water supply. The new regime of Technical Housing Standards put in place for England allows Local Plan policies to set

water efficiency requirements for newly constructed dwellings above the basic Building Regulations requirements. It is also important that, where appropriate, simple and more innovative measures such as water butts, rainwater harvesting and greywater recycling systems are pursued alongside the use of water efficient internal fixtures (taps, baths, showers, etc) to further reduce the demand upon mains water and the amount of water which requires treatment. The use of water butts and rainwater harvesting can be particularly beneficial in householder extensions, conversions and changes of use as it would reduce the amount of 'clean' water entering the building's original drainage which is highly likely to connect to a foul or combined sewer which then must be treated.

- Policy SADM14: Flood Risk and Surface Water Management - All major proposals, and all proposals in areas identified as being at risk of surface water flooding, will be required to manage surface water runoff and surface water flood risk via the use of Sustainable Drainage Systems that protect water quality by using an appropriate number of treatment stages before discharging to the ground or a surface water body.
- Policy SP13: Infrastructure Delivery - To support the delivery of sustainable communities, the Council will ensure that suitable provision is made for new or improved infrastructure, required to meet the levels of growth identified in the Local Plan. Developers will be required to contribute to the reasonable costs of enhancing existing infrastructure or providing new physical, social and green infrastructure, required as a result of their proposals, through either financial contributions (including planning obligations or the Community Infrastructure Levy (CIL)), or by direct provision of such infrastructure on-site within the development. The Council will use grant funding, Section 106 agreements, unilateral undertakings, planning conditions, and when adopted, the council's CIL Charging Schedule, to secure this. The adopted Planning Obligations SPD sets out guidance in relation to the negotiation of Section 106 contributions and will be updated in due course to reflect the Council's approach to planning obligations once the Community Infrastructure Levy has been implemented. Supporting infrastructure should be provided in advance of, or alongside, the development, unless there is sufficient existing capacity. The appropriate phasing for the provision of infrastructure will however be determined on a case-by-case basis. Furthermore, the Council will continue to work with its partners to address existing deficiencies and secure appropriate levels of funding.

- Sewerage - Capacity constraints have been identified at the following sewage treatment works: Blackbirds (which serves Brookmans Park, Hatfield, Little Heath, Welham Green); Maple Lodge (which serves Brookmans Park, Hatfield, Little Heath, Welham Green); Rye Meads (which serves Digswell, Oaklands, Welwyn, Welwyn Garden City, Woolmer Green); Deephams (which serves Cuffley); and Mill Green (which serves Hatfield, Welwyn Garden City). These sewage treatment works also serve other parts of Hertfordshire, and it will therefore be necessary to work with neighbouring local authorities to take forward significant upgrades to these waste water treatment works where required, in order to support the planned levels of housing and employment growth. Further to this, where specific upgrades to waste water treatment works are required to deliver certain sites, it will be important for the land owner/ developer to work with Thames Water to deliver the necessary infrastructure at an appropriate stage in the development process and to ensure that the funding is in place to secure this.
- To deliver SDS1 (North East of Welwyn Garden City) and SDS2 (South East of Welwyn Garden City) improvements to the connection to Rye Meads Sewage Treatment Works (STW) will be required and to deliver SDS5 (North West of Hatfield) Mill Green Sewage Treatment Works (STW) will need to be upgraded and a new direct connection to this STW will be required.
- Upgrades may be required to Mill Green Sewage Treatment Works (STW) and Maple Lodge Sewage Treatment Works to deliver urban extensions around Welwyn Garden City and Hatfield.

Appropriate Assessment

6.37 The supply, treatment and discharge of water is a critical issue in the growth of Welwyn Hatfield and adjacent boroughs and districts. Water cycle studies indicate that the increased demand in water treatment and compliance with the Water Framework Directive can be achieved through increased efficiencies and investment in infrastructure upgrades, but this is largely dependent on planning authorities implementing sufficient safeguards and best practice water resource management, for example through provision of SuDS and water efficient design schemes.

6.38 In assessing whether the Welwyn Hatfield Local Plan will result in adverse effects on the Lee Valley SPA and Ramsar site, it is necessary to establish the validity of the previous Rye Meads Water Cycle Study (WCS). This water treatment works

discharges into the SPA and Ramsar site, and therefore its function and performance are critical in determining adverse effects on the site.

6.39 The Rye Meads WCS completed in 2009 concluded that there were no overwhelming technical constraints to the planned growth to deliver housing targets within the Regional Spatial Strategy to 2021 but highlighted that beyond this date there was a risk that water quality and wastewater treatment may constrain development. The study reported that increased efficiencies, leading to achievement of a best case scenario would result in wastewater treatment and water resources not constraining development before 2031.

6.40 The Rye Meads Water Cycle Strategy Review (2015), undertaken by Stevenage Borough Council, updated the previous 2009 study. The study reported that since 2009, there had been substantial changes to the planning system. These have been compounded by wider economic issues, particularly including the downturn and subsequent tightening of access to mortgage finance. These have had a significant impact on development levels and household formation, two key factors underpinning demand for water services. As such, many of the assumptions underpinning the 2009 study were now obsolete.

6.41 The 2015 report reviewed the key features of a more tightly defined study catchment, focussing on Stevenage and its surrounds. This concluded that many of the environmental issues identified in 2009 remain relevant. The study identified that a number of interventions to address these issues have been agreed. Crucially, a review of authorities' emerging Local Plan proposals demonstrates that the levels of development anticipated in the 2009 study have not been realised in the intervening period. Furthermore, planned levels of future development are also significantly reduced.

6.42 The Stevenage Borough 2015 Rye Meads Water Cycle Strategy Review concluded that:

“Through a series of updated development calculations which takes these matters into account, it is demonstrated that Rye Meads WwTW should now have capacity to treat all wastewater arising from within its catchment over the period to 2026 with a reasonable prospect of being able to accommodate demand to 2031”.

6.43 The Welwyn Hatfield Infrastructure Delivery Plan Review (2017) notes that the situation has changed since the WCS was produced and the forecast dates of when it was envisaged that capacity issues would arise, which were best estimates at the time, have been reviewed and advanced.

This was due to many reasons including:

- A significant reduction in the number of new dwellings completed in the last eight years compared to the number planned at the time of the study.

- Reduction in flows received at the treatment works due to the cessation of trade and business discharges.
- Variations in the projections of water use that were used within the calculations.
- Changes to the Planning Policy of Central Government.

6.44 Rye Meads STW currently treats a population equivalent (pe) of around 396,000. This is residential population plus the trade and business discharges converted to a residential equivalent.

6.45 The Rye Meads WCS was based on housing growth figures within the RSS. Within Welwyn Hatfield this included 10,000 homes up to 2021, with a further 5,000 homes between 2021 and 2031. The WCS used a conservative (worst case) development scenario in assessing the capacity of water infrastructure, including an assumption that 80% of the housing growth in Welwyn Hatfield before 2021 would fall within the Rye Meads catchment. This equates to 8,000 new homes up to 2021, and a further 4,000 between 2021-2031.

6.46 Some 3,675 homes have already been built outside of the plan period (between 2006/7 and 2015/16), with an additional 2,473 built between 2016/17 and 2020/2021³⁸, a total of 6,148. A further 15,200 homes are provided for within the Welwyn Hatfield Local Plan (as proposed to be modified).

