

Application 3/19/1045/OUT

Appendix A

Screening and Appropriate Assessment under the Habitat Regulations 2017: 2023 Update

1. Introduction

- 1.1 This 2023 Update to the Habitat Regulations Assessment Screening and Appropriate Assessment (AA) includes a summary of new information submitted in relation to a new air quality transect covering part of Epping Forest Special Area of Conservation (SAC) closest to the development, known as Epping Thicks Site of Special Scientific Interest (SSSI) unit 105. This part of the SAC was considered in the council's AA reported to the committee in February 2022, with an air quality transect that took account of development related traffic and cumulative (in-combination) traffic on the M25 in proximity to the SSSI unit. The applicant's new data comprises an air quality transect of the same SSSI unit but taken from the nearest road, the B1393. The new air quality modelling is based on the same transport assessment inputs and takes account of the same conservation objectives as previously considered. The AA has been updated to add the outputs of the new air quality transect. The AA now also includes the HRA Update which was previously reported to the committee as Appendix A: Update to the two crossing reports for completeness in section 5.8. The AA in all other respects remains the same and the conclusions reached likewise remain as previously reported. The Conditions Status reports of each SSSI unit has been checked and there have been no updated surveys undertaken or reports updated since the publication of the original 2022 AA. The Conservation Objectives for each SSSI remain as previously reported.
- 1.2 As this AA is presented alongside the committee report for the Villages 1-6 outline application which relates to land in East Herts only and is to be determined by East Herts Council, references to Harlow Council have been removed. However, the context of the 'in-combination' assessment of all aspects of the development, including the two crossings remain the same. Please note that the two Crossings applications were approved by East Herts and Harlow Councils in March 2022.
- 1.3 This report comprises East Herts Council's analysis, findings and conclusions in relation to the Council's duties, as the local planning authority and competent authority in relation to the Directive 92/43/EEC of 12 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive'), and the European Parliament and Council Directive 2009/147/EC on the conservation of wild

birds (the 'Birds Directive'), as transposed into UK law through the Conservation of Habitats and Species Regulations 2017 (as amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019) (the 'Habitats Regulations'). Therefore, the Habitats Regulations for England and Wales have become part of retained EU law with limited amendments which reflect that the UK has left the EU and ensure that they remain legally operative.

1.4 The Council, as Local Planning Authority is a competent authority in relation to the Directive 92/43/EEC of 12 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive'), and the European Parliament and Council Directive 2009/147/EC on the conservation of wild birds (the 'Birds Directive'), as transposed into UK law through the Conservation of Habitats and Species Regulations 2017 (as amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019) (the 'Habitats Regulations'). As such, the Councils have undertaken a Habitats Regulations Assessment of the three planning applications submitted by the Applicant Places for People. It is noted that for HRA purposes:

- a. East Herts Council is the competent authority for the outline applications for Villages 1-6 and (referred to as "the Council throughout the HRA which is annexed to the Officer Reports at Appendix A);
- b. Natural England is the statutory nature conservation body (SNCB) under the Habitats Regulations.

1.5 This report constitutes the Council's Screening and Appropriate Assessment (AA) pursuant to the Habitats Regulations and has been prepared in relation to the following three planning applications with the combined proposed development ("Development") pursuant to such applications treated as a single project for the purposes of screening and identifying individual and in-combination likely effects on National Network (or European) Sites:

- 3/19/1045/OUT (East Herts Council Reference) – Outline planning application for 8,500 homes and community infrastructure as part of the Gilston Area strategic allocation.
- 3/19/1046/FUL (East Herts Council Reference) / HW/CRB/19/00220 (Harlow Council Reference) – Application for the widening of the existing Fifth Avenue crossing including works to the Eastwick Lodge junction, the provision of a new northbound carriageway and a dedicated pedestrian and cycle bridge. Also known as the "Central Stort Crossing". – Application approved March 2022
- 3/19/1051/FUL (East Herts Council Reference) / HW/CRB/19/00221 (Harlow Council Reference) – Application for a new road and bridge structures between the Eastwick Lodge junction and River Way in Harlow, providing new junctions into Village 1/Terlings Park, Pye Corner and Village 2. Also known as "the Eastern Stort Crossing" ("the Applications"). – Application approved March 2022

- 1.6 Planning permission for the proposed development should only be granted if, the Competent Authority considers that it meets the requirements set out by the Habitats Regulations. The National Network comprises Special Protection Areas (SPAs), Special Areas of Conservation (SACs) designated under the EU Birds and Habitats Directives respectively) and, as a matter of Government policy, Wetlands of International Importance (or Ramsar sites).
- 1.7 The Applicant (Places for People) prepared and submitted to the Council in May 2019 an Environmental Statement which included Appendix 14.4 Information for Habitats Regulations Assessment ("2019 IHRA"). In November 2020 the Applicant submitted detailed information described as 'Revised Information for Habitats Regulations' Assessment (Appendix 14.4 of the Environmental Statement) ("2020 IHRA"). This Habitats Information (the 2019 IHRA and 2020 IHRA) comprised an assessment of the Development alone and in-combination with other plans and projects, including the adjacent Outline Application for Village 7). As explained in paragraph 1.1, the Applicant has submitted an update to their 'Revised Information for Habitats Regulations Assessment Addendum November 2022' (Appendix 14.4a) ("2022 IHRA") which is included in the latest 2022 Viability Amendments consultation. For completeness, the Council has also considered the Revised Information for Habitats Regulations Assessment (Appendix 13.12 of the Environmental Statement) for Village 7 (application 3/19/2124/OUT) ("the Village 7 Habitats Information").
- 1.8 The Council consider the Habitats Information to be sufficient and has used both Environmental Statements, together with consultation response/s from Natural England, to inform its own independent screening and appropriate assessment, known as the Habitat Regulations Assessment ("HRA") pursuant to Regulation 63 of the Habitats Regulations 2017 (as amended). The planning application case officer has carried out this HRA on behalf of both Local Planning Authorities. Engagement has been carried out with and inputs have been made to this HRA from chartered ecologists at Hertfordshire Ecology (as advisors to East Herts Council), Barton Willmore (as advisors to East Herts Council), chartered ecologists at EPR Consulting (as advisors to both Applicants) and Weightmans LLP (as legal advisors to the Council). Furthermore, Natural England has been consulted during the preparation of this HRA.
- 1.9 Whilst there is no prescribed methodology, the HRA processes involves an assessment process of up to four stages – depending on the outcomes of each - before a competent authority can determine that planning permission or any other consent may be granted for development where, following appropriate assessment, no adverse effects on the integrity of the protected National Network sites are found. Those four stages each being a distinct stage involve: -
 - a. *Stage 1: Screening* – identification of likely significant effects of plans or projects, alone or in combination with others, on National Network Sites with key designations (i.e. Special Protection Areas, Special Areas of Conservation and Sites

of Community Importance). At this stage, drawing on case law (People Over Wind), no mitigation measures can be factored in;

- b. *Stage 2: Appropriate Assessment* – consideration of the impacts on the integrity of National Network Sites, either alone or in combination with other plans and projects, including, consideration of mitigation options;
- c. *Stage 3: Alternative Solutions* – where adverse effects on the integrity of a site cannot be ruled out, an assessment of alternative ways of achieving the objectives of the project to establish whether there are solutions that would avoid, or have a lesser effect on National Network Sites;
- d. *Stage 4: Imperative reasons of overriding public interest (IROPI)* and compensation - If the authority assesses that no alternative solution exists, and adverse impacts remain, imperative reasons of overriding public interest must be proven. If achieved, compensation must also be shown to be deliverable.

- 1.10 It is important to recognise that although sequential, stage 3 is only engaged where any adverse effects on the integrity of a site cannot be ruled out (with no reasonable scientific doubt) and stage 4 is very much a last resort and must satisfy strict tests. The HRA process required and undertaken is described in further detail in section 5.5 in this report. The National Network Sites which are the subject of the HRA are: -

- Lee Valley Special Protection Area (SPA) and Ramsar
- Wormley-Hoddesdonpark Woods Special Area of Conservation (SAC)
- Epping Forest SAC

2. Executive Summary

- 2.1 This Screening and Appropriate Assessment (AA) applies to three planning applications which have been treated as a single project for the purpose of robustly understanding and screening likely significant effects of the Applications comprised in the Development alone or in-combination with each other. The resultant HRA therefore considers the potential adverse effects arising from the combined delivery of these three schemes, i.e. the Development as a whole on the integrity of National Network Sites of nature conservation importance as defined by the Habitats Regulations, 2017 (as amended).
- 2.2 These Applications were made pursuant to Policies GA1 and GA2 of the East Herts District Plan which designates land at the Gilston Area for the development of 10,000 homes and supporting infrastructure. The two full applications for transport infrastructure schemes (the Central and Eastern Stort Crossings) are also identified in the Harlow Local Development Plan as essential transport infrastructure. All three components of the Development (the 'single project' which now comprise the above-mentioned three Applications), were also factored into the Habitat Regulations Assessments carried out in relation to each local plan for both East Herts Council and

Harlow District Council which were subject to a full Examination in Public before adoption.

- 2.3 Natural England as Statutory National Competent Body has been engaged through the multiple planning application stages. Natural England, as well as the Habitats Information supplied by the Applicant, identified three potential sources of impact which the Council considers properly reflect the relevant sources, pathways and receptors:
- recreational pressure arising from increased visitation of publicly accessible sites;
 - air quality changes arising from traffic generated by the proposed development; and
 - changes in water quality or quantity.
- 2.4 This HRA has been undertaken for the Development comprising all Applications as a whole. At the Screening stage, the HRA does not consider or rely on any mitigation measures proposed as part of any one of the Applications or in combination.
- 2.5 Likely significant effects arising from recreational pressure on the Lee Valley SPA/Ramsar and Epping Forest SAC National Network Sites were screened out due to the existing active management of the Sites which already restricts and controls recreational access, and were not therefore considered further as part of the second stage, the Appropriate Assessment. However, following a precautionary approach, likely significant effects could not be ruled out from recreational pressure on Wormley-Hoddesdonpark Woods SAC and there is currently no active recreation management strategy in place and was therefore considered further in the Appropriate Assessment.
- 2.6 Likely significant effects could not be ruled out at the screening stage due to the anticipated impact of air pollution on the Lee Valley SPA/Ramsar. Consequently, an Appropriate Assessment was undertaken to assess the impact from the number of vehicle movements in the vicinity of the Rye Meads SSSI component of the Lee Valley SPA/Ramsar Site arising from the Development alone once operational.
- 2.7 In terms of water quality and quantity, the HRA screened out the potential for likely significant effects on the Wormley-Hoddesdonpark Woods SAC and Epping Forest SAC. However, potential water quality effects on the Lee Valley SPA/Ramsar are considered further through the Appropriate Assessment because potential impacts on water quality on the Rye Meads SSSI component of the Lee Valley SPA/Ramsar could not be ruled out without the need for mitigation associated with the Outline Application element of the Development alone.
- 2.8 Potential Air Quality effects on the Epping Forest SAC are considered further through the Appropriate Assessment due to the number of vehicle movements in the vicinity

of the Epping Forest SAC from the Development in-combination with other plans and projects.

- 2.9 Following the appropriate assessment the Council was able to ascertain that the Development, alone, and in combination with each other, and in combination with other plans and projects, would avoid adverse effects on the integrity of the National Network sites in the zone of influence of the Development as a result of recreational demand, air quality effects and water quality and quantity effects.
- 2.10 When considered independently, the two Crossings applications would not result in additional vehicle movements which would increase air quality impacts upon the Lee Valley SPA/Ramsar Site, Wormley-Hoddesdonpark Woods SAC, and Epping Forest SAC. However, the two Crossings Applications combined will change the distribution of vehicle movements associated with the Village 1-6 application, providing options for trips to be taken on routes not in the vicinity of the National Network Sites. By considering the three Applications together as the Development a 'worst-case' HRA assessment has been undertaken on a precautionary basis.
- 2.11 The Appropriate Assessment takes into account the proposed mitigation and conditions associated with construction management processes, timing and phasing of delivery which will be applied to each of the Applications in the Development.
- 2.12 The Local Planning Authorities consider that with mitigation secured through planning conditions (as set out in Appendix C), the Applications alone and in combination with each Application comprising the Development as a whole will not have an adverse effect on the integrity of the Lee Valley SPA/Ramsar Site, Wormley-Hoddesdonpark Woods SAC, or Epping Forest SAC, either alone or in combination with other plans and projects, and that the proposed Development can therefore be consented in compliance with the Habitats Regulations and applicable guidance and case law.

3. Regulatory Requirements & Case Law

- 3.1 The Habitats Regulations 2017 (as amended) transposed the land and marine aspects of the Habitats Directive (Council Directive 92/43/EEC) and certain elements of the Wild Birds Directive (Directive 2009/147/EC) (known as the Habitats Directives) into domestic law. They have been updated by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.
- 3.2 Regulation 63 of the Habitats Regulations 2017 imposes a requirement upon a competent authority (including local planning authorities) to carry out a Habitats Regulations Assessment to protect National Network sites ("HRA") as follows:

"(1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which—

(a) is likely to have a significant effect on a site or a European offshore marine site (either alone or in combination with other plans or projects), and

(b) is not directly connected with or necessary to the management of that site, must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives.

(2) A person applying for any such consent, permission or other authorisation must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable it to determine whether an appropriate assessment is required”.

Regulation 63 (5) provides that:

“in the light of the conclusions of the assessment, and subject to regulation 64, the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site.”

Regulation 63 (6) states that:

“in considering whether a plan or project will adversely affect the integrity of the site, the competent authority must have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which it proposes that the consent, permission or other authorisation should be given.”

Relevant Case Law

- 3.3 The European Court of Justice in *Case C-127/02 of the European Court of Justice (ECJ)* (“the Waddenzee Case”) clarified significant points as to the interpretation of the Habitats Directive, in particular as to the approach to ‘likely significant effects’ and that an appropriate assessment is necessary: -

“...if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either alone or in combination with other plans and projects...” (Paragraph 44) and

“...where such a plan or project has an effect on that site but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the site concerned...” (paragraph 47)

- 3.4 The ECJ in Waddenzee also confirmed that a plan or project can only be authorised where it will not have an adverse effect on the integrity of a European Site and *“...that is the case where no reasonable scientific doubt remains as to the absence of such effects”* (paragraph 59).

- 3.5 In the case of *Ireland v An Bord Pleanála* [2013] EUECJ (Case C-258/11) (“Sweetman case”), the ECJ considered the meaning of “*adversely affect the integrity*” of an SAC or SCI under Article 6(3) of the Habitats Directive (now transposed in Regulation 63). The case related to a road scheme that would permanently destroy 1.47 hectares of a 270 hectare SCI in Ireland that was protected as a priority habitat for its limestone pavement. The ECJ noted that the *precautionary approach* to assessment of impacts “applies all the more” where the affected habitat is a priority habitat type and if a project will lead to the lasting and irreparable loss of the whole or part of a priority natural habitat type (whose conservation was the objective that justified the designation of the site), the competent authority must conclude that such a plan or project will adversely affect the integrity of that site. It must therefore prevent the development.
- 3.6 The April 2018 judgment in the Court of Justice of the European Union in *People Over Wind & Peter Sweetman v Coillte Teoranta*, (Case C-323/17) *EU:C:2018:244* (‘People over Wind’) decided that when making screening decisions for the purposes of deciding whether an appropriate assessment is required of the impacts of a proposed plan or project on a protected site, competent authorities should not take into account any mitigation measures.
- 3.7 In 2019, the government amended the National Planning Policy Framework guidance to clarify the impact of the People Over Wind judgement on the HRA process and regulations were introduced from 28 December 2018 to clarify certain “planning tools” (i.e in the Habitats (Amendment) Regulations 2018). Thus, the NPPF presumption in favour of sustainable development does not apply if the plan or project is likely to have a significant effect on a European, now National Network Site (either alone or in combination with other plans or projects), unless an appropriate assessment concludes that there will be no adverse effect from the plan or project on the integrity of a European / National Network site.
- 3.8 As a result, a competent authority must not take account of mitigation measures at Screening Stage 1 and may only take account of such mitigation measures intended to avoid or reduce the harmful effects of a plan or project as part of an appropriate assessment itself.

2019 Regulations

- 3.9 Post Brexit, the 2019 Regulations involved the transfer of functions from the European Commission to the appropriate authorities in England and Wales to ensure that the Habitats Regulations 2017 could continue to operate effectively. All other processes, including the HRA process prescribed by Regulation 63, under the Habitats Regulations 2017 remain the same and existing guidance applies. The 2019 Regulations established a 'national site network' on land and at sea, including both the inshore and offshore marine areas in the UK. Effectively, the 'national site network' now applicable in the UK includes:

- a. existing SACs and SPAs which were already designated under the Habitats Directives (and previously referred to as Natura or European Sites), and
- b. any new SACs and SPAs designated under the UK Habitats Regulations.

3.10 The 'network objectives' established for the national site network are to: -

- maintain or, where appropriate, restore habitats and species listed in Annexes I and II of the Habitats Directive to a favourable conservation status (FCS); and
- contribute to ensuring, in their area of distribution, the survival and reproduction of wild birds and securing compliance with the overarching aims of the Wild Birds Directive.

3.11 A HRA refers to the several distinct and sequential stages of Assessment which to be undertaken in accordance with the Habitats Regulations 2017 (as amended) to determine if a plan or project may affect the protected features of a habitats site before deciding whether to undertake, permit or authorise it. European Sites identified under these regulations are referred to as 'habitats sites' in the National Planning Policy Framework.

3.12 All plans and projects (including planning applications) which are not directly connected with, or necessary for, the conservation management of a habitat site, require consideration of whether the plan or project is likely to have significant effects on a European site (now 'a National Network site'). This consideration – typically referred to as the 'Habitats Regulations Assessment' – should take into account the likely significant effects both of the plan or project by itself and in combination with other plans or projects. Where the potential for likely significant effects cannot be excluded at Screening (Stage 1), a competent authority must make an Appropriate Assessment of the implications of the plan or project for that site, in view the site's structure, function and conservation objectives (Stage 2). Where there are adverse impacts identified at Stage 2, the competent authority must assess mitigation options to determine the adverse effect on the integrity of a National Network site.

3.13 If mitigation options cannot avoid adverse effects, then development consent can only be given if Stages 3 and / or 4 are followed. The competent authority may grant permission or consent to the plan or project only after having ruled out adverse effects on the integrity of the habitats site following application of appropriate mitigation if necessary at the Appropriate Assessment stage. Where an adverse effect on the site's integrity cannot be ruled out, and where there are no alternative solutions, the plan or project can only proceed if there are imperative reasons of over-riding public interest and if the necessary compensatory measures can be secured.

4. Objectives and Process of a Habitats Regulations Assessment

4.1 The process of HRA involves an initial 'Screening' stage, which requires an Appropriate Assessment (AA), if a plan or project is likely to have significant effects on a National Network Site (either individually or in combination with other plans or projects) which cannot be ruled out without having regard to mitigation measures. The Habitat Regulations do not set out a specific methodology; rather they place obligations on the competent authority (i.e. a local planning authority) which are fulfilled by a four stage HRA process involving:

- a. *Stage 1: Screening* – to identify the likely impacts of a project on a relevant protected National Network Site, either alone or in combination with other plans and projects. Case law has determined that at this stage mitigation measures should not be considered in determining whether it is necessary to carry out an appropriate assessment of the impact of a proposed plan or project on a protected site. Planning Practice Guidance expects assessments to be undertaken using a precautionary approach, i.e. taking into account the worst case scenario. This Report has followed this guidance.
- b. *Stage 2: Appropriate Assessment* – The competent authority considers the impacts on the integrity of a protected site, either alone or in combination with other plans and projects, with regard to the site's structure, function and its conservation objectives. Where there are adverse impacts, an assessment of mitigation options is undertaken to determine the adverse effect on the integrity of the site. If at this stage adverse effects cannot be avoided or mitigated, then the third stage follows.
- c. *Stage 3: Assessment of alternative solutions* - the competent authority is required to assess alternative ways of achieving the objectives of the project to establish whether there are solutions that would avoid, or have a lesser effect on a protected National Network site.
- d. *Stage 4: Imperative reasons of overriding public interest (IROPI)* - If the competent authority assesses that no alternative solution exists and adverse impacts remain an IROPI assessment must be undertaken. This stage assesses whether the development is necessary by reason of IROPI. If yes, the potential compensatory measures necessary to maintain the overall coherence of the site or integrity of the site network.

5. Stage 1: Screening

5.1 Screening and the Precautionary Approach

5.1.1 As detailed above the screening stage of the HRA is designed to consider whether the plan or project is likely to have a significant effect on the integrity of National Network

Sites either alone or in combination with other plans and projects without taking into account mitigation. Screening is the process that addresses and records the reasoning and conclusions in relation to Regulation 63 (1) of the Conservation of Habitats Regulations 2017, which requires that before deciding to give permission for a plan or project which:

“(a) is likely to have a significant effect on a European Site or a European offshore marine site (either alone or in combination with other plans or projects, and

(b) is not directly connected with or necessary to the management of that site’

[the competent authority] must make an appropriate assessment of the implications of the plan or project in view of that site’s conservation objectives.”

5.1.2 If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (Appropriate Assessment) on a precautionary basis. In undertaking an assessment of ‘likely significant effects’ under the Habitats Regulations, authoritative case law has established that:

- An effect is likely if it ‘*cannot be excluded on the basis of objective information*’¹
- An effect is significant if it ‘*is likely to undermine the conservation objectives*’²
- In undertaking a screening assessment for likely significant effects ‘*it is not that significant effects are probable, a risk is sufficient*’...but there must be credible evidence that there is ‘*a real, rather than a hypothetical risk*’³.

5.1.3 The Advocate General’s opinion in Sweetman also offers some simple guidance that the screening step ‘operates merely as a trigger’ which asks ‘*should we bother to check?*’⁴.

5.1.4 More guidance on the approach to screening and appropriate assessments is contained in the recently published Joint Nature Conservation Committee (JNCC) Report 696: Guidance on Decision-making Thresholds for Air Pollution⁵, December 2021. This guidance provides a summary of relevant case law and precedents that now frame how assessments are carried out. As such the guidance is not just relevant to air pollution considerations but informs a decision-maker on how to take account of individual and combined effects on National Network Sites.

¹ Case C127-02 *Waddenzee* (refer para 45)

² Case C127-02 *Waddenzee* (refer para 48)

³ *Boggis v Natural England and Waveney DC* [2009] EWCA Civ 1061 (refer paras 36-37)

⁴ Case C 258/11 *Sweetman* Advocate General Opinion (refer paras 49-50)

⁵ <https://data.jncc.gov.uk/data/6cce4f2e-e481-4ec2-b369-2b4026c88447/JNCC-Report-696-Main-FINAL-WEB.pdf>

Joint Nature Conservation Committee (JNCC) Report 696: Guidance on Decision-making Thresholds for Air Pollution

5.1.5 In terms of the precautionary approach, the guidance explains the following:

“Decision-making is informed by best available scientific information. In some cases, the available science provides a decision maker with clear and precise information capable of removing any doubt as to the consequences of a proposed activity. In other areas the available science is subject to limitations meaning that decision makers must use their professional judgement and consider the available evidence in light of the decision-making framework, and specific legal tests, which apply.

Decisions are therefore constrained by the evidence which is available at the time a decision is taken. The extent to which uncertainty in the evidence base influences decision-making will depend upon the underpinning legislative framework. The most precautionary approach to decision-making for designated sites is required under the Habitats Regulations where it is established case law that:

- In screening for likely significant effects, an effect is ‘likely’ if it cannot be excluded on the basis of objective information. An effect is ‘significant’ if it undermines the conservation objectives.*
- In applying the integrity test (after an appropriate assessment), decision makers must be satisfied that no reasonable scientific doubt remains as to the absence of adverse effects to site integrity.”*

5.1.6 Furthermore, the guidance states:

“whilst a precautionary approach may be required to an assessment of air pollution effects, no legislative framework requires the exclusion of all doubt. The Habitats Regulations requires the exclusion of reasonable scientific doubt. Doubt which is unscientific or unreasonable need not constrain decision-making. The Courts have also recognised that there is no such thing as absolute certainty. Instead, decision makers need to identify reasonably foreseeable risks, on the basis of information that can reasonably be obtained and put in place a legally enforceable framework with a view to preventing those risks from materialising. Furthermore, the Courts have also established that, whilst a risk is sufficient to constrain development under the Habitats Regulations, there must be credible evidence that there is a real, rather than a purely hypothetical, risk which must be considered.”

5.2 The Development Screened

5.2.1 The Development subject to this screening comprises the Applications submitted by Places for People (“the Applicants”). In carrying out this screening regard was had to the information supplied by the Applicant and the consultation response/s from Natural England. By considering all three Applications comprising the Development together as a single project a robust comprehensive Screening and HRA can be undertaken of the effects of each of the Applications individually and ‘in-combination’ for the Development as a whole. The Development comprises the following elements

in the form of separate applications for 8,500 homes through an Outline Application known as Villages 1-6 and two road and bridge infrastructure applications known as the Central Stort Crossing (CSC) and Eastern Stort Crossing (ESC) with the following descriptions of development: -

- 3/19/1045/OUT – *Outline planning with all matters reserved apart from external vehicular access for the redevelopment of the site through the demolition of existing buildings and erection of a residential led mixed use development comprising up to 8,500 residential homes including market and affordable homes; retirement homes and extra care facilities; a range of community uses including primary and secondary schools, health centres and nursery facilities; retail and related uses; leisure facilities; business and commercial uses; open space and public realm; sustainable urban drainage systems; utility and energy facilities and infrastructure; waste management facilities; vehicular bridge links; creation of new vehicular and pedestrian accesses into the site, and creation of a new vehicular, pedestrian and cycle network within the site; improvements to the existing highway and local road network; undergrounding and diversion of power lines; lighting; engineering works, infrastructure and associated facilities; together with temporary works or structures required by the development.*
- 3/19/1046/FUL – *Alterations to the existing Fifth Avenue road/rail bridge, and creation of new bridges to support the widened highway to west of the existing structure to create the Central Stort Crossing, including embankment works, pedestrian and cycle facilities, a pedestrian and cycle bridge over Eastwick Road, lighting and landscaping works and other associated works.*
- 3/19/1051/FUL - *Erection of a new road, pedestrian and cycle bridge; replacement of an existing rail bridge at River Way; alterations to the existing local highway network; lighting and landscaping works; listed building works to Fiddlers Brook Bridge; and other associated works.*
- 3/19/1049/LBC – *Repair works and replacement white post and 3-rail balustrade to bridge.*

5.2.2 The Outline Village 1-6 application comprises:

- Up to 8,500 homes, including affordable homes, retirement and extra care accommodation in use Class C2;
- Land reserved for Gypsies and Travellers and Travelling Showpeople, two 1 ha sites;
- 74,200sqm of education and community floorspace (including schools, nurseries, crèches, health centres and community centre);
- land reserved for six primary schools comprising up to 17 forms of entry with early years provision;
- land for two secondary schools providing up to 20 forms of entry, with sixth form provision;
- 25,100sqm retail and related uses and leisure floorspace;

- 29,200sqm business and commercial floorspace;
- 3,000sqm leisure floorspace to support outdoor sport, leisure and recreation;
- open spaces, parks and public realm;
- Provision of supporting infrastructure such as:
 - sustainable urban drainage systems;
 - utility and energy facilities and infrastructure;
 - waste management facilities;
 - vehicular bridge links;
 - car parking (including multi-storey, undercroft and surface);
 - creation of new vehicular and pedestrian accesses into the site;
 - creation of a new vehicular, pedestrian and cycle network within the site;
 - improvements to the existing highway and local road network;
 - undergrounding and diversion of power lines;
 - lighting;
 - engineering works, infrastructure and associated facilities;
 - temporary works or structures required by the development.

5.2.3 The Central Stort Crossing application comprises:

- The main central access into that part of the Gilston area allocation immediately north of the existing Eastwick junction (Village 1) (in interim and final form), to allow for sustainable modes of transport only;
- A new all modes access into Village 1, located to the east of the sustainable modes junction off Eastwick Road (in interim and final form);
- New northbound carriageway and bridge structures to the west of the existing Fifth Avenue Crossing;
- Parameters for a new dedicated pedestrian and cycle route to the east of the existing Fifth Avenue Crossing comprising a new pedestrian and cycle bridge over the Eastwick Road junction, a new pedestrian and cycle bridge over the Stort Navigation and replacement of the east parapet and edge beams on the existing bridge over the West Anglia Mainline; and
- A new access from the A414 into the Eastwick Lodge Farm complex and amendments to existing access arrangements.

5.2.4 The Eastern Stort Crossing application comprises:

- New pedestrian, cycling and vehicular route divided into Road 1, Road 2 and Road 3 linking the Eastwick junction to River Way in Harlow
- A central roundabout connecting the three roads together
- An access for all modes into Village 1 via a new junction which will also provide access to Terlings Park and Burnt Mill Lane (this part of the scheme is also included with the CSC application)
- An access into Pye Corner, Gilston
- A bridge over Fiddlers' Brook with enhancements to the Listed Fiddlers' Brook Bridge
- An access into Village 2 from Eastwick Road, north of Pye Corner, both in interim and final form.

- 5.2.5 The Development site as a whole covers approximately 993Ha, of which 407.5Ha is proposed as developable area for the creation of six new villages. The Central Stort Crossing and Eastern Stort Crossing proposals comprise a further 19Ha and 26.9Ha respectively.
- 5.2.6 The Development (including the Outline Villages 1-6 residential proposal plus the two infrastructure proposals described at paragraphs 5.2.3 and 5.2.4) forms the largest part of the total Gilston Area allocation of 10,000 homes. The remaining 1,500 homes comprised in the Gilston Area allocation are the subject of a separate outline planning application known as “Village 7” (promoted by the developer Taylor Wimpey) and is currently under consideration by East Herts Council. The Village 7 Environmental Statement and Information for Habitats Regulations Assessment has been taken into account in this assessment and the ‘in-combination’ likely significant effects of Village 7 have been assessed together with the Development. The Gilston Area allocation is the largest single allocation in the East Herts District Plan, with development planned to extend beyond the Plan period of 2033. Approximately 3,000 homes are anticipated to be delivered by 2033 with the remaining 7,000 being delivered up to 2040/41. Figure 1 below illustrates the application areas of each of the applications as well as the site area for Village 7. Figure 2 illustrates the Village Developable Area as proposed in the Outline Villages 1-6 Application element of the Development.

Figure 1: Site Area for Village Development Applications plus Central Stort Crossing and Eastern Stort Crossing

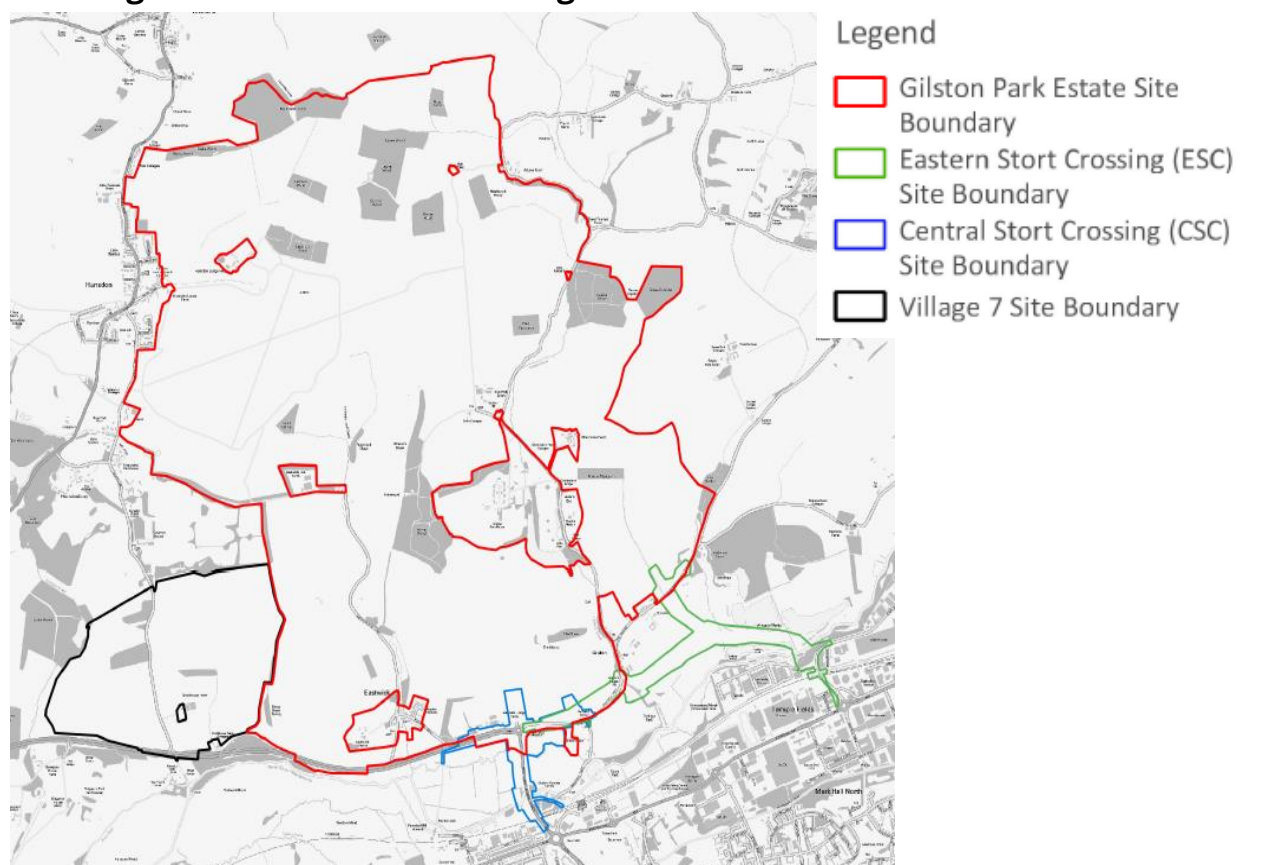
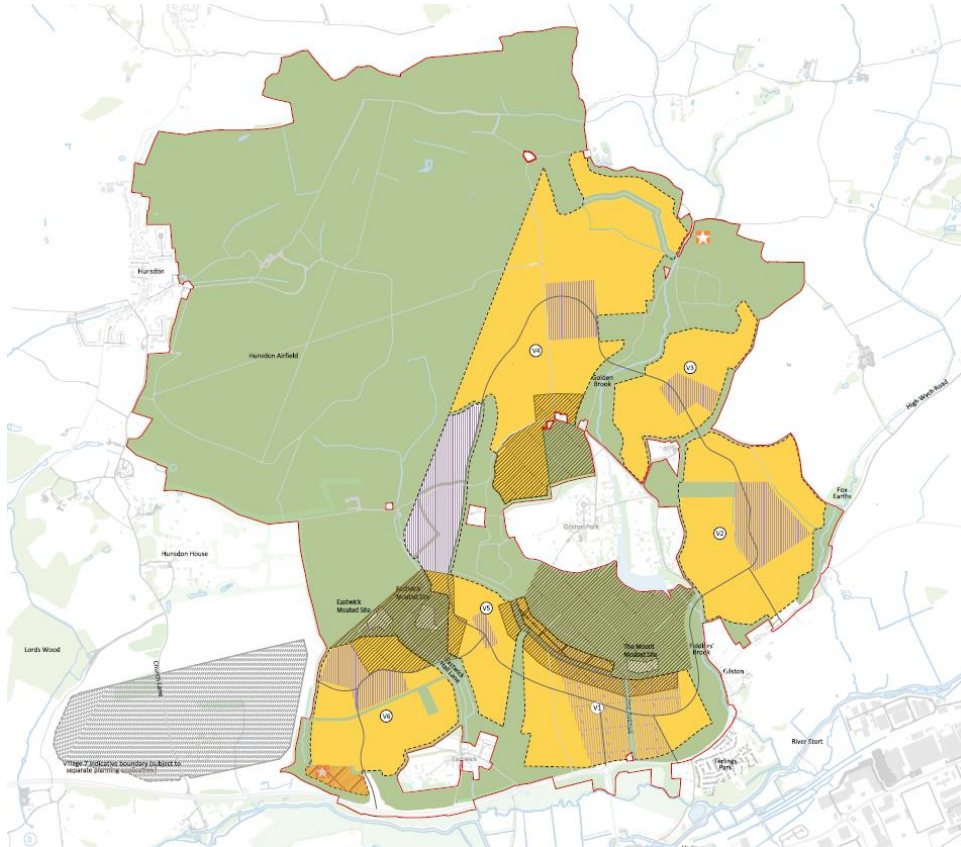