6.47 Of those homes built between 2006/7 and 2015/16, 1,637 homes are potentially within the Rye Meads catchment³⁹, with a further 1,525 for the period 2016/17-2020/2021, totalling 3,162. Some areas in the catchment, such as Welwyn Garden City, are served by multiple STWs, but to be precautionary all relevant settlements have been included in this number. This number of homes is substantially less than the expected level of development up to 2021 reflected in the Rye Meads WCS

6.48 A total of 6,586 dwellings allocated in the Local Plan (as proposed to be modified) potentially fall within the Rye Meads catchment. This gives a total of 9,748 homes in the Rye Meads catchment. This is less than the housing expected to arise from Welwyn Hatfield to 2031 in the Rye Meads WCS and this figure is for the whole Local Plan period, which extends to 2036. This reflects the findings of the Rye Meads Water Cycle Strategy Review (2015) and the Welwyn Hatfield Infrastructure Delivery Plan Review (2017), which note that less development has come forward than envisaged in the WCS. This, along with the ongoing upgrades to the STW, is expected to ensure sufficient capacity to accommodate the growth set out in the Local Plan (as proposed to be modified).

6.49 In direct communication to Welwyn Hatfield Borough Council, Thames Water has stated that Rye Meads STW is currently being upgraded. The upgrade will provide Rye Meads STW with a treatment capacity of 447,134 PE (Population Equivalent). Thames Water's current forecasts (which include the whole catchment, not just Welwyn Hatfield) indicates that from a final effluent stream point of view the sewage treatment works is expected to have capacity up to 2036, although it is noted that Thames Water might need to deliver upgrades in the sludge and storm streams between 2020 and 2030. Thames Water is awaiting the final determination of their business plan for the period 2020-2025 and any planning for additional capacity will follow their normal growth process, which uses growth review and modelled view of risk to prioritise which sites will need a project and when. Given the scale of development coming forward in the region Thames Water is keeping a regular review of their sewage treatment works capacity. It is also working closely with local councils on understanding their future growth projections and likely changes in Environment Agency discharge consents.

6.50 The Welwyn Hatfield Local Plan (as proposed to be modified) includes several key policies designed to protect water resources and reliant ecological receptors. Most notable is Policy SP13: Infrastructure Delivery, which specifies that supporting infrastructure should be provided in advance of, or alongside, the development, unless there is sufficient existing capacity. This is crucial because it aligns with previous recommendations emerging from the 2012 HRA and previously provided by Natural England. Essentially it will ensure that annual growth is a phased process, whereby new development will not be permitted unless it can be confirmed in advance that there is existing water treatment and supply capacity.

6.51 In light of the findings above, together with the strength of the protection and avoidance policies specified within the Welwyn Hatfield Local Plan as proposed to be modified, the development proposals are considered unlikely to adversely affect the integrity of the qualifying features for which the Lee Valley SPA and Ramsar site are designated.

6.52 The nature of water catchment issues is such that an assessment of in-combination effects is effectively included within this assessment because the studies upon which the conclusions have been made involve several boroughs and districts. A review of the findings of other boroughs' and districts' HRAs was undertaken. In summary, the boroughs and districts are at various stages in preparing and assessing their Local Plans but of those where HRA information was available, none concluded a finding of likely significant

³⁸ Annual Monitoring Report published Feb 2022
<https://archive.welhat.gov.uk/AMR> (Table 11, p.28)

³⁹ ie within Digswell, Oaklands and Mardley Heath, Welwyn, Welwyn Garden City and Woolmer Green

effect/adverse effect on integrity on the Lee Valley SPA or Ramsar Site. Thames Water's forecasts include consideration of known/planned growth in all relevant local authorities and Thames Water has been liaising with a number of local authorities, including Welwyn Hatfield regarding water issues, therefore adverse effects on integrity should be avoided, including in-combination effects. Welwyn Hatfield Borough Council will continue to engage with Thames Water, neighbouring authorities and other relevant bodies to monitor the situation, as committed to in relation to Policy SP13 (see below).

6.53 Furthermore, the Welwyn Hatfield Local Plan (as proposed to be modified) includes numerous safeguards designed to ensure potential adverse effects on the integrity of the Lee Valley SPA/Ramsar site will be avoided. It is expected that other Boroughs will also meet their legal duty to avoid such effects, including through provision of appropriate protection policies and commitments to a phased approach, whereby new phases of development will not be permitted until it can be proven that sufficient water supply and treatment capacity exists. As a result, the Welwyn Hatfield Local Plan (as proposed to be modified) will not adversely affect the Lee Valley SPA or Ramsar site in-combination with other plans.

6.54 In light of the above, it is considered that the housing growth proposed within the Welwyn Hatfield Local Plan (as proposed to be modified) can be achieved without adverse effects on the integrity of the Lee Valley SPA and Ramsar site, either alone or in-combination with other plans and projects. This conclusion relies on the successful implementation of the policy safeguards embedded in the Welwyn Hatfield Local Plan (as proposed to be modified). In addition, it should be recognised that water quality and availability is subject to influences which cannot be predicted with a high level of accuracy, such as climate change and associated weather events and, as a result, Welwyn Hatfield Borough Council will need to review new information as it becomes available, including water cycle studies and Environment Agency monitoring reports, to ensure that the site specific development proposals and investment in infrastructure are sufficient to ensure that the integrity of the Lee Valley SPA and Ramsar site is not adversely affected in the future.

6.55 The Appropriate Assessment therefore concludes that the Welwyn Hatfield Local Plan as proposed to be modified would not have adverse effects on the integrity of the Lee Valley SPA and Ramsar site in relation to increased water quality and quantity, either alone or in-combination with other plans and projects.

Recommendation accepted by the Council

6.56 Notwithstanding the conclusion of the Appropriate Assessment, an early draft of the Welwyn Hatfield Proposed Submission Local Plan made no specific link between the capacity constraints at Rye Meads WwTW and the achievement of conservation objectives relating to the Lee Valley SPA/Ramsar site. The HRA recommended that this aspect of the Proposed Submission Local Plan could be strengthened to ensure protection for the European sites.

6.57 The Stevenage Borough Appropriate Assessment: Screening Opinion⁴⁰ recommended that the Stevenage Local Plan include the following supporting text:

"...The Council will continue to engage with Thames Water, local authorities within the Rye Meads catchment, the Environment Agency and Natural England to ensure the need for additional capacity is reflected in appropriate plans and strategies and delivered without causing harm to the European Site."

"...Our environmental appraisals recognise that it will be necessary to take a precautionary approach to avoid causing harm to the Lee Valley SPA, which surrounds the Rye Meads wastewater treatment works. Where it cannot be demonstrated that proposals can be accommodated within the limits of existing or planned wastewater infrastructure, Grampian conditions or other appropriate mechanisms will be used..."

6.58 The HRA recommended that the Welwyn Hatfield Local Plan should include similar wording in support of Policy SP13: Infrastructure Delivery, to emphasise the need for collaborative working with regard to Rye Meads WwTW in order to ensure that there are no adverse effects on the integrity of the Lee Valley SPA and Ramsar site. It was suggested that this would also help to ensure consistency with neighbouring districts and boroughs on a Duty to Cooperate issue.

6.59 This recommendation was accepted by the Council, and the Local Plan (as proposed to be modified) includes wording as suggested above. No further recommendations are made in this iteration of the HRA.

Wormley Hoddesdonpark Woods SAC

6.60 Likely significant effects on the SAC were not able to be ruled out at the screening stage in relation to increased air pollution and recreation pressures.

⁴⁰ Stevenage Borough Council (December 2015) Stevenage Borough Local Plan 2011-2031. Appropriate Assessment: Screening Opinion

Air pollution

6.61 Wormley Hoddesdonpark Woods SAC site is largely situated away from key commuting corridors, such as the A1 and its associated roads. However, a small area of the SAC is located within 200m of the A10. Increased air pollution has the potential to adversely affect the qualifying habitat, such as oak-hornbeam forests, as a result of increased deposition of nitrogen.

6.62 The majority of the proposed development in the Welwyn Hatfield Local Plan is located in the west of the Borough and is most likely to cause increased vehicle traffic on the A1 and nearby associated roads. It is less likely that there will be a significant increase in traffic along the A10. Although increases in traffic may be minimal, APIS data⁴¹ indicate that for the location in which the SAC is situated, critical loads for N deposition are exceeded for Acidophilous Quercus-dominated woodland.

6.63 The Highways Agency Design Manual for Road and Bridges (DMRB) Manual Document LA105: Air Quality⁴² (which was produced to provide advice regarding the design, assessment and operation of trunk roads (including motorways)) states that air pollution can lead to likely significant effects in areas within 200m from the road. Although, the SAC predominantly lies over 200m from the road with the majority of the SAC sitting between 0.5-2km from any major roads, a small area in the east of the SAC lies within 200m of the A10. There is therefore potential for adverse effects on integrity to occur as a result of increased vehicular traffic.

6.64 To test the impact of growth proposed in the Proposed Submission Local Plan (2016) on the highways network in and around the Borough to 2031, Welwyn Hatfield Council undertook extensive transport modelling research since 2010. The Highways Agency's 'Diamond Model' was used initially. This highlighted key strategic roads, such as A1(M), A roads and certain B roads that will be subject to increased traffic levels as a result of development proposed in the Proposed Submission Local Plan (2016). To further this work, a bespoke strategic model – the Welwyn Hatfield and Stevenage Hitchin (WHaSH) model – was used to provide more detailed testing. The transport modelling has identified key strategic roads and

areas along these roads that will be subject to increased traffic levels⁴³.

6.65 Strategic roads identified in the Proposed Submission Local Plan as key commuting corridors include the A1(M), which links the north to the south of the Borough and A414, which provides connections from the east to west. Other major A roads and heavily trafficked B roads were identified in areas connected to strategic growth locations, such as Welwyn Garden City and Hatfield. There was no evidence to suggest that the A10 will be significantly affected by increased vehicular use from growth in Welwyn Hatfield, as set out in the 2016 Proposed Submission Local Plan⁴⁴. Whilst it is assumed that commuting patterns will not change significantly given the additional proposed housing allocations, the potential for adverse effects has been considered in further detail.

6.66 The area of the SAC within 200m of the road is a very small area of trees that protrude along an access road, on the other side of a dwelling from the main block of woodland. This area lies approximately between 180m and 200m from the road. Whilst the 200m mark is generally considered to be the point at which concentrations of pollutants from vehicle traffic become so diluted that they cease to be significant, concentrations of pollution from road traffic at the site will be very low at 180m, as demonstrated in **Figure 6.1** below. Furthermore, the road is in a small cutting at this point and is bordered by vegetation, including trees. The roadside vegetation is likely to absorb and block some of the pollution generated by the traffic and the cutting is likely to reduce dispersal of air pollution. As such, it is considered that the concentration of air pollutants reaching the very small area of the SAC within 200m of the road is likely to be negligible. Due to these factors, any increase in traffic, including in combination with increases in traffic arising from other plans and programmes, on the A10 is unlikely to have adverse effects on integrity of the SAC due to dispersal of pollutants⁴⁵.

⁴¹ Air Pollution Information System <http://www.apis.ac.uk/>

⁴² Design Manual for Road and Bridges: LA105, Air Quality. Highways Agency (2019). <https://www.standardsforhighways.co.uk/dmrb/search/10191621-07df-44a3-892e-c1d5c7a28d90>

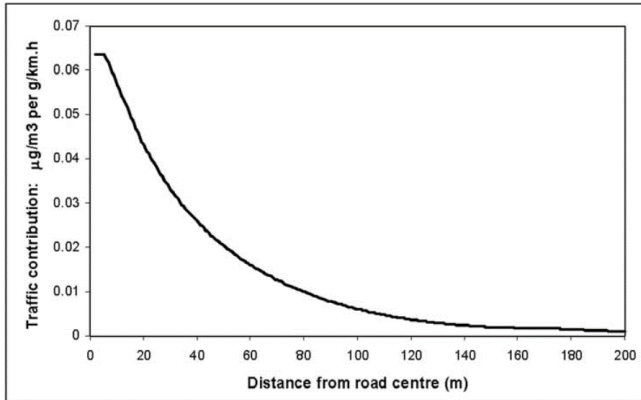
⁴³ AECOM (2012) Diamond Transport Modelling Work and Diamond Transport Modelling Scenarios Technical Note, https://welhat.gov.uk/media/12356/Diamond-Transport-Modelling-Work/pdf/INF_10_Diamond_Transport_Modelling_Work_2012.pdf?m=636310514137430000, [https://welhat.gov.uk/media/12355/Diamond-](https://welhat.gov.uk/media/12355/Diamond-Transport-Modelling-Scenarios-Technical-Note/pdf/INF_9_Diamond_Transport_Modelling_Scenarios_2012.pdf?m=636310515936530000)

[Transport-Modelling-Scenarios-Technical-Note/pdf/INF_9_Diamond_Transport_Modelling_Scenarios_2012.pdf?m=636310515936530000](https://welhat.gov.uk/media/12355/Diamond-Transport-Modelling-Scenarios-Technical-Note/pdf/INF_9_Diamond_Transport_Modelling_Scenarios_2012.pdf?m=636310515936530000)

⁴⁴ Ibid

⁴⁵ It is noted that the HRA of the now adopted East Hertfordshire District Plan also recognised that only around 0.01% of the SAC is within 200m of the A10 and that this consists mainly of a track/path/arable field boundary and therefore likely significant effects were screened out with regards to air pollution. This conclusion was accepted by Natural England.

Figure 6.1: Traffic Contribution to Pollutant Concentration at Different Distances from the Road Centre⁴⁶



6.67 Nevertheless, the Council has undertaken initial studies to identify possible mitigation measures and the broad costs of these measures.

6.68 Policies within the Local Plan as proposed to be modified that will provide mitigation include SADM3: Sustainable Travel for All, which ensures development proposals make provision for alternative modes of transport within their design. This includes provision for cyclist and pedestrian networks, as well as provision for public and community transport. Alongside this, policy SADM 18: Environmental Pollution ensures air quality is kept to an acceptable standard and that any proposal likely to result in unacceptable levels of air pollution that will affect the natural environment will be refused.

6.69 Given the above, no adverse effect on the integrity of Wormley Hoddesdonpark Woods SAC is predicted as a result of air pollution when considering the plan on its own or in combination with other plans.

6.70 The Appropriate Assessment concludes that the Welwyn Hatfield Local Plan as proposed to be modified would not have adverse effects on the integrity of Wormley Hoddesdonpark Woods SAC in relation to increased air pollution, either alone or in-combination with other plans and projects.

Recreational pressure

6.71 Recreational pressure has been identified at a key threat in Natural England's Site Improvement Plan to the qualifying features of Wormley Hoddesdonpark Woods SAC.

6.72 Wormley Hoddesdonpark Woods SAC site is situated on the boundary of Welwyn Hatfield Borough, primarily within

East Herts and Broxbourne districts. The site has extensive public access and is subject to high levels of recreational use from large urban centres in the surrounding area. If visitor numbers continue to rise, there is concern that adverse effects on the integrity of the European site will occur. Activities such as mountain biking and horse riding are a particular threat to the SAC through erosion and trampling of woodland habitats.

6.73 The SAC is situated on the boundary of the Welwyn Hatfield Borough and is approximately 7-10km away from proposed strategic housing and mixed use development, and 5-12km from proposed development in excluded villages with the exception of Cuffley. It is unlikely that the proposed development located more than 7km away from the SAC will result in significant additional recreational pressure on the SAC, as alternative recreational sites, including woodland, closer to the proposed growth are likely to be the preferred option, such as Ellenbrook Country Park, Millward's Park, Sherrardspark Wood, and slightly further afield Northaw Great Wood Country Park and Well Wood.