Figure 2: Village Developable Areas – Village 1-6 Element of the Development

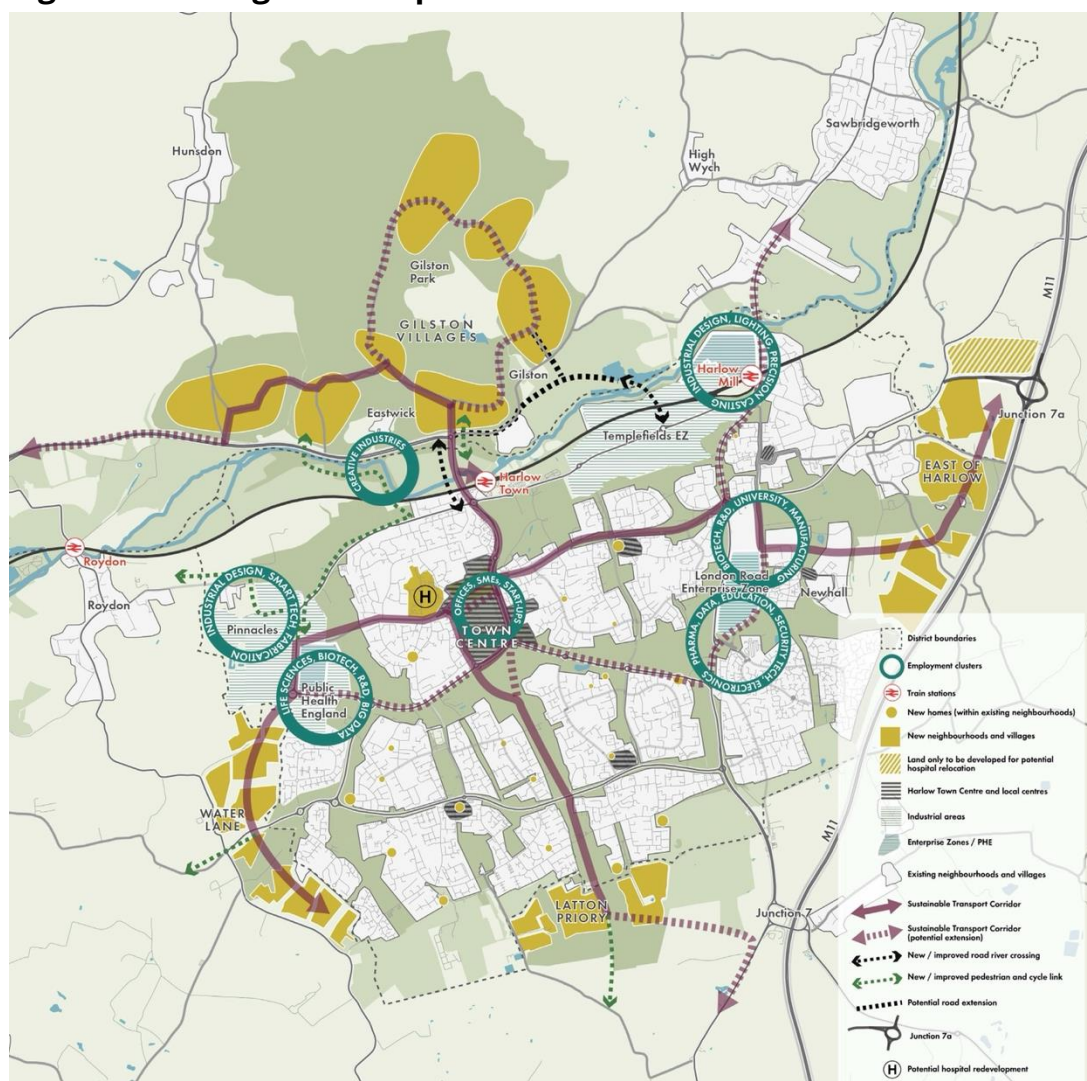


5.3 Wider Context

- 5.3.1 The Gilston Area is also part of the wider Harlow and Gilston Garden Town (HGGT), which was designated in 2017. The HGGT involves partnership working between a number of local authorities including East Herts, Epping Forest and Harlow District Councils (being local planning authorities for land comprised in the Garden Town) and Essex and Hertfordshire County Councils (being the highways and education authorities) to deliver transformational growth in and around Harlow according to Garden City principles, to ensure that growth plans for the Garden Town support sustainable living and a healthy economy, provide a good quality of life for existing and future residents and to respond to local landscape and character.
- 5.3.2 The HGGT comprises new and existing communities in and around Harlow as defined in the East Herts District Plan, Harlow Local Development Plan and Epping Forest Local Plan. These allocated strategic sites which form part of the HGGT are planned on Garden City principles and comprise 23,500 to 24,500 new homes: 10,000 in the Gilston Area; East Harlow (3,350 homes in Harlow and Epping Forest Districts); Latton Priory (1,050 homes south of Harlow in Epping Forest District); and the Water Lane Area (2,100 homes west of Harlow in Epping Forest District). A further 7,000-8,000 homes are to be delivered within Harlow during the plan period to 2033. These sites are currently at pre-application stage with the respective Local Planning Authorities. Figure 3 below indicates the locations of each of these strategic sites ("the Strategic Sites").

5.3.3 Because the Development comprises part of the wider HGGT area, the local plans of each local authority has been taken into account during this HRA. In doing so, the HRAs undertaken to support the three local plans of East Herts, Harlow and Epping Forest Districts have also been taken into account, thereby capturing the ‘in-combination effects of the wider growth planned in the vicinity of the Development site and its Zone of Influence. The Applicant’s IHRA 2020 includes a list of each known development site taken into account as part of the cumulative considerations in the Environmental Statement, and Appendix E to this report lists the plans and projects taken into account as part of the in-combination assessment for this HRA.

Figure 3: Strategic Development within the HGGT Vision



5.4 Applicant EIA and HRA Information

5.4.1 The proposed development is considered an ‘EIA development’ as it falls within the description and thresholds in Schedule 2 Category 10 (b) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) as an ‘urban development project’ likely to have significant effects on the environment by virtue of its nature, size or location. The Villages 1-6 application and the CSC and ESC crossing applications are interlinked; developments in the Gilston Area allocation can

only be progressed in full with the necessary supporting infrastructure provided by the two Stort Valley Crossings. As such, the proposals put forward in the three PfP applications (the CSC, the ESC and the outline residential development for Villages 1-6) are collectively known for the purposes of the EIA process as ‘the Development’ and the effects of the Development are therefore considered and reported collectively for EIA purposes. The Development has been subject to a single ‘project-wide’ EIA. The individual effects from each application are not presented separately within the Environmental Statement (ES) but addressed collectively (based on the anticipated progress of each element at certain milestones). Where necessary, the ES highlights impacts that have particular relevance to the CSC proposal and the ESC proposal, therefore the ES provides a comprehensive assessment of the likely environmental impact to enable a decision to be made on the two infrastructure applications on their own as well as taking into account the cumulative impact of other planned developments, including Village 7 and the strategic sites identified within the HGGT area.

- 5.4.2 An ES was submitted by PfP with the applications (3/19/1045/OUT, 3/19/1046/FUL Harlow reference: HW/CRB/19/00220, and 3/19/1051/FUL Harlow reference HW/CRB/19/00221) in May 2019 and registered in June 2019 (the “June 2019 ES”). The June 2019 ES included an Information for Habitat Regulations Assessment Report (“2019 IHRA”) as Appendix 14.4. Natural England advised that further consideration be given in the 2019 IHRA to air quality and water quality effects specifically on the Lee Valley SPA/Ramsar. Natural England also advised that the 2019 IHRA be revised to consider the effects of the development in the absence of proposed mitigation to ensure compliance with the recent European Court of Justice case C323/17, commonly referred to as ‘People over Wind’ judgement. The ES Addendum submitted in November 2020 included a revised IHRA as Appendix 14.4 (“2020 IHRA”), which revised and fully superseded the June 2019 IHRA. The ES Addendum was subject to further consultation, including with Natural England.
- 5.4.3 The 2020 IHRA considered in detail the nature of each protected site, the detail of the proposed Development and a cumulative consideration of the Development project in combination with other known plans and projects, including Village 7 and the Strategic Sites and development plans of adjacent districts. Copies of the Natural England responses to the 2019 IHRA and 2020 IHRA are contained in Appendix A and Appendix B respectively to this report. The 2020 IHRA is considered to provide sufficient information to inform the Appropriate Assessment in respect of the Development alone or in combination with other plans or projects.

5.5 Stage 1: Screening – Zone of Influence

- 5.5.1 In carrying out an assessment of the potential effects of a development proposal on an International Site, the ‘source-pathway-receptor’ concept provides a useful model for framing and objectively evaluating the mechanisms through which potential

effects may occur. Table 1 below sets out the various parts of the model and how they relate to each other.

Table 1: Conceptual Impact Assessment Model

Source	Pathway	Receptor
Elements of the development proposals that are likely to generate or contribute towards certain environmental effects.	Changes in environmental conditions caused by aspects of the development proposals that have the potential to affect an identified impact receptor.	The interest features/ conservation objectives of the International Site concerned, and the environmental conditions required to support it.

5.5.2 The Guidelines for Ecological Impact Assessment, 2018 (the “EclA Guidelines”) define a Zone of Influence as:

“...the area over which ecological features may be affected by the biophysical changes caused by the proposed project and associated activities”.

5.5.3 In this case, the Zol of the proposed Development will encompass different areas, and thus potentially impact upon different ecological receptors, depending upon the spatial extent of the relevant biophysical change. Natural England advised in their advice to the applicant in 2013 and 2017 (which are included in annexes to the 2020 IHRA) that the proposed Development could have the potential, during its operational phase, to cause the following biophysical changes, which could result in ecological effects on National Network sites:

- recreational pressure arising from increased visitation of publicly accessible sites;
- air quality changes arising from traffic generated by the proposed development; and
- changes in water quality or quantity.

5.5.4 The recent JNCC guidance on Decision-Making Thresholds for Air Pollution⁶ advises that only National Network Sites within the zone of influence should be included within the scope of the HRA and that *“for the purpose of decision-making, unless local circumstances support a wider zone, plan HRA should take account of the potential effects of traffic emissions on European Sites located within 10km of the plan boundary. This zone is based on professional judgement recognising that the effects of growth from development beyond 10km will have been accounted for in the Nitrogen Futures⁷ modelling work business as usual scenario.”* It is considered that the 10km distance threshold is appropriate for this HRA given the scale of the Development.

⁶ JNCC Report 696: Guidance on Decision-making Thresholds for Air Pollution (JNCC, December, 2021)

<https://data.jncc.gov.uk/data/6cce4f2e-e481-4ec2-b369-2b4026c88447/JNCC-Report-696-Main-FINAL-WEB.pdf>

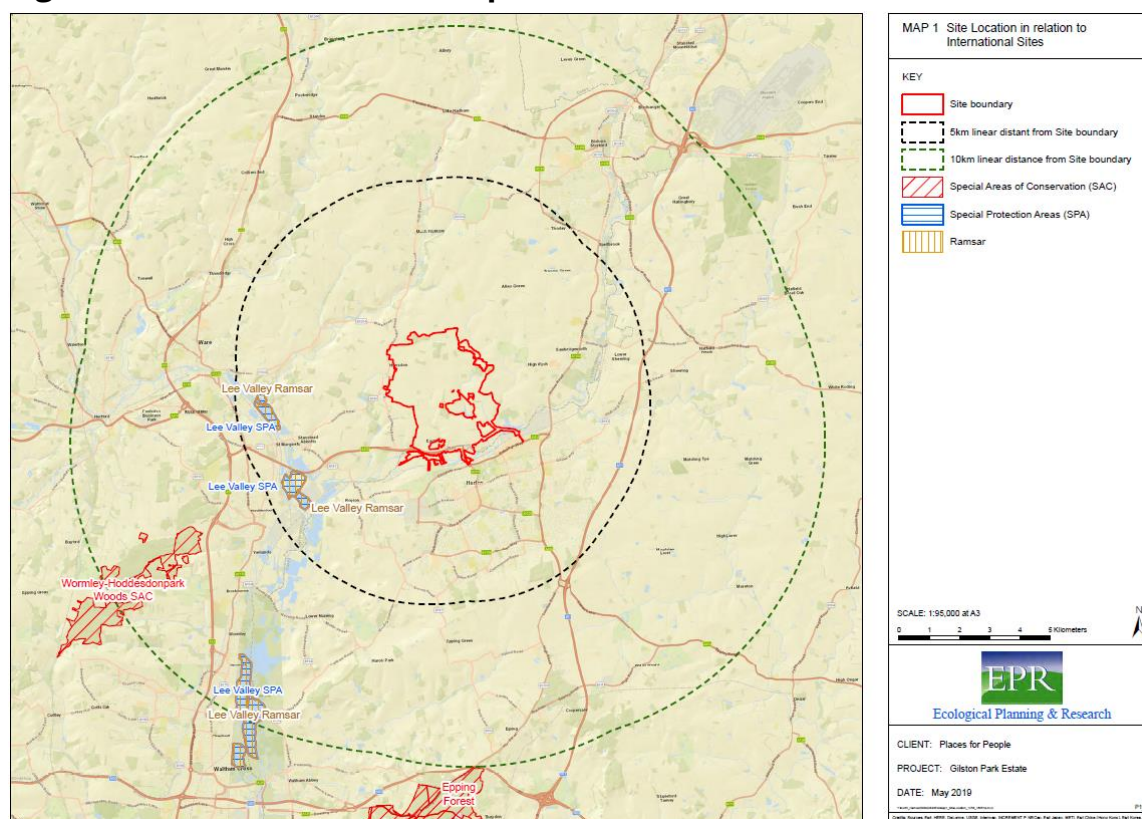
⁷ <https://jncc.gov.uk/our-work/nitrogen-futures/>

5.5.5 Natural England advised that the three National Network Sites closest to the Development should be considered as being within the ZOI of the Development due to the potential to exert the above changes either alone, or in combination with other plans and projects, namely the development plans of neighbouring authorities. This concurs with the 10km distance threshold advised by the JNCC advice above as illustrated in Figure 4 below. The National Network Sites which are considered to fall within the ZOI are included in Table 2.

Table 2: European Sites in Zone of Influence

Site	Linear Distance from the Site Boundary	Direction from the Site Boundary
Lee Valley SPA and Ramsar Site	3.6km	West
Wormley-Hoddesdonpark Woods SAC	7.4km	South-west
Epping Forest SAC	10km	South

Figure 4: Zone of Influence Map



5.5.6 Given the distance of the National Network Sites from the Development site (as a whole) and the particular functions of the proposed Development, it is considered that the Development is not directly connected to or necessary for the management of the National Network sites within the ZOI. This conclusion is in line with HRA undertaken for the East Herts District Plan 2018.

- 5.5.7 In order to assess whether the proposed development, alone or in combination with other plans and projects, is likely to have significant effects on a National Site Network Site in view of its conservation objectives, each of these sites must be characterised.

5.6 Stage 1: Screening – National Network Site Characterisation

- 5.6.1 Site characterisation details are informed by the applicant's 2020 IHRA undertaken by consultants Ecological Planning and Research (EPR) and confirmed using the Natural England information database which provides details for each designated site. It is noted that the most up to date information recorded on the Natural England databases have been used to inform this screening. Natural England has been consulted during the preparation of this HRA and has raised no concerns regarding the use of the Natural England data being the best available data. Links to relevant National Network Site data sources are included throughout the text where necessary and included in the Bibliography.

Lee Valley SPA and Ramsar Site

- 5.6.2 The Lee Valley SPA covers an area of 447.87 ha, comprising a series of embanked water supply reservoirs, sewage treatment lagoons and former gravel pits that display a range of man-made and semi-natural wetland and valley bottom habitats. The Lee Valley SPA is comprised of 4 separate Sites of Special Scientific Interest (SSSIs), Amwell Quarry SSSI, Rye Meads SSSI, Turnford and Cheshunt Pits SSSI and Walthamstow Reservoirs.
- 5.6.3 The SPA/Ramsar stretches over a distance of 16 miles northward along the River Lea to the north of London and is within the North Thames Basin National Character Area. Lee Valley SPA lies roughly parallel and to the east of the A10 between Finsbury Park, London and Ware in Hertfordshire. Walthamstow Reservoirs are situated to the south of the M25 motorway which cuts across the SPA/Ramsar site. The SPA crosses both the East Anglian Plain and London Basin Natural Areas. All of the component SSSIs lie within the Lee Valley Regional Park. Parts of the SPA are managed as nature reserves by the Herts and Middlesex Wildlife Trust (HMWT) and the RSPB.
- 5.6.4 All the habitats within the SPA are man-made. Walthamstow Reservoir, constructed in the latter half of the nineteenth century, comprises of ten relatively small and shallow water storage basins. Several of these are fringed by sloping earth banks and together with the presence of wooded islands form distinctive habitat features. In recent years Thames Water, in partnership with London Borough of Waltham Forest and London Wildlife Trust, have enhanced the Reservoirs for wildlife. In 2017 they were opened to the general public as the Walthamstow Wetlands.
- 5.6.5 Rye Meads SSSI comprises of wet meadows, disused and operational effluent lagoons and Rye House marsh. These three areas provide a variety of different habitats

including open water habitats swamp communities, tall fen communities, marshy grassland and scrub. The meadows are the last substantial remnants of ancient floodplain on the rich alluvial soils of the Lee Valley. The site supports one of the largest areas of tall fen vegetation in the county and provides a valuable habitat for birds and locally uncommon plants.

- 5.6.6 Amwell Quarry SSSI is a former gravel pit site in the Lee Valley near Ware, which supports nationally important numbers of wintering wildfowl, along with outstanding assemblages of breeding birds and of dragonflies and damselflies. The site includes two large lakes which were excavated between 1973 and 1990, and a variety of associated wetland, grassland and woodland habitats.
- 5.6.7 The Turnford and Cheshunt Pits SSSI include ten former gravel pits ranging in age from North Metropolitan Pit which is among the oldest pits in the Lee Valley to Hooks Marsh Lake which was not excavated until the 1970s, and cover a span of over 40 years. Because of the profusion of pits and islands, several of the pits have extensive shorelines; North Metropolitan Pit alone having an estimated shoreline of about 7.2km. Also included in the site are all the associated areas of marsh, grassland, ruderal herbs, scrub and woodland; part of the Small River Lee; and a further water body, Hall Marsh Scrape, which was constructed specifically for use by waterfowl. The pits are of national importance for wintering gadwall and shoveler.
- 5.6.8 The Lee Valley is designated as an SPA and Ramsar site (see Figure 4 for location) due to the presence of overwintering populations of the following Birds Directive Annex I species:
- Bittern *Botaurus stellaris* (6% of the wintering population of Great Britain);
 - Gadwall *Anas strepera* (2.6% of the wintering population of Great Britain); and
 - Shoveler *Anas clypeata* (1.9% of the wintering population of Great Britain).
- 5.6.9 The Bittern, Gadwall and Shoveler are recorded on the amber list of the Birds of Conservation Concern 5 list⁸, a status unchanged since the previous list. While the site is not designated due to the presence of Tufted Duck *Aythya fuligula* or Common Tern *Sterna hirundo*, it is noted that the Common Tern is also listed on the amber list and is considered threatened in Europe. The Tufted Duck is now listed on the green list as being vulnerable in Europe, with its status moved to a higher threat status than in previous lists.
- 5.6.10 In addition to these qualifying bird species, the site qualifies as a Ramsar site under criterion 2 by supporting the nationally scarce plant species Whorled Water-milfoil *Myriophyllum verticillatum* and the rare and vulnerable invertebrate *Micronecta*

⁸ <https://britishbirds.co.uk/content/status-our-bird-populations> The Fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List Assessment of Extinction Risk for Great Britain, December 2021.

minutissima - a water-boatman, though this water boatman is cited as being of least concern in the Red List Excluding Birds⁹.

- 5.6.11 A Site Improvement Plan for the SPA has been published, dated 2014. Table 3 below summarises the issues identified, the threats and measures/ actions to be taken. Of the eight issues identified, water pollution, hydrological changes, public disturbance and air pollution are of most relevance to this assessment.

Table 3: Summary of Issues, Threats and Measures/ Actions for Lee Valley SPA and Ramsar

Issue	Threat	Measures/ Action
Water pollution	Changes in water quality need to be managed to prevent loss of suitable habitat and food sources.	Define the appropriate water quality standards for significant water bodies to inform management of changes in water quality.
		Agree water quality management for significant water bodies with key stakeholders.
		Develop and implement a Diffuse Water Pollution Plan
Hydrological changes	Reservoir levels linked to operational requirements and all water bodies subject to natural fluctuations accounting for abstraction and climatic change.	Define more clearly the water level requirements for the habitats supporting the SPA bird features.
		Agree the necessary water level management with key stakeholders for significant water bodies
Public access/disturbance	Areas of the SPA are subject to a range of recreational pressures including water sports, angling and dog walking. This has the potential to affect SPA populations directly or indirectly.	Investigate whether there is a need for change to access management.
		Agree appropriate management measures with stakeholders to align with best practice.
Inappropriate scrub control	The reedbed habitats, muddy fringes, and bankside all provide habitat as part of the mosaic for the SPA birds. Scrub control is necessary to ensure	Secure resources to target management delivery.

⁹ <https://lists.nbnatlas.org/speciesListItem/list> Red List for Great Britain Post 2001 – Red list conservation status of Great Britain species excluding birds, based on IUCN guidelines.

	these habitats are maintained.	
Fisheries: fish stocking	Fish population and species composition needs to be appropriate to ensure suitable habitats including food resource and water quality are maintained for SPA bird species.	Define the appropriate fish community targets for significant water bodies.
		Action a plan to agree necessary fisheries management for significant water bodies.
Invasive species	<i>Azolla</i> and/or invasive aquatic blanket weeds will adversely affect aquatic habitat (food sources).	Review and update management control of invasive aquatic plant species, and agree regular review process. This needs a more strategic approach that is more planned and less reactive to outbreaks.
Inappropriate cutting/mowing	The reedbed requires rotational management for Bittern.	Secure resources to target management delivery.
Air pollution: risk of atmospheric nitrogen deposition	Nitrogen deposition exceeds site relevant critical loads.	Further investigate potential atmospheric nitrogen impacts on the site based on application of guidance from Chief Scientist Group Nitrogen Task and Finish Group.

5.6.12 The Conservation Objectives for the SPA published in February 2019¹⁰ are to ensure that the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Birds Directive, by maintaining or restoring:

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

Lee Valley SPA and Ramsar Site – Current Condition

5.6.13 The condition of the SSSI units is provided in Table 4. Open water extent and depth, water quality, edge treatments, reed bed coverage and connections between parts of

¹⁰ <http://publications.naturalengland.org.uk/file/6516586265706496> Lee Valley SPA and Ramsar Conservation Objectives, 2019

the SPA are key to maintaining the integrity of the SPA as a whole and each SSSI component has particular functions within the network.

Table 4: Condition of Lee Valley SPA and Ramsar SSSI Units

Unit No.	Condition	Reason for below Favourable Condition
Amwell Quarry SSSI – Assessed in 2007		
1	Favourable	
2	Favourable	
Rye Meads SSSI – Assessed in 2013		
1	Favourable	
2	Favourable	
3	Unfavourable - recovering	The open water habitats are regarded as favourable supporting populations of overwintering gadwall, shoveler; breeding tufted duck. However, the non-breeding population of tufted duck (unit 3-5) and breeding pairs of common tern are currently unfavourable and there is a need for an ongoing investigation with action to seek to adequately address this.
4	Unfavourable - recovering	Mosaic of swamp; reedbed, in favourable condition for extent and quality features including regularly visiting o/w bittern. Furthermore, the open water habitats support favourable populations of the listed overwintering wetland ducks (gadwall, shoveler); breeding tufted duck. However, the non-breeding population of tufted duck (unit 3-5) and breeding pairs of common tern are currently unfavourable and there is a need for an ongoing investigation with action to seek to adequately address this.
5	Unfavourable - recovering	As above
6	Favourable	
Turnford and Cheshunt Pits SSSI – Assessed in 2013		
1	Favourable	
2	Favourable	
3	Favourable	
4	Favourable	
5	Favourable	
6	Favourable	
7	Favourable	
8	Favourable	
9	Favourable	
Walthamstow Reservoirs – Assessed in 2014		
1	Unfavourable -	Wintering cormorant, tufted duck and shoveler counts,

	recovering	and breeding pochard and tufted duck numbers, were all assessed as favourable against the baseline data. Breeding heron numbers continue to fail the minimum threshold, but this is not considered to be a result of detrimental site management. The underlying causes are being investigated.
2	Unfavourable – recovering	As above
3	Unfavourable – recovering	As above
4	Unfavourable – recovering	As above
5	Unfavourable – recovering	As above
6	Unfavourable – recovering	As above
7	Unfavourable – recovering	As above
8	Unfavourable – recovering	As above
9	Unfavourable – recovering	As above
10	Unfavourable – recovering	As above

Wormley-Hoddesdonpark Woods SAC

5.6.14 Wormley-Hoddesdonpark Woods SAC covers an area of 336.47ha and is comprised of two SSSIs: Wormley-Hoddesdonpark Woods South SSSI and Wormley-Hoddesdonpark Woods North SSSI. The SAC is located within Broxbourne borough west of the A10 junction with Hoddesdon. The SAC is part of a wider complex of woodlands that run east-west between Broxbourne and Welwyn Garden City.

5.6.15 This site covers a series of woods lying mainly on London clay, with some gravel deposits and areas of chalky boulder clay. Most woodlands are ancient with associated areas of secondary woodland which have grown up on old fields and glades. The varied geology combines with the former land uses to produce a mosaic of vegetation. The largest part of the site is oak-bracken-bramble woodland, dominated by sessile oak *Quercus petraea* and hornbeam *Carpinus betulus*, with areas of pedunculate oak *Quercus robur* and hornbeam. Further there are large stands of almost pure hornbeam (former coppice).

5.6.16 There are also marshy areas with alder *Alnus glutinosa*, pendulous sedge *Carex pendula* and yellow pimpernel *Lysimachia nemorum* as well as areas with higher proportions of ash *Fraxinus excelsior*, Dogs Mercury *Mercurialis perennis* and Yellow

Archangel *Lamium galeobdolon* on the chalky boulder clay. Areas dominated by bluebell *Hyacinthoides non-scripta* do occur, but elsewhere there are stands of great wood-rush *Luzula sylvatica* with carpets of the mosses *Dicranum majus* and *Leucobryum glaucum*. Locally, a bryophyte community more typical of continental Europe occurs, including the mosses *Dicranum montanum*, *D. flagellare* and *D. tauricum*. Nationally the woods are regarded as the best remaining example of the south eastern sessile oak hornbeam woods.

5.6.17 The qualifying feature for Wormley-Hoddesdonpark Woods SAC (see Figure 4 for location) is Atlantic and medio-European oak or oak-hornbeam forests of the *Carpinion betuli*.

“Wormley-Hoddesdonpark Woods in south-east England has large stands of almost pure hornbeam *Carpinus betulus* (former coppice), with sessile oak *Quercus petraea* standards. Areas dominated by bluebell *Hyacinthoides non-scripta* do occur, but elsewhere there are stands of great wood-rush *Luzula sylvatica* with carpets of the mosses *Dicranum majus* and *Leucobryum glaucum*. Locally, a bryophyte community more typical of continental Europe occurs, including the mosses *Dicranum montanum*, *D. flagellare* and *D. tauricum*.”¹¹

5.6.18 A Site Improvement Plan for the SAC has been published, dated 2015¹². Table 5 below summarises the issues identified, the threats and measures/ actions to be taken. Of the seven issues identified, air pollution and public access/ disturbance are of most relevance to this assessment.

Table 5: Summary of Issues, Threats and Measures/ Actions for Wormley-Hoddesdonpark Woods SAC

Issue	Threat	Measures/ Action
Disease	Acute Oak Decline is present in at least two parts of the site and affects both native Oak <i>Quercus</i> species, which are key components of this woodland type. Oaks can be killed by Acute Oak Decline within 5 years of symptoms appearing. Research is underway on the causal agents and spread of the disease. Based on current knowledge Acute Oak Decline has the potential in the long-term to cause high Oak mortality right across the site.	Carry out a comprehensive survey for Acute Oak Decline, including privately-owned land and woods outside but close to the SAC boundary.
		Inform all owners/ managers of the local distribution and symptoms of Acute Oak Decline and, where necessary, of control recommendations.

¹¹ <http://publications.naturalengland.org.uk/file/6742166290563072> Conservation Objectives Supplementary Advice on Conserving and Restoring Site Features for Wormley-Hoddesdonpark Woods SAC, 2019

¹² <http://publications.naturalengland.org.uk/publication/6314181103976448> Wormley-Hoddesdonpark Woods Site Improvement Plan

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

Invasive species	Several tree and shrub species not native to the site are present. Where they are not being actively controlled, they are gradually spreading. The more invasive of these include Sycamore <i>Acer pseudoplatanus</i> , Turkey Oak <i>Quercus cerris</i> , Rhododendron <i>Rhododendron ponticum</i> and Snowberry <i>Symphoricarpos albus</i> .	Carry out a comprehensive survey of non-native invasive plant species, including privately-owned land and woods outside but close to the SAC boundary.
		Inform all owners/ managers of the local distribution and identification of the main invasive species and, where necessary, of control recommendations and funding options under Countryside Stewardship.
Air pollution: risk of atmospheric nitrogen deposition	Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection and hence there is a risk of harmful effects, but the sensitive features are currently considered to be in favourable condition on the site. This requires further investigation.	Further investigate the impacts of atmospheric nitrogen deposition, based on the application of guidance from the Chief Scientist's Group Nitrogen Task and Finish Group.
		Establish a 'lightweight' monitoring system for species or other site features likely to be sensitive to N deposition (e.g. N-sensitive bryophytes at selected locations).
Deer	Browsing and grazing by deer can reduce tree regeneration (from seedlings or coppice stools) and damage the woodland understorey and ground flora. At this site, deer damage levels are currently only moderate and do not appear to be affecting tree regeneration, habitat structure or species composition greatly. However, subtle damaging effects can be difficult to identify and monitor, and deer populations can increase rapidly.	Establish more small (4m x 4m) deer exclosures to monitor effects of deer on ground flora and tree/shrub regeneration.
		Improve monitoring of deer numbers and damage, extending it to include privately-owned land and woods outside but close to the SAC boundary. Identify and focus on locations, species and other site features likely to be particularly sensitive to deer damage (e.g. recently coppiced areas or those with scarce, palatable ground flora species). Monitor impacts of

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

		<p>other potentially damaging species such as squirrels, if initial findings suggest they may also be reducing natural regeneration significantly.</p> <p>Use monitoring results to identify areas adversely affected by deer and advise owners/managers on deer management and funding opportunities under Countryside Stewardship.</p>
Vehicles: illicit	<p>Illegal use of restricted byways and bridleways by off-road vehicles causes localised but sometimes severe rutting and soil compaction, damaging the woodland ground flora, shrubs and trees. Fly-tipping damages the ground flora directly and can introduce toxins and alien species.</p>	<p>Identify areas still being damaged and the access points/routes used.</p> <p>Where necessary, construct or repair barriers to prevent illicit access by vehicles, install more signage and CCTV cameras, and pursue prosecutions.</p>
Forestry and woodland management	<p>The larger woodland units with public access are under appropriate management but some of the smaller, privately owned units are not. Though it is quite acceptable for a significant proportion of the site to be left as 'minimum intervention' high forest, in some circumstances a lack of active management can lead to adverse effects. These include a reduction in structural and species diversity (particularly in previously coppiced areas), the loss of temporary and permanent open space, the over-shading and deterioration of veteran pollards, and the spread of invasive species.</p>	<p>For units adversely affected by lack of recent management or inappropriate management, encourage production of Woodland Management Plans compatible with the SAC's conservation objectives and entry into new Countryside Stewardship Scheme agreements. Use results of surveys addressing other issues to refine priorities.</p>
Public access/ disturbance	<p>The site is a large, attractive area of ancient woodland with extensive public access and close to large urban centres, so it is</p>	<p>Establish a 'light-weight' monitoring system for species or other site features likely to be sensitive to effects of public</p>

	heavily used by the public for recreational purposes. Sensitive management of access points and routes by the site's main owners has been largely successful in mitigating the potential adverse effects of this high level of use. However, visitor numbers continue to increase, the types of use can change unpredictably and less obvious adverse effects on important flora and fauna could be missed during routine, 'general purpose' monitoring.	access (e.g. vulnerable ground flora or veteran pollards close to main access points/routes). Regularly review monitoring results and where feasible, modify access arrangements, signage etc to remedy adverse effects.
--	--	---

5.6.19 The Conservation Objectives of the SAC published in January 2019 are to ensure that the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

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

Wormley-Hoddesdonpark Woods SAC – Current Condition

5.6.20 The condition of the SSSI units is provided in Table 6. The Conservation Objectives indicate that in terms of the structure and function of the SAC, the qualifying feature of the woodland (*quercus robur* (European Oak) covers approximately 75% of the SAC area, often mixed with other woodland species. The Conservation Objectives include maintaining at least 3 age classes (as well as dead wood) and tree canopy cover in order to maintain species diversity for habitat purposes and to create the necessary micro-climate and woodland structure. These factors are monitored and are achieved through a pollarding and coppicing management regime. The woodland structure and quantity of the European Oak is key to maintaining the integrity of the SAC.