6.74 The SAC is situated approximately 1.2km away from the nearest development allocation in the Welwyn Hatfield Local Plan as proposed to be modified at the closest point (site Cuf1 in Cuffley). The remaining proposed development in Cuffley is within 3km of the SAC, which is therefore likely to be subject to increased levels of recreation from Welwyn Hatfield. To mitigate for impacts from recreation, Natural England's Site Improvement Plan notes that the SAC already has sensitively managed access points and routes, which has been found to be largely successful. The Site Improvement Plan does, however, recommend a monitoring scheme for sensitive features is undertaken to ensure increasing numbers of visitors and the types of recreation can be managed.

6.75 Whilst the proposed development of around 335 houses at Cuffley, within 3km of the SAC, has the potential to result in increased visitor pressure on the SAC, Cuffley is well connected to the wider countryside giving a range of alternative opportunities for recreation in the surrounding area, including Northaw Great Wood Country Park, which abuts Cuffley to the west. Northaw Great Wood offers a similar visitor experience of woodland walks, with Northaw Great Wood being closer to Cuffley. In addition, there are toilet facilities at Northaw Great Wood, which may make it a more popular choice for visits than the SAC.

6.76 To ensure residual impacts caused by growth arising from the Local Plan are mitigated, the Local Plan as proposed to be modified includes policies to safeguard and enhance green infrastructure within the Borough, as well as the

⁴⁶ Figure C1 from Design Manual for Roads and Bridges (May 2007) Volume 11 Environmental Assessment, Section 3 Environmental Assessment Techniques. Part 1 HA207/7 Air Quality

protection of European sites. Welwyn Hatfield Borough Council has produced the Welwyn Hatfield Green Infrastructure Plan, which identifies opportunities for the creation of new green infrastructure and areas for enhancement. The study noted a range of existing green infrastructure in the Borough, including greenway routes on disused railway lines; Heartwood Forest, Ellenbrook Fields and Watling Chase Community Forest. Although the Borough is rich in green infrastructure, key issues include fragmentation of green infrastructure by the A1 (M) and A414, and the railway line to the east of Cuffley; lack of access to free natural/semi-natural greenspace in Hatfield; and lack of amenity green space within 400m of some excluded villages. The study highlights the need to improve connectivity between Welwyn Garden City and Hatfield to the wider countryside and green infrastructure assets; provision of green infrastructure with new development; and enhancement of path and cycle access.

6.77 The opportunities identified in the Welwyn Hatfield Green Infrastructure Plan and green infrastructure proposals will be delivered through the following proposals set out by policy SP12: Green Infrastructure:

- Implementation of the Hertfordshire Rights of Way Improvement Plan.
- Improvements to the River Mimram and Lea corridors.
- Greening of the urban environment in Welwyn Garden City and Hatfield.
- Implementation of the Welwyn Hatfield Green Corridor.

6.78 These proposals will ensure growth from development proposals will provide sufficient access to alternative green spaces. This, in combination with policies SP9: Place Making and High Quality Design, SP10: Sustainable Construction and Design and SADM11: Amenity and Layout will ensure that new housing development will need to provide accessible high quality green space for local residents, as well as SADM17: Urban Open Land which promotes the provision of urban open land and thus has the potential to offset recreational impacts. SADM 16: Ecology and Landscape which ensures the protection of biodiversity and prevention of damage/loss to European sites, is likely to provide appropriate mitigation of recreational impacts on the SAC by providing a range of alternative options. The Strategic Development Site policies SP17: Mixed Use Development Site at Broadwater Road West, SP18: North East of Welwyn Garden City, SP19: South East of Welwyn Garden City, and SP22: North West Hatfield, all require open space to be incorporated into the development proposals, as do a number of site-specific

considerations set out for proposed smaller housing sites around the excluded villages.

6.79 Alongside this, Natural England's Site Improvement Plan notes that the SAC is actively managed in areas with access to the public. This has included sensitive management of access points and routes, which has already proven to have successfully mitigated for the adverse effects of recreational pressure.

6.80 Given the distance of most of the proposed development and the mitigation provided through green infrastructure, in combination with management of the SAC, no adverse effect on the integrity of Wormley Hoddesdonpark Woods SAC is predicted as a result of recreational pressures when considering the plan on its own.

6.81 East Herts District and Broxbourne Borough contain the majority of the SAC. East Herts District adopted its current Local Plan in October 2018 and Broxbourne Borough in 2020. The HRAs of these plans, along with other relevant plans, conclude that they will not result in likely significant effects on the SAC, due to the existing management practices and relevant management plans. Wormley Wood, which is the closest part of the SAC, lying partly within Welwyn Hatfield, is managed by the Woodland Trust, which has published a management plan for 2017-2022⁴⁷. Whilst not necessary to avoiding likely significant effects or adverse effects on integrity, the HRAs for East Herts and Broxbourne acknowledged that it would be appropriate for the Councils to contribute to the measures set out in the Site Improvement Plan regarding visitor pressure. The same applies to Welwyn Hatfield Borough Council.

6.82 The proportion that the Welwyn Hatfield Local Plan (as proposed to be modified) contributes to increased recreational pressures at Wormley Hoddesdonpark Woods SAC is likely to be low and in-combination with the existing and planned management of visitors at the site would be unlikely to result in adverse effects on integrity in-combination with neighbouring plans.

6.83 **The Appropriate Assessment concludes that the Welwyn Hatfield Local Plan as proposed to be modified would not have adverse effects on the integrity of Wormley Hoddesdonpark Woods SAC in relation to increased recreational pressure, either alone or in-combination with other plans and projects.**

⁴⁷ Woodland Trust, Wormley Wood & Nut Wood Management Plan 2017-2022, available at:

<https://www.woodlandtrust.org.uk/media/45480/4067-wormley-wood-and-nut-wood.pdf>, accessed 14/11/2019

Chapter 7

Conclusions

7.1 The HRA of the Welwyn Hatfield Local Plan as proposed to be modified has been undertaken in accordance with currently available guidance and is based on a precautionary approach, as required under the Habitats Regulations. The findings of the screening stage are summarised in **Chapter 4** of this report and the justification for these is explained in more detail in **Appendix B**. The findings of the Appropriate Assessment stage of the HRA are presented in **Chapter 5**.

7.2 The screening assessment identified a number of policies including development strategies relating to Welwyn, Hatfield and the excluded villages, which may result in a likely significant effect on one or more European sites. Potential likely significant effects were identified in relation to the following types of impacts:

- Air pollution.
- Impacts of recreation.
- Water quantity and quality.

7.3 These issues were considered further during the Appropriate Assessment. The Appropriate Assessment concluded that adverse effects on the integrity of any of the European sites were able to be ruled out in relation to air pollution, recreational pressure and water quality and quantity.

7.4 The potential for in-combination effects from the Welwyn Hatfield Local Plan (as proposed to be modified) with surrounding districts' development plans was also considered. In-combination likely significant effects were ruled out for many potential effects in the screening assessment, and the Appropriate Assessment concluded that there would be no adverse effects on the integrity of European sites in-combination with other plans.

7.5 While this HRA has concluded that there will be no adverse effects on the integrity of any European sites, the issues relating to the capacity of Rye Meads WwTW and its relationship with Lee Valley SPA and Ramsar site need to be planned carefully and monitored, particularly for future development beyond the plan period or if other local authorities in the catchment propose to deliver more development than currently planned. Rye Meads WwTW serves development in a number of boroughs and districts, including the northern part of Welwyn Hatfield. In order to ensure a consistent and co-ordinated approach, the HRA of the Proposed Submission Local Plan (2016) recommended additional wording to be included in the Welwyn Hatfield Local

Plan to provide additional safeguards in support of Policy SP13: Infrastructure Delivery. This recommendation was accepted by Welwyn Hatfield Borough Council at the time, and suitable wording was inserted into the Proposed Submission Local Plan, and remains in the Local Plan as proposed to be modified. As a result, there are no outstanding recommendations arising from the HRA.

7.6 This HRA Report will be sent to Natural England for consultation, as the statutory nature conservation body. It will also be made publicly available as part of the consultation on the proposed Main Modifications.

LUC
December 2022

Appendix A

Attributes of European Sites within 10km of Welwyn Hatfield Borough

Appendix A
 Attributes of European Sites within 10km of Welwyn Hatfield Borough

Welwyn Hatfield Local Plan Main Modification
 December 2022

Table A.1: Attributes of European Sites within 10km of Welwyn Hatfield Borough

European site	Area (ha)	Location	Qualifying features	Key vulnerabilities and environmental conditions to support site integrity
Epping Forest SAC	1,630.74	A large site situated approximately 8.5 km south-east of the Borough.	<p>H4010 Northern Atlantic wet heaths with <i>Erica tetralix</i></p> <p>H4030 European dry heaths</p> <p>H9120 Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrublayer (<i>Quercion roburipetraeae</i> or <i>Illici-Fagenion</i>)</p> <p>S1083 <i>Lucanus cervus</i>: Stag beetle</p>	<p>Threats identified within the Site Improvement Plan (SIP) include changes in species distribution, inappropriate water levels, water pollution, invasive species and disease.</p> <p>Pressures identified within the SIP include, air pollution, undergrazing and public access/disturbance, while invasive species are identified as both a pressure and a threat.</p> <p>To address air pollution, the establishment of a Site Nitrogen Action Plan is proposed.</p> <p>To address undergrazing a partnership agreement to ensure sufficient resources for appropriate grazing is proposed.</p> <p>To address inappropriate water levels, hydrological monitoring, and a possible water level management plan is proposed.</p> <p>The remaining threats and pressures should be addressed through appropriate investigation, the agreement of actions and the implementation of a suitable management plan.</p>

Appendix A
Attributes of European Sites within 10km of Welwyn Hatfield Borough

Welwyn Hatfield Local Plan Main Modification
December 2022

European site	Area (ha)	Location	Qualifying features	Key vulnerabilities and environmental conditions to support site integrity
Lee Valley SPA	447.87	A fragmented site situated approximately 5.5 km south-east of the Borough	A021(NB) <i>Botaurus stellaris</i> : Bittern A051(NB) <i>Anas strepera</i> : Gadwall A056(NB) <i>Anas clypeata</i> : Northern shoveler	<p>Threats identified within the SIP include water pollution, hydrological changes, public access/disturbance, inappropriate scrub control, fish stocking, invasive species, inappropriate cutting/mowing and air pollution.</p> <p>It is proposed to address inappropriate scrub control through scrub management to maintain/restore habitat.</p> <p>It is proposed to address inappropriate cutting/mowing through the management of reed beds for bitterns.</p> <p>The remaining threats should be addressed through appropriate investigation, the agreement of actions and the implementation of a suitable management plan.</p>
Lee Valley Ramsar site	447.87	A fragmented site situated approximately 5.5 km south-east of the Borough	<p>Criterion 2:</p> <p>The site supports the nationally scarce plant species whorled water-milfoil <i>Myriophyllum verticillatum</i> and the rare or vulnerable invertebrate <i>Micronecta minutissima</i> (a water-boatman)</p>	No threats recorded.

Appendix A
 Attributes of European Sites within 10km of Welwyn Hatfield Borough

Welwyn Hatfield Local Plan Main Modification
 December 2022

European site	Area (ha)	Location	Qualifying features	Key vulnerabilities and environmental conditions to support site integrity
			Criterion 6: Species/populations occurring at levels of international importance. Species include Northern shoveler <i>Anas clypeata</i> with peak counts in spring/summer and Gadwall <i>Anas strepera</i> with peak counts in winter.	
Wormley Hoddesdonpark SAC	336.47	A small site situated approximately 0.75 km south-east of the Borough, due south of Hoddesdon.	H9160 Sub-Atlantic and medio-European oak or oak-hornbeam forests of the <i>Carpinion betuli</i>	<p>Threats identified within the SIP include disease, invasive species, air pollution, deer, forestry and woodland management and public access/disturbance.</p> <p>Pressures identified within the SIP include illicit vehicles.</p> <p>It is proposed to address the threat of forestry management through the promotion of the Countryside Stewardship Scheme woodland management options for units requiring active management.</p> <p>The remaining threats and pressures should be addressed through appropriate investigation/survey, notifying the relevant owners and, if required, the implementation of a suitable management plan.</p>

Appendix B

HRA Screening of the Welwyn Hatfield Local Plan (as Proposed to be Modified)

Appendix B
HRA Screening of the Welwyn Hatfield Local Plan (as Proposed to be Modified)

Welwyn Hatfield Local Plan Main Modification

Table B.1: HRA Screening of the Welwyn Hatfield Local Plan (as proposed to be modified)

To help navigate through the matrix, conclusions are colour coded: green where no likely significant effects are identified, orange where likely significant effects are uncertain, and red where there are likely significant effects.

Local Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected
SP1: Delivering Sustainable Development	None – the policy sets out principles in favour of sustainable development but will not itself directly result in development.	N/A	N/A
SP2: Targets for Growth	<p>Development of around 286.8 hectares of employment land.</p> <p>Development of 9,209 dwellings between 2023/24 and 2032/33 and 13,392 dwellings over the plan period 2016-36.</p> <p>Development of 12,500 square metres new retail floor space.</p> <p>Increase in traffic.</p> <p>Increase in recreation activities.</p> <p>Increase in demand for water abstraction and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity. Analysis of aerial photography suggests none of the proposed allocated sites include suitable habitat for SPA/Ramsar species.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>
SP3: Settlement Strategy and Green Belt Boundaries	<p>Housing development.</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase in demand for water abstraction and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity.</p>

Appendix B
HRA Screening of the Welwyn Hatfield Local Plan (as Proposed to be Modified)

Welwyn Hatfield Local Plan Main Modification

Local Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected
			Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.
SADM1: Windfall Development	Housing development on unallocated sites. Increase in vehicle use. Increase in recreational activities. Increase in demand for water abstraction and treatment.	Increased air pollution. Disturbance from recreation. Increased water pollution and change in water quantity.	Epping Forest SAC could be affected by increased disturbance from recreational pressure. Lee Valley SPA and Ramsar site could be affected air pollution, recreational disturbance, water pollution and change in water quantity. Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.
SP4: Transport and Travel	Development of transport infrastructure. Increase in vehicle use.	Increased air pollution.	Lee Valley SPA and Ramsar and Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use.
SADM2: Highway Network and Safety	None – the policy itself will not result in development but will manage the growth of movement caused by increased development within the Borough.	N/A	N/A
SADM3: Sustainable Travel for All	None – the policy itself will not result in development.	N/A	N/A

Appendix B
HRA Screening of the Welwyn Hatfield Local Plan (as Proposed to be Modified)

Welwyn Hatfield Local Plan Main Modification

Local Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected
SP5: Quantity and Location of Retail Development	Retail development. Increase in vehicle traffic.	No effect as the policy promotes the development within town centres away from the European sites. The policy is unlikely to increase the number of people visiting the Borough.	N/A
SADM4: Development in Designated Centres	Retail development. Increase in vehicle traffic	No effect as the policy promotes the development within town centres away from the European sites where existing sustainable infrastructure is present.	N/A
SADM5: Development Outside Designated Centres	None - the policy itself will not result in development.	N/A	N/A
SADM6: Shopfronts, Adverts and Signage	None - the policy itself will not result in development.	N/A	N/A
SP6: Community Services and Facilities	None - the policy itself will not result in development but provides guidance for community services and facilities.	N/A	N/A
SADM7: New Community Services and Facilities and Losses of Community Services and Facilities	None – the policy itself will not result directly in development but sets out criteria for development proposals that will result in the loss of community services and facilities.	N/A	N/A
SADM8: Cemetery Extension at Southway Hatfield CEM01	Community services and facilities development. Increase in vehicle use.	Increased air pollution.	Lee Valley SPA and Ramsar and Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use.