Table 6: Condition of Wormley-Hoddesdonpark Woods SAC SSSI Units

Unit No.	Condition	Reason for below Favourable Condition
Wormley-Hoddesdonpark Woods South SSSI – Assessed in 2017		
1	Favourable	
2	Favourable	
3	Favourable	
4	Favourable	
5	Favourable	
6	Favourable	
7	Favourable	
8	Favourable	
Wormley-Hoddesdonpark Woods North SSSI – Assessed in 2009, 2012, 2017 and 2021		
1	Favourable 2017	
2	Unfavourable – recovering 2017	The owners are currently restoring this unit to a more open, wood-pasture structure by removing most of the non-native conifers planted on the unit in the mid-twentieth century. The cover of non-native tree species on the unit has been substantially reduced as a result and acid grassland/heathland plant communities will be able to colonise the cleared area from the adjacent glades over the next few years. The unit currently fails to reach the targets set for open space, canopy cover and cover of non-native species but this is all addressed by the current management regime and phased removal of conifer and there has been a noticeable improvement as a result of the recent management and the unit should achieve favourable condition in a few years
3	Favourable 2009	
4	Favourable 2009	
5	Favourable 2017	
6	Favourable 2017	
7	Favourable 2017	
8	Unfavourable declining 2017	The common was assessed against wood pasture targets. Though it was assessed as Favourable in 2012, it was felt that the issues raised at the time hadn't been addressed and this reflects in

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

		the Unfavourable declining condition. It is felt that the unit could quickly return to Favourable condition once these issues have been addressed. The woodland shows signs of under-management and management operations are needed:- Removing by pulling or cutting non-native species such as Sycamore and conifers that are encroaching from the neighbouring plantation. The bigger Sycamores will need felling. Regular pulling might be necessary.- Selective thinning (young trees, saplings, some scrub) to restore the right balance of open space and canopy cover as required by wood pasture targets.- Possible re-pollarding of selected trees to create new pollards that will replace the old pollards eventually. The ground flora and the amount of dead wood (both standing and lying) was appropriate.
9	Favourable 2017	
10	Unfavourable recovering 2017	<p>This is a stretch of the old Roman Road, Ermine Street. It is lined by veteran Hornbeam pollards and the width of the former roman road is still marked by ditches, though the full width of the road is now mainly wooded. Pollards are overshadowed but regeneration occurs in gaps and on ride edges. The canopy cover is dense overall and the main recommendations from 2012 still are true:</p> <ul style="list-style-type: none"> • selective thinning around some of the veteran hornbeam pollards (which are an important feature of the unit) will be needed soon to prevent them from becoming too heavily shaded by younger standard trees • many of the veterans are in a fragile condition due to their age and the amount of decay in their trunks, so it is important to create more young pollards within the next few years • if such a category existed I would classify the unit as in 'favourable declining' condition because of the problem of it gradually becoming less open and the veteran pollards becoming more heavily shaded • it would be worth implementing zoned ride edge management and phased maintenance of the boundary ditches along the length of the unit. There are no signs of off-roading but fly tipping still occurs near the car park. The unit was assessed as Unfavourable declining as the old Hornbeam pollards are over-shaded by younger trees need careful thinning around them to survive and new pollards should be created to replace the ones that will inevitably be lost. The roman road could also benefit from general thinning to open up the canopy and restoring the roman road.
11	Favourable 2017	

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

12	Favourable 2017	
13	Unfavourable – no change 2012	Viewed from just beyond the unit's boundary during visits to nearby units in July 2011 and January 2012. This small unit is a pasture providing open space for the adjacent woodland units. Since it was last assessed in 2009, excessive scrub encroachment has been cleared, a new fence has been erected and old hornbeam stubs along the southern boundary have been pollarded and are regrowing well. However there appear to be heaps of imported waste material in the field including some rubble and metal. Until these are removed the unit cannot be considered to be in recovering condition. If this material was removed and some grazing was reintroduced it should be possible to get this unit into favourable condition within a few years.
14	Favourable 2017	
15	Favourable 2021	
16	Favourable 2017	

Epping Forest SAC

- 5.6.21 Epping Forest is a former royal forest and ancient wood-pasture owned and managed by the City of London Corporation. The entire forest is 2,400 ha, approximately 19km long situated between Epping in the north and Wanstead to the south. Over two-thirds of the Forest area is classified as SAC. Epping Forest is one of only a few remaining large-scale examples of ancient wood-pasture in lowland Britain and has retained habitats of high nature conservation value including ancient semi-natural woodland, old grassland plains and scattered wetland. The semi-natural woodland is particularly extensive, forming one of the largest coherent blocks in the country. Most is characterised by groves of over-mature pollards and these exemplify all three of the main wood-pasture types found in Britain: beech-oak, hornbeam-oak and mixed oak. The Forest plains are also a major feature and contain a variety of unimproved acid grasslands which have become uncommon elsewhere in Essex and the London area. In addition, Epping Forest supports a nationally outstanding assemblage of invertebrates, a major amphibian interest and an exceptional breeding bird community.
- 5.6.22 The Forest lies on a ridge of London clay overlain in places by Claygate Beds and in the highest areas by Bagshot Sand and Pebble Gravel. In some of the southernmost areas, the sands and gravels on which the Forest lies are glacial in origin. This varied geology gives rise to a mosaic of soil types from neutral soils to acidic loams and from impervious clays to well-drained gravels. To a large extent these soil patterns have dictated the pattern of vegetation in Epping Forest.
- 5.6.23 Epping Forest was traditionally managed as wood-pasture in which the trees were lopped or 'pollarded' above the reach of browsing animals to produce a crop of wood. This practice also prolonged the life of individual trees and has created a distinctive woodland structure markedly different from that found under other forms of woodland management. During the 19th century this traditional system of wood management declined and eventually ceased in 1878 under the Epping Forest Act. However, recently pollarding has been reinstated by the Conservators of Epping Forest in certain places. Owing to this history much of the woodland is dominated by pollards of considerable age, with some of coppice origin indicating an even older system of management. Pedunculate oak pollards are scattered throughout and occasionally dominate forming areas of oak wood-pasture but are less frequent in the vicinity of beech pollards.
- 5.6.24 The understorey frequently consists of holly *Ilex aquifolium*; hazel *Corylus avellana* is rare. Dead and rotting wood in the old pollards, particularly those which are still standing, is of considerable value to many invertebrates and in particular to beetles (*Coleoptera*). The pollards also add to the structural diversity of the woodland which is important to birds, many of which feed on the rich invertebrate fauna.

- 5.6.25 The site supports a mosaic of habitats of high nature conservation value characteristic of ancient wood-pasture including ancient semi-natural woodland, old grassland plains, wet and dry heathland and scattered wetlands, including rivers, streams and bogs. The semi-natural woodland is particularly extensive but the Forest plains are also a major feature and contain a variety of unimproved acid grasslands.
- 5.6.26 The semi-natural woodlands of Epping Forest include important beech *Fagus sylvatica* forests on acid soils, which are important for a range of rare epiphytic communities, including the Knothole moss *Zygodon forsteri*. The long history of pollarding, and resultant large number of veteran trees, ensures that the site is also nationally important for its fungi and dead wood (saproxylic) invertebrates. Records of stag beetle *Lucanus cervus* are also widespread and frequent. Areas of acidic grassland transitional with heathland are generally dominated by a mixture of fine-leaved grasses. In marshier areas, purple moor-grass *Molinia caerulea* frequently becomes dominant. Broad-leaved herbs typical of acidic grassland and heathland are frequent, including heather *Calluna vulgaris*. The site also contains an example of wet dwarf-shrub heath with both heather and cross-leaved heath *Erica tetralix*. In total, over 360 Red Data Book and nationally notable invertebrate species, 177 bryophyte flora species, and 700 basidiomycete and at least 20 ascomycete fungi species have been recorded from the forest that thrive on the varied flora, fauna and wetland and wet bog habitats dispersed across the forest.
- 5.6.27 The qualifying features for Epping Forest SAC (see Figure 4 for location) are the Habitats Directive Annex II species Stag Beetle, *Lucanus cervus*, and the following Annex I habitats:
- Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrublayer (*Quercion roburi-petraeae* or *Ilici-Fagenion*);
 - Northern Atlantic wet heaths with *Erica tetralix*; and
 - European Dry heaths.
- 5.6.28 A Site Improvement Plan for the SPA has been published, dated 2014¹³. Table 7 below summarises the issues identified, the threats and measures/ actions to be taken. Of the eight issues identified, water pollution, hydrological changes, public disturbance and air pollution are of most relevance to this assessment.

Table 7: Summary of Issues, Threats and Measures/ Actions for Epping Forest SAC

Issue	Threat	Measures/ Action
Air pollution: impact of atmospheric nitrogen	Nitrogen deposition exceeds site-relevant critical loads for ecosystem protection. Some parts of the site are assessed	Control, reduce and ameliorate atmospheric nitrogen impacts.

¹³ <http://publications.naturalengland.org.uk/publication/6663446854631424> Epping Forest SAC Site Improvement Plan, 2014

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

deposition	as in unfavourable condition for reasons linked to air pollution impacts.	
Undergrazing	The quality and diversity of the SAC features requires targeted management best achieved through grazing to: minimise scrub invasion; minimise robust grass domination, and maximise the species diversity of heathland plant communities.	Ensure that sufficient resources are available for appropriate grazing levels to achieve and maintain favourable conservation status for SAC features. This requires funding and stock management.
Public access/disturbance	Epping Forest is subject to high recreational pressure. There is a high general level of footfall in Epping Forest throughout the year, including periods of significant use, and resulting in a diverse range of impacts which include mountain biking and unmanaged fires. Population and visitor numbers are likely to continue to increase.	Identify key areas that are subject to recreational impacts. Agree and implement a site-specific recreational management plan to ensure SAC features are protected and maintained.
Changes in species distributions	Beech tree health and recruitment may not be coping sufficiently with environmental conditions to sustain its presence and representation within the SAC feature. This may be linked to climate change as well as other factors such as air quality, recreational pressure and water availability.	Investigate Beech tree health and Beech sapling recruitment in core areas to establish a baseline for monitoring and consider adequacy for community sustainability. Agree and implement a management plan to promote Beech tree conservation and sapling recruitment, review conservation objectives and/or a plan for different tree species to be able to take the place of Beech if necessary.
Inappropriate water levels	Wet heath is dependent on suitable ground water levels. There is a threat of prolonged drying out through climate change.	Implement a hydrological investigation for key wet heathland areas. Agree and implement a ground water level management plan for wet heathland areas, if necessary.

Water pollution	Surface run-off of poor quality water from roads with elevated levels of pollutants, nutrients and salinity may be affecting wet heath, probably mostly around the edges.	Investigate the impact of poor quality water run-off from roads on wet heath communities.
		Agree and implement a surface runoff management plan for wet heathland areas, if necessary.
Invasive species	Heather Beetle <i>Lochmaea suturalis</i> has locally impacted on some heathland areas. Vigilance is required to survey it and increase awareness of its likely effects and signs of impact.	Investigate how significant the impact of the spread of Heather Beetle has been on the wet and dry heathland areas of Epping Forest.
Disease	Tree diseases such as <i>Phytophthora</i> present a real threat to Beech.	Investigate whether the current monitoring programme of tree diseases is adequate.
		Following the study agree and implement appropriate management measures for core areas supporting Beech SAC communities.
Invasive species	Grey Squirrel <i>Sciurus carolinensis</i> is not currently known to be significantly affecting tree health or regeneration, but there is a need to retain vigilance and perhaps consider increased awareness of the likely effects and signs of impact.	Investigate what impact Grey Squirrels have on tree health and/or regeneration and its possible further impact on the Atlantic acidophilous Beech woodland feature.
		Following study, agree appropriate management measures and implement.

5.6.29 The Conservation Objectives for the SAC published in January 2019¹⁴ are to ensure that the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats;
- The structure and function of the habitats of qualifying species;

¹⁴ <https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0012720.pdf> Conservation Objectives Supplementary Advice on Conserving and Restoring Site Features for Epping Forest SAC, 2019

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

Epping Forest - Current Condition

- 5.6.30 Condition assessments of the SSSI units that make up the SAC were carried out by Natural England in 2010 and 2017 (NE, 2017). Of the 41 units within Epping Forest SSSI, 35.48% were in a 'favourable' condition, 48.17% 'unfavourable recovering', 14.53% 'unfavourable no change', and 1.83% 'declining'. Table 8 below lists the SSSI units assessed as either 'unfavourable no change' or 'unfavourable declining'. In all cases the broad habitat type is 'lowland broadleaved, mixed and yew woodland'.
- 5.6.31 Given the scale, extent and variety of landscape and habitats present in the forest, the structure and function of the SAC is also very varied across the site. As such, a variety of plant and animal species (or related groups of such species) make particularly important contributions to the necessary structure, function and or quality of the different habitats that influence the integrity of the site as a whole. It is noted however, that air quality is considered a threat as this affects a number of areas of the forest due to the network of busy roads through the forest itself.

Table 8: Condition of Epping Forest SAC SSSI units

Unit No.	Condition	Reason for below Favourable Condition
105	Favourable 2010	
106	Unfavourable – Recovering 2010	Unit 106 has been assessed as UNFAVOURABLE RECOVERING on the basis of the following data, and having taken into account the effect of all ongoing and planned management works:- habitats and veteran trees assessed during field visit, 8 September 2009;- invertebrate assemblage data, reviewed 2004-07;- bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit;- fungi data from British Mycological Society, 1980-2002;- (no recent breeding bird assemblage data was available). However, notwithstanding this assessment, there remains a very significant issue relating to air quality and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots), there is excessive growth of bramble, and there are dense stands of nettles along roadsides and ride edges. Recent oak regeneration is poor, but this is believed to be primarily due to severe knopper gall infestation.
107	Favourable 2010	
108	Favourable 2010	
109	Unfavourable – Recovering 2010	Unit 109 has been assessed as UNFAVOURABLE RECOVERING on the basis of the following data, and having taken into account the effect of all ongoing and planned management works: - habitats and veteran trees assessed during field visit, 7 September 2009; - invertebrate assemblage data, reviewed 2004-07; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent breeding bird assemblage data was available).However, notwithstanding this assessment, there remains a very significant issue relating to air quality and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots), there is excessive growth of bramble, and there are dense stands of nettles along roadsides and ride edges. In addition, the anticipated recovery in the condition of the grassland areas will not take place unless an extensive grazing regime is re-introduced as planned. Recent oak regeneration is poor, but this is believed to be primarily due to severe knopper gall infestation.

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

110	Unfavourable-Recovering 2017	Area supports a mosaic of Oak, Hornbeam, Beech woodland/Wood pasture with wetland features (streams and ponds), heathland and small grassland areas. Wood pasture areas with higher canopy cover than optimal albeit pollarding, crown reduction and halo work to be undertaken on a rolling programme throughout SSSI in line with CoL Management Plan (UnfRec)Veteran trees, moss & fungi assemblage – favourable Wetland features - Borderline favourable – suggest targeted tree management around subsidiary ponds may be beneficial to open out and promote submerged vegetation cover for benefit of amphibians and dragonfly assemblage. Heathland and acid grassland – excessive cover of tussock grass species and sub-optimal for positive herbs indicates targeted grazing and grassland management would be beneficial (Unf Rec). Overall assessed as Unfavourable Recovering.
111	Favourable 2010	
112	Unfavourable – no change 2010	Unit 112 has been assessed as UNFAVOURABLE NO CHANGE on the basis of the following data, and having taken into account the effect of all ongoing and planned management works: - habitats and veteran trees assessed during field visit, 13 August 2009; - invertebrate assemblage data, reviewed 2004-07; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - knothole yoke-moss (<i>Zygodon forsteri</i>) survey data, 2008; - fungi data from British Mycological Society, 1980-2002; - (no recent breeding bird assemblage data was available).The heathland area of Dulsmead has not been managed recently and is being invaded by bracken and birch seedlings. In addition, there remains a very significant issue relating to air quality and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots), heathland areas show excessive growth of grass compared to broad-leaved species, and there are dense stands of nettles along roadsides and ride edges.
113	Unfavourable – Recovering 2017	Overall unfavourable recovering. Units supports wood pasture/pasture woodland W14,15,16, 10 mosaic (with distribution broadly indicated on FCT Maps), bog and stream, scattered temporary and permanent open areas supporting patches of acid grassland and localised dry heath. The wood pasture areas have a canopy range of 20-90% with some areas notably in Jack's Hill recently subject to halo work and re-pollarding. Regeneration of Hornbeam and Beech appears adequate. New Oak, Beech pollards created also doing well in spite of mildew on Oak leaves. The Beech areas have some significant sized veterans and areas of character cushion moss. Areas with more Oak/Hornbeam include pollards but also more standards on western side. The unit would benefit from more areas of

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

		<p>varied age temporary open space through wood pasture management to increase ground flora, invertebrate habitats and forage for birds, so overall unfavourable recovering. Some good areas for bryophytes on trees and woodland habitats although many areas near roads and Debden Camp with sub-optimal diversity, so borderline favourable. Range of fungi present, including bracket, boletes and various associated with dead wood logs etc, so favourable. Tree composition and character all favourable, with a watching brief required for Rhododendron cover. Good range of veteran trees – favourable. Oak Hill Bog appeared drier than ideal, although some Sphagnum moss present and sedges, rushes in evidence. Some recent management noted but also some encroachment by bracken and rhododendron on SE bankside ideally could be removed.</p> <p>Birch wood plain supports a 5-20cm sward in the main grassland areas with some marginal rushes etc. Bramble has been cut back but along with bracken is encroaching from the margins. Some character plants, eg wood sage, heath speedwell but otherwise limited evidence of abundant character species so assessed as unfavourable recovering.</p>
114	Unfavourable – Recovering 2017	<p>Overall Unfavourable recovering. Units supports wood pasture/pasture woodland mosaic of characteristic W14,15,16,10 tree composition and ground flora; seasonally wet streams and open areas (temporary and permanent) supporting acid grassland of variable quality. The Pillow Mounds and surrounding area provide the largest grassland expanse and although are characteristically rabbit grazed short turf the sward is currently sub-optimal for species diversity. Despite this, the presence of sheep's sorrel, health bedstraw and the continued presence of ant hills are positive signs and evidence of rabbit grazing, bramble/bracken clearance on the slopes and recent recreational management activities enable an unfavourable recovering assessment for this feature. The wood pasture areas have a canopy cover range of 20-90% with some areas notably in the East of Comical Corner recently subject to halo work and re-pollarding, Regeneration of hornbeam pollards and seedlings appears adequate. There are less Beech saplings but adequately represented at young tree stage. New pollards of Oak & Beech performing well, in spite of vigorous leaf mildew on the former. The Beech areas have some significant sized veterans, mostly pollards, whereas Oak-Hornbeam areas include pollards and Oak standards. Shrub layer of Holly still excessive in areas and canopy cover dominated by the 70-90% range, however the unit will continue to benefit from the ongoing wood pasture restoration works to create more areas of temporary open space of varied ages and increasing the diversity of the ground flora, invertebrate habitats and forage for birds, so</p>

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

		assessed as unfavourable recovering. The unit is sub-optimal for bryophytes with reduced diversity on trees notably close to high recreational areas or roads, however does support a reasonable diversity of lichens and fungi. This includes bracket, boletus, russula's and dead wood species. Tree composition and character favourable with only small patches of sycamore and turkey oak mainly on the west and north-west sides. Good range of veterans with characteristic features so favourable.
116	Favourable 2010	
117	Unfavourable – no change 2017	This SSSI unit supports a mosaic of Beech and Oak, Hornbeam wood pasture/woodland with wetland features (ponds and stream). Wood pasture stands with higher canopy cover (80-95%) than optimal and Sycamore locally frequent and competing with Beech regeneration in some areas. Pollarding, crown reduction and selective thinning with sycamore removal to be undertaken on a rolling programme throughout the SSSI in line with Col Management Plan, so assessed as unfavourable recovering. Veteran trees, moss and fungi assemblage – favourable Wetland features, notably Speakman's Pond is unfavourable due to Crassula dominance currently suppressing other aquatic and marginal vegetation. Cover of submerged and marginal vegetation is low due to excessive over-shading and smothering by Crassula dominance. Recommend targeting management to significantly reduce Crassula and promote submerged and marginal vegetation through silt excavation and tree works.
118	Favourable 2010	
119	Favourable 2010	
120	Unfavourable – Recovering 2010	Unit 121 has been assessed as UNFAVOURABLE RECOVERING on the basis of the following data, and having taken into account the effect of all ongoing and planned management works: - habitats and veteran trees assessed during field visit, 27 August 2009; - invertebrate assemblage data, reviewed 2004-07; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent breeding bird assemblage data was available). Mortality of veteran beech trees along the ridgeline was considered to be excessive, but this is probably due to their exposed location and does not constitute a significant problem. However, notwithstanding this assessment, there remains a very significant issue relating to air quality and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots), and there are dense stands of nettles along roadsides and ride edges.

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

121	Unfavourable – Recovering 2010	Unit 121 has been assessed as UNFAVOURABLE RECOVERING on the basis of the following data, and having taken into account the effect of all ongoing and planned management works: - habitats and veteran trees assessed during field visit, 27 August 2009; - invertebrate assemblage data, reviewed 2004-07; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent breeding bird assemblage data was available). Mortality of veteran beech trees along the ridgeline was considered to be excessive, but this is probably due to their exposed location and does not constitute a significant problem. However, notwithstanding this assessment, there remains a very significant issue relating to air quality and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots), and there are dense stands of nettles along roadsides and ride edges.
122	Unfavourable – Recovering 2010	Unit 122 has been assessed as UNFAVOURABLE RECOVERING on the basis of the following data, and having taken into account the effect of all ongoing and planned management works: - habitats and veteran trees assessed during field visit, 28 July 2009; - invertebrate assemblage data, reviewed 2004-07; - Odonata assemblage data, 1996-2007; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent amphibian assemblage data was available); - (no recent breeding bird assemblage data was available). However, notwithstanding this assessment, there remains a very significant issue relating to air quality and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots), grassland areas show excessive growth of grasses compared to broad-leaved species, and there are dense stands of nettles along roadsides and ride edges. In addition, the anticipated recovery in the condition of the grassland areas is reliant upon continuation of the extensive grazing regime.
123	Unfavourable – Recovering 2010	Unit 123 has been assessed as UNFAVOURABLE RECOVERING on the basis of the following data, and having taken into account the effect of all ongoing and planned management works: - habitats and veteran trees assessed during field visit, 5 August 2009; - invertebrate assemblage data, reviewed 2004-07; - stag beetle (<i>Lucanus cervus</i>) data from Peoples Trust for Endangered Species via National Biodiversity Network, 2000-09; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent amphibian assemblage data was available); - (no recent breeding bird assemblage data was

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

		available).However, notwithstanding this assessment, there remains a very significant issue relating to air quality and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots), there is excessive growth of bramble, grassland and heathland areas show excessive growth of grasses compared to broad-leaved species, and there are dense stands of nettles along roadsides and ride edges.In addition, the anticipated recovery in the condition of the grassland and heathland areas will not take place unless management continues to take place as planned. Some of the water bodies within the unit are also in a sub-optimal condition, which may affect the unit's long-term ability to provide supporting habitat for the assemblages of Odonata and of amphibians.
124	Favourable 2010	Unit 124 has been assessed as FAVOURABLE on the basis of the following data, and having taken into account the effect of all ongoing and planned management works: - habitats and veteran trees assessed during field visit, 28 July 2009; - invertebrate assemblage data, reviewed 2004-07; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent breeding bird assemblage data was available). However, notwithstanding this assessment, there remains a very significant issue relating to air quality and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots) and grassland areas show excessive growth of grass compared to broad-leaved species. In addition, the anticipated recovery in the condition of the grassland areas is reliant upon continuation of the extensive grazing regime.
125	Unfavourable – Recovering 2010	Unit 125 has been assessed as UNFAVOURABLE RECOVERING on the basis of the following data, and having taken into account the effect of all ongoing and planned management works: - habitats and veteran trees assessed during field visit, 14 July 2009; - invertebrate assemblage data, reviewed 2004-07; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent breeding bird assemblage data was available).However, notwithstanding this assessment, there remains a very significant issue relating to air quality and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots), there is excessive growth of bramble, and grassland areas show excessive growth of grasses compared to broad-leaved species. In addition, the anticipated recovery in the condition of the

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

		grassland/heathland areas will not take place unless an extensive grazing regime is re-introduced as planned.
126	Unfavourable – Recovering 2010	Unit 126 has been assessed as UNFAVOURABLE RECOVERING on the basis of the following data, and having taken into account the effect of all ongoing and planned management works: - habitats and veteran trees assessed during field visit, 14 July 2009; - invertebrate assemblage data, reviewed 2004-07; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent breeding bird assemblage data was available).However, notwithstanding this assessment, there remains a very significant issue relating to air quality and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots) and grassland areas show excessive growth of grasses compared to broad-leaved species.In addition, the anticipated recovery in the condition of the grassland areas is reliant upon continuation of the extensive grazing regime.Some of the water bodies within the unit are also in a sub-optimal condition, which may affect the unit’s long-term ability to provide supporting habitat for the assemblages of Odonata and of amphibians.
127	Favourable	
128	Unfavourable – Recovering 2010	Unit 128 has been assessed as UNFAVOURABLE RECOVERING on the basis of the following data, and having taken into account the effect of all ongoing and planned management works: - habitats and veteran trees assessed during field visit, 20 April 2009; - invertebrate assemblage data, reviewed 2004-07; - stag beetle (<i>Lucanus cervus</i>) data from Peoples Trust for Endangered Species via National Biodiversity Network, 2000-09; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent breeding bird assemblage data was available).Die-back of heather is believed to be the result of an outbreak of heather beetle and is, therefore, a natural occurrence. However, notwithstanding this assessment, there remains a very significant issue relating to air quality and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots), and grassland and heathland areas show excessive growth of grasses compared to broad-leaved species. In addition, the anticipated recovery in the condition of the grassland and heathland areas will not take place unless management continues to take place as planned.

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

129	Unfavourable – Recovering 2010	Unit 129 has been assessed as UNFAVOURABLE RECOVERING on the basis of the following data, and having taken into account the effect of all ongoing and planned management works: - habitats and veteran trees assessed during field visit, 4 August 2009; - invertebrate assemblage data, reviewed 2004-07; - stag beetle (<i>Lucanus cervus</i>) data from Peoples Trust for Endangered Species via National Biodiversity Network, 2000-09; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent amphibian assemblage data was available); - (no recent breeding bird assemblage data was available). However, notwithstanding this assessment, there remains a very significant issue relating to air quality and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots) and grassland areas show excessive growth of grasses compared to broad-leaved species. In addition, the anticipated recovery in the condition of the grassland/heathland areas will not take place unless an extensive grazing regime is re-introduced as planned. Warren Pond is also in a sub-optimal condition, which may affect the unit's long-term ability to provide supporting habitat for the assemblages of Odonata and of amphibians.
130	Unfavourable – no change 2010	Unit 130 has been assessed as UNFAVOURABLE NO CHANGE on the basis of the following data, and having taken into account the effect of all ongoing and planned management works: - habitats and veteran trees assessed during field visit, 22 July 2009; - invertebrate assemblage data, reviewed 2004-07; - stag beetle (<i>Lucanus cervus</i>) data from Peoples Trust for Endangered Species via National Biodiversity Network, 2000-09; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent breeding bird assemblage data was available). The primary reason for unfavourability of this unit is believed to be air pollution and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots), bryophytes are sparse and only a few species are present, and there is excessive growth of bramble. A second reason for unfavourability is considered to be the level of recreational pressure to which this unit is exposed. However, in the absence of the air pollution, the habitats would probably be in a better condition to be able to cope with this pressure. In addition, although not directly affecting the favourability of the unit, the River Ching appeared to be polluted, possibly as a result of leakage or overflow from the sewer which passes through the unit.

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

131	Unfavourable – Recovering 2010	Unit 131 has been assessed as UNFAVOURABLE RECOVERING on the basis of the following data, and having taken into account the effect of all ongoing and planned management works: - habitats and veteran trees assessed during field visit, 14 May 2009; - invertebrate assemblage data, reviewed 2004-07; - stag beetle (<i>Lucanus cervus</i>) data from Peoples Trust for Endangered Species via National Biodiversity Network, 2000-09; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent amphibian assemblage data was available); - (no recent breeding bird assemblage data was available). The <i>Rhododendron</i> within this unit has been assessed by an expert, in order to differentiate between valuable horticultural varieties for retention and <i>R. ponticum</i> which will be removed. However, notwithstanding this assessment, there remains a significant issue relating to air quality and the related deposition of acidity and of nitrogen. In addition, the anticipated recovery in the condition of the unit will not take place unless management continues to take place as planned. Some of the water bodies within the unit are also in a sub-optimal condition, which may affect the unit's long-term ability to provide supporting habitat for the assemblages of Odonata and of amphibians.
132	Unfavourable – Recovering 2010	Unit 132 has been assessed as UNFAVOURABLE RECOVERING on the basis of the following data, and having taken into account the effect of all ongoing and planned management works: - habitats and veteran trees assessed during field visit, 14 May 2009; - invertebrate assemblage data, reviewed 2004-07; - stag beetle (<i>Lucanus cervus</i>) data from Peoples Trust for Endangered Species via National Biodiversity Network, 2000-09; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent breeding bird assemblage data was available). However, notwithstanding this assessment, there remains a significant issue relating to air quality and the related deposition of acidity and of nitrogen. In addition, the anticipated recovery in the condition of the unit will not take place unless management continues to take place as planned.
133	Unfavourable – declining 2010	Unit 133 has been assessed as UNFAVOURABLE DECLINING on the basis of the following data: - habitats and veteran trees assessed during field visit, 24 and 29 September 2009; - invertebrate assemblage data, reviewed 2004-07; - Odonata assemblage data, 1996-2007; - stag beetle (<i>Lucanus cervus</i>) data from Peoples Trust for Endangered Species via National Biodiversity Network, 2000-09; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent amphibian assemblage data was

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

		available); - (no recent breeding bird assemblage data was available).The primary reason for unfavourability of this unit is believed to be air pollution and, in particular, the effects of excessive levels of oxides of nitrogen and other pollutants, and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots), bryophytes are sparse and only a few species are present, there is excessive growth of bramble, grassland areas show excessive growth of grasses compared to broad-leaved species, and there are dense stands of nettles along roadsides and ride edges. Some of the water bodies within the unit are also in a sub-optimal condition, which may affect the unit's long-term ability to provide supporting habitat for the assemblages of Odonata and of amphibians.
134	Unfavourable – no change 2010	Unit 134 has been assessed as UNFAVOURABLE NO CHANGE on the basis of the following data: - habitats and veteran trees assessed during field visit, 24 September 2009; - invertebrate assemblage data, reviewed 2004-07; - stag beetle (<i>Lucanus cervus</i>) data from Peoples Trust for Endangered Species via National Biodiversity Network, 2000-09; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent amphibian assemblage data was available); - (no recent breeding bird assemblage data was available).The primary reason for unfavourability of this unit is believed to be air pollution and, in particular, the effects of excessive levels of oxides of nitrogen and other pollutants, and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots), bryophytes are sparse and only a few species are present, there is excessive growth of bramble, grassland areas show excessive growth of grasses compared to broad-leaved species, and there are dense stands of nettles along roadsides and ride edges. Some of the water bodies within the unit are also in a sub-optimal condition, which may affect the unit's long-term ability to provide supporting habitat for the assemblages of Odonata and of amphibians.
135	Unfavourable – Recovering 2010	Unit 135 has been assessed as UNFAVOURABLE RECOVERING on the basis of the following data, and having taken into account the effect of all ongoing and planned management works: - habitats and veteran trees assessed during field visit, 7 July 2009; - invertebrate assemblage data, reviewed 2004-07; - stag beetle (<i>Lucanus cervus</i>) data from Peoples Trust for Endangered Species via National Biodiversity Network, 2000-09; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

		breeding bird assemblage data was available).However, notwithstanding this assessment, there remains a very significant issue relating to air quality and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots), bryophytes are sparse and only a few species are present, grassland areas show excessive growth of grasses compared to broad-leaved species, and there are dense stands of nettles along roadsides and ride edges. In addition, the anticipated recovery in the condition of the grassland areas will not take place unless management continues to take place as planned.
136	Unfavourable – no change	Unit 136 has been assessed as UNFAVOURABLE NO CHANGE on the basis of the following data: - habitats and veteran trees assessed during field visit, 7 July 2009; - invertebrate assemblage data, reviewed 2004-07; - stag beetle (<i>Lucanus cervus</i>) data from Peoples Trust for Endangered Species via National Biodiversity Network, 2000-09; - bryophyte assemblage data, 1992, plus cover and certain species assessed during field visit; - fungi data from British Mycological Society, 1980-2002; - (no recent breeding bird assemblage data was available).The primary reason for unfavourability of this unit is believed to be air pollution and, in particular, the effects of excessive levels of oxides of nitrogen and other pollutants, and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots), bryophytes are sparse and only a few species are present, there is excessive growth of bramble, grassland areas show excessive growth of grasses compared to broad-leaved species, and there are dense stands of nettles along roadsides and ride edges. A second reason for unfavourability is considered to be the level of recreational pressure to which this unit is exposed. However, in the absence of the air pollution, the habitats would probably be in a better condition to be able to cope with this pressure.
203	Unfavourable – no change 2010	Unit 203 has been assessed as UNFAVOURABLE NO CHANGE on the basis of the following data: - habitats and veteran trees assessed during field visit, 28 September 2009; - stag beetle (<i>Lucanus cervus</i>) data from Peoples Trust for Endangered Species via National Biodiversity Network, 2000-09; - bryophyte cover and certain species assessed during field visit; The primary reason for unfavourability of this unit is believed to be air pollution and, in particular, the effects of excessive levels of oxides of nitrogen and other pollutants, and the related deposition of acidity and of nitrogen. Many veteran trees within the unit display clear symptoms of stress (eg thin canopy and die-back of leading shoots), bryophytes are sparse and only a few species are present, and there is excessive growth of bramble.

5.7 Stage 1: Screening – Assessment of Potential Recreational Effects

- 5.7.1 This section of the screening is informed by the screening forming part of the Habitats Information (2019 IHRA and 2020 IHRA) submitted as part of the Applications. It takes account of the Conservation Objectives listed in the Natural England information database on designated sites, existing information regarding the respective sensitivity of the National Network Sites to effects arising from recreational pressure, including review of site management plans, SSSI unit condition assessments, and strategic level mitigation frameworks.
- 5.7.2 Consideration was also given to the HRAs undertaken for the East Herts District Plan (EHDP) and Harlow Local Development Plan (HLDP). Those HRAs explain that if unchecked, recreational use of an internationally designated site has potential to:
- cause damage through mechanical/abrasive damage and nutrient enrichment;
 - cause disturbance to sensitive species, particularly ground-nesting birds and wintering wildfowl; and
 - prevent appropriate management or exacerbate existing management difficulties.
- 5.7.3 This section considers the potential for the proposed Development to generate effects arising from recreational pressure on the Lee Valley SPA and Ramsar site, Wormley-Hoddesdonpark Woods SAC and Epping Forest SAC, either alone or in combination with other plans and projects. Recreational demand and pressures arise as a result of the occupation of new homes and businesses. As such, the screening does not consider that recreational impacts would arise during the construction phase of the three applications comprising the Development.

Lee Valley SPA and Ramsar

- 5.7.4 The HRA undertaken for the Lee Valley Park Development Framework (Lepus Consulting, 2019)¹⁵ considered the threats and pressures at the Lee Valley SPA taking into account the in-combination effects of planned developments identified in the local plans for East Herts, Epping Forest and Harlow District Councils. The assessment identified at the screening stage that all qualifying features of the Lee Valley SPA and Ramsar would be vulnerable to impacts arising from public access and disturbance.
- 5.7.5 Two components of Lee Valley SPA and Ramsar site – Rye Meads SSSI and Amwell Quarry SSSI - lie within 3.7km of the proposed Development. Both sites are actively managed by Hertfordshire and Middlesex Wildlife Trust and the RSPB to promote nature conservation alongside responsible public access. Both reserves are laid out in considerable detail with a network of hides (ten at Rye Meads, three at Amwell) and clearly marked footpaths/boardwalks with screening vegetation that are specifically

¹⁵ https://4a7cf0de-56b5-46b2-8640-62634050a65d.filesusr.com/ugd/8d76d7_b18e84350f1240cda3b2735fa4de489a.pdf Lee Valley Regional Park Authority Strategic Policies Appropriate Assessment, Lepus Consulting, 2019

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

laid out and designed to route people away from the sensitive areas and minimise disturbance while at the same time accommodating high numbers of visitors.

- 5.7.6 Moreover, no dogs are allowed (except registered assistance dogs) and the wet and marshy/open water nature of the habitats on site inherently limits off-track recreational activity, rendering it difficult to accomplish and unappealing. For these reasons it is considered that the vulnerability of Amwell Quarry SSSI and Rye Meads SSSI to the potential adverse effects of recreational activity that can affect other less well-managed sites is very low. Within Turnford and Cheshunt Pits SSSI, recreational activity is similarly regulated through zoning of water bodies. The majority of the site is already managed in accordance with agreed management plans in which nature conservation is a high or sole priority. It is therefore considered that these management regimes protect the sensitive habitats that support the qualifying features, retaining the structural and functional integrity of the SPA.
- 5.7.7 In view of the prohibition of dogs from these sites; the relatively limited parking opportunities within their vicinity; the presence of well-defined and screened walking routes and viewing areas; and the marshy or aquatic character of the principal habitats, which is likely to preclude 'off-path' recreation, and in accordance with conclusions presented in the Habitat Regulations Assessment of the East Herts District Plan and Harlow Local Development Plan, no viable pathway to a significant recreational effect upon the SPA and Ramsar site is considered to exist.
- 5.7.8 It is noted that the HRA of the Lee Valley Regional Park Development Framework (Lepus Consulting, 2019) was able to conclude that likely significant effects from increased public access and disturbance at the Lee Valley SPA and Ramsar were unlikely (taking account of in-combination effects from relevant plans, policies and programmes). The Regional Park Authority has extensive experience of managing visitor access while protecting the vulnerable habitats that contribute to the integrity of the SPA/Ramsar and have plans and programmes in place to manage increased visitor demands associated with the local developments plans. Indeed, the policies within the Lee Valley Regional Park Development Framework are specifically designed to manage visitor demand in a way that prevents harm to vulnerable habitats and species.
- 5.7.9 The Applicant's Habitats Information (2020 IHRA) did not anticipate that any 'likely significant effects' would occur to the Lee Valley SPA/Ramsar site overall as a result of recreational pressure, and in particular on the Rye Meads SSSI and Amwell Quarry SSSI elements of the SPA and Ramsar. This conclusion was not disputed by Natural England and having reviewed the 2020 IHRA and the Lee Valley Regional Park Development Framework HRA, East Herts District Council (as competent authority and local planning authority) agree with the Applicant's conclusion that there would be no 'likely significant effects' to the Lee Valley SPA/Ramsar site as a result of recreational pressure from the proposed Development, alone and/or in combination

with other plans and projects such as Village 7. Therefore, no Appropriate Assessment of recreational impacts on the Lee Valley SPA/Ramsar is required.

- 5.7.10 Recreational activity is therefore not considered further as an impact pathway with regard to the application site. Currently, the SPA/Ramsar remains in favourable condition. However, for completeness, the HRA undertaken for the East Herts District Plan recommended that all new residential development deliver greenspace in-line with the Natural England Accessible Natural Greenspace standard to ensure that it is self-sufficient. Policy GA1 (The Gilston Area) of the EHDP therefore included this requirement. This policy requirement does not however affect the conclusion reached above with regard to screening in respect of this pathway and has not been taken into account for screening purposes.

Wormley-Hoddesdonpark Woods SAC

- 5.7.11 Wormley-Hoddesdonpark Woods SAC is a large, attractive area of ancient woodland with extensive public access and close to large urban centres. As such, the SAC woodlands are subject to a relatively high level of baseline recreational use, the effects of which, according to the respective Site Improvement Plan, have been largely successfully managed through restricted on-site access, the provision of laid out routes and limited car parking areas. It is noted that the Site Improvement Plan connected with this SAC, which is referenced in the HRA for the District Plan (submission 2016) has been superseded in part by the Natural England Supplementary Advice on achieving its Conservation Objectives.¹⁶ However, neither the Site Improvement Plan or the Conservation Objectives Supplementary Advice indicate recreational pressure as being a current or future obstacle to achieving or maintaining favourable conservation status and preserving the integrity of the SAC.
- 5.7.12 The Habitat Regulations Assessment undertaken for the East Herts District Plan¹⁷ describes the 'worst case' recreational catchment for the SAC being 7km based on the maximal catchments ascribed to large woodland sites. The distance from the Application area comprising the Development from the Wormley-Hoddesdonpark Woods SAC is approximately 7.4km and it is therefore not considered likely that the operational phase of the Development (alone or in combination with Village 7 and other HGGT Strategic Sites, plans and programmes) will exert recreational pressure on the Wormley-Hoddesdonpark Woods SAC. This view has also been reached in the HRA undertaken for the Broxbourne Local Plan, which along with East Herts District Plan contains allocations and policies that would have a more direct pathway to potential impacts on the SAC.

¹⁶ <http://publications.naturalengland.org.uk/publication/4919819195383808> European Site Conservation Objectives: Supplementary Advice on Conserving and Restoring Site Features.

¹⁷ East Herts District Plan Submission Habitat Regulations Assessment 2016: https://cdn-eastherts.onwebcurl.com/s3fs-public/documents/Habitats_Regulations_Assessment_2016.pdf

5.7.13 The Applicant's Habitats Information (2020 IHRA) found that no likely significant effects were expected to occur upon Wormley-Hoddesdonpark Woods SAC. This conclusion was not disputed by Natural England and having reviewed the 2020 IHRA, the Council agree with the Applicant's Habitats Information (2020 IHRA) that there would be no 'likely significant effects' to Wormley-Hoddesdonpark Woods SAC as a result of recreational pressure from the proposed Applications comprising the Development, alone and in combination with each other and with other plans and projects, which also include Village 7. However, Herts Ecology have advised that despite the conclusions in the relevant HRAs, which are undisputed by Natural England, there is a 'credible risk' that the Development may increase visitor numbers in the SAC such that likely significant effects from recreational demand cannot be ruled out and an Appropriate Assessment should be carried out on this basis. This is therefore carried through into the Appropriate Assessment in section 6.1 of this report.

Epping Forest SAC

5.7.14 Epping Forest SAC is subject to a high level of baseline recreational use, the effects of which upon its qualifying and other ecological features present a source of longstanding concern. The Interim Mitigation Strategy (EFDC, 2018) attributes the SAC with a Zol in respect of recreational access extending to 6.2km – while acknowledging that this figure is unduly influenced by visits originating from North London to the particularly well-frequented south of the SAC.

5.7.15 As the proposed Development (comprising all three Applications) lies 10km to the north of the SAC, on the distal side of Harlow, a significant effect arising from recreational pressure is not considered likely, even in the absence of mitigation. The Applicant's Habitats Information (2020 IHRA) did not anticipate likely significant effects upon Epping Forest SAC by virtue of recreational use. This conclusion was not disputed by Natural England and having reviewed the 2020 IHRA, East Herts District Council agrees with the Applicant's findings that there would be no likely significant effect to this site as a result of recreational pressure from the proposed Development, alone and/ or in combination with other plans and projects including the combined effects of Village 7. Therefore no further Appropriate Assessment of recreational impacts is required.

5.8 Stage 1: Screening – Assessment of Potential Air Quality Effects

5.8.1 This section of the screening is informed by the Applicant's Habitats Information (2019 IHRA and 2020 IHRA) and the Village 7 Habitats Information (2021 IHRA), and considers the potential for the proposed Applications comprising the Development either alone or in combination with each other and with other plans and projects (in particular the combined effects with Village 7), to generate effects arising from air quality changes on the Lee Valley SPA and Ramsar site, Wormley-Hoddesdonpark Woods SAC and Epping Forest SAC.

- 5.8.2 The assessment takes account of the Conservation Objectives listed in the Natural England information database on designated sites, existing information regarding the respective sensitivity of the National Network Sites to effects arising from changes in air quality, including review of site management plans and Natural England Supplementary Advice where available¹⁸, SSSI unit condition assessments, and strategic level mitigation frameworks. Consideration was also given to the HRAs undertaken for the East Herts District Plan (EHDP), Harlow Local Development Plan (HLDP), Epping Forest Local Plan (EFLP), Broxbourne Local Plan (BLP) and the Lee Valley Regional Park Development Framework.
- 5.8.3 The assessment also takes into account Natural England Guidance on Advising Competent Authorities on the Assessment of Road Traffic Emissions under the Habitats Regulations, June 2018. As noted in section 5 above, the JNCC has recently been published Guidance on Decision-making Thresholds for Air Pollution, December 2021. The new guidance introduces potential new Decision-making Thresholds and levels of environmental change which will not undermine the achievement of the conservation objectives for air quality that can be applied to individual sites, known as Objective Compliant Change and Site-Relevant Thresholds. The guidance also proposes different thresholds for on-site sources of emissions from development and emissions from roads as a result of forecast increases in road traffic. However, it should be noted that as the JNCC guidance is newly published, these new thresholds have not yet been applied to the relevant SACs in the Zone of Influence for the Development (Lee Valley SPA and Ramsar, Wormley-Hoddesdonpark Woods and Epping Forest SAC), and therefore the Natural England guidance from 2018 is applied in this assessment.
- 5.8.4 Information regarding wetland bird species is informed by The British Trust for Ornithology (BTO) Wetland Bird Survey interactive website¹⁹ and the MAGIC mapping database hosted by the Department for Food and Rural Affairs (Defra).
- 5.8.5 Information regarding site-specific baseline conditions and environmental thresholds was taken from the Air Pollution Information System (APIS)²⁰, a continually updated web-based data resource on pollutant levels in the UK and the sensitivity of designated nature conservation sites and their component habitats.

¹⁸ <http://publications.naturalengland.org.uk/publication/4919819195383808> Wormley-Hoddesdonpark Woods SAC Conservation Objectives Supplementary Advice;

<http://publications.naturalengland.org.uk/publication/5670650798669824> Lee Valley SPA Conservation Objectives Supplementary Advice; <http://publications.naturalengland.org.uk/publication/5908284745711616> Epping Forest SAC Conservation Objectives Supplementary Advice

¹⁹ <https://app.bto.org/webs-reporting/numbers.jsp> British Trust for Ornithology Wetland Bird Survey Interactive Website.

- 5.8.6 APIS defines the relevant respective environmental standards for particular habitats and pollutant types. 'Critical levels' identify the environmental standard for airborne gaseous pollutants (nitrogen oxides (NO_x) and ammonia) and are defined as:

"concentrations of pollutants in the atmosphere above which direct adverse effects on receptors, such as human beings, plants, ecosystems or materials, may occur according to present knowledge"²¹

- 5.8.7 'Critical loads' identify the environmental standard for deposited pollutants (nitrogen and acid deposition) and are defined as:

"a quantitative estimate of exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge" (APIS).

- 5.8.8 For NO_x, a non-specific critical level of 30µg/m³ is applied to all habitats. For other pollutants, the critical load or level is receptor specific, with lower and upper critical loads cited for application in different circumstances, such as differing hydrological or management regimes. In this assessment, the more precautionary threshold (i.e. the lower critical load/level number) is applied unless contraindicated by specific evidence.

- 5.8.9 In order to assess whether the Development has the potential to cause effects that exceed this precautionary critical threshold it is necessary to consider the traffic modelling that supports the proposals. It is important to note that when looking at the two infrastructure elements (i.e. the Crossing applications) of the Development in isolation of the residential-led outline application for Villages 1-6, it is the proposed residential development in the Gilston Area plus the strategic planned growth cumulatively in the wider HGGT identified in Figure 3 above, and background growth in traffic that results in increased vehicular trips; the two new Crossing applications however, enable a change in the distribution of traffic.

- 5.8.10 Chapter 9 of the ES and ES Addendum describes the traffic modelling in detail. Traffic flows from within the Zol of the Development which lie within 200m of the National Network Sites were modelled; looking at 'Do minimum' and 'Do Something' scenarios:

- Do Minimum (DM) – future baseline (to account for background growth) with other committed development within the HGGT area, including Village 7 and development plans of East Herts, Harlow and Epping Forest Districts, but no proposed Development;
- Do Something (DS) – future baseline with other committed development as above, plus the proposed Development (Village 1-6 and two Crossings).

²¹ <http://www.apis.ac.uk/critical-loads-and-critical-levels-guide-data-provided-apis>

5.8.11 The two DM and DS scenarios were also considered over three time horizons:

- The intermediate year of 2027 – to factor in construction impacts
- The intermediate year of 2033 (end of Plan period) – to factor in completion of the Crossings and an intermediate level of development i.e. completion of up to 3,050 homes
- Completion (post-development) year of 2040 – to factor in impacts of occupation.

5.8.12 Alternate DM and DS scenarios were also modelled for the 2033 time horizon to reflect potential different levels of completion in Village 7 which included:

- DM1 and DS1 with 750 dwellings in Village 7
- DM2 and DS2 with 1,250 dwellings in Village 7.

5.8.13 This range of scenario testing is considered to provide a comprehensive consideration of the different levels of traffic generated by the Applications comprising the Development in combination with other known plans and projects, including the remainder of the Gilston Area Allocation and planned strategic sites within the wider HGGT area. It also means that both construction and operational phases of the Development can be considered comprehensively as the intermediate year of 2027 scenario assesses construction impacts with limited occupation of new homes; during the intermediate year of 2033 both Crossings schemes would be completed along with approximately 3,000 new homes in the Gilston Area plus all the allocated Development Plan sites across the HGGT area; and the completion year of 2040 scenario assesses the impacts of occupation once all construction activities are complete.

5.8.14 The traffic modelling above was used to inform the air quality modelling, as described in detail in Chapter 10 of the ES and ES Addendum in respect of the Development. The pollutant modelling considered NO_x and ammonia concentrations, nitrogen deposition and acidification for each traffic growth scenario.

5.8.15 To assess whether pollution from traffic is likely to have an effect on a National Network Site, Natural England's current guidance (2018²²) explains that Natural England and Highways England agree that protected sites falling within 200 metres of the edge of a road affected by a plan or project need to be considered further as it is within 200m of a road that road emissions are likely to have an effect on the vegetation within a protected site. Protected sites beyond 200m of a road are likely to need no further assessment and a screening conclusion of no likely significant effect on the protected site can be advised with regard to the risk of road traffic emissions affecting air quality.

²² <http://publications.naturalengland.org.uk/publication/4720542048845824> Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitat Regulations, NEA001, July 2018

5.8.16 The next part of the assessment is to establish whether the qualifying features of a protected site is present within 200m of the edge of a road on which a plan or project will generate traffic, and whether these qualifying species are vulnerable to air pollution effects. If there is a credible risk or uncertainty that qualifying features may be located within the 200m distance, then a precautionary approach should be taken using the predicted average annual daily traffic flow as a proxy for emissions, or the predicted emissions themselves, the threshold is exceeded and more detailed empirical data should be used. The use of the AADT screening threshold is advocated by Highways England in their Design Manual for Roads and Bridges (DMRB) to check whether more detailed evidence should be used. The Natural England guidance provides two screening thresholds for Appropriate Assessment:

- A change in traffic flow of, or exceeding, 1,000 Average Annual Daily Traffic flow (AADT) (or 200 or more heavy duty vehicle AADT flows on motorways); and
- A change in emissions of, or exceeding 1% of the critical load or level, on the basis that lower contributions are “widely considered to be imperceptible”.

5.8.17 These thresholds should be considered in a stepwise manner:

- 1) Apply the threshold alone – taking the Development (Village 1-6 and two Crossings) on its own, consider whether emissions exceed 1% of the critical load or results in a change in traffic flow of more than 1,000 Average Annual Daily Traffic flow (or 200 or more heavy duty vehicle AADT flows on motorways);
- 2) Apply the threshold taking the Development Proposal in combination with emissions from other plans and projects. Consider whether collectively they could exceed 1% of the critical load or result in a change in traffic flow of more than 1,000 Average Annual Daily Traffic flow (or 200 or more heavy duty vehicle AADT flows on motorways);
- 3) If steps one and two do not result in exceedance of the screening threshold then the potential for likely significant effects either alone or in combination with other plans and projects can be screened out, and further investigation as part of an Appropriate Assessment is not required;
- 4) If steps 1 and/or 2 result in exceedance of the screening threshold, then the need for Appropriate Assessment is triggered. This is because the development either alone or in combination is predicted to contribute pollutants to a site at a level above which harm could occur, irrespective of whether background levels already exceed the Critical Loads.

5.8.18 For the purpose of this modelling, the ‘in-combination’ schemes considered include the Strategic Sites within the HGGT area, including Village 7, plus the developments identified in the development plans of East Herts, Harlow and Epping Forest Districts, also taking into account known and agreed transport and highway improvement schemes within the wider HGGT area.

Wormley-Hoddesdonpark Woods SAC

- 5.8.19 In terms of Wormley-Hoddesdonpark Woods SAC, its distance from the proposed Development is approximately 7.4km. The nearest major road to the SAC is the A10 and the only part of the Wormley-Hoddesdonpark Woods SAC that lies within 200m of the A10 is an access farm track and so there is no sensitive qualifying feature of the SAC within 200m of the A10. The Natural England Guidance on air quality assessments²³ advises that for road traffic emissions the distance criteria applied is 200m. Paragraph 4.12 of the Natural England guidance states that:

"If the [Application] does not fall within the distance criterion for designated sites (i.e. 200m for road traffic proposals), no further steps of the assessment are necessary. Such proposals are likely to have no effect on sites at all and so do not need to be subject to assessment in-combination with other plans and projects. A screening conclusion of no likely significant effect on the site can be advised with regard to the risk of road traffic emissions affecting air quality."

- 5.8.20 It is therefore considered that no viable impact pathway exists between the Development and any sensitive qualifying feature within the SAC, and as such it is considered that no likely significant effects will occur on the SAC in terms of air quality associated with the Applications alone, or in combination with other plans and or projects. This conclusion applies to both construction and operational phases of the Development.
- 5.8.21 This conclusion has also been reached in the HRAs for the Broxbourne Local Plan and East Herts District Plan, that both allocate development sites or contain policies that directly relate to the SAC, and also the HRAs for the Lee Valley Park Development and Epping Forest Local Plan, both of which considered the potential for 'in-combination' effects associated with those development plans.

Lee Valley SPA/Ramsar

- 5.8.22 In terms of the Lee Valley SPA/Ramsar, as it is the most proximate National Network Site to the Development at 3.6km, and part of the SAC is within 200m of the A414 which is the main arterial road serving the Development, it is considered necessary to assess the likely significant effects of traffic flows associated with each of the Applications comprising the Development, alone or in combination with other plans and projects, upon the Lee Valley SPA/Ramsar as a result of changes in air quality.
- 5.8.23 The Applicant's Habitats Information (2020 IHRA) demonstrates that the threshold of 1,000 Average Annual Daily Traffic flow in the vicinity of the Rye Meads SSSI component of the Lee Valley SPA/Ramsar is exceeded by the Development alone, thereby triggering the need for an Appropriate Assessment. The transport

²³ [NEA001 Advising CAs on Road Traffic and HRA June 2018](http://publications.naturalengland.org.uk/publication/4720542048845824),
<http://publications.naturalengland.org.uk/publication/4720542048845824>

assessment traffic forecast model outputs are summarised in Table 9 below. The ‘do minimum (DM)’ scenario shows future traffic flows of other plans and projects, but without the Development, while the ‘do something (DS)’ scenario shows future traffic flows with the Development in combination with other plans and projects. The table indicates that even without other development the Average annual Daily Traffic along the A414 in 2040 compared to the 2020 baseline is greater than 1,000 AADT (comparing the DM and DS outputs).

Table 9: A414 Two-way Traffic Flow Forecasts (AADT)

2020 Base Table 1	2027 DM Table 2	2027 DS Table 8	2033 DM1 Table 3	2033 DS1 Table 10	2033 DM2 Table 4	2033 DS2 Table 12	2040 DM Table 5	2040 DS Table 14
41,093	43,113	46,911	44,032	49,732	44,473	51,895	45,158	54,491

- 5.8.24 Taking into account the stepwise assessment of thresholds advised in the Natural England Guidance, this increase in vehicles along the A414 within 200m of the Rye Meads SSSI component of the Lee Valley SPA/Ramsar, from the Development alone exceeds 1,000 AADT and therefore triggers the requirement for an Appropriate Assessment as it cannot be discounted at the screening stage that likely significant effects will occur from air quality from this Development alone on the SPA/Ramsar.

Epping Forest SAC

- 5.8.25 In terms of Epping Forest SAC, the Applicant’s Habitats Information (IHRA 2020) did not anticipate likely significant effects on the Epping Forest SAC by virtue of air quality impacts given the conclusions of the HRA undertaken for the Epping Forest Local Plan – that the impacts on the SAC arise primarily as a result of the planned development within Epping Forest district, and which also indicates that appropriate mitigation measures secured through the Epping Forest Local Plan reduces impacts such that the integrity of the SAC is not adversely affected. This conclusion was not disputed by Natural England, however, when discussing the Council’s draft Appropriate Assessment, Natural England requested confirmation that the impacts of the total Development (post Plan period) were considered.
- 5.8.26 The SAC has been subject to significant scrutiny throughout the Plan-making process of the Epping Forest Local Plan, the Harlow Local Development Plan and East Herts District Plan. As part of this work, the HRAs for the District Plans, which included ‘in-combination’ traffic modelling, demonstrated that the planned growth within Epping Forest was the primary source of additional ammonia and NOx emissions and that all other plans and projects make a negligible contribution to the in-combination effects. It is noted that the HRAs for the District Plans assessed development levels and their respective transport impacts up to 2033 only, and as such only 3,050 homes in the Gilston Area were modelled as part of the air quality assessments for the Epping

Forest SAC. However, it should be noted that the air quality modelling undertaken for the Epping Forest Local Plan HRA took into account the planned residential and employment growth set out in the Development Plans of Uttlesford, East Herts, Harlow, Epping Forest districts (the West Essex and East Herts Housing Market Area authorities) plus Broxbourne, Chelmsford, Brentwood, Havering, Redbridge, Waltham Forest and Enfield Councils, all of which are within the zone of influence of Epping Forest (as set out in Table 1 of the HRA²⁴).

5.8.27 The Applicant's 2019 IHRA included transport modelling up to 2040, by which time the Villages 1-6 (and Village 7) Development is planned to be fully complete and as such takes account of the Plan period growth up to 2033 and beyond to 2040. The Council is satisfied that this data is a reasonable and reliable source of information to inform the consideration of effects on the Epping Forest SAC.

5.8.28 This HRA focuses on the part of the SAC that is closest to the Development. This is the SSSI 105 component known as Epping Thicks. This is considered reasonable as this is most proximate component of SAC to the main transport route, the B1393, running from Harlow towards Epping and the Epping Forest SAC and the M25, and as such is the component of the SAC that will be most impacted by traffic flows from the HGGT area. The traffic link within the Transport Assessment Model closest to the Epping Forest SAC is Link 96, which models traffic along the B1393 south of the M11 Junction 7. It is noted however, that this traffic link is some 7km from the nearest SSSI Unit Epping Thicks and as such, it is highly likely that the Development traffic will dissipate between this traffic link and the SAC. Therefore, while traffic data is available at Link 96, it is not fully representative of traffic that would be using the B1393 road through the Epping Forest SAC. The transport assessment traffic forecast model outputs are summarised in Table 10 below. The 'do minimum (DM)' scenario shows future traffic flows of other plans and projects, but without the Development, while the 'do something (DS)' scenario shows future traffic flows with the Development in combination with other plans and projects.

Table 10: B1393 Link 96 Traffic Flow Forecasts (AADT)

2020 Base Table 1	2027 DM Table 2	2027 DS Table 8	2033 DM1 Table 3	2033 DS1 Table 10	2033 DM2 Table 4	2033 DS2 Table 12	2040 DM Table 5	2040 DS Table 14
22,479	23,410	23,502	24,549	24,601	24,061	24,162	23,919	24,113

5.8.29 The Applicant's update 2022 IHRA update has provided traffic data for the same section of the B1393 running from south of the M25 to the Wake Arms Roundabout. As explained above, this road runs alongside and to the west of the SAC and is the road where any additional traffic generated by the Gilston Park Estate development

²⁴ <https://www.efdclocalplan.org/wp-content/uploads/2019/01/EB209-Epping-Forest-Local-Plan-HRA-2019-FINAL.pdf> Epping Forest Local Plan HRA

would be greatest in the SAC. The data in Table 10.a provided in the 2022 IHRA below is marginally different from the traffic counts assessed in the council's 2022 AA and therefore confirms the council's previous assessment of traffic flow on this link.

Table 10.a B1393 Traffic Flow Forecasts (AADT) 2022 IHRA

2019 Base	2027 DM	2027 DS	Increase DM-DS	2033 DM2	2033 DS2	Increase DM-DS	2040 DM	2040 DS	Increase DM-DS
22,479	23,410	23,485	75	24,061	24,128	67	23,918	24,061	143

5.8.30 The modelling indicates that the Development traffic alone does not exceed 1,000 Average Annual Daily Traffic flow on Link 96, but in combination with other plans and projects the threshold of 1,000 AADT is exceeded, and therefore triggers the requirement for an Appropriate Assessment, as it cannot be discounted at the screening stage that likely significant effects will occur from air quality from this Development when considered in combination with other plans and projects on Epping Forest SAC.

5.8.31 The Applicant's 2019 IHRA modelled the traffic flow on the M25, being the main road closest to the Epping Thicks SSSI Unit 105. Table 11 below summarises the AADT forecasts using the 2018 Transport Assessment Model baseline. By the completion of the Development there is no forecast difference between the 'with Development' and 'no Development' scenario, but the effect of the Development in combination with other sources of traffic is an exceedance of the 1,000 ADT threshold, which would trigger the need for an Appropriate Assessment. Given that the growth of traffic on the M25 is considerably greater than that forecast at Link 96, it is this data that is modelled in the Transport Assessment Model tables in the Appropriate Assessment.

Table 11: M25 Traffic Flow Forecasts (AADT)

2018 Base	2027 DM	2027 DS	2033 DM2a	2033 DS2a	2033 DM2b	2033 DS2b	2040 DM	2040 DS
131,148	146,559	146,956	152,571	152,911	153,058	152,571	158,968	158,968

5.8.32 The Appropriate Assessment therefore considers the current and future nutrient critical loads associated with the SAC qualifying features, and whether the traffic flow generated by the Development alone and in-combination with other plans and projects, including Village 7 will have an adverse effect on the integrity of the SAC as a result of changes in air quality.

5.9 Stage 1: Screening – Assessment of Potential Water Quality and Water Abstraction Effects

- 5.9.1 This section of the screening is informed by the Applicant's Habitats Information (2020 IHRA) and considers the potential effects of the proposed Development, alone and in combination with other plans and projects, on water quality and from water abstraction. This screening takes account of the Affinity Water Resources Management Plan 2020-2080²⁵ and its supporting Habitats Regulations Assessment²⁶ as well as the Rye Meads Water Cycle Strategy Review, 2015²⁷. This is to ensure that the water supply needs of the Outline Application component of the Development for 8,500 homes, in combination with the adjacent proposal for 1,500 homes in Village 7 can be met in a way that does not cause adverse effects on the Lee Valley SPA/Ramsar downstream of the application site as a result of abstraction processes.
- 5.9.2 The screening also takes account of the Conservation Objectives listed in the Natural England information database on designated sites, existing information regarding the respective sensitivity of the National Network Sites to effects arising from changes in water quality and quantity, including review of site management plans, SSSI unit condition assessments, and strategic level mitigation frameworks. Consideration was also given to the HRAs undertaken for the East Herts District Plan, Harlow Local Development Plan and Epping Forest Local Plan.
- 5.9.3 As is described in Tables 5 and 6 above, water quantity and quality are not cited as threats in the Site Improvement Plan for the Wormley-Hoddesdonpark Woods SAC, nor as being a reason for any of the SSSIs with unfavourable condition. As described in Table 7 above, inappropriate water levels within wet heath areas of the Epping Forest SAC is a threat as is water pollution from highway surface run-off. It should be noted however, that the most proximate component of the SAC to the Development, SSSI Unit 105 is listed as being in favourable condition and comprises broad-leaved, mixed and Yew woodland – lowland, and therefore these threats are not applicable to this component of the SAC. Neighbouring SSSI Unit 106 contains no water dependant habitats, and SSSI Units 107 and 108 are considered in favourable condition.
- 5.9.4 Given the above, the Applications comprised in the Development are not considered to have any ecological effects on water-dependant features of the National Network Sites of the Wormley-Hoddesdonpark Woods SAC and Epping Forest SAC. This accords with the conclusion in the HRAs for the Broxbourne Local Plan, East Herts District Plan, Harlow Local Development Plan and Epping Forest Local Plan, and this

²⁵ <https://www.affinitywater.co.uk/corporate/plans/water-resources-plan> Affinity Water Resource Management Plan 2020-2080

²⁶ https://www.affinitywater.co.uk/docs/4.12_Habitat_Regulations_Assessment_Final_WRMP19.pdf Affinity Water, Water Resource Management Plan HRA

²⁷ <https://www.north-herts.gov.uk/sites/default/files/TI11%20Rye%20Meads%20Water%20Cycle%20Strategy%20Review.pdf> Rye Meads Water Cycle Strategy Review, 2015

conclusion is agreed with Natural England. The Council considers this to be reasonable and appropriate, particularly as the two SACs are not reliant upon, or are designated because they contain water-dependant habitats.

- 5.9.5 However, habitats within the Lee Valley SPA/Ramsar site that support the bird species identified in the Birds Directive Annex I, for which the site is designated, could be affected by changes in water quality, as indicated in Table 12 below. In addition, the Lee Valley qualifies as a Ramsar site because it supports the nationally scarce plant species Whorled Water-milfoil *Myriophyllum verticillatum* and the rare and vulnerable invertebrate *Micronecta minutissima* - a water-boatman, both of which are vulnerable to changes in water quality.

Table 12: Water-dependant Species and Habitats in the Lee Valley SPA/Ramsar

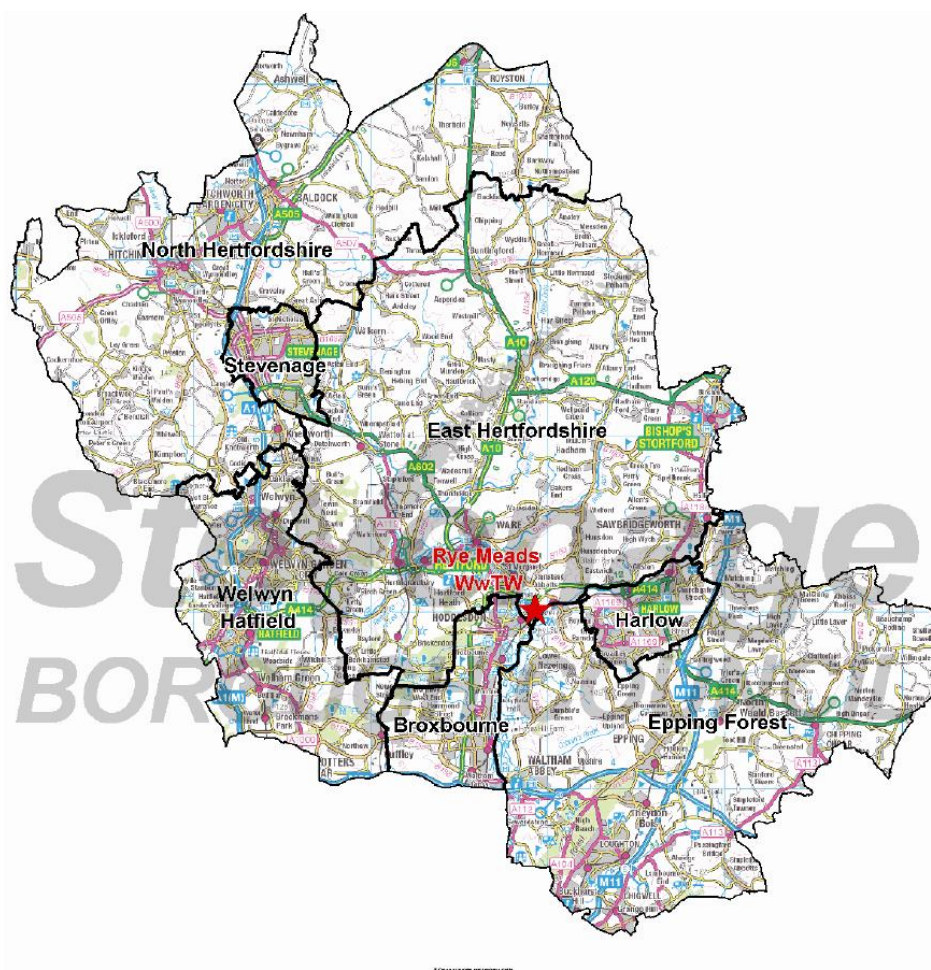
Bird Directive Annex I Species and Ramsar Citation	Wintering Population of Great Britain (%)	Supporting Habitat
Great Bittern, <i>Botaurus stellaris stellaris</i>	6%	Fen, marsh and swamp
Gadwall, <i>Anas strepera</i>	2.6%	Standing open water and canals
Shoveler, <i>Anas clypeata</i>	1.9%	Standing open water and canals
Noteworthy flora		
Whorled Water-milfoil, <i>Myriophyllum verticillatum</i>	Nationally scarce	Freshwater wetland
Noteworthy fauna		
Great Cormorant, <i>Phalacrocorax carbo carbo</i>	Peak counts in Spring/Autumn 1.8%	Standing open water and canals
Tufted Duck, <i>Aythya fuligula</i>	Peak counts in Spring/Autumn 2.3%	Standing open water
Common Coot, <i>Fulica atra atra</i>	Peak counts in Spring/Autumn 1.1%	Standing open water and canals
Great Bittern, <i>Botaurus stellaris stellaris</i>	Peak counts in winter 1%	Fen, marsh and swamp
Smew, <i>Mergellus albellus</i>	Peak counts in winter 3.7%	Standing open water
Water Rail, <i>Rallus aquaticus</i>	Peak counts in winter 3.7%	Fen, marsh and swamp
Water-Boatman, <i>Micronecta minutissima</i>	Nationally important invertebrate	Standing open water

- 5.9.6 The Applicant's Habitats Information (IHRA 2020) considered that because construction activities associated with the Applications are tightly controlled and regulated by codes of construction practice, those controls will ensure water quality is not affected. Therefore, the Applicant considers that construction related activities could be 'screened-out' of further appropriate assessment of adverse effects upon the integrity of a National Network site. The LPAs have nonetheless reached the conclusion that it is inappropriate to screen out at the screening stage the potential for the construction stages of the Applications comprised in the Development, alone or in combination, to have any likely significant effects on the water quality of the Lee Valley SPA/Ramsar.
- 5.9.7 All construction activities can create risks to the environment through pollution incidents like fuel or chemical spillages, inappropriate storage or handling of construction materials and dust escape for example, which can fall on the surrounding environment. Therefore without appropriate mitigation the construction phases of any component of the Development alone could result in harm to water quality within the River Stort, which flows towards the confluence of the River Lee and River Stort, which is located downstream of the Rye Meads SSSI element of the Lee Valley SPA/Ramsar. As such, potential effects from the construction of the Development are therefore assessed further as part of the Appropriate Assessment, which goes on to consider the impacts on the integrity of the National Network site, either alone or in combination with other plans and projects, with regard to the site's structure and function and its Conservation Objectives.
- 5.9.8 In terms of the operational phase of the Development, in particular the Outline Application for Village 1-6, there is a potential impact pathway between new homes and the potential for changes in water quality as a result of the requirement to treat waste water from new homes and non-residential buildings. The closest parts of the SPA to the proposed Development are the Rye Meads SSSI (approximately 3.6km west), Amwell Quarry SSSI (4.3km west) and Turnford and Cheshunt Pitts (8.8km south-west). The Rye Meads SSSI and Turnford and Cheshunt Pitts SSSI components of the Lee Valley SPA/Ramsar may be affected by changes in water quality through the discharge of treated waste water effluent into the water catchment from Rye Meads Waste Water Treatment Works (WwTW). This effect would arise from the Outline Villages 1-6 Application element of the Development rather than the Crossings. The Applicant's Habitats Information (2020 IHRA) therefore considers the potential for the Development to affect the Lee Valley SPA/Ramsar directly and indirectly, alone and in combination as a result of changes to water quality. This element is therefore considered further in the Appropriate Assessment.
- 5.9.9 The Rye Meads SSSI component of the SPA/Ramsar is upstream of where the Rye Meads Waste Water Treatment Works discharges in to the River Lee via Tollhouse Stream. However, because this connection is upstream of the confluence of the River Stort and River Lee, in periods of high water flow, Tollhouse Stream has on occasion

backed up into the marsh grassland areas of the SSSI. The Amwell Quarry SSSI is further upstream of the Rye Meads Waste Water Treatment Works and is therefore not affected.

- 5.9.10 The Turnford and Cheshunt Pitts SSSI component of the SPA/Ramsar lies downstream of the Rye Meads Waste Water Treatment Works and despite being affected by urbanisation and sewage discharge from local industrial, urban and agricultural sources rather than the Rye Meads Waste Water Treatment Works, the conservation status for the extent of habitats and their supported species of Gadwall, Shoveler and Bittern are considered to be favourable. For the purpose of this assessment therefore, it is considered that no pathway exists in terms of water quality impacts between the Development and the Turnford and Cheshunt Pitts component of the Lee Valley SPA/Ramsar, and as such are screened out.
- 5.9.11 The presence of the Rye Meads Waste Water Treatment Works and its ability to cope with additional growth, not only from the Development but from its wider catchment, is an important consideration. This is because high levels of nutrients like phosphorous and nitrogen can unbalance plant growth and vegetation composition leading to oxygen depletion which affects the species reliant upon the watercourses. The Rye Meads Waste Water Treatment Works catchment extends from North Hertfordshire to Epping Forest as illustrated in Figure 5 below, taken from the Rye Meads Water Cycle Strategy Review, 2015. The Water Cycle Strategy Review considers the demand for, and use of, water as part of its continuous circulation on, above and below the earth. It looks at the engineered use of water for domestic consumption and disposal alongside the natural cycle through watercourses and aquifers. The Review examined the likely demands of growth within the catchment of the Waste Water Treatment Works, and has fed into more up to date models undertaken by Thames Water, which therefore take account of the in-combination demands from the development plans of authorities in the catchment as illustrated.