Appendix B
HRA Screening of the Welwyn Hatfield Local Plan (as Proposed to be Modified)

Welwyn Hatfield Local Plan Main Modification

Local Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected
SP7: Type and Mix of Housing	None – The policy itself will not result directly in development but sets out criteria for the type and mix of housing.	N/A	N/A
SADM9: Loss of Residential	None – the policy sets out criteria for assessing the loss of residential development but will not itself directly result in development.	N/A	N/A
SP8: Local Economy	Employment development. Increase in vehicle use. Increase in water abstraction and treatment.	Increased air pollution. Increased water pollution and change in water quantity.	Lee Valley SPA and Ramsar site could be affected air pollution, water pollution and change in water quantity. Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use.
SADM10: Employment Development	Employment development. Mixed use development. Increase in vehicle use. Increase in water abstraction and treatment.	Increased air pollution. Increased water pollution and change in water quantity.	Lee Valley SPA and Ramsar site could be affected by air pollution, water pollution and change in water quantity. Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use.
SP9: Place Making and High Quality Design	None – the policy itself will not result in development.	N/A	N/A
SADM11: Amenity and Layout	None - the policy itself will not result in development but sets out criteria to ensure the creation and protection of amenity for buildings and open space.	N/A	N/A

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Welwyn Hatfield Local Plan Main Modification

Local Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected
SADM12: Parking, Servicing and Refuse	None – the policy itself will not result in development.	N/A	N/A
SP10: Sustainable Design and Construction	None – the policy itself will not result in development.	N/A	N/A
SADM13: Sustainability Requirements	None – the policy itself will not result in development but sets criteria for sustainable development.	N/A	N/A
SADM14: Flood Risk and Surface Water Management	None – the policy itself will not result in development.	N/A	N/A
SP11: Protection and Enhancement of Critical Environmental Assets	None – this policy itself will not result in development.	N/A	N/A
SADM15: Heritage	None – this policy itself will not result in development.	N/A	N/A
SADM16: Ecology and Landscape	None – this policy itself will not result in development.	N/A	N/A
SADM17: Urban Open Land	None – this policy itself will not result in development.	N/A	N/A
SADM18: Environmental Pollution	None – this policy itself will not result in development.	N/A	N/A
SP12: Green Infrastructure	None – this policy itself will not result in development.	No effect. This policy could provide mitigation for other Local Plan policies in relation to	N/A

Appendix B
HRA Screening of the Welwyn Hatfield Local Plan (as Proposed to be Modified)

Welwyn Hatfield Local Plan Main Modification

Local Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected
		increased recreational pressure on European sites by providing closer, alternative sites.	
SP13: Infrastructure Delivery	None – this policy itself will not result in development.	N/A	N/A
SP14: New Schools	Development of three secondary schools and at least two primary schools. Increase in vehicle use. Increase in water abstraction and treatment.	Increased air pollution. Increased water pollution and change in water quantity.	Lee Valley SPA and Ramsar site could be affected by air pollution, water pollution and change in water quantity. Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use.
SP15: The Historic Environment of Welwyn Garden City	None – this policy itself will not result in development.	N/A	N/A
SP16: Welwyn Garden City Town Centre Strategy	Retail development Increase in vehicle use.	No effect as the policy promotes the development within town centres away from the European sites.	N/A
SADM19: Town Centre North Development Site MUS1 (Han40)	Mixed use development. Development of 100 new homes. Increase in vehicle use. Increased recreation. Increase in water abstraction and treatment.	Increased air pollution. Increased disturbance from recreational activities. Increased water pollution and change in water quantity.	Epping Forest SAC could be affected by increased disturbance from recreational pressure. Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity. Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.

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HRA Screening of the Welwyn Hatfield Local Plan (as Proposed to be Modified)

Welwyn Hatfield Local Plan Main Modification

Local Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected
SADM20: Acceptable Uses Outside the Primary Retail Core (The Campus, Parkway and Church Road)	None – this policy itself will not result in development.	N/A	N/A
SADM21: Housing allocations in Welwyn Garden City	<p>Development of 3,335 homes at three strategic sites and 880 additional homes at other key sites .</p> <p>Development of 8,250 sqm office space as part of a mixed use site.</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase water demand and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity. Analysis of aerial photography suggests none of the proposed allocated sites include suitable habitat for SPA/Ramsar species.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>
SP17: Mixed Use Development Site at Broadwater Road West (SDS3 and SDS4)	<p>Mixed use development (including 1,863 new homes).</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase water demand and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>

Appendix B
HRA Screening of the Welwyn Hatfield Local Plan (as Proposed to be Modified)

Welwyn Hatfield Local Plan Main Modification

Local Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected
SP18: North East of Welwyn Garden City (SDS1)	<p>Development of 870 new homes.</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase water demand and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>
SP19: South East of Welwyn Garden City (SDS2)	<p>Development of 600 new homes in Welwyn Hatfield (a total of 1,950 including 1,350 in East Herts District).</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase water demand and treatment,</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity. Analysis of aerial photography suggests none of the proposed allocated sites include suitable habitat for SPA/Ramsar species.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>
SP20: Hatfield Town Centre Strategy	Mixed use development.	No effect as this policy is unlikely to result in significant levels of development beyond the town centre.	N/A

Appendix B
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Welwyn Hatfield Local Plan Main Modification

Local Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected
SADM22: Development within Hatfield Town Centre Core Retail Zone	<p>Mixed use development.</p> <p>Development of 66 homes.</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase in water demand and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quality.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>
SADM23: Acceptable Uses Outside the Core Retail Zone (The Common and Queensway Opportunity Areas)	None – the policy itself does not directly result in development.	N/A	N/A
SADM24: Acceptable Uses Outside the Core Retail Zone (Lemsford Road Opportunity Area)	None – the policy itself does not directly result in development.	N/A	N/A
SADM25: High View Neighbourhood Shopping Centre (MUS3)	<p>Mixed use development, including 146 dwellings.</p> <p>Increase in vehicle use.</p> <p>Increase water demand and treatment.</p>	<p>Increased air pollution.</p> <p>Increased water pollution and change in water quality.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>

Appendix B
HRA Screening of the Welwyn Hatfield Local Plan (as Proposed to be Modified)

Welwyn Hatfield Local Plan Main Modification

Local Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected
SP21: University of Hertfordshire	Development relating to the University.	No effect as any development relating to the policy will be a significant distance from any European site and will be small-scale within the campus of the University.	N/A
SADM26: New Dwellings in Hatfield	<p>Mixed use development (including 1,750 new dwellings at North West Hatfield and 855 new dwellings elsewhere in Hatfield and a new primary school).</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase water demand and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>
SP22: North West Hatfield (SDS5)	<p>Development of 1,750 new homes.</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase water demand and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>

Appendix B
HRA Screening of the Welwyn Hatfield Local Plan (as Proposed to be Modified)

Welwyn Hatfield Local Plan Main Modification

Local Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected
SADM27: Woolmer Green	<p>Development of 184 new homes (260 including completions and commitments).</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase water demand and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>
SADM28: Oaklands and Mardley Heath	<p>Development of 50 new homes.</p> <p>Six pitch extension to Gypsy and Traveller site.</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase water demand and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>
SADM29: Welwyn	<p>Development of 69 new homes.</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase water demand and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational</p>

Appendix B
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Welwyn Hatfield Local Plan Main Modification

Local Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected
			<p>disturbance, water pollution and change in water quantity.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>
SADM30: Welham Green	<p>Development of 304 new homes.</p> <p>Development of 40,500 sqm of employment floorspace.</p> <p>Development of Gypsy and Traveller site (12 pitches).</p> <p>Development of a new primary school.</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase water demand and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>
SP23: Marshmoor Policy Area (SDS7 and wider area)	<p>Mixed use development comprising 40,500sqm of Class E(g) employment floorspace and 100 dwellings.</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase water demand and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>

Appendix B
HRA Screening of the Welwyn Hatfield Local Plan (as Proposed to be Modified)

Welwyn Hatfield Local Plan Main Modification

Local Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected
SADM31: Bell Bar and Brookmans Park	<p>Development of 428 new dwellings.</p> <p>Two form entry primary school</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase water demand and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>
SADM32: Little Heath	<p>Development of 63 new homes.</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase water demand and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity.</p> <p>Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.</p>
SADM33: Cuffley	<p>Development of 335 new homes.</p> <p>Increase in vehicle use.</p> <p>Increase in recreational activities.</p> <p>Increase water demand and treatment.</p>	<p>Increased air pollution.</p> <p>Disturbance from recreation.</p> <p>Increased water pollution and change in water quantity.</p>	<p>Epping Forest SAC could be affected by increased disturbance from recreational pressure.</p> <p>Lee Valley SPA and Ramsar site could be affected by air pollution, recreational</p>

Appendix B
HRA Screening of the Welwyn Hatfield Local Plan (as Proposed to be Modified)

Welwyn Hatfield Local Plan Main Modification

Local Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected
			disturbance, water pollution and change in water quantity. Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.
SP25: Rural Development	Rural development.	No effects as the policy promotes small-scale infill development and re-use of existing buildings. Alongside mitigation provided by other policies within the local plan it is unlikely that there will be likely significant effects on European Sites.	N/A
SADM34: Development Within the Green Belt	None – this policy itself will not result in development but sets out criteria for development within the Green Belt.	N/A	N/A
SADM35: Site allocations with the Rural Areas	Provision for four Gypsy and Traveller pitches. Increase in vehicle use. Increase in recreational activities. Increase water demand and treatment.	Increased air pollution. Disturbance from recreation. Increased water pollution and change in water quantity.	Epping Forest SAC could be affected by increased disturbance from recreational pressure. Lee Valley SPA and Ramsar site could be affected by air pollution, recreational disturbance, water pollution and change in water quantity. Wormley Hoddesdonpark Woods SAC could be affected by air pollution from increased vehicle use and damage from increased levels of recreational disturbance.

Appendix B
HRA Screening of the Welwyn Hatfield Local Plan (as Proposed to be Modified)

Welwyn Hatfield Local Plan Main Modification

Local Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected
SP26: Neighbourhood planning	None – this policy itself will not result in development.	N/A	N/A

Appendix B
HRA Screening of the Welwyn Hatfield Local Plan (as Proposed to be
Modified)

Welwyn Hatfield Local Plan Main Modification

Appendix C

Previous Assessments and Consultation Comments on Water Issues

Key consultation responses in relation to water issues

Stage 1 HRA Report for the Welwyn Hatfield Local Development Framework (2010)

C.1 Key consultation responses received in relation to the Stage 1 HRA Report for the Welwyn Hatfield Local Development Framework (2010) are outlined below.

Relevant consultation responses to Stage 1 HRA Report for the Welwyn Hatfield Local Development Framework (2010)

Natural England

With regard to water resources, we would suggest that the most effective means of avoiding any such impacts would be to monitor the per capita water consumption (which is recorded by the water supply companies) and to introduce a clause into the relevant housing policy, such that the each successive tranche of new development would only be permitted to take place if the water efficiency savings laid out in the RSS Review policy WAT2 were being achieved. The assumption that the growth in the number of households requiring water can be offset by the predicted water efficiency savings also underpinned the Water Cycle Study for the Rye Meads catchment area.

Such an approach may also assist in addressing some of the water resources and flood risk issues by limiting any increase in the volume of wastewater requiring treatment, although it would not of course result in any reduction in the total nutrient load.

Hertfordshire Biological Records Centre

The HRA is considered to be reasonable and sound. The standard approach has been followed and this has resulted in the conclusions as outlined.

The plan will not directly impact on any European Site as none are wholly or partly within Welwyn Hatfield, apart from tiny fragments of Broxbourne Woods SAC. However generic examples of development impacts with the potential to combine with the effects of nearby plans

or projects include; increased water abstraction due to increased usage for domestic water supply; and increased water pollution due to increased effluent discharges from sewage treatment works or from contaminated surface run-off.

Given the extent of housing growth proposed in surrounding boroughs, however, the marginal impact of Welwyn Hatfield's Core Strategy alone may be elevated to significant levels in combination with other plans (8.5).

For each of the three European sites, mitigation is likely to be feasible to avoid potential impacts, however, given the current policy wording in certain places uncertainty still remains as to the likely effectiveness of Mitigation (8.6). Before a conclusion of no significant effect may be reached we suggest that the potential issues arising are discussed with Natural England and the Environment Agency.

There do not appear to be any reasons to dispute these conclusions. However further recommendations are given to ensure that broader issues, additional information and subsequent development plan documents maintain this position (8.6).

HRA Report for the Welwyn Hatfield Emerging Core Strategy 2012

C.2 Key consultation responses received from Natural England and the Environment Agency in relation to the HRA Report for the Emerging Core Strategy 2012 are provided below.

Consultation responses in relation to water issues for the HRA Report of the Welwyn Hatfield Emerging Core Strategy (2012)

Natural England

Natural England supports the HRA of the Emerging Core Strategy and considers the proposed safeguards as discussed below will be sufficient to minimise any adverse impacts that may arise as a result of the plan's proposals.

Natural England acknowledges that the HRA has concluded that the potential impacts from the plan are unlikely to lead to significant effects on the European sites which were considered within 10km of the Welwyn Hatfield boundary. However there is concern that the in combination effect with other plans from nearby boroughs may prove to be significant.

Concurs with the recommendations for mitigating measures which will help to reduce the impact that the development proposed within the emerging core strategy may have on the European sites which are summarised as follows; Ensuring that Appropriate Assessment (HRA) on subsequent development plans is carried out; the need for water efficiency to be more fully reflected in the Emerging Core strategy;

Natural England also agrees with the additional measures that the report suggests should be built into the Emerging Core Strategy. These include the monitoring of water efficiency/ resources to ensure there are no adverse impacts on the Lee Valley SPA/ Ramsar.

Environment Agency

With regard to the pressure of abstraction on the [European] sites, we have undertaken an exercise to review all legal abstraction permissions that we are responsible for. This was to ascertain whether these permissions could be considered either individually and/or in combination to effect sites identified under the Habitats Directive Regulations. Natural England have signed-off these reports indicating that no further investigation work is required on these existing licence permissions. All new abstraction proposals are screened for their potential impact on these designated sites.