Figure 5: Water Cycle Strategy Study Area – Rye Meads Waste Water Treatment Works Catchment



5.9.12 Thames Water and the Environment Agency have been consulted upon throughout the Plan-making process of the East Herts District Plan, Harlow Local Development Plan and through the pre-application and applications stages of the proposed Applications comprised in the Development. Thames Water manage the Rye Meads Waste Water Treatment Works and the Environment Agency manage the licencing regime which controls levels of discharge associated with the Rye Meads Waste Water Treatment Works. Recent Discharge Consents have increased the treatment capacity of the Rye Meads Waste Water Treatment Works and improved discharge quality, however, recent engagement with Thames Water on the Villages 1-6 Outline Application and the Village 7 Outline Application has confirmed that the Rye Meads Waste Water Treatment Works has capacity to accommodate growth within the catchment to 2036 and Thames Water has programmes in place to plan for upgrades as necessary. However, as the construction of the Development pursuant to the Outline Application for Villages 1-6 comprising 8,500 homes will extend beyond 2036, Thames Water have requested that a condition be attached to the planning permission for the Outline Application, if granted, to limit the number of homes occupied until such time that upgrades occur. As such, it is necessary to consider further in the Appropriate Assessment the need to mitigate the potential adverse effects of the discharge of treated wastewater effluent from the Outline Application,

alone or in combination, upon the integrity of the Rye Meads SSSI element of the Lee Valley SPA/Ramsar having regard to the site's structure, function and its Conservation Objectives²⁸.

- 5.9.13 In terms of water abstraction, approximately 60% of water supply in East Herts comes from groundwater sources and 40% from surface water sources with boreholes abstracting from chalk and gravel aquifers. The Rye Meads SSSI component of the SPA/Ramsar has been identified as being sensitive to high levels of abstraction. However, Affinity Water, who manage water supplies to homes and businesses in the area has identified through their own modelling that there is sufficient water supply for estimated growth such that adverse effects on National Network Sites can be avoided. The Affinity Water Resources Management Plan 2020-2080 is supported by its own Habitat Regulations Assessment which identifies that there are no likely significant effects on the National Network Sites within the Zone of Influence of the Gilston Area applications, taking into account the planned growth identified within the East Herts District Plan and Harlow Local Development Plan (along with other statutory Plans and Projects within the Zone of Influence of the Water Management Plan which also covers the water supply catchment within the Zone of Influence of the Development).
- 5.9.14 The Council is satisfied that the HRA for the Affinity Water Resources Management Plan takes account of the relevant plans and programmes in combination, considers how the demands arising from planned growth within the Affinity Water Supply Catchments will be accommodated and whether these demands will adversely affect the water sensitive environments of National Network Sites, including the Lee Valley SPA. The Water Resources Management Plan HRA identifies that a number of plans and strategies will be required to meet demands up to 2080. For the Stort Catchment the Plan identifies the need for a long-term strategy of moving water into the catchment; comprising abstracting water from the River Ouzel at Leighton Buzzard, storing it at a new fully bunded raw water reservoir at Honeywick Rye, and discharging flow to the Upper Lee at Dunstable. Since the reservoir scheme is intended to augment the River Lee 30km of the Lee Valley SPA/Ramsar site, and to enable increased abstraction in the Upper Lee, without any net change in downstream flow or volume, its effect on the Lee Valley SPA/Ramsar site will be neutral. The Development, alone and in combination with other plans and programmes will require water supply and the Water Supply Company has a plan in place to accommodate water supply demands for new growth. These plans have been assessed on an in-combination basis and the HRA identified that they are not considered likely to have a significant effect on the Lee Valley SPA/Ramsar. It is considered therefore that likely significant effects on the Lee Valley SPA/Ramsar as a result of excessive water drawdown and therefore water quantity effects can be screened out for the operational and construction phase of the Development.

²⁸ Maintain the overall depth of swamp and marginal water and ensure water quality and quantity is maintained to a standard which provides the necessary conditions to support the qualifying species.

5.10 Stage 1: Screening - Conclusion

5.10.1 The screening assessment above considered the potential for the Applications comprising the Development (including the Villages 1-6 Outline Application and the two river Crossing proposals) to be likely to have significant effects on National Network Sites the Lee Valley SPA/Ramsar, the Wormley-Hoddesdonpark Woods SAC and Epping Forest SAC. In line with the 'Sweetman' case, the screening assessment does not take into account mitigation. The screening assessment firstly considers whether the Applications comprising the Development alone and in-combination with each other (the Development as a whole) are likely to have significant effects, and then whether the Development as a whole in combination with other plans and projects are likely to have significant effects.

Lee Valley SPA/Ramsar

5.10.2 The screening assessment identified before considering mitigation that the Development alone would have the potential, during its operational and/or construction phases, to cause the following biophysical changes, which could result in ecological effects on the Lee Valley SPA/Ramsar site.

- A delay to the improvement of air quality changes arising from traffic generated by the operational phase of the proposed development; and
- A change in water quality as a result of the operational and construction phase of the Development.

5.10.3 Given that the screening identified that it could not be ruled out that likely significant effects will occur on the Lee Valley SPA/Ramsar in relation to air quality and water quality as a result of the Applications comprising the Development alone and as a whole, an Appropriate Assessment is required.

Wormley-Hoddesdon Park Woods

5.10.4 The screening assessment concluded that no likely significant effects were likely to occur on Wormley-Hoddesdonpark Woods as a result of changes in water quality, water quantity or air quality. However, taking a precautionary approach Herts Ecology advise that there is a credible risk of recreational demand on the SAC from the Village 1-6 Outline Application component of the Development alone once operational, and therefore an Appropriate Assessment should be carried out on this potential impact.

Epping Forest SAC

5.10.5 The screening assessment concluded that no likely significant effects were likely to occur on the Epping Forest SAC as a result of changes in recreational demand, water quality or water quantity. However, the screening assessment indicated that it could

not be ruled out that likely significant effects will occur on the Epping Forest SAC in relation to air quality as a result of the Development when considered in combination with other plans and projects, namely the other Strategic Sites allocated within the Epping Forest Local Plan and Harlow Local Development Plan, and therefore an Appropriate Assessment is required on this potential impact.

Table 13: Screening Conclusion Summary

National Network Site	Impact Pathway	Screened Out – No Likely Significant Effects	Appropriate Assessment Needed
Lee Valley SPA/Ramsar	Recreational Impacts	No Likely Significant Effects	
	Air Quality Impacts		Yes
	Water Quality/Quantity Impacts		Yes
Wormley-Hoddesdonpark Woods SAC	Recreational Impacts		Yes
	Air Quality Impacts	No Likely Significant Effects	
	Water Quality/Quantity Impacts	No Likely Significant Effects	
Epping Forest SAC	Recreational Impacts	No Likely Significant Effects	
	Air Quality Impacts		Yes
	Water Quality/Quantity Impacts	No Likely Significant Effects	

6. Stage 2: Appropriate Assessment

6.1 Assessment of Potential Recreational Effects

- 6.1.1 The screening stage identified that no likely significant effects were predicted to occur on the Lee Valley SPA/Ramsar and on the Epping Forest SAC National Network Sites, from the Development either alone or in combination with other plans and projects as described in the screening assessment as a result of increased recreational demand. However, it could not be ruled out that there is a potential for recreational demand to occur in Wormley-Hoddesdonpark Woods from the Development once operational.
- 6.1.2 The Site Improvement Plan for Wormley-Hoddesdonpark Woods considers recreational demand stating that sensitive management of access points and routes has been largely successful in mitigating the potential adverse effects of recreational demand. However, recreational demand is considered a threat against being able to achieve Conservation Objectives because visitor number increases and use of the site can change unpredictably and less obvious adverse effects on important flora and fauna could be missed. Therefore a 'lightweight' monitoring system for species or

other site features likely to be sensitive to the effects of public access close to access points should be established.

- 6.1.3 It should be noted however, that no monitoring or visitor surveys appear to have been carried out for the SAC and therefore no data exists on the recreational catchment of the woods. As a result, a proxy of a 7km catchment is considered reasonable based on the HRAs of the East Herts District Plan, Broxbourne Local Plan and Epping Forest Local Plan, which use 7km as a 'worst case' catchment based on existing data for other large woodland National Network Sites including Epping Forest SAC and Ashdown Forest SAC and SPA. The Development is 7.4km from the Wormley-Hoddesdonpark Woods.
- 6.1.4 The Gilston Area allocation requires that a large proportion of the site be safeguarded against development and transferred to the community through a stewardship arrangement to ensure the provision and long term management of significant areas of open space and parklands. Of the overall Villages 1-6 outline application site area of 993Ha, approximately 585.5Ha is proposed as strategic landscape, leaving a net developable area of approximately 407.5Ha, which is approximately 41% of the outline site area. The Villages 1-6 Outline Application element of the Development will deliver considerable areas of accessible natural green space taking the form of open meadow grassland, newly planted woodland areas connecting existing woodland blocks, wild woodland spaces and defined woodland trails, green corridors between villages and pedestrian and cycle links down to the River Stort which comprises a number of managed nature reserves and recreational routes through the valley, such as the Harcamlow Way. In addition, the adjacent Village 7 proposal continues this approach, providing an extensive area of public open space, including woodland, parks and sports facilities, which will function alongside green spaces provided in Villages 1-6 with all such assets serving the whole Gilston Area as well as existing communities in the vicinity of the Development.
- 6.1.5 Each Village will provide local green spaces of different scale and function providing door-step play, sports areas and formal and informal parkland. Tree lined streets and routes will run through the villages connecting homes to these recreational spaces. The Parameter Plans and Development Specification set the framework for these principles and they are being demonstrated through masterplanning activities related to Village 1 of the outline application for Villages 1-6 along with the Strategic Landscape Masterplan which covers the whole of the Gilston Area allocation, including Village 7.
- 6.1.6 The two Crossing proposals comprise items of transport infrastructure designed to convey pedestrians, cyclists, public transport and private vehicles over the Stort Valley landscape. The Central Stort Crossing proposes to improve connections from the existing and proposed crossing down into the Stort Valley, connecting the bridge above to the Stort Navigation Towpath and also to the Parndon Moat Marsh Local Wildlife Site/ Local Nature Reserve, which is a managed environment, though is not a

National Network Site. The Eastern Stort Crossing retains and improves sections of the current Public Rights of Way into the Stort Valley. These connections will provide direct and convenient routes from new and existing communities into the valley for recreational purposes, thus reducing the likelihood of travel by vehicle to the more ecologically sensitive Lee Valley SPA/Ramsar site downstream of the Development.

- 6.1.7 It is therefore considered that appropriate on site recreational opportunities provided and secured through the Development, as well as through the Village 7 outline application (including conditions or Section 106 obligations) will provide Strategic Accessible Natural Greenspace within walking distance of new homes within Villages 1-6 and Village 7 and existing communities around the Gilston area in line with Natural England's approach to reducing recreational demand on locations less capable of accommodating increased visitor numbers. Given the variety of green infrastructure proposals within walking distance of the new homes, which include ancient and new woodland areas, it is considered that the Development will provide sufficient alternative natural greenspace on-site such that new residents will not need to, and will be unlikely to, travel by private vehicle to the Wormley-Hoddesdonpark Woods SAC, which is the only way of accessing the SAC unless one is a competent cyclist.
- 6.1.8 While the screening stage suggests that there is a credible risk that the Development will increase visitor numbers to the Wormley-Hoddesdonpark Woods, given the above distance and provision of alternative on-site accessible natural greenspace and opportunities for recreation, it is considered that recreational demands on the SAC would be insignificant. Recreational effects are not cited in the reasons for the four SSSIs with unfavourable status, and the Conservation Objectives are concerned with maintaining and restoring species diversity, woodland structure and canopy, rather than preventing or controlling public access. Taking account of the Conservation Objectives, structure and function of the SAC the Council considers that there will be no adverse impact on the integrity of the Wormley-Hoddesdonpark Woods from recreational demands associated with the Development alone and in combination with Village 7 and other plans and projects. This Appropriate Assessment therefore considers that there will be no impact on the integrity of the National Network Sites or the achievement of their Conservation Objectives in this regard.

6.2 Assessment of Potential Effects on Air Quality on the Lee Valley SPA/Ramsar and the Epping Forest SAC

- 6.2.1 The screening identified that no air pollution pathways were considered to exist between the Development and the Wormley-Hoddesdonpark Woods SAC and as such further consideration of air quality impacts on the SAC is not necessary to be carried forward into the Appropriate Assessment.

- 6.2.2 However, the screening stage concludes that the Development alone, will result in a change in traffic flow of more than 1,000 average annual daily trips in the vicinity of the Lee Valley SPA/Ramsar, thereby triggering the need for an appropriate assessment of air quality impacts on the Lee Valley SPA/Ramsar.
- 6.2.3 In terms of the Epping Forest SAC, the transport modelling undertaken for the Applicant's Habitats Information (2020 IHRA) takes into account the in-combination effects arising from the development plan growth identified in the East Herts District Plan, the Harlow Local Development Plan and Epping Forest Local Plan, as each of these plans allocates development sites in the HGGT area. The Transport Modelling described in section 5.8 and Table 10 above stage identifies that while the Development alone does not exceed the 1,000 AADT threshold, when considered in combination with vehicle movements associated with each of the Strategic Sites within the HGGT area, the AADT threshold is exceeded along the B1393 in the vicinity of the Epping Thicks SSSI component of the Epping Forest SAC, and as such an Appropriate Assessment is required. This is confirmed in the transport modelling undertaken for the Development and for the Village 7 Outline Application, which has been validated by the two Highway Authorities of Hertfordshire and Essex County Councils. These sites are detailed in the two Applicants' Environmental Statements and the Council agrees that the list of sites informing the cumulative and in-combination considerations is comprehensive and suitable for this purpose.

Lee Valley SPA/Ramsar

- 6.2.4 The Site Improvement Plan²⁹ for the Lee Valley SPA/Ramsar indicates that the only feature of the SPA vulnerable to the threat of air pollution is the Bittern, likely due to the impact of excess nitrogen on their habitats. The Bittern is a wading bird restricted almost entirely to reed dominated wetlands where they feed on fish, amphibians and other small mammals or water animals. They are also regularly found in small wetlands with relatively small areas of common reed (Phragmites).
- 6.2.5 The HRA of the Lee Valley Regional Park Development Framework³⁰ (Lepus Consulting, 2019) ("the Park Development Framework HRA") screened out likely significant effects from air quality on the Lee Valley SPA/Ramsar. In addition to the strategic policies in the Park Development Framework, which include policies to manage visitation to and management of the Lee Valley SPA/Ramsar, the HRA took into account the in-combination effects of growth identified in the surrounding development plans, including the Development. While the Park Development Framework HRA was undertaken to assess the strategic policies in the Park Development Framework in combination with other plans and projects, the technical information is useful for this

²⁹ <http://publications.naturalengland.org.uk/publication/5864999960444928> Lee Valley SPA and Ramsar Site Improvement Plan

³⁰ https://www.leevalleypark.org.uk/files/ugd/8d76d7_b18e84350f1240cda3b2735fa4de489a.pdf Lee Valley Regional Park Authority Strategic Policies Appropriate Assessment, Lepus Consulting, 2019

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

HRA of the Development as it considers the air quality effects of the same relevant development plans in-combination.

- 6.2.6 Paragraphs 4.4.7 to 4.4.13 and Figures 4.1 and 4.2 of the Park Development Framework HRA describe how despite the proximity of the Rye Meads SSSI component of the SAC to the A414, the Wetland Bird Survey currently offers no indication of the presence of bittern at the SSSI and that the extent of reedbed upon which the bittern relies is located at least 280 metres from the A414. This is beyond the 200m distance advised by Natural England as being the distance within which impacts from road transport emissions may have a detrimental impact on vegetation. Therefore, road transport related emissions from traffic flows along the A414 would be unlikely to adversely impact the reedbed habitat at Rye Meads SSSI, and in turn would not impact the qualifying species. The screening report in the Park Development Framework HRA concluded that likely significant effects on the Lee Valley SPA as a result of air pollution caused by the strategic policies of the Park Development Framework can be ruled out of the assessment, when considered alone as well as in-combination with other plans and projects. In considering the in-combination effects, the Park Development Framework HRA took into account the Development Plans of East Herts, Harlow, Broxbourne and Epping Forest, including the growth planned for the Gilston Area, which is now comprised in the Development, amongst others.
- 6.2.7 Given the date of the HRA of the Lee Valley Regional Park Development Framework (2019), the Council has checked whether there is any change to the technical data that informed the HRA and if so, if this would result in a different conclusion for this Development HRA by referring to the British Trust for Ornithology Wetland Bird Survey interactive website and the MAGIC website. The extent of reedbed remains as described in the Park Development Framework HRA, however the recorded number of Bittern across the SPA/Ramsar as a whole has dropped from 5 in 2015/16 to 1 in 2019/20, resulting in the average count for the previous 5 year period dropping from 4 to 2 bitterns.
- 6.2.8 Given that the extent of reedbed has remained unchanged and remains outside the 200m transect from the road it is considered that the integrity of the site in terms of the extent of habitat that supports the qualifying species is also unchanged.
- 6.2.9 Despite the drop in numbers of Bittern recorded, the conclusion that no bittern would be impacted by road transport related air pollution impacts would also remain and that no likely significant effects on the Lee Valley SPA are considered to occur from changes in air quality associated with road transport.
- 6.2.10 While the Council has no reason to dispute this conclusion, this Appropriate Assessment has taken a precautionary approach and has also considered the potential impacts of road transport on air quality in relation to the detail of the transport-related air quality modelling and also in relation to the other habitat types

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

present that support the qualifying species of Bittern, Gadwall and Shoveler, that of open water, canal, fen, marsh and swamp. This is in line with the precautionary approach given that the Site Improvement Plan only identifies that air quality may affect the Bittern.

- 6.2.11 Given the scale of the proposed Outline Villages 1-6 Application element of the Development (8,500 homes), when considered alone, the traffic flow modelling demonstrates that in each scenario, traffic flows past the SPA/Ramsar increase by more than 1,000 Average Annual Daily Traffic flow. As such, in terms of the first step above, the Development alone will exceed the threshold and trigger the need for an Appropriate Assessment. When considering the Crossing elements of the Development alone they do not generate the traffic, rather they distribute the traffic associated from the Outline Villages 1-6 element of the Development as well as that arising from other plans and projects within the wider HGGT area. On their own therefore the Crossings do not result in air quality effects associated with Average Annual Daily Traffic flow, but as the screening test is to consider the in-combination effects of the Crossings Applications with the Outline Villages 1-6 element of the Development together with other plans and projects, the same conclusion is reached.
- 6.2.12 In order to assess whether the Applications comprising the Development exceeds the Critical Load thresholds as detailed above, the Applicant's Habitats Information (2020 IHRA) explores what the current baseline conditions are for the Lee Valley SPA/Ramsar. Table 14 below identifies the qualifying species and habitat that warrant the SPA/Ramsar designation and the critical levels and loads i.e their tolerance to different pollutant levels, above which harm can occur to the habitat such that it no longer maintains the conservation status of the species. This data was taken from the Air Pollution Information System, a regularly updated interactive website record. The Council has accessed the website data and confirm that the critical load data is as recorded on the Information System and the most up to date data has been used.

Table 14: Baseline Critical Loads and Levels – Lee Valley SPA/Ramsar

Qualifying Feature	Broad Habitat	NOx (µg/m³)	N dep (kg/ha/yr)	Acid dep (keq/ha/yr)	NH³ (µg/m³)
Great Bittern	Fen, marsh and swamp	30	15-30	Not sensitive	3 (2-4)
Gadwall	Standing open water and canals		No CL assigned		
Northern Shoveler					

- 6.2.13 Taking the main vehicular route from the Development, the A414, the modelling takes a 200m transect southwards from the road towards the Rye Meads SSSI, which is the most proximate component of the Lee Valley SPA/Ramsar. The broad habitat which occurs within 200m of the A414 is wet meadow, and although this type of habitat is unlikely to be critical to maintaining the conservation status of the qualifying bird

species, the SSSI unit assessment suggests that some parts of the wet grassland habitat resource provides “additional swamp fen habitat” for overwintering bitterns.

- 6.2.14 The Applicant’s air quality transport modelling data indicates that within the 200m distance (transect) of the road, the NO_x critical level is marginally exceeded at the roadside boundary of the Rye Meads SSSI component of the SPA only, but the lower level of the critical load for nitrogen deposition is exceeded by a minor amount at all distances. The critical level for ammonia concentration is not exceeded. Since the submission of the Applicant’s 2019 IHRA, new air pollution data was published and this was used to inform the 2020 IHRA submitted with the ES Addendum. Both sets of data have been included for transparency purposes. The Council considers that the 2020 IHRA baseline data of 2019 is appropriate to use for this Appropriate Assessment because the Applicants’ traffic modelling data was also updated to a 2019 baseline for the wider Environmental Statement Addendum submitted for the Development. The updated baseline showed an improvement in NO_x levels such that even at the roadside boundary of the Rye Meads SSSI, the NO_x critical level is not exceed; the lower level of the critical load for nitrogen deposition is exceeded by a minor amount; and the critical level for ammonia concentration is not exceeded. Percentage of Critical Load is only provided where there is an exceedance.

Table 15: Lee Valley SPA Air Quality Baseline (2018) versus Development Plus Other Plans and Projects - Completion (2040)

Distance from road	Annual Mean NOx Concentration ($\mu\text{g}/\text{m}^3$)		Total Nitrogen Deposition (kg/ha/yr)			Annual Mean NH ³ ($\mu\text{g}/\text{m}^3$)	
	Baseline	2040	Baseline	2040	PC/CL ³¹	Baseline	2040
35m	30.7	25.5	16.5	16.2	0.53%	1.34	1.37
40m	29.0	24.5	16.4	16.2	0.47%	1.33	1.35
45m	27.7	23.7	16.3	16.1	0.40%	1.32	1.34
50m	26.6	23.1	16.2	16.1	0.33%	1.32	1.33
55m	25.7	22.5	16.2	16.0	0.33%	1.31	1.33
65m	24.4	21.8	16.1	16.0	0.27%	1.30	1.32
75m	23.5	21.2	16.0	15.9	0.20%	1.30	1.31
85m	22.8	20.8	16.0	15.9	0.20%	1.29	1.30
95m	22.2	20.5	16.0	15.9	0.20%	1.29	1.30
105m	21.7	20.2	15.9	15.8	0.13%	1.29	1.29
115m	21.4	20.0	15.9	15.8	0.13%	1.28	1.29
125m	21.1	19.8	15.9	15.8	0.13%	1.28	1.29
135m	20.8	19.6	15.9	15.8	0.13%	1.28	1.28
160m	20.3	19.3	15.8	15.8	0.07%	1.28	1.28
185m	19.9	19.1	15.8	15.8	0.07%	1.27	1.28
210m	19.6	18.9	15.8	15.8	0.07%	1.27	1.27
235m	19.4	18.8	15.8	15.7	0.07%	1.27	1.27

³¹ Percentage (2040 DS – 2040 DM) of Lower Critical Load for Fen, Marsh and Swamp (15kg/Ha/year)

Table 16: Lee Valley SPA Air Quality Baseline (2019) versus Development Plus Other Plans and Projects - Completion (2040)

Distance from road	Annual Mean NO _x (µg/m ³)		Total Nitrogen Deposition (kg/ha/yr)			Annual Mean NH ₃ (µg/m ³)	
	Baseline	2040	Baseline	2040	PC/CL ³²	Baseline	2040
35m	30.6	25.6	17.25	16.88	0.36%	1.96	2.20
40m	29.1	24.8	17.15	16.82	0.32%	1.90	2.11
45m	28.0	24.1	17.07	16.77	0.28%	1.86	2.04
50m	27.1	23.6	17.00	16.74	0.25%	1.82	1.99
55m	26.4	23.2	16.95	16.71	0.22%	1.80	1.94
65m	25.2	22.6	16.87	16.67	0.19%	1.75	1.88
75m	24.4	22.2	16.81	16.63	0.17%	1.72	1.83
85m	23.8	21.8	16.76	16.61	0.14%	1.69	1.79
95m	23.3	21.5	16.72	16.59	0.13%	1.67	1.76
105m	22.9	21.3	16.69	16.57	0.12%	1.66	1.73
115m	22.5	21.1	16.67	16.56	0.10%	1.64	1.71
125m	22.3	21.0	16.65	16.55	0.09%	1.63	1.70
135m	22.0	20.8	16.63	16.54	0.08%	1.62	1.68
160m	21.6	20.6	16.60	16.52	0.07%	1.61	1.65
185m	21.2	20.4	16.57	16.51	0.06%	1.59	1.63
210m	21.0	20.3	16.55	16.50	0.06%	1.58	1.62
235m	20.7	20.1	16.54	16.49	0.05%	1.57	1.60

³² Percentage (2040 DS – 2040 DM) of Lower Critical Load for Fen, Marsh and Swamp (15kg/Ha/year)

- 6.2.15 Table 15 above shows the 2020 air quality baseline (taken from the Air Pollution Information System using co-ordinates relative to the 200m transect from the road into the Rye Meads SSSI component of the Lee Valley SPA) compared against the forecast pollutant deposition. This is based on the 'do something' transport model, which includes the 10,000 homes in the Gilston area (comprised in the Outline Applications for Villages 1-6 and Village 7), plus the in-combination traffic effects of the allocated and known development sites within the wider HGGT area and developments plans in East Herts, Harlow and Epping Forest districts.
- 6.2.16 The modelling undertaken for pollutants following the completion of Development at 2040, indicates that NO_x levels will remain below the critical load levels for all distances and scenarios. Nitrogen deposition will fall below the lower critical load threshold for fen, marsh and swamp at all distances and scenarios, and for standing open water and canals. However, the forecasting indicates that at the roadside, there is a minor increase in ammonia at the closest two transect distances, but a reduction from the third transect distance of 45m. It is noted however that the lower critical level for ammonia concentration is not exceeded at any distance. This is likely due to a number of factors which include improvements to transport technology and an increase in the use of zero and low emission vehicles.
- 6.2.17 Natural England states within their guidance regarding air quality assessment³³ that *"if a sensitive feature is not assigned to a unit (or intended to be restored to the unit) within the distance criterion the effects can be screened out"* during the screening stage. Natural England guidance further states that *"if there is already detailed, locally-based modelling available about the plan or project that shows the 1% of the environmental benchmark is not exceeded, even if the 1,000 AADT is, then this level of precision is sufficient to override the use of the very generic 1,000 AADT guideline threshold"* in determining whether the potential for likely significant effects either alone or in-combination can be screened out.
- 6.2.18 Furthermore, when taking into account the HRA undertaken for the Lee Valley Regional Park Development Framework³⁴, the National Network site currently successfully supports the habitats (reed bed) that in turn support the qualifying wintering bird species (Bittern *Botaurus stellaris*) for which the site is designated. These reed beds are beyond the 200m transect from the A414 and as such would not be impacted by air pollutants arising from road transport, thereby retaining the integrity of the Lee Valley SPA/Ramsar in terms of the structure and function of the site. It is also noteworthy that the trend indicated in the forecast is for the reduction of nutrient loads of all types across all distances once the Development (in

³³ <http://publications.naturalengland.org.uk/publication/4720542048845824> Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitat Regulations, NEA001, July 2018

³⁴ https://4a7cf0de-56b5-46b2-8640-62634050a65d.filesusr.com/ugd/8d76d7_b18e84350f1240cda3b2735fa4de489a.pdf Lee Valley Regional Park Authority Strategic Policies Appropriate Assessment, Lepus Consulting, 2019

combination with other relevant plans and programmes) is complete in 2040. As such, the improving trend in nutrient levels will have a positive effect on the standing open water and canal habitats that support the qualifying species of Gadwall *Anas strepera* and Northern Shoveler *Anas clypeata*, as well as other species that are important to the SAC including the tufted duck *Aythya fuligula*, Common Tern *Sterna hirundo* and Whorled Water-milfoil *Myriophyllum verticillatum*, and Water boatman *Micronecta minutissima*, and no further mitigation is required. It is therefore considered that this is in accordance with the Conservation Objectives of the SPA/Ramsar and the Development will not adversely affect the integrity of the Lee Valley SPA/Ramsar³⁵.

6.2.19 When considering the two transport infrastructure components of the Development, the two crossings will change the distribution of vehicle flows associated with the outline Villages 1-6 proposal and other planned developments, but they do not generate the growth in vehicle movements. Therefore this Appropriate Assessment concludes that no adverse effects will occur on the Lee Valley SPA/Ramsar site arising from the two transport infrastructure proposals when considered alone, and in combination with the Villages 1-6 Outline Application element of the Development, and in combination with the other development sites within the relevant plans and projects.

Epping Forest SAC

6.2.20 As is described in the screening stage, Epping Forest SAC has been the subject of considerable investigation through the Epping Forest Local Plan Examination in Public and through the Habitat Regulations Assessments of each of the local plans governing development within the HGGT area. The HRA for the Epping Forest Local Plan concluded that the impacts on the SAC arise primarily as a result of the planned development within Epping Forest district. This view concurred with those taken for the East Herts District Plan and Harlow Local Development Plan.

6.2.21 While the Development in combination with other plans and projects will result in Average Annual Traffic Trip flows that exceed the screening threshold of 1,000 AADT, the contribution that the Development makes to the overall number of trips on the M25 and through the Epping Forest SAC is nugatory. The HRA for the Epping Forest Local Plan determined that:

“growth in Epping Forest District between 2014 and 2033 is the primary source of additional ammonia and NOx emissions on the modelled road sections and all other plans and projects make a negligible contribution to the in combination effect [our emphasis]. This is most probably because the average daily traffic flow on all the modelled sections of road is dominated by people who either live or work in Epping

³⁵ Maintain concentrations and deposition of air pollutants to, at, or below the site-relevant Critical Load or Level values given for the feature of the site on the Air Pollution Information System.

Forest District, particularly the settlements that surround the SAC, including Epping itself”.

- 6.2.22 This view was articulated by Natural England in their formal consultation response to the Villages 1-6 Outline Application component of the Development (2nd September 2019) confirming that, aside from development within Epping Forest District. *“all other plans and projects make a negligible contribution to the in combination effect”, and consequently advises that “it would not be inappropriate to conclude that responsibility for mitigating air quality impacts on Epping Forest SAC should fall on Epping Forest District Council and developments within that district.”*
- 6.2.23 Natural England asked the Council to confirm that the potential impacts from the full extent of the Gilston Area Development beyond the Plan period has been considered. Of the 10,000 homes allocated in the Gilston Area allocation, circa 3,000 homes are expected to be delivered within the Plan period to 2033, with the remaining circa 7,000 being delivered by 2040. The Council has considered the Environmental Statements of both the Development and the Village 7 Outline Application and are satisfied that the traffic modelling which has informed the air quality modelling does indeed take into account the full extent of the delivery of the Gilston Area beyond the Plan period of 2033, by which time Village 7 plus the other development sites allocated within the relevant development plans are expected to be complete, and also beyond to 2040 when the remainder of the Villages 1-6 component of the Development is expected to be complete.
- 6.2.24 As described in the screening stage, the traffic generated by the Development alone that passes the nearest SSSI component of the Epping Forest SAC does not exceed 1,000 Average Annual Daily Traffic trips, but when considered in-combination with other plans and projects, including Village 7, the AADT of 1,000 is exceeded. This is sufficient to trigger the need for an appropriate assessment in respect of air quality effects on the Epping Forest SAC. Firstly, the current critical loads and levels for the SAC are established along with the baseline forecasts for a 200m transect across the relevant component of the SAC. The forecast traffic flows from the Development in combination with other plans and projects are then fed into an air quality traffic model that forecasts future levels of pollutants.
- 6.2.25 The critical levels and loads for Epping Forest SAC qualifying habitat types and broad habitats which support qualifying species are presented in Table 17 below. This data was taken from the Air Pollution Information System, a regularly updated interactive website record. The Council has accessed the website data³⁶ and confirm that the critical load data is as recorded on the Information System and the most up to date data has been used.

³⁶ 01.02.2023

Table 17: Baseline Critical Loads and Levels – Epping Forest SAC

Qualifying Feature	Broad Habitat	NOx ($\mu\text{g}/\text{m}^3$)	N deposition ($\text{kg}/\text{ha}/\text{yr}$)	NH ₃ ($\mu\text{g}/\text{m}^3$)
Northern Atlantic wet heaths with <i>Erica tetralix</i>	Atlantic acidophilous Beech forests	30	10-20	1
European dry heaths				1
Atlantic acidophilous Beech forests				No critical level/load assigned
Stage Beetle	Broadleaved woodland	Not sensitive		

6.2.26 As explained in paragraph 5.8.30 above, the closest main traffic link to the SAC is the M25. The area of Epping Forest SAC which lies adjacent to the B1393, south of the M25 near the Bell Common Tunnel is occupied by woodland (SSSI unit 105, 'Epping Thicks') and is considered in the Applicant's 2019 IHRA as being the most relevant for this HRA/AA. Further south, the SAC is crossed by multiple roads and therefore transport model results are skewed by local traffic and that of north London Boroughs, reducing the ability to disseminate the impacts arising from the Development from wider traffic sources. Taking the main vehicular route from the Development, the B1393, the modelling takes a 200m transect southwards from the M25 across the SSSI unit. Table 18 below shows the 2018 air quality baseline provided in the Applicant's 2019 IHRA (taken from the Air Pollution Information System using co-ordinates relative to the 200m transect from the M25 into the Epping Thicks SSSI component of the Epping Forest SAC) compared against the forecast pollutant deposition, based on the 'do something' transport model, which includes the 10,000 homes in the Gilston Area (comprised in the Outline Applications for Villages 1-6 and Village 7, plus the in-combination effects of the allocated Strategic Sites within the wider HGGT area and development plans in East Herts, Harlow and Epping Forest districts. The Applicant has also recently³⁷ provided updated modelling data, which has been submitted to Natural England, and this is reported for transparency at Table 19 below.

6.2.27 The 2022 IHRA provides data for a transect of the Epping Thicks SSSI unit 105 from the B1393. Table 19a below shows the 2019 air quality baseline provided in the Applicant's 2022 IHRA, taken from the Air Pollution Information System using the 1km grid square containing the 200m transect from the B1393 compared against the forecast pollutant deposition, based on the 'do something' transport model, which includes the 10,000 homes in the Gilston Area (comprised in the Outline Applications for Villages 1-6 and Village 7, plus the in-combination effects of the allocated Strategic Sites within the wider HGGT area and development plans in East Herts, Harlow and Epping Forest districts.

³⁷ February 2022

- 6.2.28 The modelling undertaken for pollutants following the completion of Development at 2040 (at Tables 18 and 19 below) indicates that NO_x levels will remain above the critical load levels for all distances except the furthest transect point from the road (241m), however the modelling shows a significant improvement between the 2018 baseline and the 2040 do something year of 23.5 µg/m³ at the nearest transect point to the road. The 10kg/ha/year lower critical load for Nitrogen Deposition is exceeded at the 2018 baseline and remains exceeded at all distances across the transect, but there is a small reduction of less than 0.5kg/Ha/year at the 2040 do something year. For Acid Deposition, the critical load remains below 1.73keq/Ha/year across all distances and there is a minor improvement of 0.04keq/Ha/year) between the baseline and 2040 do something year. In terms of Ammonia, the critical load is exceeded at the baseline and remains exceeded at the 2040 do something year, with an increase of 0.24 µg/m³. It is noted however, that for each pollutant, the contribution that the Development makes to the critical load relevant, in terms of a percentage is less than 1%. Similar results are evident for the updated 2019 baseline and therefore there is no change to the assessment in this respect.
- 6.2.20 The modelling data undertaken for the Development in combination with other plans and projects indicate that for NO_x, Nitrogen and Acid Deposition there is an improving trend in air quality over time in the absence of mitigation, however, there is a slight worsening of Ammonia. Taking a precautionary approach, it is considered that while the additional vehicle trips associated with the Development makes a negligible impact, when considered in combination with other strategic growth that will result in vehicle trips along the M25, B1393 and through the Epping Forest SAC, will to an extent delay and possibly slow the rate at which pollution levels decrease, which means that progress towards the restoration of qualifying features will take longer. However, the magnitude of this in-combination effect is considered to be negligible and imperceptible and will not cause an adverse effect on integrity of the SAC. This position is consistent with the 2019 consultation response of Natural England referred to above in respect of the village 1-6 application, namely, that the in-combination effects of developments outside of Epping will be negligible and also the in-combination assessment undertaken for the HRA for the Epping Forest Local Plan. It should also be noted however, that the Epping Thicks SSSI Unit is considered to be in favourable condition now.
- 6.2.21 It is noted that as shown in Tables 18 and 19 below, the increase in nutrient Nitrogen arising from the Development alone accounts for less than 1% of the critical load at the nearest point of the SSSI to the M25, this is considered imperceptible. However, Table 19a below shows that there is a 0.1% above the 1% critical load threshold at the nearest point of the SSSI to the B1393. Taking advice from Natural England, this exceedance is in itself imperceptible, is experienced only at the roadside edge of the transect diminishing well below the critical load by the next transect point, and is not considered to change the overall evaluation based on Natural England's current

guidance³⁸ which states that a change in emissions of less than 1% of the critical load or level is widely considered to be imperceptible and as such would not result in changes to nutrient loads within the SSSI to a level that would be detrimental to the three qualifying woodland habitats for which the SAC is designated and therefore would not adversely affect the integrity of the National Network Site. As the qualifying species of Stag Beetle is not sensitive to changes in air quality it is considered that there is no adverse effect on this qualifying species.

- 6.2.22 The Conservation Objectives for the SAC indicate that the epiphytes on the site have declined largely as a result of air pollution, though they remain important for a large range of rare species, including the knothole moss *Zygodon forsteri*. This moss has very precise habitat requirements; it grows only in the rain tracks on beech trees growing on acid soils in open, well-lit sites. As the moss is dependent upon Beech trees, NO_x levels and Nitrogen deposition are key factors. Tables 18 and 19 and 19a above shows that pollutant levels for NO_x and Nitrogen are forecast to reduce across all distances on the transect, although critical loads for Atlantic acidophilous Beech forests remain exceeded. Notwithstanding this, the Epping Thicks SSSI is not recorded to contain this particular species of moss and the SSSI unit is recorded as being in favourable status.
- 6.2.23 The APIS website records a Critical Level for Ammonia as 1 or 3 µg/m³ for the Atlantic acidophilous Beech forest. 1 µg/m³ is relevant to lichens and bryophytes while 3 µg/m³ is relevant to higher plants. The 3 µg/m³ threshold is exceeded at the edge of the SAC transect but falls below the critical level within 10m of the roadside. There remains an exceedance above the critical level for ammonia (1 µg/m³) due to background concentrations, and at the roadside location the development will result in a 1.1% increase in ammonia quickly falling to below 1% within 10m into the transect. This would be considered as imperceptible. The 2022 IHRA Table 7 shows that in the interim 2027 and 2033 forecasts the contribution of the development is less than 1% at the roadside location.

³⁸ <http://publications.naturalengland.org.uk/publication/4720542048845824> Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitat Regulations, NEA001, July 2018

Table 18: Epping Forest SAC Air Quality Baseline (2018) versus Development Plus Other Plans and Projects - Completion (2040) – M25 transect of Epping Thicks SSSI unit 105

Distance from road	Annual Mean NO _x Concentration (µg/m ³)			Total Nitrogen Deposition (kg/ha/yr)			Annual Mean NH ³ Concentration (µg/m ³)			Total Nitrogen Acid (keq/Ha/year)		
	Base-line	2040	PC/CL %	Base-line	2040	PC/CL ³⁹ %	Base-line	2040	PC/CL ⁴⁰ %	Base-line	2040	PC/CL ⁴¹ %
41m	71.8	48.3	0.27%	19.6	19.0	0.15%	2.27	2.51	0.45%	1.46	1.43	0.06%
46m	68.0	46.4	0.25%	19.2	18.7	0.14%	2.19	2.40	0.42%	1.44	1.40	0.06%
51m	64.8	44.8	0.23%	18.9	18.4	0.12%	2.11	2.31	0.39%	1.42	1.38	0.05%
56m	62.0	43.4	0.21%	18.6	18.2	0.11%	2.05	2.24	0.36%	1.40	1.36	0.05%
61m	59.6	42.2	0.20%	18.4	18.0	0.11%	2.00	2.17	0.33%	1.38	1.35	0.04%
71m	55.6	40.2	0.17%	18.0	17.6	0.10%	1.90	2.06	0.30%	1.35	1.32	0.04%
81m	52.4	38.7	0.16%	17.7	17.3	0.08%	1.83	1.97	0.26%	1.33	1.30	0.03%
91m	49.8	37.4	0.14%	17.4	17.1	0.08%	1.77	1.90	0.24%	1.31	1.29	0.03%
101m	47.6	36.3	0.13%	17.2	16.9	0.07%	1.72	1.84	0.22%	1.29	1.27	0.03%
111m	45.8	35.4	0.12%	17.0	16.7	0.07%	1.68	1.79	0.20%	1.28	1.26	0.03%
121m	44.2	34.6	0.11%	16.8	16.6	0.06%	1.65	1.74	0.18%	1.27	1.25	0.03%
131m	42.9	34.0	0.10%	16.7	16.5	0.05%	1.62	1.70	0.17%	1.26	1.24	0.02%
141m	41.7	33.4	0.09%	16.6	16.4	0.06%	1.59	1.67	0.16%	1.25	1.23	0.02%
166m	39.2	32.2	0.08%	16.3	16.1	0.05%	1.53	1.60	0.14%	1.23	1.22	0.02%
191m	37.4	31.3	0.07%	16.1	16.0	0.04%	1.49	1.55	0.12%	1.22	1.21	0.02%
216m	35.9	30.6	0.06%	16.0	15.8	0.03%	1.46	1.51	0.10%	1.21	1.20	0.01%
241m	34.7	30.0	0.05%	15.9	15.7	0.03%	1.43	1.48	0.09%	1.20	1.19	0.01%

³⁹ percentage (2040 DS - 2040 DM) of Lower Critical Load for Atlantic acidophilous beech forests (10kg/Ha/year)

⁴⁰ percentage (2040 DS - 2040 DM) of Critical Load for lower plants (1 µg/m³ 3 µg/m³ for higher plants)

⁴¹ percentage (2040 DS - 2040 DM) of minCLmaxN value for Atlantic acidophilous beech forests (1.73keq/Ha/year)

Table 19: Epping Forest SAC Air Quality Baseline (2019) versus Development Plus Other Plans and Projects - Completion (2040) – M25 transect of Epping Thicks SSSI unit 105

Distance from road	Annual Mean NOx ($\mu\text{g}/\text{m}^3$)			Total Nitrogen (kg/ha/yr) onto Heathland			Total Nitrogen (kg/ha/yr) onto Woodland			Annual Mean NH ₃ ($\mu\text{g}/\text{m}^3$)		
	Base-line	2040	PC/CL %	Base-line	2040	PC/CL %	Base-line	2040	PC/CL %	Base-line	2040	PC/CL %
41m	60.6	42.3	0.20%	18.7	17.4	0.03%	32.5	29.9	0.06%	2.59	3.16	0.06%
46m	55.3	38.4	0.18%	18.5	17.3	0.04%	32.2	29.8	0.09%	2.50	3.03	0.06%
51m	53.0	37.3	0.17%	18.4	17.3	0.03%	31.9	29.6	0.06%	2.42	2.91	0.05%
56m	51.0	36.4	0.16%	18.2	17.2	0.03%	31.6	29.5	0.06%	2.36	2.81	0.05%
61m	49.2	35.6	0.15%	18.1	17.2	0.03%	31.4	29.4	0.06%	2.30	2.72	0.04%
71m	46.4	34.3	0.13%	17.9	17.1	0.03%	31.0	29.2	0.06%	2.21	2.58	0.04%
81m	44.1	33.3	0.12%	17.8	17.0	0.03%	30.6	29.0	0.06%	2.13	2.47	0.03%
91m	42.2	32.4	0.11%	17.6	16.9	0.01%	30.4	28.9	0.03%	2.07	2.37	0.03%
101m	40.7	31.7	0.10%	17.5	16.9	0.01%	30.2	28.8	0.03%	2.02	2.29	0.03%
111m	39.4	31.1	0.09%	17.4	16.9	0.01%	30.0	28.7	0.03%	1.97	2.23	0.03%
121m	38.2	30.6	0.08%	17.4	16.8	0.03%	29.8	28.7	0.06%	1.94	2.17	0.03%
131m	37.3	30.2	0.08%	17.3	16.8	0.03%	29.7	28.6	0.06%	1.90	2.12	0.02%
141m	36.4	29.8	0.07%	17.2	16.8	0.01%	29.5	28.5	0.03%	1.88	2.08	0.02%
166m	34.7	29.0	0.06%	17.1	16.7	0.01%	29.3	28.4	0.03%	1.82	1.99	0.02%
191m	33.3	28.4	0.05%	17.0	16.7	0.01%	29.1	28.3	0.03%	1.77	1.93	0.02%
216m	32.3	27.9	0.05%	17.0	16.6	0.01%	29.0	28.3	0.03%	1.74	1.87	0.01%
241m	31.4	27.5	0.04%	16.9	16.6	0.01%	28.8	28.2	0.03%	1.71	1.83	0.01%

Table 19a: Epping Forest SAC Air Quality Baseline (2019) versus Development Plus Other Plans and Projects - Completion (2040) – B1393 Transect of Epping Thicks SSSI unit 105

Distance from road	Annual Mean NO _x (µg/m ³)			Total Nitrogen (kg/ha/yr) onto Heathland			Total Nitrogen (kg/ha/yr) onto Woodland			Annual Mean NH ₃ (µg/m ³)		
	Base-line	2040	PC/CL %	Base-line	2040	PC/CL %	Base-line	2040	PC/CL %	Base-line	2040	PC/CL %
SAC edge	60.4	30.8	0.28%	22.33	20.16	0.06%	40.15	35.66	0.12%	3.25	3.70	1.11%
10m	45.7	24.5	0.17%	21.39	19.73	0.04%	38.20	34.76	0.09%	2.62	2.89	0.67%
20m	38.8	21.5	0.12%	20.92	19.52	0.03%	27.23	34.32	0.06%	2.33	2.51	0.47%
30m	35.5	20.1	0.09%	20.69	19.42	0.01%	36.75	34.11	0.03%	2.19	2.33	0.37%
40m	33.5	19.2	0.08%	20.55	19.35	0.01%	36.45	33.98	0.03%	2.10	2.21	0.30%
50m	32.1	18.6	0.07%	20.45	19.31	0.01%	36.25	33.89	0.03%	2.04	2.14	0.26%
60m	31.1	18.2	0.06%	20.38	19.28	0.01%	36.10	33.82	0.03%	2.00	2.08	0.23%
70m	30.3	17.8	0.05%	20.32	19.25	0.00%	35.99	33.77	0.00%	1.96	2.04	0.21%
80m	29.7	17.6	0.05%	20.28	19.23	0.01%	35.89	33.73	0.03%	1.94	2.00	0.19%
90m	29.2	17.3	0.04%	20.24	19.22	0.01%	35.82	33.70	0.03%	1.91	1.98	0.17%
100m	28.7	17.2	0.04%	20.21	19.20	0.00%	35.75	33.67	0.00%	1.90	1.95	0.15%
110m	28.4	17.0	0.04%	20.18	19.19	0.00%	35.70	33.65	0.00%	1.88	1.93	0.14%
120m	28.1	16.9	0.03%	20.16	19.18	0.00%	35.65	33.63	0.00%	1.87	1.92	0.13%
130m	27.8	16.7	0.03%	20.14	19.17	0.01%	35.61	33.61	0.03%	1.85	1.90	0.12%
140m	27.5	16.6	0.03%	20.12	19.17	0.01%	35.57	33.60	0.03%	1.84	1.89	0.11%
150m	27.3	16.6	0.03%	20.11	19.16	0.01%	35.54	33.58	0.03%	1.84	1.88	0.11%
160m	27.1	16.5	0.03%	20.09	19.15	0.01%	35.52	33.57	0.03%	1.83	1.86	0.10%
170m	27.0	16.4	0.02%	20.08	19.15	0.01%	35.49	33.56	0.03%	1.82	1.86	0.09%
180m	26.8	16.3	0.02%	20.07	19.14	0.00%	35.47	33.55	0.00%	1.81	1.85	0.09%
190m	26.7	16.3	0.02%	20.06	19.14	0.00%	35.45	33.54	0.00%	1.81	1.84	0.08%
200m	26.6	16.2	0.02%	20.05	19.14	0.01%	35.43	33.53	0.03%	1.80	1.83	0.08%

- 6.2.24 The results of the air quality modelling demonstrate that the Development proposals on their own do not exceed 1% the critical levels for NO_x, and nitrogen deposition, but there is an imperceptible exceedance of Ammonia. The results of the in-combination air quality modelling indicate that, with or without the proposed Development, that part of Epping Forest SAC which could be affected by increased traffic flows along the M25 and B1393 is predicted to experience a reduction in NO_x concentrations and nitrogen deposition. However, Ammonia concentrations are predicted to increase in line with growth with or without the Development. In relation to these pollutants, the net effect of the proposed Development would be a retardation of the overall trajectory of air quality improvement. The magnitude of this effect is predicted to be miniscule and effectively imperceptible; in all cases except the imperceptible exceedance of Ammonia, the process contribution falls short of the applicable 1% critical load or level threshold.
- 6.2.25 Given that the forecast pollutant levels represent an improvement over time, and that the contribution the Development alone makes to the total forecast pollutant levels is less than 1% of the critical load for each nutrient except for the imperceptible exceedance of Ammonia it is considered that the change to critical load from the Development alone is imperceptible, in line with Natural England guidance on air quality. This is considered in the context of the in-combination traffic and pollutant modelling undertaken to inform the HRA of the EFDC Local Plan, which determined that: *“growth in Epping Forest District between 2014 and 2033 is the primary source of additional ammonia and NO_x emissions on the modelled road sections and all other plans and projects make a negligible contribution to the in combination effect. This is most probably because the average daily traffic flow on all the modelled sections of road is dominated by people who either live or work in Epping Forest District, particularly the settlements that surround the SAC, including Epping itself.”* It is therefore considered that there will be no adverse effect on the integrity of the SAC as a result of air quality impacts from the Development alone and in combination with other plans and projects, and no further mitigation is required.
- 6.2.26 Following earlier consultation with Natural England, including their response to consultation in an email of 21st December 2021, the 2022 AA was updated to reflect comments of Natural England. Having already provided informal advice to Officers through the preparation of the HRA, the final comments of Natural England had focussed primarily on the air quality impacts of the Villages 1-6 outline application and the Crossings alone and in combination with other plans and projects including the Villages 1-6 outline application, the Village 7 outline application and other planned development within the Harlow and Gilston Garden Town (“HGGT”). In this regard, the 2022 AA concluded that there will be no adverse impact on the integrity of Epping Forest SAC as a consequence of the development alone or in combination with other relevant development.

- 6.2.27 Natural England responded to consultation in respect of the HRA on 10 February 2022 and they welcomed the revised approach in the amended Appropriate Assessment (AA) in that likely significant effects due to potential air quality impacts upon Epping Forest SAC are no longer screened out at Stage 1 and are taken through to AA. Natural England also stated that:
- i. Natural England accepts that it cannot reasonably require any further analysis of available relevant evidence in order to fully rule out any remaining doubts about the conclusions reached in your amended AA.
 - ii. Natural England agrees that the Interim Air Pollution Mitigation Strategy for Epping Forest SAC (2020), could in principle deliver the air quality mitigation required to allow an in combination adverse effect upon Epping Forest SAC to be ruled out.
 - iii. Natural England accepts that there is no additional mitigation that could be readily secured through this development which would have an equivalent benefit.
 - iv. Natural England have advised that it recognises that the growth in Epping Forest District between 2014 and 2033 is the primary source of ammonia and NOx emissions on the Epping Forest Special Area of Conservation and Natural England takes the view that in this case it is “not inappropriate for the competent authority to conclude that responsibility for mitigating air quality impacts on Epping Forest SAC should fall on Epping Forest District Council and developments within that district”.
- 6.2.28 Notwithstanding the conclusions above, the Natural England response points to NE guidance (NEA001) Advising Competent Authorities on Road Traffic and HRA (June 2018) paragraphs 5.25 to 5.28 which relates to scenarios where there is already an exceedance of relevant air quality benchmarks. The inference of this signposting is that the Council should ensure consideration has been given to the question of whether further emissions from a Development will undermine Conservation Objectives that are to ‘restore the concentrations and deposition of air pollutants to within benchmarks’.
- 6.2.29 Paragraph 5.25 of Natural England’s guidance notes that “Where the conservation objectives are to ‘restore the concentrations and deposition of air pollutants to within benchmarks’ (i.e. where the relevant benchmarks such as Critical Loads/Levels are already exceeded) they will be undermined by any proposals for which there is credible evidence that further emissions will compromise the ability of other national or local measures and initiatives to reduce background levels”.
- 6.2.30 Paragraph 5.26 notes that an exceedance alone is insufficient to determine the acceptability or otherwise of a project. But because exceedance will represent a threat to the condition and integrity of a site, the guidance notes that hypothetically it could be argued that any increase above a currently exceeded state compromises the extent to which improvements from other initiatives will deliver the restoration aims

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

of the conservation objectives, as additional pollution could slow the rate at which progress is made towards meeting the relevant air quality benchmarks.

- 6.2.31 Natural England's guidance goes on to provide practical advice for how this issue should be approached by the competent authority and states at paragraph 5.28:

"In practice, where a site is already exceeding a relevant benchmark, the extent to which additional increments from plans and projects would undermine a conservation objective to 'restore' will involve further consideration of whether there is credible evidence that the emissions represent a real risk that the ability of other national or local measures and initiatives to otherwise reduce background levels will be compromised in a meaningful manner. This is a judgement to be taken by the competent authority which should be informed by, amongst others, the extent to which any declining national trends in air pollution or strategic work to tackle emissions affecting the site more locally might otherwise lead to improvements, the rate at which such improvement are anticipated to be delivered, any credible evidence on the extent of the impacts of a plan or project and whether those impacts can properly be considered temporary and reversible."

- 6.2.32 The retardation, or delay, of improvements in terms of air quality is acknowledged in the 2022 HRA (paragraph 6.2.23).

"The results of the air quality modelling demonstrate that the Development proposals on their own do not exceed 1% the critical levels for NO_x, NH₃ and nitrogen deposition. The results of the in-combination air quality modelling indicate that, with or without the proposed Development, that part of Epping Forest SAC which could be affected by increased traffic flows along the M25 is predicted to experience a reduction in NO_x concentrations and nitrogen deposition. However, Ammonia concentrations are predicted to increase in line with growth with or without the Development. In relation to these pollutants, the net effect of the proposed Development would be a retardation of the overall trajectory of air quality improvement. The magnitude of this effect is predicted to be miniscule and effectively imperceptible; in all cases, the process contribution falls short of the applicable 1% critical load or level threshold."

- 6.2.33 The HRA concluded, and Natural England do not disagree, that the magnitude of the effect of the Development in terms of retardation are imperceptible and no adverse effects on the integrity of the Epping Forest SAC will occur. This updated 2023 Appropriate Assessment also concludes that notwithstanding the imperceptible exceedance of Ammonia at the roadside transect point in the updated assessment data, the conclusion reached previously remains extant, that the magnitude of the effect of the Development in terms of retardation are imperceptible and no adverse effects on the integrity of the Epping Forest SAC will occur.

- 6.2.34 However, Natural England advise that because in their view the Epping Forest Air Pollution Mitigation Strategy ("APMS") prepared in support of the Epping Forest Local

Plan is not yet secured and therefore is considered by Natural England to be uncertain, that the Council seek legal advice. It is understood that Natural England's position is that until the Epping Forest Local Plan has been adopted that the APMS will be considered by Natural England to be "unsecured". This point is relevant to the predicted levels of improvement in the future air quality for the Epping Forest SAC through the APMS and other measures, and the question of whether the imperceptible level of retardation by the Development (in combination with other developments) on future improvements will undermine the ability of the APMS and other national and local measures to reduce background levels.

- 6.2.35 Due to the assessed imperceptible level of impact of the Development (both alone and in-combination), the Council as competent authority remains satisfied that there will be no impact on integrity and that the data and overall conclusions contained within the HRA annexed to the report are robust. The Council also considers that the Gilston Area Village 1-6 and Crossings Development does not rely upon the adoption of the Epping Forest Local Plan and the Council is satisfied that there is no credible evidence that the emissions represent a real risk such that the ability of other national or local measures and initiatives to otherwise reduce background levels will be compromised in a meaningful manner. Natural England has also not suggested there is credible evidence that the Development will compromise such measures and has instead stated in its consultation response to the applications that:
- "...all other plans and projects make a negligible contribution to the in-combination effect.... it would not be inappropriate to conclude that responsibility for mitigating air quality impacts on Epping Forest SAC should fall on Epping Forest District Council and developments within that district."*
- 6.2.36 The APMS is principally designed to address the impacts of, and to accommodate the growth from, the emerging Epping Forest Local Plan on the Epping Forest SAC (in combination with other plans and projects) and there will only be an imperceptible impact from the Development.
- 6.2.37 However, for completeness, this update explores the nature of the APMS in more detail and has considered in further detail whether the retardation to the overall trajectory of air quality improvement will undermine the ability of local or national mitigation measures designed to improve air quality in the Epping Forest SAC.
- 6.2.38 The Epping Forest Air Pollution Mitigation Strategy has been prepared as part of the Epping Forest Local Plan ("EFLP") Examination in Public in order to ensure that the Local Plan (in combination with other plans and projects) can demonstrate that there will be no adverse effect on the integrity of the Epping Forest SAC. The HRA undertaken on the proposed Main Modifications to the Local Plan including the APMS concludes that with the proposed Mitigation Strategy and Local Plan Policies there will be no adverse effect on the integrity of the Epping Forest SAC. Natural England was

consulted during the preparation of the APMS and in its response to the Local Plan Main Modifications Consultation states *“The Epping Forest District Council Air Pollution Mitigation Strategy (APMS) has now been adopted. Natural England remain satisfied that, in principle, the measures to be delivered reflect those identified as necessary in the Council’s HRA of the Local Plan to avoid an adverse effect to the integrity of the Epping Forest SAC.”* The Inspector is in the process of finalising her Report to the Council and it is anticipated that the Local Plan and EFAPMS will be adopted in Spring 2022. Following the receipt of the Inspector’s Report, if there is a change to the EFLP development strategy the APMS will be updated accordingly.

6.2.39 Following the adoption of the APMS by Epping Forest District Council (January 2021), a Portfolio Holder Advisory Group has been established to implement and monitor the effectiveness of the Strategy and there is a strong policy framework in place in the emerging Local Plan to support the measures set out in it. Despite the fact that the EFLP has not yet been adopted, Epping Forest District Council has been successfully applying the APMS to applications within the District and relying on this for site specific Appropriate Assessments under the Habitat Regulations, including windfall development, with conditions being imposed that require site-specific modelling and mitigation where necessary. The APMS has also been supported in a number of appeal decisions by Inspectors where Appropriate Assessments have been undertaken by an Applicant which has relied in part on the APMS⁴².

6.2.40 The measures in the Strategy include:

- The introduction of a Clean Air Zone in September 2025 (essentially a road user charging scheme which financially penalises polluting vehicles)
- Increasing the percentage of the vehicle fleet that constitutes ultra-low emission vehicles to 12-15% of vehicles using the routes in the SAC by 2033 (with incremental targets in 2025, 2029 and 2033)
- Provision of Electric Vehicle Charging Points
- Awareness Raising Campaign
- Right-hand turn ban at junction off A121 (Honey Lane) into Forest side
- Site-specific initiatives to support species and veteran tree resilience
- Initiatives to support walking, cycling and increased public transport use
- HGV Route Management Strategies
- Provision of Digital Communications Infrastructure
- Trialling new technologies
- Monitoring and review
- Wider activities being undertaken or proposed to be undertaken by the Council

6.2.41 Of these measures, the most significant is the implementation of a Clean Air Zone. This is the measure which is most likely to have a wider than local impact given that it will affect all journeys travelling through the Forest, not just local traffic. For example, Officers in Epping Forest District Council have advised Officers that the

⁴² APP/J1535/W/20/3258787 and APP/J1535/W/20/3263876

implementation of the London Low Emission Zone (March 2021) and London Ultra-Low Emission Zone (October 2021) have already started to have a beneficial impact in Epping Forest District through increased requests for electric vehicle charging points in private properties and public spaces, primarily from taxis and fleets that regularly travel between Epping and London. This demonstrates the beneficial impacts of clean air zone programmes in incentivising the change to low emission vehicles.

- 6.2.42 In advising on this updated Appropriate Assessment Natural England advise that their recent representation to the Further Main Modifications of the emerging Epping Forest District Plan have raised concern about the efficacy of the proposed Clean Air Zone which is part of the APMS. However, the final Inspector's Report published on 16th February 2023⁴³ (paras 136-137) state:

"136. It is noteworthy that the HRA states that "a Clean Air Zone will be required, but it is possible that improvements to air quality may proceed more quickly than has been assumed in the modelling underlying the HRA and in that eventuality the need for a Clean Air Zone can be reviewed in response to air quality monitoring data". In this regard it is worth observing that since the plan was submitted there has been a period of dynamic change in electronic communications and home working, electric vehicle development, manufacture and registration, and national policy and regulation towards vehicle emissions. In November 2020, the Government announced a commitment to end the sale of new petrol and diesel vehicles by 2030, and to require all new cars and vans to be fully "zero emission" at the tailpipe by 2035; its related Delivery Plan contains a series of commitments towards improving charging experience, rolling out more charging points, and encouraging the take-up of zero emission vehicles by individuals and business fleets. The Building Regulations now require the provision of electric vehicle charging points for new homes.

137. Most of these initiatives and regulatory changes are very recent indeed, and their impacts are not fully accounted for in the methodological background to the plan and HRA. For example, the HRA points out that at the time the modelling was updated in 2021, the latest mid-year 3-year averages available in respect of NOx concentrations dated from 2016. They showed that average NOx concentrations across the 1km grid square within which the Epping Forest SAC is situated had fallen substantially from 2003 to 2016. But as the latest and most stringent emissions standards only became mandatory in 2014 (for heavy duty vehicles) and 2015 (for cars) their influence over the 2016 figures would have been limited. It is therefore reasonable to expect (as the HRA's authors state) that the improving trend shown in the most recent data can be expected to continue, and indeed steepen, as drivers continue to replace older cars with newer vehicles and as further improvements in vehicle NOx emissions

⁴³<https://www.eppingforestdc.gov.uk/wp-content/uploads/2023/02/Inspectors-Report-on-the-Examination-of-the-EFDLP-2011-2033.pdf>

technology are introduced, progressing towards the government's target of ending the sale of all new petrol and diesel cars and vans by 2030. Along with changes in energy costs and individual and societal behaviours, the national and local measures will influence the proportion of ULEVs being newly registered, but there will be a time lapse before any trends appear in air quality data. It is clear then that continued air quality monitoring and assessment in Epping Forest are essential, but it is also imperative that decisions involving measures to protect the SAC are informed by data which is as up to date as possible.

- 6.2.43 It is therefore noted that the Air Quality Transport Modelling undertaken by the Applicant that informs the HRA/AA takes no account of more recent national policy changes such as the ban on the sale of petrol and diesel vehicles by 2030, the London Low Emission Zone, the London Ultra-Low Emission Zone, or of the proposed Air Pollution Mitigation Strategy accompanying the emerging Epping Forest Local Plan, which was prepared after the modelling was undertaken. Without these measures the modelling (which considers the Gilston Area and HGGT development cumulatively) demonstrates an improvement in pollutant emissions at the modelled SSSI component of the SAC (SSSI 105 – Epping Thicks), before the national and local mitigation strategies are accounted for and therefore it considers the worst case scenario with no mitigation in place. Albeit the critical loads/levels are still at exceedance as described in the full HRA/AA.
- 6.2.44 Given that the modelling demonstrates that the Development alone and in combination with other plans and projects would have a negligible impact in air quality terms on the Epping Forest SAC, being that the contribution to critical loads for each pollutant is less than 1% except for the imperceptible exceedance of Ammonia at 1.1%, no further mitigation is required. The HRA/AA demonstrates that the Development's contribution to the levels of exceedance are so small as to be imperceptible by 2040, i.e. following the completion of the Development and other planned HGGT developments. Given that the total contribution by the completion of the Development by 2040 is imperceptible, the incremental increases over time in line with the growing development will likewise be imperceptible. The impact that such small contributions will make in terms of the retardation of achieving benchmark pollutant levels are also therefore imperceptible.
- 6.2.45 The modelling undertaken for the Epping Forest Local Plan HRA⁴⁴ demonstrates that the mitigation scenario (the introduction of the Clean Air Zone in 2025 and 30% of vehicles being electric vehicles (combined) by 2033) will bring NO_x pollutants to within critical load benchmarks. However, total Nitrogen and Ammonia will remain above critical loads by 2033 in every scenario, albeit the mitigation scenario is the best performing. The modelling demonstrates that with planned growth in Epping Forest and surrounding areas the contribution of planned growth to critical loads and levels

⁴⁴ https://www.efdclocalplan.org/wp-content/uploads/2021/07/EB211A-Epping-Forest-Local-Plan-HRA-June-2021-final-for-issue_Optimized-1.pdf

was also imperceptible (being less than 1% except for the cited imperceptible exceedance) and that this *“growth in the 2033 mitigated scenario does not materially interfere with the achievement of that target”*; that target being to restore concentrations and depositions of air pollutants to at or below critical load or level values given for the feature of the site⁴⁵. By 2033 99% of the SAC would be below the critical level of NO_x under the mitigated scenarios compared to 85% in the 2017 baseline⁴⁶. By 2033, 82% of the SAC would be below the critical level of ammonia compared to 81% in the 2017 baseline⁴⁷. By 2033, 5% of the SAC would experience a net reduction in Nitrogen deposition rates compared to the 2017 baseline⁴⁸.

- 6.2.46 As indicated above, the need for the Clean Air Zone will be kept under review and modifications have been made to the Epping Forest District Plan, which is proposed to be adopted on 6th March. Based on best understanding available to East Herts at this time of this update, the Clean Air Zone in Epping Forest will be implemented in September 2025 and public awareness campaigns and democratic reporting activities will be occurring in the lead up to its implementation, including a consultation exercise in January 2024 (Appendix 3 of the APMS). The Clean Air Zone will be in active preparation by the time the first homes in the Gilston Area are occupied and will be implemented soon after. Based on the current expected housing delivery trajectory (as reported in the Officer Report to which this HRA/AA is appended), there will be no homes in the Villages 1-6 site in 2025 and approximately 100 in the Village 7 site by 2025 due to delays to the consideration of the outline applications.
- 6.2.47 The Development will therefore not undermine the adopted APMS which is designed to ensure that developments within the Epping Forest Local Plan (in combination with other plans and projects) will not have an adverse effect on the integrity of the Epping Forest SAC, nor conflict with the Conservation Objectives of restoring the concentrations and deposition of air pollutants to within benchmark levels.
- 6.2.48 It is the opinion of the Council (as competent authority) that the Development does not rely on the Epping Forest Local Plan being adopted as the in-combination effects of the Development is imperceptible in the absence of mitigation, and there is also no credible evidence that the emissions represent a real risk that the ability of national or local measures to reduce background levels of pollutants at Epping Forest SAC will be compromised in a meaningful manner.
- 6.2.49 In any event, this updated HRA/AA has considered the APMS for completeness. As noted above, the APMS is already being relied upon by Epping and Inspectors relating to Appropriate Assessments when consenting major developments within Epping Forest despite the Epping Forest District Local Plan not being adopted; there would only be a modest amount of development undertaken at the Gilston Area when key

⁴⁵ Epping Forest District Local Plan 2021 HRA paragraph 6.21

⁴⁶ Epping Forest District Local Plan 2021 HRA paragraph 6.21 (NO_x)

⁴⁷ Epping Forest District Local Plan 2021 HRA paragraph 6.32 (Ammonia)

⁴⁸ Epping Forest District Local Plan 2021 HRA paragraph 6.57 (Nitrogen)

measures such as the Epping Forest Clean Air Zone are expected to be implemented and the Development will not compromise the adopted APMS or other national or local measures for reasons set out above.

6.3 Assessment of Potential Effects on Water Quality or Quantity on the Lee Valley SPA/Ramsar

Water quality – operational phases

- 6.3.1 The screening assessment concludes that in the absence of mitigation it is not possible to conclude that no likely significant effects will occur in terms of water quality on the Lee Valley SPA/Ramsar as a result of the Development alone requiring connections to the Rye Meads Waste Water Treatment Works (WwTW).
- 6.3.2 Two parts of the Lee Valley SPA/Ramsar site lie within East Herts: Amwell Quarry and Rye Meads. The nearest proposed development site to a part of Lee Valley SPA/Ramsar site is 760m distant from the nearest allocated development site⁴⁹ and is 3.6km distant from the Development, so direct surface water runoff effects on water quality from the Development alone and in-combination with other plans and projects will not arise. Parts of the Lee Valley SPA/Ramsar consist of open water but other parts consist of fen or marsh vegetation that would theoretically be susceptible to nutrient enrichment from treated wastewater.
- 6.3.3 High levels of nutrients like phosphorous and nitrogen can unbalance plant growth and vegetation composition. Essentially, too much nitrogen and phosphorus in the water causes algae to grow faster than ecosystems can handle and significant increases in algae can harm water quality, food resources and habitats, and decrease the oxygen that fish and other aquatic life need to survive which, in turn, affect the bird species that rely on those food sources and habitats. The Lee Valley SPA/Ramsar are designated in view of the presence of overwintering populations of birds listed in the Birds Directive Annex I, that in turn rely on habitats that are sensitive to changes in water quality or quantity. In addition the SPA/Ramsar supports nationally scarce plant species Whorled Water-milfoil and the rare and vulnerable invertebrate water-boatman.
- 6.3.4 'Poor fens' (i.e. acidic fens) are strongly nitrogen limited. In other words, nitrogen availability is the factor which ultimately controls vegetation response to other nutrients and a small change in nitrogen inputs can result in a major change in the vegetation composition. In contrast, other types of fen with a relatively alkaline pH (called 'rich' fens) such as those at Rye Meads are phosphorus-limited, meaning that phosphorus availability is the factor which ultimately controls vegetation response to other nutrients. This also applies to fluvial flood-plain grasslands like those at Rye

⁴⁹ Policy HOD4, Turnford Surfacing Site, Broxbourne Local Plan

Meads SSSI. In a phosphorus limited system, high nitrogen availability will not result in a deleterious effect on vegetation provided that phosphorus availability is controlled⁵⁰. That is not to say that nitrogen inputs would therefore be irrelevant, but it does mean that when nitrogen is already in excess (and phosphorus inputs can be controlled) a proportionate response must be made to the risk posed by small additional nitrogen inputs.