Summary of the 2012 HRA of Emerging Core Strategy

Water quality

C.3 The 2012 HRA drew attention to the Rye Mead Water Cycle Study (WCS)⁴⁸ which concluded that:

"Initial calculations have suggested that Rye Meads WwTW should be able to operate within its existing volumetric discharge consent limit past 2021. However, upgrades will be needed in this period to increase the existing treatment capacity of the works, to ensure the required chemical and biological standards of the discharge effluent are met. These upgrades, with appropriate measures, can be implemented without significantly impacting the adjacent Rye Meads nature reserve and the Lee Valley Special Protection Area.

The requirement for an increased volumetric discharge consent at Rye Meads WwTW post 2021 will be dependent on the development that actually occurs within the catchment. Local Authorities such as Stevenage, East Herts and Welwyn Hatfield can reduce

⁴⁸ Hyder Consulting (2009). Stevenage Borough Council: Rye Meads Water Cycle Study Strategy – Detailed Study

the risk of this by developing outside of the catchment where possible.”

C.4 This conclusion was based on the following assumptions for housing growth in the WCS:

- Distribution of future development [the WCS was carried out pre-strategic allocations in the Emerging Core Strategy]:
- Probable scenario – 50% of planned development will be delivered around Welwyn Garden City (and hence be treated by Rye Meads WwTW).
- Worst case/conservative scenario – 80% of planned development will be delivered in Welwyn Garden City and hence be treated at Rye Meads.
- 2007 dwellings statistic used for potable water supply calculations which was 44,061 (24,985 of which are approximately within the Rye Meads WwTW catchment area).
- Housing allocation and trajectories from the East of England Regional Spatial Strategy (as of 2007) were used to predict water demand. This allocation was for 10,000 homes to be built in Welwyn Hatfield between 2007 and 2021.
- A range of detailed assumptions were used relating to water efficiency and occupancy rates of houses.

C.5 The 2012 HRA identified the following questions as being of key importance in determining adverse effects as a result of over-loading of Rye Meads WwTW:

- Are the assumptions used in the Rye Meads WCS appropriate to the housing allocations in the Emerging Core Strategy?
- What proportion of housing growth is proposed within the Rye Meads WwTW catchment area?
- If upgrade works are required to avoid impacts, how feasible and likely to occur are they?

C.6 The 2012 reported that the allocation for 6,800 homes between 2011 and 2029 in Welwyn Hatfield (Policy CS 2: Meeting the Needs for Growth) is lower than the assumption used to calculate capacity of Rye Meads WwTW in the WCS. In addition, the assumption for housing growth used to calculate capacity at Rye Meads WwTW assumes that 10,000 homes will be delivered by 2021, whereas a significantly lower Emerging Core Strategy housing allocation is intended for 2029. In this respect, the WCS prediction may be regarded as a conservative assessment of sewerage capacity. However, it is also necessary to check whether the assumptions for other

local authority areas discharging into Rye Meads WwTW are realistic to be confident in this assessment.

C.7 On the second issue; the 2012 HRA report explained that the Rye Meads WwTW receives wastewater from the settlements of Digswell, Oaklands & Mardley Heath, Welwyn, Woolmer Green and the majority of Welwyn Garden City. Together these settlements accounted for 3,515 (51%) of the total housing allocation for the Borough within the Emerging Core Strategy, which is in line with the probable scenario considered in the WCS.

C.8 Referring to the third issue, the 2012 HRA confirmed that the Rye Meads WCS indicates that upgrades to Rye Meads WwTW to meet additional capacity generated by additional development is feasible. However, it will be critical that funding is made available by Ofwat to achieve the required upgrade work.

Water Quality

C.9 The 2012 HRA drew attention to the JNCC standard data form for The Lee Valley SPA which states that problems associated with over-extraction of surface water for public supply, particularly during periods of drought, will be addressed through the Environment Agency review of consents procedures.

C.10 Indeed, the Environment Agency confirmed in a consultation response that:

“With regard to the pressure of abstraction on the [European] sites, we have undertaken an exercise to review all legal abstraction permissions that we are responsible for. This was to ascertain whether these permissions could be considered either individually and/or in combination to effect sites identified under the Habitats Directive Regulations. Natural England have signed-off these reports indicating that no further investigation work is required on these existing licence permissions. All new abstraction proposals are screened for their potential impact on these designated sites.”

C.11 Natural England’s consultation response stated:

“We would suggest that the most effective means of avoiding any such [water quantity] impacts would be to monitor the per capita water consumption (which is recorded by the water supply companies) and to introduce a clause into the relevant housing policy, such that the each successive tranche of new development would only be permitted to take place if the water efficiency savings laid out in the RSS Review policy WAT2 were being achieved. The assumption that the growth in the number of households requiring water can be offset by the predicted water efficiency savings also

underpinned the Water Cycle Study for the Rye Meads catchment area. Such an approach may also assist in addressing some of the water resources and flood risk issues by limiting any increase in the volume of wastewater requiring treatment, although it would not of course result in any reduction in the total nutrient load.”

C.12 The findings of the Rye Meads WCS offered broad support for Natural England’s view. The basic conclusion of the WCS was that water resources in the Rye Meads catchment area, (as judged by consultation with Thames Water Utilities Ltd and Three Valleys Water) will prevent a supply/demand deficit occurring prior to 2035. However, importantly, this is caveated by the need for an extensive demand management scheme and a range of other measures such as insisting on high water efficiency standards in new dwellings; retro-fitting existing dwellings; and water metering and variable water tariff rates. The aspiration of achieving ‘water neutrality’ is also noted as a desirable aspiration for safeguarding against uncertainties such as climate change.

C.13 In terms of in-combination effects, the 2012 HRA reviewed the HRAs of the Core Strategies of a number of neighbouring districts to identify potential for water quality and quantity impacts on the Lee Valley SPA/Ramsar. The Rye Meads Water Cycle Study incorporated housing projections from the East of England Plan (now revoked) and in this respect in-combination impacts have been considered above.

C.14 The 2012 study explained that the general consensus of the other HRAs was that water quantity and quality impacts are partly the responsibility of the water companies and of the Environment Agency which consents abstraction licences. Borough councils can only mitigate through their Core Strategies as far as driving high standards of water efficiency and use in new buildings and retrofitting existing building is concerned.

Conclusion and recommendations of the 2012 HRA in respect of water quality/quantity

C.15 The 2012 HRA conclude that water quality and quantity impacts resulting from the Emerging Core Strategy alone would not be likely to lead to significant effects on the Lee Valley SPA/Ramsar. However, it concluded that, in the absence of additional safeguards, given the extent of housing growth proposed in surrounding boroughs, the marginal impact of Welwyn Hatfield’s Core Strategy alone may be elevated to significant levels in combination with other plans.

C.16 The following additional measures were recommended to enable a finding of no adverse effect on integrity:

- Appropriate Assessment of subsequent development plan documents, in particular, Area Action Plans for BLG1 and BLG2 will need to be alert to ensuring proposals for green infrastructure and sustainable construction measures are rigorous. For example, they must clearly demonstrate how an appropriate level of water efficiency will be achieved.
- Given that the conclusions of the Rye Meads WCS are heavily dependent on the need for increased water efficiency, this element needs to be more fully reflected in the Emerging Core Strategy before it is possible to rule out potential for significant impacts.
- Natural England’s suggestion is for a clause requiring per capita water consumption (which is recorded by the water supply companies) to be monitored and each successive tranche of new development to be contingent on achieving a required level of efficiency. Another alternative is to ensure that successive tranches of development are only permitted once the water companies and Environment Agency have verified that additional water resources are in place, since the licensing of these resources are themselves subject to HRA by the Environment Agency.

C.17 In addition to the above, it was recommended that development beyond the plan period (post 2029) should not be undertaken unless proven water efficiency savings and/or sufficient water resources are in place to ensure that there are no significant adverse effects on the Lee Valley SPA/Ramsar.