- 6.3.5 Effluent discharges from Rye Meads Sewage Treatment Works (STW) into Tollhouse Stream. The Rye Meads SSSI component of the SPA/Ramsar is upstream of where the Rye Meads Waste Water Treatment Works discharges in to the River Lee via Tollhouse Stream. However, because this connection is upstream of the confluence of the River Stort and River Lee, in periods of high water flow, Tollhouse Stream has on occasion backed up into the marsh grassland areas of the SSSI.
- 6.3.6 The Amwell Quarry SSSI is further upstream of the Rye Meads Waste Water Treatment Works and is therefore not affected by discharge from the works. The Turnford and Cheshunt Pitts SSSI component of the SPA/Ramsar lies downstream of the Rye Meads Waste Water Treatment Works and despite being affected by urbanisation and sewage discharge from point source rather than the Rye Meads Waste Water Treatment Works, the conservation status for the extent of habitats and their supported species of Gadwall, Shoveler and Bittern are considered to be favourable.
- 6.3.7 Thames Water and the Environment Agency have been consulted upon throughout the Plan-making process of the East Herts District Plan, Harlow Local Development Plan and through the pre-application and applications stages of the proposed Applications comprised in the Development. Thames Water manage the Rye Meads Waste Water Treatment Works and the Environment Agency manage the licencing regime which controls levels of discharge associated with the Rye Meads Waste Water Treatment Works. The current discharge consent for Rye Meads WwTW has been recently subjected to a review by the Environment Agency and Thames Water (Review of Consents) specifically for the purpose of determining whether the current consented phosphorus limits on the discharge are leading to an adverse effect on the Lee Valley SPA/Ramsar site, and amendments were made to the consent and to improve discharge quality (2020) in order to avoid such an effect. Recent engagement with Thames Water on the Villages 1-6 Outline Application and the Village 7 Outline Application has confirmed that the Rye Meads Waste Water Treatment Works has capacity to accommodate growth to 2036. As such, it can be concluded with confidence that an adverse effect on the SPA/Ramsar site is unlikely to occur from this pathway for development within the catchment of the Rye Meads Waste Water

⁵⁰ 'In a nutrient limited system, excess of the non-limiting nutrient may not result in any signs of enrichment in the vegetation as the plants are unable to make use of one nutrient without sufficient amounts of the other'.

Source: The Fen Management Handbook, A. McBride *et al*, Scottish Natural Heritage, 2011

<https://www.nature.scot/sites/default/files/Publication%202011%20-%20Fen%20Management%20Handbook.pdf>

Treatment Works up to 2036. This therefore includes the in-combination development identified within the development plans of the authorities⁵¹ within the Rye Meads Waste Water Treatment Works catchment which run to 2033.

- 6.3.8 However, as the construction of the Development permitted pursuant to the Outline Application for 8,500 homes in Villages 1-6 will extend approximately four years beyond 2036 to 2040, Thames Water have requested conditions be attached to the planning permission for the Outline Application, if granted, to limit the number of homes occupied until such time that upgrades occur. Without upgrades to the Rye Meads Waste Water Treatment Works, post-treatment discharges may not meet the required water quality standard, which could have an adverse effect on water quality at the adjacent Rye Meads SSSI element of the Lee Valley SPA/Ramsar.
- 6.3.9 Once the Rye Meads Waste Water Treatment Works ceases to have capacity within its existing discharge consent for effluent from additional dwellings (2036) it will be necessary for Thames Water to apply to the Environment Agency to increase the consented discharge volume, or direct flows to an alternative treatment facility. The Environment Agency is very unlikely to consent to an increase in discharge volume from the WwTW unless the phosphate concentration within the effluent can be further tightened to ensure no deterioration in water quality in Tollhouse Stream. There is a technical limit (known as the limit of Best Available Technology) to how much phosphorus removal a WwTW can incorporate. If this situation arises, there is a risk that discharge flows from future dwellings within the catchment, which in this case will affect the delivery of homes within the Gilston Development beyond 2036, could not be accommodated at Rye Meads WwTW, requiring an alternative treatment solution that does not as yet exist before that additional development takes place. This could include the use of new treatment technologies, expansion or the creation of new treatment works within the Rye Meads Waste Water Treatment Works catchment.
- 6.3.10 Thames Water has a regular programme of review which allows them to model growth occurring and to prioritise upgrades as and when required as part of their normal growth and business plan process. It is necessary to note that Thames Water has a statutory duty to carry out upgrades as required without recourse to developer contributions. Notwithstanding this, the Council proposes to impose a condition in order to ensure that the applicant is incentivised to engage with Thames Water to ensure the necessary interventions and upgrades are planned and prioritised by Thames Water and that the Applicants have entered into the appropriate arrangements with Thames Water so that they are carried out at the appropriate time. Table 20 below details the anticipated housing trajectory for the combined delivery of homes in the Gilston Area (Outline Applications for Villages 1-6 and Village 7). 6,750

⁵¹ Broxbourne, East Herts, Epping Forest, Harlow, North Hertfordshire, Stevenage and Welwyn-Hatfield districts and boroughs.

homes are anticipated by 2036, with the remaining 3,250 homes delivered up to 2040/41.

Table 20: Combined Expected Annual Dwelling Completions

2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
0	0	200	250	450	650	650	650	650	650
2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/2040	2040/41	
650	650	650	650	650	650	650	650	650	
		Total by 2036	6,750				Total by 2040/41	10,000	

- 6.3.11 Based on this trajectory and the need to ensure that sufficient time is available for the delivery of any upgrades required, the condition proposes that there is a two stage approach that requires a scheme to be submitted detailing how sufficient capacity and upgrades to the waste water network will be secured to support the Development, followed by a restriction on development beyond 6,750 units until the necessary upgrades have been delivered or the Local Planning Authority is satisfied that there is sufficient certainty that the upgrades will come forward at the appropriate time (e.g. by evidencing that the Developers have entered into appropriate arrangements for the delivery of the upgrades), or that there is sufficient capacity to accommodate the Development, having regard to the progress of delivery on other strategic growth sites. Other schemes which have projected delivery post 2036 are anticipated to be subject to an equivalent form of condition.
- 6.3.12 The Council is satisfied that the proposed condition can be relied on as to control any adverse changes in water quality, will provide the necessary controls and deliver future mitigation required in the form of upgrades to the waste water treatment network, including to the Rye Meads Waste Water Treatment Works, such that effluent discharge will be treated to appropriate standards in order to prevent impacts on the water quality within the Rye Meads SSSI component of the Lee Valley SPA/Ramsar. This will prevent harm to the food sources and habitats that support the flora and fauna species for which the SPA/Ramsar is designated with no adverse effect to the integrity of the National Network Site in this regard.
- 6.3.13 When considering the two transport infrastructure components of the Development, they comprise roads and bridges requiring no connection to the Rye Meads WwTW network. This Appropriate Assessment concludes that the two transport infrastructure proposals will have no adverse effect on the integrity of the Lee Valley SPA/Ramsar as a result of changes to water quality from the treatment of effluent.
- 6.3.14 Furthermore, the outline Villages 1-6 component of the Development will result in a number of enhancements to the River Stort tributaries that in turn will improve water quality in general terms in the Stort River and Stort Navigation, to the Rye Meads SSSI through the pathway of Tollhouse Stream and downstream to the Turnford and Cheshunt Pitts SSSI components of the Lee Valley SPA/Ramsar. The vast majority of

the proposed Villages 1-6 developable area is in agricultural use. Studies in the Environmental Statement indicate that agricultural run-off is responsible for nutrient pollution within the Fiddlers' Brook, a tributary of the Stort. The proposed residential-led development will result in a reduction in agricultural run-off and an increase in plant diversity through the creation of parks and gardens in the new neighbourhoods. Further enhancements are proposed within the Fiddlers' Brook tributary that are designed to improve water quality such as the creation of new river banks and scrub clearance.

- 6.3.15 Likewise, the Development, including the outline Villages 1-6 component and the two transport infrastructure components of the proposal will create new sustainable drainage networks that will not only assist in controlling surface water but will also comprise natural treatment processes to ensure that surface water, including surface water associated with highway infrastructure is treated appropriately before entering the watercourse and drainage network. This will ensure that no changes to water quality occur within the River Stort before it meets the confluence of the River Lee downstream of the Rye Meads SSSI component of the Lee Valley SPA/Ramsar.

Water quality - construction phases

- 6.3.16 The 2020 IHRA submitted with the application originally 'screened out' effects on water quality arising during the construction phase of the Development due to the use of standard construction methods and codes of conduct set out in Construction Environment Plans to be required by condition. However, the Councils consider it appropriate to consider this aspect of the Development in this Appropriate Assessment on a precautionary basis, because such conditions are a form of mitigation. The Villages 1-6 Outline Application component of the Development site will be connected to the River Lee through the River Stort and its tributaries, which flow through the outline site area, and the two river crossing applications bridge the River Stort and Stort Navigation. As is explained above, where the River Stort is joined by the Tollhouse Stream at the confluence of the River Lee, in periods of high water flow, incidents have occurred where flow backs up into the SSSI upstream of the confluence. Therefore, there is a risk that a pollution incident arising during construction that affects the River Stort could adversely affect the integrity of the Rye Meads SSSI component of the Lee Valley SPA/Ramsar via this pathway.
- 6.3.17 Therefore, a series of conditions will be imposed upon the grant of any planning permission for each of the Applications comprised in the Development to manage each stage and method of construction-related activities that could otherwise create impacts affecting water quality. Standard Codes of Construction Practice and the preparation of Construction Environment Management Plans will ensure the developer identifies likely risks and puts in place measures to prevent pollution incidents from occurring throughout all stages of construction. Requirements to monitor each stage of construction will ensure that measures will be put in place and agreed before works commence to manage known pollution risks and to have plans in

place to quickly manage unforeseen incidents. These mitigation plans to control and prevent pollution of watercourses and groundwater will be submitted to and approved by the Local Planning Authorities prior to the commencement of each phase of the development, the process of which involves approval by relevant statutory or regulatory bodies as appropriate.

- 6.3.18 Industry standard practices will be secured through conditions to manage and minimise pollution risks caused by construction of the Villages 1-6 Outline Application component of the Development and thereby avoid pollutants entering watercourses and groundwater, which might otherwise result in the deterioration of water quality. It is common practice to impose such conditions on developments where the potential for pollution of watercourses and groundwater might occur and it is considered reasonable to conclude that other developments will provide similar suitable mitigation such that in-combination effects are avoided and prevented.
- 6.3.19 In terms of the construction phase of the Development, where the new homes require connections to the existing trunk sewer, site-specific or connection-specific upgrades are likely to be required which will be delivered in line with the statutory right to connect under the provisions of the Water Industry Act 1991 in due course. The Council has consulted with Thames Water and the Environment Agency, and a number of standard conditions have been requested by the statutory bodies to ensure that upgrades and connections which they are responsible for undertaking, have been undertaken to the appropriate standard before homes are occupied. This will ensure that no significant adverse effects occur on the Lee Valley SPA/Ramsar as a result of the construction phase of the Development alone.
- 6.3.20 As the two Crossings providing the transport infrastructure components of the Development will involve construction directly over and adjacent to the Stort Navigation, the River Stort and its floodplain, the conditions proposed recognise the enhanced risks of pollution of watercourses or groundwater and provide a framework for identifying and managing such risks. In relation to the potential risk of pollution of watercourses or groundwater, the conclusion of this Appropriate Assessment is that with these conditions in place there will be no adverse effect on the integrity of the Lee Valley SPA/Ramsar, or conflict with the Conservation Objectives⁵², from the Crossings, either alone or in combination with other plans or projects (including the Development).

Water quantity

- 6.3.21 In terms of water quantity, the screening assessment indicates that there will be no likely significant effects on the Lee Valley SPA/Ramsar either alone or in combination given that Affinity Water has a Water Resources Management Plan covering the period

⁵² Maintain the overall depth of swamp and marginal water and ensure water quality and quantity is maintained to a standard which provides the necessary conditions to support the qualifying species.

beyond the completion of the Development. The abstraction of water to supply the proposed Villages 1-6 element of the Development will therefore not have any likely significant effects on the SPA/Ramsar as a result of excessive water drawdown, either alone or in combination with other plans and programmes.

6.3.22 Notwithstanding this, as a precautionary measure, various conditions have been requested (as listed in Appendix C) by statutory bodies such as the Lead Local Flood Authority, Environment Agency and Thames Water for example, which are considered appropriate. These include conditions to manage drainage strategies to achieve greenfield run-off rates through the integration of sustainable drainage features, which will include the attenuation and management of water flow and discharge as well as floodplain compensation areas for the two river crossing elements of the Development, and also to manage water use during construction related activities. For example, the Construction Environment Management Plan condition requires the submission of a water management strategy for construction phases of each component of the Development. Modern methods of construction are managed by codes of construction practice that require the minimisation of water usage during construction activities. Details of the various construction management methods are included in the Applicant's Environmental Statement⁵³.

6.4 Stage 2: Appropriate Assessment Conclusion

6.4.1 The Local Planning Authority has carefully considered the information provided by the applicant in the form of the 2020 IHRA and 2022 IHRA update and is satisfied that the information is sufficient to inform this Appropriate Assessment. The Council has considered a wide variety of sources of data and verified information (as detailed throughout the report), including engagement with consultants Barton Willmore, Aecom, EPR Consulting, Herts Ecology, Affinity Water and Thames Water. The Council is satisfied beyond reasonable scientific doubt that the Development, alone or in combination with other plans and projects would not have an adverse effect on the integrity of National Network Site once mitigations have been considered.

6.4.2 Appropriate consultation has occurred with relevant statutory bodies in informing the June 2020 IHRA and 2022 IHRA update and the Council's Appropriate Assessment, including Natural England. No objections to the proposed Development were made by the statutory bodies subject to the imposition of conditions. These conditions and any others deemed appropriate by the LPA to mitigate any likely significant effects in order to avoid adverse effects on the integrity of National Network Sites, namely the Lee Valley SPA/Ramsar were detailed in each of the committee reports for the two Crossing applications and are included in the approved Decision Notices for both Crossings.

⁵³ Environmental Statement Volume 3, Appendix 6.2: Code of Construction Practice; Appendix 17.4: Preliminary Water Framework Directive Assessment; and Appendix 17.5: Water Risk Assessment for the River Stort/ Stort Navigation Road Crossings.

- 6.4.3 The Applicant's IHRA 2020 includes a 'Mitigation Route Map', a list of mitigation measures that are either proposed to be delivered through the Development, or agreed as additional forms of mitigation to be controlled through condition in Appendix 22.1 of the Environmental Statement. These are included in Appendix D to this Report. Having taken account of the information received and considering that mitigation measures will be adequately secured as part of any planning permissions or associated Section 106 agreement (to the extent necessary), and are expected to be effective beyond reasonable scientific doubt, the Council is satisfied that the proposed Development, either alone or in combination with other plans and projects, would not lead to any adverse effects on the integrity of any National Network Site nor conflict with relevant Conservation Objectives for the National Network sites.
- 6.4.4 For clarity, the same conclusions apply in respect of the Outline application individually and the two approved Crossings, as the likely significant effects of each individually and in combination with the each other and with other plans and projects have been established and validated in this HRA and it can be concluded beyond reasonable scientific doubt that the Outline application for Villages 1-6 will not have adverse effects on the integrity of any National Network Site alone or in combination with other projects.

7. Bibliography

Affinity Water Drought Management Plan, Consultation Draft 2022

<https://affinitywater.uk.engagementhq.com/drought-consultation>

Affinity Water Resource Management Plan 2020-2080

<https://www.affinitywater.co.uk/corporate/plans/water-resources-plan>

Affinity Water Resource Management Plan Habitats Regulations Assessment (Affinity Water, 2019)

https://www.affinitywater.co.uk/docs/4.12_Habitat_Regulations_Assessment_Final_WR_MP19.pdf

Air Pollution Information System, <http://www.apis.ac.uk/critical-loads-and-critical-levels-guide-data-provided-apis>

Boggis v Natural England and Waveney DC (2009, EWCA Civ 1061)

<https://www.bailii.org/ew/cases/EWCA/Civ/2009/1061.html>

British Trust for Ornithology Wetland Bird Survey Interactive Website

<https://app.bto.org/webs-reporting/numbers.jsp>

Broxbourne Local Plan 2018-2033

<https://ex.broxbourne.gov.uk/resident-planning-and-building-planning-policy/local-plan-2018-2033>

Broxbourne Local Plan Emerging Draft Appropriate Assessment (Lepus Consulting, 2018)

<https://www.broxbourne.gov.uk/downloads/file/913/ev1-habitats-regulations-assessment>

Broxbourne Local Plan Emerging Draft Screening Assessment (Lepus Consulting, 2016)

<https://www.broxbourne.gov.uk/downloads/file/915/ev2-habitats-regulations-assessment-screening-report>

East Herts District Plan 2011-2033

<https://www.eastherts.gov.uk/planning-building/planning-policy/east-herts-district-plan-2018>

East Herts District Plan Main Modifications Habitats Regulations Assessment (Aecom, 2018)

https://cdn-eastherts.onwebcurl.com/s3fs-public/documents/E_Herts_Main_Modifications_HRA_Report_v2_150218_clean_issue.pdf

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

East Herts District Plan Updated Habitats Regulations Assessment (Aecom, 2017)

https://cdn-eastherts.onwebcurl.com/s3fs-public/documents/ED133_HRA_East_Herts_Local_Plan_Sept_2017_Final.pdf

East Herts District Plan Submission Habitat Regulations Assessment (Aecom, 2016)

https://cdn-eastherts.onwebcurl.com/s3fs-public/documents/Habitats_Regulations_Assessment_2016.pdf

Epping Forest District Council Inspector's Report on the Examination of the EFDLP 2011 to 2033 (16th February 2023)

<https://www.eppingforestdc.gov.uk/wp-content/uploads/2023/02/Inspectors-Report-on-the-Examination-of-the-EFDLP-2011-2033.pdf>

Epping Forest Local Plan Submission Version, 2017

<https://www.efdclocalplan.org/local-plan/submission-documents/>

Epping Forest Local Plan 2021 Habitats Regulations Assessment (Aecom, 2021)

https://www.efdclocalplan.org/wp-content/uploads/2021/07/EB211A-Epping-Forest-Local-Plan-HRA-June-2021-final-for-issue_Optimized-1.pdf

Epping Forest Local Plan Habitats Regulations Assessment (Aecom, 2019)

<https://www.efdclocalplan.org/wp-content/uploads/2019/01/EB209-Epping-Forest-Local-Plan-HRA-2019-FINAL.pdf>

Epping Forest SAC Conservation Objectives (Natural England, 2014)

<http://publications.naturalengland.org.uk/publication/5908284745711616>

Epping Forest SAC Conservation Objectives Supplementary Advice on Conserving and Restoring Site Features (Natural England, 2019)

<https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0012720.pdf>

Epping Forest SAC Site Improvement Plan (Natural England, 2014)

<http://publications.naturalengland.org.uk/publication/6663446854631424>

Harlow Local Development Plan, 2020

<https://www.harlow.gov.uk/planning-and-building-control/planning-policy/harlow-local-development-plan/harlow-local>

Harlow Local Development Plan Submission HRA (Aecom, 2018)

<https://www.harlow.gov.uk/sites/default/files/documents/Habitats%20Regulations%20Assessment%202019.pdf>

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

Harlow Local Development Plan HRA Adoption Statement (Aecom, 2020)
<https://www.harlow.gov.uk/sites/default/files/documents/Habitats%20Regulations%20Assessment%20adoption%20statement.pdf>

Joint Nature Conservation Committee Report 696: Guidance on Decision-making Thresholds for Air Pollution (JNCC, December, 2021)
<https://data.jncc.gov.uk/data/6cce4f2e-e481-4ec2-b369-2b4026c88447/JNCC-Report-696-Main-FINAL-WEB.pdf>

Joint Nature Conservation Committee, The Nitrogen Futures Project (JNCC, 2020)
<https://jncc.gov.uk/our-work/nitrogen-futures/>

Lee Valley Regional Park Authority Strategic Policies Appropriate Assessment (Lepus Consulting, 2019)
https://4a7cf0de-56b5-46b2-8640-62634050a65d.filesusr.com/ugd/8d76d7_b18e84350f1240cda3b2735fa4de489a.pdf

Lee Valley SPA and Ramsar Conservation Objectives (Natural England, 2019)
<http://publications.naturalengland.org.uk/file/6516586265706496>

Lee Valley SPA Conservation Objectives Supplementary Advice (Natural England, 2019)
<http://publications.naturalengland.org.uk/publication/5670650798669824>

Lee Valley SPA and Ramsar Site Improvement Plan (Natural England, 2014)
<http://publications.naturalengland.org.uk/publication/5864999960444928>

Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitat Regulations, NEA001 (Natural England, 2018)
<http://publications.naturalengland.org.uk/publication/4720542048845824>

Red List for Great Britain Post 2001 – Red list conservation status of Great Britain species excluding birds, based on IUCN guidelines
<https://lists.nbnatlas.org/speciesListItem/list>

Rye Meads Water Cycle Strategy Review, 2015
<https://www.north-herts.gov.uk/sites/default/files/TI11%20Rye%20Meads%20Water%20Cycle%20Strategy%20Review.pdf>

Sweetman Advocate General Opinion (2013, Case C 258/11) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:62011CJ0258>

The Fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List Assessment of Extinction Risk for Great Britain, December 2021. <https://britishbirds.co.uk/content/status-our-bird-populations>

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

The Fen Management Handbook (A. McBride, I. Diack, N Droy, B. Hamill, P.Jones, J. Schutten, A. Skinner, and M. Street. Scottish Natural Heritage, 2011)

<https://www.nature.scot/sites/default/files/Publication%202011%20-%20Fen%20Management%20Handbook.pdf>

Waddenzee and the Netherlands Association for the Protection of Birds versus the Secretary of State for Agriculture, Nature, Conservation and Fisheries, (2004, Case C127-02)

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62002CJ0127&from=EN>

Water Industry Act 1991

<https://www.legislation.gov.uk/ukpga/1991/56/contents>

Wormley-Hoddesdonpark Woods SAC, Conservation Objectives (Natural England, 2014) <http://publications.naturalengland.org.uk/publication/4919819195383808>

Wormley-Hoddesdonpark Woods SAC, Conservation Objectives Supplementary Advice on Conserving and Restoring Site Features (Natural England, 2019)

<http://publications.naturalengland.org.uk/file/6742166290563072>

Wormley-Hoddesdonpark Woods Site Improvement Plan (Natural England, 2015)

<http://publications.naturalengland.org.uk/publication/6314181103976448>

Appendix A – Natural England Representations 2019

- Natural England Representation to Original Submission Outline Application
- Natural England Representation to Original Submission Crossing Applications (CSC and ESC)

Appendix B – Natural England Representations 2021

- Natural England Representation to Amended Outline Application
- Natural England Representation to Amended Crossing Application (ESC only)

Appendix C – Proposed Conditions Relevant to HRA Matters

- Outline Application Proposed Draft Conditions
- CSC Application Agreed Conditions
- ESC Application Agreed Conditions

Appendix D – Mitigation Route Map

ES Addendum, Volume III, Appendix 22.1

Appendix E – Cumulative Schemes

ES Addendum, Volume III, Appendix 3.5 (as updated in 2022 ES Addendum 3.5a)

In addition to the cumulative schemes listed in Appendix E, which are taken into account in the Applicant's Environmental Statement, the following plans and programmes have also been taken into account in this Habitats Regulations Assessment

- Affinity Water Drought Management Plan, Consultation Draft 2022
- Affinity Water Resource Management Plan 2020-2080
- Affinity Water Resource Management Plan Habitats Regulations Assessment (Affinity Water, 2019)
- Broxbourne Local Plan 2018-2033
- Broxbourne Local Plan Emerging Draft Appropriate Assessment (Lepus Consulting, 2018)
- Broxbourne Local Plan Emerging Draft Screening Assessment (Lepus Consulting, 2016)
- East Herts District Plan 2011-2033
- East Herts District Plan Main Modifications Habitats Regulations Assessment (Aecom, 2018)
- East Herts District Plan Updated Habitats Regulations Assessment (Aecom, 2017)
- East Herts District Plan Submission Habitat Regulations Assessment (Aecom, 2016)
- Epping Forest Local Plan Main Modifications Schedules, 2021

Appendix A: Habitats Regulations Assessment – Screening and Appropriate Assessment

- Epping Forest Local Plan Submission Version, 2017
- Epping Forest Local Plan Habitats Regulations Assessment (Aecom, 2021)
- Epping Forest Local Plan Habitats Regulations Assessment (Aecom, 2019)
- Harlow Local Development Plan, 2020
- Harlow Local Development Plan HRA Adoption Statement (Aecom, 2020)
- Harlow Local Development Plan Submission HRA (Aecom, 2018)
- Lee Valley Regional Park Authority Strategic Policies, 2019
- Lee Valley Regional Park Authority Strategic Policies Appropriate Assessment (Lepus Consulting, 2019)

Date: 02 September 2019
Our ref: 285862 8,500 dwellings, Gilston
Your ref: 3/19/1045/OUT



East Herts Council
Wallfields, Pegs Lane,
Hertford, Herts. SG13 8EQ
By email only: planning@eastherts.gov.uk

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 3900

Dear Sir/Madam

Planning consultation: Outline planning with all matters reserved apart from external vehicular access for the redevelopment of the site through the demolition of existing buildings and erection of a residential led mixed use development comprising up to 8,500 residential homes including market and affordable homes; retirement homes and extra care facilities; a range of community uses including primary and secondary schools, health centres and nursery facilities; retail and related uses; leisure facilities; business and commercial uses; open space and public realm; sustainable urban drainage systems; utility and energy facilities and infrastructure; waste management facilities; vehicular bridge links; creation of new vehicular and pedestrian accesses into the site, and creation of a new vehicular, pedestrian and cycle network within the site; improvements to the existing highway and local road network; undergrounding and diversion of powerlines; lighting; engineering works, infrastructure and associated facilities; together with temporary works or structures required by the development.

Location: Land North of the Stort Valley and the A414 Gilston Hertfordshire

Thank you for your consultation on the above.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

SUMMARY OF NATURAL ENGLAND'S ADVICE FURTHER INFORMATION REQUIRED TO DETERMINE IMPACTS ON DESIGNATED SITES

We consider that without appropriate mitigation the application has potential to damage or destroy the interest features for which Lee Valley Special Protection Area ('SPA') and Ramsar and Hatfield Forest Site of Special Scientific Interest (SSSI) and National Nature Reserve (NNR) has been notified.

We advise that water abstraction and water quality impacts need to be considered within the framework of the Habitats Regulations Assessment ('HRA') to ensure that the development will not impact upon site integrity.

Natural England is working alongside the National Trust in carrying out research into visitor patterns, impacts and mitigation measures to Hatfield Forest SSSI/NNR. To date, this work has

included winter and summer visitor surveys and identified a Zone of Influence (Zol) of 14.6km. This work has recently been finalised and shared with your authority. Noting Hatfield Forest's location, it is currently with Uttlesford District Council for consideration as part of their emerging Local Plan and this information should have been shared with your authority, with the view of establishing a strategic solution for visitor impacts to the Forest.

As such, this application falls within the currently identified Zol for recreational impacts to Hatfield Forest SSSI, NNR, whereby new housing within this zone is predicted to generate impacts and therefore will be expected to contribute towards mitigation measures, such as a financial contribution.

Whilst we are working towards a strategic solution, Natural England advises that for the purposes of addressing the interim situation, a bespoke mitigation package should be sought for this application, which we suggest is designed in consultation with the National Trust as site managers.

In the absence of a strategic solution, Natural England would not want to see any permissions granted that would create a precedent of acceptability for additional housing developments close to Hatfield Forest SSSI, NNR. As these mitigation are in the process of being defined in a 'mitigation package', we cannot comment further at this stage of the particulars of a future mitigation strategy.

In order to mitigate these adverse effects and make the development acceptable, the following mitigation measures are required / or the following mitigation options should be secured.

Lee Valley Special Protection Area ('SPA')

With regards to air quality your authority should consider through the Habitats Regulations Assessment ('HRA') whether the projected increases in air pollution are acceptable with reference to recent air quality judgements including but not limited to the 'Dutch judgements'. Natural England recommends that you seek your own legal advice.

The HRA does not appear to address either water abstraction or water quality impacts. This is a concern as both water and sewerage undertakers appear to have raised separate concerns. Waste water capacity is of particular concern as Rye Meads Waste Water Treatment Works provides a clear pathway to an internationally designated site.

Epping Forest Special Area of Conservation ('SAC')

Natural England has previously advised the developer that there was a need to consider recreational and air quality impacts on Epping Forest SAC. As '*Appendix 14.4: Information for Habitats Regulations Assessment*' correctly state a Zol of 6.2kms for recreational pressure has since been established and this site falls well outside of this.

Given the scale of development we consider that it is appropriate for applicant to set out the provision of green infrastructure and open space. Note, however, that the paragraph is entitled 'Impact Avoidance and Mitigation' and that mitigation measures can only be applied and their effectiveness considered at the Appropriate Assessment stage to ensure compliance with the People Over Wind Judgement.

With regards to air quality Natural England confirms that our understanding of the information provided in support of the Epping Forest Local Plan indicates that growth in Epping Forest District between 2014 and 2033 is the primary source of additional ammonia and NOx emissions on the modelled road sections and all other plans and projects make a negligible contribution to the in combination effect. Natural England has not sought air quality specialist or legal advice on this applications air quality assessment and has no comment on the methodology used but we repeat our advice issued to the inspectors for Epping Forest and Harlow Local Plan that it would not be inappropriate to conclude that responsibility for mitigating air quality impacts on Epping Forest SAC should fall on Epping Forest District Council and developments within that district.

Further advice on Hatfield Forest SSSI mitigation

The proposed development is within ~8km at its closest to Hatfield Forest. Hatfield Forest is a National Nature Reserve (NNR). It is nationally designated as a Site of Special Scientific Interest (SSSI) and regarded to be of international importance for its ancient wood pasture-forest habitats. The interest features of these habitats are vulnerable to recreational impacts and within recent years there has been increasing concern regarding the number of visitors. It has been noted that there has been significant increases in visitor numbers, linked to nearby residential development. Both Natural England and the National Trust therefore have concerns regarding the impacts of increasing visitor pressure on the designated site and it is apparent that the current number of visitors is exceeding carrying capacity of some important SSSI habitats and features.

More recently, the National Trust has undertaken visitor surveys to establish a Zone of Influence (Zoi) for recreational impacts to Hatfield Forest SSSI, NNR. To date, the results of the winter and summer surveys have indicated a zone of 14.6km radius from the site. The final report assessing the combined conclusions of these surveys has recently been completed by the National Trust and is currently with Uttlesford District Council for their consideration as part of the Local Plan process. However based on the previously confirmed Zoi and the currently available updated information, Natural England regards this information as material and therefore would anticipate that the application be assessed in the context of these issues and the emerging strategic solution. Consistent with this, please note that Natural England's Impact Risk Zones are in the process of being updated accordingly to reflect this emerging evidence, which will assist the Council in identifying additional relevant planning applications which Natural England should be consulted upon.

Site Specific Assessment

We consider that the provision of 'on-site' measures, within the red line boundary of the site, can be important in helping to reduce the frequency of visits to sensitive designated sites if effectively designed in quantity and quality. We would advise that as the Local Planning Authority, an assessment is made as to whether the on-site provision, such as green infrastructure is sufficiently designated to provide mitigation, prior to the determination of this application.

In this instance, due to the 'outline' nature of the application, Natural England would anticipate that an assessment is made as to the capacity of the site to provide adequate mitigation and that confirmation of these details is sought through the appropriate method, such as an appropriately worded planning condition or obligation. Natural England recognises that in this specific case the applicant possesses a large landholding and is proposing significant levels of green infrastructure.

For areas of green infrastructure, we would generally advise that these should include elements, such as the following:

- High-quality, informal, semi-natural areas
- Circular dog walking routes of >2.7 km and/or with links to surrounding public rights of way (PRoW)
- Dedicated 'dogs-off-lead' areas
- Signage/leaflets to householders to promote these areas for recreation
- Dog waste bins etc.

Notwithstanding this, the unique draw of the identified designated site means that even well-designated, 'on-site' provisions are unlikely to fully mitigate impacts. Natural England therefore agrees that it is appropriate to consider the agreement of 'off-site' mitigation measures (outside of the red line boundary). As stated, the development of a strategic solution is currently underway which will include a mitigation package, though this has not yet been developed. As per the 'on-site' measures, Natural England would therefore recommend in the interim period, until these strategic mitigation measures have been identified, that a suitably worded planning condition or obligation is attached to any planning permission. We would recommend discussion in correspondence with the National Trust as site managers to determine appropriate and proportionate mitigation for this application.

Natural England therefore advises that permission should not be granted until such time as these

mitigation measures have been assessed and secured through the appropriate means. We would be happy to comment further as the need arises.

Please also note that if your authority is minded to grant planning permission contrary to the advice in this letter, you are required under Section 281 (6) of the Wildlife and Countryside Act 1981 (as amended) to notify Natural England of the permission, the terms on which it is proposed to grant it and how, if at all, your authority has taken account of Natural England's advice. You must also allow a further period of 21 days before the operation can commence.

Other Designated Sites Impacts

For other issues in relation to designated sites and the environment, please note that Natural England is unable to provide a more detailed response on these matters for this consultation, as we have to take a risk based approach in deciding when to provide detailed advice to planning consultations. Consequently, the Council as decision maker should request from the developer sufficient information as may be necessary for it to assess the impacts likely to arise and any mitigation measures that may be necessary. You should use the Impact Risk Zones to inform any requests for further information, as they have been designed to inform local authorities when proposed development is likely to affect a SSSI.

The lack of comment on other issues from Natural England does not imply that there are no other impacts on the natural environment. It is for the local planning authority to determine whether or not this application is with national and local policies on the natural environment. Other bodies and individuals may be able to provide information and advice on the environmental value of this site and the impacts of the proposal to assist the decision making process. We advise LPAs to obtain specialist ecological or other environmental advice when determining the environmental impacts of development.

Local authorities have responsibilities towards the conservation of SSSIs under [s28g of the Wildlife & Countryside Act \(1981 as amended\)](#), and your biodiversity duties under [s40 of the NERC Act 2006](#). If you have not already done so, we recommend that you ensure that sufficient information in the form of an SSSI impact assessment report or equivalent is built into the planning application validation process. Please note that Natural England is preparing additional standard advice to cover a range of development scenarios, but as these do not yet cover this planning application we are unable to provide further comments.

Natural England has not assessed this application for impacts on protected species. Natural England has published [Standing Advice](#) which you can use to assess impacts on protected species or you may wish to consult your own ecology services for advice.

Other advice

We would expect the Local Planning Authority (LPA) to assess and consider the other possible impacts resulting from this proposal on the following when determining this application:

- local sites (biodiversity and geodiversity)
- local landscape character
- local or national biodiversity priority habitats and species.

Natural England does not hold locally specific information relating to the above. These remain material considerations in the determination of this planning application and we recommend that you seek further information from the appropriate bodies (which may include the local records centre, your local wildlife trust, local geoconservation group or other recording society and a local landscape characterisation document in order to ensure the LPA has sufficient information to fully understand the impact of the proposal before it determines the application. A more comprehensive list of local groups can be found at [Wildlife and Countryside link](#).

Protected Species

Natural England has produced [standing advice](#)¹ to help planning authorities understand the impact of particular developments on protected species. We advise you to refer to this advice. Natural England will only provide bespoke advice on protected species where they form part of a SSSI or in exceptional circumstances.

Environmental enhancement

Development provides opportunities to secure a net gain for nature and local communities, as outlined in paragraphs 8, 102, 118, 174 and 175 of the NPPF. We advise you to follow the mitigation hierarchy as set out in paragraph 175 of the NPPF and firstly consider what existing environmental features on and around the site can be retained or enhanced or what new features could be incorporated into the development proposal. Where onsite measures are not possible, you may wish to consider off site measures, including sites for biodiversity offsetting. Opportunities for enhancement might include:

- Providing a new footpath through the new development to link into existing rights of way;
- Restoring a neglected hedgerow;
- Creating a new pond as an attractive feature on the site;
- Planting trees characteristic to the local area to make a positive contribution to the local landscape;
- Using native plants in landscaping schemes for better nectar and seed sources for bees and birds;
- Incorporating swift boxes or bat boxes into the design of new buildings;
- Designing lighting to encourage wildlife;
- Adding a green roof to new buildings;

You could also consider how the proposed development can contribute to the wider environment and help implement elements of any Landscape, Green Infrastructure or Biodiversity Strategy in place in your area. For example:

- Links to existing greenspace and/or opportunities to enhance and improve access;
- Identifying opportunities for new greenspace and managing existing (and new) public spaces to be more wildlife friendly (e.g. by sowing wild flower strips);
- Planting additional street trees;
- Identifying any improvements to the existing public right of way network or using the opportunity of new development to extend the network to create missing links;
- Restoring neglected environmental features (e.g. coppicing a prominent hedge that is in poor condition or clearing away an eyesore);

Biodiversity duty

Your authority has a [duty](#) to have regard to conserving biodiversity as part of your decision making. Conserving biodiversity can also include restoration or enhancement to a population or habitat. Further information is available [here](#)

Soils and Land Quality

Having considered the proposals as a consultation under the Development Management Procedure Order (as amended), and in the context of Government's policy for the protection of the 'best and most versatile' (BMV) agricultural land as set out in paragraph 170 and 171 of the National Planning Policy Framework, Natural England draws your Authority's attention to the following land quality and soil considerations:

1. Based on the information provided with the planning application, it appears that the proposed development comprises a significant area of agricultural land, including much which is classified

¹ <https://www.gov.uk/protected-species-and-sites-how-to-review-planning-proposals>

as 'best and most versatile' (Grades 1, 2 and 3a land in the Agricultural Land Classification (ALC) system).

2. It is recognised that a proportion of the agricultural land affected by the development will remain undeveloped (for example as habitat creation, landscaping, allotments and public open space etc). In order to retain the long term potential of this land and to safeguard soil resources as part of the overall sustainability of the whole development, it is important that the soil is able to retain as many of its many important functions and services (ecosystem services) as possible through careful soil management.
3. Consequently, we advise that if the development proceeds, the developer uses an appropriately experienced soil specialist to advise on, and supervise, soil handling, including identifying when soils are dry enough to be handled and how to make the best use of the different soils on site. Detailed guidance is available in Defra [*Construction Code of Practice for the Sustainable Use of Soils on Construction Sites*](#) (including accompanying [*Toolbox Talks*](#)) and we recommend that this is followed.

Ancient Woodland

Natural England advises that the proposals as presented have the potential to adversely affect woodland classified on the ancient Woodland Inventory. Natural England refers you to our Standing Advice on ancient woodland <https://www.gov.uk/ancient-woodland-and-veteran-trees-protection-surveys-licences>

Given the volume of information provided and competing resource pressures within Natural England our consideration of the documents may not be exhaustive. If there are any matters that either your authority or the applicant wish to bring to our attention either identifying issues that we have not discussed or addressing points that we have made please do not hesitate to contact us using the details set out below.

This concludes Natural England's advice at this stage which we hope you will find helpful.

We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us. Should the developer wish to discuss the detail of measures to mitigate the effects described above with Natural England, we recommend that they seek advice through our [Discretionary Advice Service](#).

If you have any queries relating to the advice in this letter please contact me on 020 802 61025.

Please consult us again once the information requested above, has been provided.

Yours faithfully

Mr Jamie R. Melvin
Planning Lead Adviser – West Anglia

From:Melvin, Jamie
Sent:2 Sep 2019 21:19:35 +0100
To:Development Management - Planning
Subject:[EXTERNAL] 285862 3/19/1045/OUT 8,500 dwellings, Gilston
Attachments:285862 8,500 dwellings, Gilston.pdf

Dear Sir/Madam,

Please find attached our response to the above consultation.

Natural England has not provided separate/additional responses to 3/19/1046/FUL and 3/19/1051/FUL as we consider them to be unlikely to impact on designated sites and have not looked at them in much detail. We are aware that the additional crossings on the Stort will likely have negative ecological implications at a local level and that some members of this organisation have previously provided some advice. However, given current resource levels we are not able to provide bespoke advice relating to non-designated sites/features and we consider it unlikely that these applications will have direct impacts on any designated site. We have dealt with the implications of increased traffic movements in our attached response. If there is anything in these applications that you would like us to look at again please feel free to contact me.

Kind regards,
Jamie Melvin

Planning Lead Adviser ☐ West Anglia

Natural England, County Hall, Spetchley Road, Worcester WR5 2NP

Tel: 02080261025

<http://www.gov.uk/natural-england>

We are here to secure a healthy natural environment for people to enjoy, where wildlife is protected and England's traditional landscapes are safeguarded for future generations.

In an effort to reduce Natural England's carbon footprint I will, wherever possible, avoid travelling to meetings and attend via audio, video or web conferencing.

Natural England offers two chargeable services ☐ The Discretionary Advice Service ([DAS](#)) provides pre-application, pre-determination and post-consent advice on proposals to developers and consultants as well as pre-licensing species advice and pre-assent and consent advice. The Pre-submission Screening Service ([PSS](#)) provides advice for protected species mitigation licence applications.

These services help applicants take appropriate account of environmental considerations at an early stage of project development, reduce uncertainty, reduce the risk of delay and added cost at a later stage, whilst securing good results for the natural environment.

This message has been sent using TLS 1.2

This email and any attachments is intended for the named recipient only. If you have received it in error you have no authority to use, disclose, store or copy any of its contents and you should destroy it and inform the sender. Whilst this email and associated attachments will have been checked for known viruses whilst within the Natural England systems, we can accept no responsibility once it has left our systems. Communications on Natural England systems may be monitored and/or recorded to secure the effective operation of the system and for other lawful purposes.

Date: 21 January 2021
Our ref: 334933
Your ref: 3/19/1045/OUT



Development Management
c/o planning@eastherts.gov.uk

Customer Services
Hombeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 3900

BY EMAIL ONLY

Dear Sir/Madam

Planning consultation: 3/19/1045/OUT - AMENDED PROPOSAL. Mixed use development of up to 8,500 dwellings, retirement/care facilities, community buildings, retail and commercial business space, gypsy/traveller pitches, open space, accesses and associated infrastructure/works.

Location: Land North of the Stort Valley and the A414, Gilston, Hertfordshire

Thank you for your re-consultation on the above dated 19 November 2020. This response focusses on certain aspects of the shadow HRA that have been reviewed following earlier advice from Natural England as set out in our letter dated 02 September 2019 (Natural England Ref: 285862).

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

SUMMARY OF NATURAL ENGLAND'S ADVICE: NO OBJECTION - SUBJECT TO APPROPRIATE MITIGATION BEING SECURED

In light of the further information provided in the review of the shadow HRA, Natural England offers the following advice.

It is noted that the conclusion of the shadow HRA, in relation to water quality impacts, that there will be no adverse effects (alone or in-combination) on the integrity of the Lee Valley SPA and Ramsar is predicated on the use of a planning condition to control the phasing of the development to ensure that new dwellings are not occupied prior to necessary measures being undertaken by Thames Water to ensure their capacity for the treatment of effluent will meet the standard required to prevent any such adverse effects on water quality at this designated site. Given that this mitigation relies on the commitment of a third party, Natural England advises that the Local Planning Authority needs to satisfy itself that a planning condition or planning obligation will provide the necessary certainty of the deliverability of the measures, as set out in the relevant section of the shadow HRA, to secure the mitigation required to safeguard the integrity of the Lee Valley SPA and Ramsar.

For information, it is also noted that at paragraph 5.18 of Appendix 14.4 Revised Information for Habitat Regulations Assessment, the report states that there will be “no significant adverse effects on the Lee Valley SPA and Ramsar as a result of the Proposed Development” yet the Habitat Regulations require, as an absolute, that there are no adverse effects on the integrity of European designated sites.

With regards to the impact of the proposed development upon recreational pressure experienced at Hatfield Forest SSSI and NNR, Natural England re-states the advice set out in the earlier letter that the development will be expected to contribute (through financial contribution) to the implementation of measures to mitigate the impact of increased visits to the Forest generated by the residential development at the application site. We request confirmation that a proportionate sum will be secured from this application, and would be happy to discuss this further with you if required.

In this context, East Herts DC may wish to consider the direction provided by the Planning Inspectorate for Appeal site: Land off Isabel Drive and Land off Stansted Road, Elsenham, Essex (Appeal ref: APP/C1570/W/20/3256109) where an appropriate financial contribution was required and secured by planning obligation. A copy of the decision is included with this response and your attention is drawn in particular to paragraphs 44 and 45 of that decision.

All other aspects of Natural England advice as set out in our letter dated 02 September 2019 remain unchanged.

This concludes Natural England’s advice at this stage which we hope you will find helpful.

We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us. Should the developer wish to discuss the detail of measures to mitigate the effects described above with Natural England, we recommend that they seek advice through our [Discretionary Advice Service](#).

If you have any queries relating to the advice in this letter please contact me at tessa.lambert@naturalengland.org.uk.

Please consult us again once the information requested above, has been provided.

Yours faithfully

Tessa Lambert
Lead Advisor – Land Use Planning, West Anglia Area Team

Date: 21 December 2020
Our ref: 335004
Your ref: 3/19/1051/FUL & 3/19/1049/LBC



Development Management
East Hertfordshire Council
planning@eastherts.gov.uk

Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 3900

BY EMAIL ONLY

Dear Sir or Madam

Planning consultation: Erection of a new road, pedestrian and cycle bridge, replacement of existing rail bridge at River Way; alterations to the existing local highway network; lighting and landscaping works; listed building works to Fiddlers Brook Bridge; and other associated works

Location: Land to the South and East of Gilston Village and North of River Stort, Gilston, Hertfordshire

Thank you for your consultation on the above dated 20 November 2020 which was received by Natural England on 20 November 2020.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

SUMMARY OF NATURAL ENGLAND'S ADVICE

NO OBJECTION

Based on the plans submitted, Natural England considers that the proposed development will not have significant adverse impacts on statutorily protected nature conservation sites or landscapes.

Natural England's generic advice on other natural environment issues is set out at Annex A.

Sites of Special Scientific Interest Impact Risk Zones

The Town and Country Planning (Development Management Procedure) (England) Order 2015 requires local planning authorities to consult Natural England on "Development in or likely to affect a Site of Special Scientific Interest" (Schedule 4, w). Our SSSI Impact Risk Zones are a GIS dataset designed to be used during the planning application validation process to help local planning authorities decide when to consult Natural England on developments likely to affect a SSSI. The dataset and user guidance can be accessed from the data.gov.uk website

Further general advice on the consideration of protected species and other natural environment issues is provided at Annex A.

We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us.

For any queries regarding this letter, for new consultations, or to provide further information on this consultation please send your correspondences to consultations@naturalengland.org.uk.

Yours sincerely

Clare Foster
Consultations Team

Annex - Generic advice on natural environment impacts and opportunities

Sites of Special Scientific Interest (SSSIs)

Local authorities have responsibilities for the conservation of SSSIs under s28G of the Wildlife & Countryside Act 1981 (as amended). The National Planning Policy Framework (paragraph 175c) states that development likely to have an adverse effect on SSSIs should not normally be permitted. Natural England's SSSI Impact Risk Zones are a GIS dataset designed to be used during the planning application validation process to help local planning authorities decide when to consult Natural England on developments likely to affect a SSSI. The dataset and user guidance can be accessed from the Natural England Open Data Geoportal.

Biodiversity duty

Your authority has a duty to have regard to conserving biodiversity as part of your decision making. Conserving biodiversity can also include restoration or enhancement to a population or habitat. Further information is available here.

Protected Species

Natural England has produced standing advice¹ to help planning authorities understand the impact of particular developments on protected species. We advise you to refer to this advice. Natural England will only provide bespoke advice on protected species where they form part of a SSSI or in exceptional circumstances.

Local sites and priority habitats and species

You should consider the impacts of the proposed development on any local wildlife or geodiversity sites, in line with paragraphs 171 and 174 of the NPPF and any relevant development plan policy. There may also be opportunities to enhance local sites and improve their connectivity. Natural England does not hold locally specific information on local sites and recommends further information is obtained from appropriate bodies such as the local records centre, wildlife trust, geoconservation groups or recording societies.

Priority habitats and Species are of particular importance for nature conservation and included in the England Biodiversity List published under section 41 of the Natural Environment and Rural Communities Act 2006. Most priority habitats will be mapped either as Sites of Special Scientific Interest, on the Magic website or as Local Wildlife Sites. The list of priority habitats and species can be found here². Natural England does not routinely hold species data, such data should be collected when impacts on priority habitats or species are considered likely. Consideration should also be given to the potential environmental value of brownfield sites, often found in urban areas and former industrial land, further information including links to the open mosaic habitats inventory can be found here.

Ancient woodland, ancient and veteran trees

You should consider any impacts on ancient woodland and ancient and veteran trees in line with paragraph 175 of the NPPF. Natural England maintains the Ancient Woodland Inventory which can help identify ancient woodland. Natural England and the Forestry Commission have produced standing advice for planning authorities in relation to ancient woodland and ancient and veteran trees. It should be taken into account by planning authorities when determining relevant planning applications. Natural England will only provide bespoke advice on ancient woodland, ancient and veteran trees where they form part of a SSSI or in exceptional circumstances.

¹ <https://www.gov.uk/protected-species-and-sites-how-to-review-planning-proposals>

² <http://webarchive.nationalarchives.gov.uk/20140711133551/http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>

Protected landscapes

For developments within or within the setting of a National Park or Area of Outstanding Natural Beauty (AONB), we advise you to apply national and local policies, together with local landscape expertise and information to determine the proposal. The National Planning Policy Framework (NPPF) (paragraph 172) provides the highest status of protection for the landscape and scenic beauty of National Parks and AONBs. It also sets out a 'major developments test' to determine whether major developments should be exceptionally be permitted within the designated landscape. We advise you to consult the relevant AONB Partnership or Conservation Board or relevant National Park landscape or other advisor who will have local knowledge and information to assist in the determination of the proposal. The statutory management plan and any local landscape character assessments may also provide valuable information.

Public bodies have a duty to have regard to the statutory purposes of designation in carrying out their functions (under (section 11 A(2) of the National Parks and Access to the Countryside Act 1949 (as amended) for National Parks and S85 of the Countryside and Rights of Way Act, 2000 for AONBs). The Planning Practice Guidance confirms that this duty also applies to proposals outside the designated area but impacting on its natural beauty.

Heritage Coasts are protected under paragraph 173 of the NPPF. Development should be consistent the special character of Heritage Coasts and the importance of its conservation.

Landscape

Paragraph 170 of the NPPF highlights the need to protect and enhance valued landscapes through the planning system. This application may present opportunities to protect and enhance locally valued landscapes, including any local landscape designations. You may want to consider whether any local landscape features or characteristics (such as ponds, woodland or dry stone walls) could be incorporated into the development in order to respect and enhance local landscape character and distinctiveness, in line with any local landscape character assessments. Where the impacts of development are likely to be significant, a Landscape & Visual Impact Assessment should be provided with the proposal to inform decision making. We refer you to the [Landscape Institute](#) Guidelines for Landscape and Visual Impact Assessment for further guidance.

Best and most versatile agricultural land and soils

Local planning authorities are responsible for ensuring that they have sufficient detailed agricultural land classification (ALC) information to apply NPPF policies (Paragraphs 170 and 171). This is the case regardless of whether the proposed development is sufficiently large to consult Natural England. Further information is contained in [GOV.UK guidance](#). Agricultural Land Classification information is available on the [Magic](#) website on the [Data.Gov.uk](#) website. If you consider the proposal has significant implications for further loss of 'best and most versatile' agricultural land, we would be pleased to discuss the matter further.

Guidance on soil protection is available in the Defra [*Construction Code of Practice for the Sustainable Use of Soils on Construction Sites*](#), and we recommend its use in the design and construction of development, including any planning conditions. Should the development proceed, we advise that the developer uses an appropriately experienced soil specialist to advise on, and supervise soil handling, including identifying when soils are dry enough to be handled and how to make the best use of soils on site.

Access and Recreation

Natural England encourages any proposal to incorporate measures to help improve people's access to the natural environment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways should be considered. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Relevant aspects of local authority green infrastructure strategies should be delivered

where appropriate.

Rights of Way, Access land, Coastal access and National Trails

Paragraphs 98 and 170 of the NPPF highlights the important of public rights of way and access.

Development should consider potential impacts on access land, common land, rights of way, coastal access routes and coastal margin in the vicinity of the development and the scope to mitigate any adverse impacts. Consideration should also be given to the potential impacts on any nearby National Trails, including the England Coast Path. The National Trails website www.nationaltrail.co.uk provides information including contact details for the National Trail Officer.

Environmental enhancement

Development provides opportunities to secure net gains for biodiversity and wider environmental gains, as outlined in the NPPF (paragraphs 8, 72, 102, 118, 170, 171, 174 and 175). We advise you to follow the mitigation hierarchy as set out in paragraph 175 of the NPPF and firstly consider what existing environmental features on and around the site can be retained or enhanced or what new features could be incorporated into the development proposal. Where onsite measures are not possible, you should consider off site measures. Opportunities for enhancement might include:

- Providing a new footpath through the new development to link into existing rights of way.
- Restoring a neglected hedgerow.
- Creating a new pond as an attractive feature on the site.
- Planting trees characteristic to the local area to make a positive contribution to the local landscape.
- Using native plants in landscaping schemes for better nectar and seed sources for bees and birds.
- Incorporating swift boxes or bat boxes into the design of new buildings.
- Designing lighting to encourage wildlife.
- Adding a green roof to new buildings.

You could also consider how the proposed development can contribute to the wider environment and help implement elements of any Landscape, Green Infrastructure or Biodiversity Strategy in place in your area. For example:

- Links to existing greenspace and/or opportunities to enhance and improve access.
- Identifying opportunities for new greenspace and managing existing (and new) public spaces to be more wildlife friendly (e.g. by sowing wild flower strips)
- Planting additional street trees.
- Identifying any improvements to the existing public right of way network or using the opportunity of new development to extend the network to create missing links.

Restoring neglected environmental features (e.g. coppicing a prominent hedge that is in poor condition or clearing away an eyesore).

Appendix C: Proposed Conditions Relevant to HRA Matters

Gilston Area Draft Schedule of Conditions

Enabling Works, Demolition, Infrastructure and Services: - **Definitions to be worked through but draft EW below**

The following works are likely to be undertaken during the enabling works, infrastructure and services stage:

1. Ground / drainage / archaeological investigations would be undertaken as required;
2. Hoarding or safety fencing would be erected around the boundary of demolition or construction areas, with fencing to protect sensitive features (e.g. vegetation to be retained, heritage assets, watercourse buffers);
3. Enabling works to utilities would be carried out, involving capping-off or removal of redundant utilities and boreholes, new supplies, diversions and connections, as agreed with the statutory authorities;
4. Demolition – inspections for hazardous materials (e.g. asbestos) and removal where required under appropriate licence. If present, hazardous materials would be removed and disposed of by appropriately licensed contractors following prescribed health and safety procedures. Demolition of above ground building structures would then proceed.
5. Remediation of soil/ground would be undertaken in the event that contamination is identified during intrusive ground investigations, although this is considered unlikely;
6. Hardstanding (e.g. concrete/asphalt parking areas, concrete floor slabs and foundations) within the construction area would be broken up and removed;
7. Engineering groundwork activities including excavation, grading and preparation of surfaces, and the placement / compaction of fill material would be undertaken to achieve desired ground levels (to be confirmed by Village Masterplans). Aggregate material (e.g. arisings from hardstanding removal or re-grading of land) will be re-used where suitable as sub-base for construction of roads, foundations and to create suitable 'platforms' for development; and

8. Infrastructure and services required by the Development would be installed, including but not limited to electrical, telecommunications, potable water, foul water and surface water drainage infrastructure.

9. These activities will be regulated by conditions imposed on the planning permission granted to minimise environmental effects.

Condition Number	Title	Villages 1-6
PROCEDURAL		
1	Approved Drawings	<p>The approved development shall be carried out in accordance with the following approved drawings:</p> <ul style="list-style-type: none"> • Central Stort Crossing Interim Junction Tie-in Arrangement VD17516-CCi-100-GA REV P03 • Village 2 Interim Phase General Arrangement VD17516/V2i-100-GA REV P01 • Village 6 Access General Arrangement VD17516-V6-100-GA REV P02 • Parameter Plan 1: Existing Vegetation and Buildings Dated November 2020 • Parameter Plan 2: Village Corridors, Constraints and Developable Areas dated November 2020 • Parameter Plan 3: Green Infrastructure & Open Space Dated November 2020 • Parameter Plan 4: Access and Movement Dated November 2020 • Parameter Plan 5: Principal Land Uses Dated November 2020 • Parameter Plan 6: Maximum Building Heights Dated December 2022 • Tree Protection Plan Village 1 Access 200731-1.1-GPA-V1-TPP-MM • Tree Protection Plan Village 2 Access 200901-1.4-GPA-V2-TPP-MM • Tree Protection Plan Village 6 Access 200728-1.0-GPA-V6-TPP-MM • V1 Accesses & CSC Interim Planting Scheme Plan 1/5 HNP495-GRA-X-XX-DR-L-5151 Rev 02

		<ul style="list-style-type: none"> • V1 Accesses & CSC Interim Planting Scheme Plan 2/5 HNP495-GRA-X-XX-DR-L-5152 Rev 02 • V1 Accesses & CSC Interim Planting Scheme Plan 3/5 HNP495-GRA-X-XX-DR-L-5153 Rev 02 • V1 Accesses & CSC Interim Planting Scheme Plan 4/5 HNP495-GRA-X-XX-DR-L-5154 Rev 02 • V1 Accesses & CSC Interim Planting Scheme Plan 5/5 HNP495-GRA-X-XX-DR-L-5155 Rev 01 • Village 2 Access Planting Plan HNP495-GRA-X-XX-DR-L-5161 Rev 02 • Village 6 Access Planting Plan HNP495-GRA-X-XX-DR-L-5141 Rev 03 • Gilston River Crossings and Village Development Access Planting Schedule HNP495-GRA-SC-001_Rev 03 <p>Reason: To restrict the development to that applied for and for which the environmental, transport and infrastructure impacts have been assessed.</p>
2	Other Approved Documents	<p>Development shall be undertaken in accordance with the approved plans and documents listed below, except to the extent that those details are superseded or expanded by an approved Design Code or by any Reserved Matters approval or other approval pursuant to any condition of this planning permission:</p> <ul style="list-style-type: none"> • Development Specification (incorporating Parameter Plans 1-6) December 2022 • Strategic Design Guide July 2022 • Placemaking Strategy July 2022 <p>Reason: To restrict the development to that applied for and for which the environmental, transport and infrastructure impacts have been assessed, and to ensure that the development meets the policy standards required by the development plan and any other material considerations including national and local policy guidance.</p>
3	Timescales for RM Submission /Implementation	<p>The development granted permission by this decision for the highway access works (Village 1, 2 and 6 Accesses) shall be begun not later than 5 years from the date of this permission.</p>

		<p>The first application for the approval of reserved matters shall be made to the District Planning Authority before the expiration of 5 years from the date of this permission. All subsequent applications for the approval of reserved matters shall be made to the District Planning Authority before the expiration of 30 years from the date of this permission</p> <p>The development of any reserved matters pursuant to this outline permission shall be begun before the expiration of 5 years from the date of approval of that reserved matters.</p> <p>Reason: To ensure that the development meets the policy standards required by the development plan and any other material considerations including national and local policy guidance, and in accordance with the provisions of Section 92 of the Town and Country Planning Act 1990 (as amended).</p>
4	Reserved Matters	<p>Plans and particulars of the reserved matters referred to in condition 3, relating to the means of internal access, appearance, landscaping, layout and scale, shall be submitted to and approved in writing by the District Planning Authority in respect of any part of the development of the site before any development commences within that part of the site. The development shall thereafter be carried out in accordance with the approved details.</p> <p>Reason: To ensure that the development meets the policy standards required by the development plan and any other material considerations including national and local policy guidance, and in accordance with the provisions of Section 92 of the Town and Country Planning Act 1990 (as amended).</p>
5	Remedial Works if Development Ceases	<p>In the event that building work should cease (no residential completions for a period of five years) and enabling works have taken place, remedial works shall take place to restore the land, based on a Land Restoration Scheme for the part of the site impacted, that will have been submitted to and approved by the District Planning Authority.</p>

		Reason: In the interest of environmental and residential amenity, in accordance with Policy GA1, DES2 and DES3 of the East Herts District Plan and Policy AG1 of the Gilston Area Neighbourhood Plan.
6	Strategic Landscape Masterplan	<p>No development (with the exception of Enabling Works) shall take place, nor shall any Village Masterplan pursuant to condition 32 or Reserved Matters application for commercial or residential floorspace pursuant to condition 4 be approved for any part of the site, until a Strategic Landscape Masterplan (SLMP) for the site (which shall include a Design Code and associated Regulatory Plan) has first been submitted to and approved in writing by the LPA.</p> <p>Reason: To ensure a coordinated and comprehensive approach to development in accordance with Policies GA1, DES1 and DES4 of the East Herts District Plan and Policies AG1, AG2, AG3, AG4, AG5, AG7, BU4, TRA1, TRA2, and D1 of the Gilston Area Neighbourhood Plan.</p>
7	Strategic Landscape Masterplan Scope	<p>The SLMP shall be produced in general accordance with the provisions of the Gilston Area Charter Supplementary Planning Document (July 2020) and the plans and documents approved in Conditions 1 and 2, and shall specifically consider the following (which for the avoidance of doubt excludes the village developable areas as shown on Parameter Plan 2 unless otherwise stated):</p> <ul style="list-style-type: none"> • The approximate location of proposed leisure and commuter routes for pedestrian, cyclists, equestrians and other active travel modes including connections to village boundaries and the site boundary • The approximate location of proposed Public Rights of Way, and design principles for improvements and/or modifications to existing Public Rights of Way • The approximate location of, and design principles for, proposed public transport infrastructure including for cyclists, such as cycle hire facilities

		<ul style="list-style-type: none"> • The approximate location within the SLMP area and the indicative location in respect of the villages for the following sports facilities: <ul style="list-style-type: none"> (i) 1 x Bowls facility comprising: <ul style="list-style-type: none"> • 2 x six-rink bowls greens • up to 0.4ha in total • Club house/ancillary facilities (ii) Tennis: <ul style="list-style-type: none"> • 8 x senior courts (min 4 courts per facility) • up to 0.75ha in total (iii) Cricket facilities: <ul style="list-style-type: none"> • 2 x senior cricket squares with club house/practice nets • 1 x cricket square (v) 15 Grass pitches consisting of a range of adult and junior pitches: • a Conservation Management Plan to include details of the measures to be implemented in order to ensure the long-term protection and maintenance of the Eastwick Moated sites and Mount Moated site • Investigate the feasibility of integrating and bringing back into long-term sustainable use, the designated heritage assets within the Hunsdon Airfield Park. • The approximate location of, and design principles for, a Heritage Trail, accessed primarily through active and sustainable modes of transport, utilising the green corridor network where appropriate. <p>Reason: To ensure a coordinated and comprehensive approach to development in accordance with Policies DES1, DES2 and DES4 of the East Herts District Plan and Policies AG1, AG2, AG4, AG7, BU4, TRA1, TRA2, and D1 of the Gilston Area Neighbourhood Plan.</p>
--	--	---

8	Strategic Landscape Design Code	<p>The SLMP shall be supported by a Strategic Landscape Design Code and associated Regulatory Plan which shall be produced in general accordance with the provisions of the Gilston Area Charter Supplementary Planning Document (July 2020) and the plans and documents approved in Conditions 1 and 2.</p> <p>The Strategic Landscape Design Code will provide a set of simple, concise, illustrated design requirements to provide specific, detailed parameters for the physical development of the strategic landscape area.</p> <p>As a minimum the code shall include principles for the following:</p> <p>1. Design:</p> <ul style="list-style-type: none"> • SuDS and drainage • Community food growing • Sport and recreation • Play spaces • Planting • Village edge treatments • Response to heritage (assets within Hunsdon Airfield Park and heritage trail) • Ancillary buildings within landscape areas • Ecological enhancements • Gypsy and Traveller and Travelling Show People provision • Public realm areas • Pedestrian and cycle routes hierarchy • Sustainable Transport Corridor • Sustainable Transport Hubs (if agreed to be appropriate and necessary outside village boundaries) • Wayfinding and legibility • Street hierarchy -
---	---------------------------------	---

		<ul style="list-style-type: none"> • All modes parking • Street furniture • Boundary treatments • Utilities • Lighting • Waste and recycling • Approach to public art • Materials palette for different forms of built development and hard landscaping <p>2. A scalable Regulatory Plan to assist users in navigating where the provisions of the code will apply.</p> <p>3. Reporting of the Design Code Testing process including how the outcomes have informed the final Design Code.</p> <p>4. Design Code Compliance Checklist.</p> <p>All subsequent Village Masterplans, Village Design Codes and Reserved Matters Applications shall accord with the approved Strategic Landscape Design Code and Regulatory Plan, and be accompanied by a completed Compliance Checklist which demonstrates compliance with the Code.</p> <p>Reason: In order to achieve a coordinated approach to development and high quality design outcomes in accordance with policies GA1, DES1 and DES4 of the East Herts District Plan and Policies AG1, AG2, AG3, AG4, AG5, AG7, BU4, TRA1, TRA2, and D1 of the Gilston Area Neighbourhood Plan.</p>
9	Strategic Landscape Phasing and Delivery Plan	The SLMP shall be accompanied by a Strategic Landscape Infrastructure Delivery Plan which will set out the anticipated phasing of key infrastructure within the SLMP area. The identified infrastructure shall thereafter come forward in accordance with the Strategic Landscape Infrastructure Delivery Plan unless there are unforeseen events / obstacles to delivery and

		<p>alternative timing for provision is agreed in writing by the District Planning Authority. The Strategic Landscape Infrastructure Delivery Plan may, by written agreement with the District Planning Authority, be updated from time-to-time to reflect increased certainty of delivery of infrastructure.</p> <p>Reason: To allow consideration of the impacts of the development and to ensure timely delivery of the necessary infrastructure needed to support the development in accordance with Policy DEL1 of the East Herts District Plan and Policy AG9 of the Gilston Area Neighbourhood Plan. This is a pre-commencement condition as it is necessary to secure the phasing of key infrastructure before any works commence.</p>
10	Strategic Green Space	<p>The SLMP shall include a scheme for the strategic green corridors (Eastwick Valley Corridor, Fiddlers Brook/Golden Brook Corridor, tributaries and ordinary watercourses) and the area adjacent to Fiddlers Brook in the Gilston Community Park which shall include the following elements:</p> <ul style="list-style-type: none"> • Design principles for ecological enhancement and achieving net gains in biodiversity • Design principles for how the watercourses (river channel and riparian habitat) will be restored and enhanced, informed by the Water Framework Directive Mitigation and Enhancement Strategy) • Design principles for how these areas will be landscaped for the benefit of biodiversity including planting and any soft and hard landscaping • Design principles for how lighting designs will minimise and avoid light spill to trees, hedgerows, woodland edges, watercourses and other light sensitive ecological areas to avoid disturbance impacts • Design principles for how access to the watercourses will be maintained for flood management inspection and maintenance; and

		<ul style="list-style-type: none"> • All watercourses, ordinary or main river will be retained (but for the avoidance of doubt may be modified or enhanced), with only culverting for access proposed and any works that require consent will be applied for from the relevant authority. • Design principles for how proposed changes to watercourses will not adversely affect flood risk in the site boundary or elsewhere. • Design principles for surface water management or natural flood management or flood storage measures to reduce the risk of flooding • Design principles for demonstrating how these blue green corridors will be protected during development and managed over the longer term including adequate financial provision and named body responsible for management plus production of detailed management plan. <p>Reserved Matter Applications relating to the strategic green corridors and the area adjacent to Fiddlers Brook in the Gilston Community Park shall be prepared in accordance with the approved details.</p> <p>Reason: It is essential that the detailed designs for these corridors in future masterplans and reserved matters applications protect and enhance the ecological value of the main rivers, some of which may require improvement and restoration. This approach is supported by paragraphs 159, 167 and 179 of the NPPF which recognise that the planning system should conserve and enhance the environment by minimising impacts on and providing net gains in biodiversity. This is also supported by policy WAT3 of the East Herts District Plan (2018).</p>
11	Strategic Landscape and Visual Appraisal	The SLMP to be submitted pursuant to conditions 5 shall be supported by a landscape and visual appraisal compliance statement to demonstrate that the proposals contained in the SLMP will not give rise to any new or materially different significant effects in comparison with that reported in the Environmental Statement.

		Reason: In order to ensure the development is within the parameters assessed in the Environmental Statement to avoid unacceptable adverse landscape and visual effects in accordance with Policies GA1 and DES2 of the East Herts District Plan and Policies AG1, AG3, H1 of the Gilston Area Neighbourhood Plan.
12	Strategic SuDs Strategy	<p>Prior to the approval of the Strategic Landscape Masterplan, a Strategic Sustainable Drainage System Strategy shall be submitted to and approved in writing by the District Planning Authority in consultation with Hertfordshire County Council as Lead Local Flood Authority. Notwithstanding the details contained in the Development Specification hereby approved as part of outline application 3/19/1045/OUT relating to surface water management and drainage, the Strategy shall follow and include the following details:</p> <ul style="list-style-type: none"> • Evidence to show the location of any SuDS will not become overwhelmed by any source of flood risk including surface water or groundwater. • A strategy following the SuDS discharge hierarchy including potential use of rainwater reuse systems as a first step on the hierarchy prior to going to infiltration prior to going by gravity to a surface watercourse. • Desk based information and preliminary ground investigations, including some site wide infiltration testing undertaken to BRE 365 specification in broad approximations of strategic attenuation features. • If infiltration drainage is proved viable, identification of areas where infiltration or part infiltration is likely to be located within villages or strategic open spaces. • If infiltration drainage is unfavourable, surface water greenfield runoff rates and volumes should be provided for each pre-development sub catchment and all post-development scenarios will be limited to the equivalent 100% AEP (1 in 1 year), 3.33% AEP (1 in 30 year) and 1% AEP (1 in 100 year) for the corresponding critical storm durations (without an allowance for future climate change). Appropriate feasible discharge locations should be provided to the closest ordinary watercourses or main river by gravity for any of the developed areas. No

		<p>pumping of surface water drainage will be acceptable. Any discharge outfall to a watercourse should be assumed to be surcharged.</p> <ul style="list-style-type: none"> • Provision of supporting calculations to show how much post development storage is required across the site (assuming infiltration as a worst-case scenario) and how this will be achieved across the development. Where infiltration is not feasible, post development runoff rates and volumes will be limited to the equivalent greenfield scenarios for the equivalent 100% AEP (1 in 1 year), 3.33% AEP (1 in 30 year) and 1% AEP (1 in 100 year) for the corresponding critical storm durations. One Greenfield runoff rate for the whole site or per village will not be accepted. Include interception and source control within the development area, prior to utilising to site control and prior to utilising regional (strategic) control. Overarching supporting modelling for the drainage network to demonstrate how the system could operate at the 100% Annual Exceedance Probability rainfall event, 3.33% AEP plus climate change and 1% AEP plus climate change allowance, to be provided, half drain down times for infiltration storage features should be included as will urban creep on any assumed impermeable areas. Any strategic road networks may need to be considered as separate SuDS networks depending on the adoptable authority requirements. Any large sports fields will also need to be included in the drainage scheme (assuming they will be built to operate 365 days a year) • High level drawings of any SuDS, surface water storage or conveyance feature including cross and long sections, location, size, volume, depth and any inlet and outlet features. This should be supported by a clearly labelled high level drainage layout drawing which relates to the landscaping and blue green infrastructure layouts. Total storage volumes provided within each future sub-catchment should be identified. The usage of above ground and other surface water conveyance and storage SuDS features • Demonstrate an appropriate SuDS management and treatment train accounting for any sensitive discharge locations such as ecological protection areas, groundwater protections zones, surface drinking water safeguarding zones or areas previously used for landfill.
--	--	--

		<ul style="list-style-type: none"> • Integration with and enhancement of amenity space and link to any climate change mitigation such as urban cooling and social wellbeing. • Provision of biodiversity enhancement within strategic green space and biodiversity net gain requirements • Compliance with the agreed Strategic Design Code which includes multifunctional SuDS. • Indicative phasing plan for the cumulative provision of SuDS and drainage infrastructure within the green infrastructure. • A high-level assessment of overland exceedance routes in the event of a failure of the drainage system or storm event in excess of the 1 in 100 + 40% CC storm event. • A high-level management and maintenance plan. It should include maintenance and operational activities and who will be adopting which parts of the SuDS infrastructure <p>Reason: To ensure the development appropriately addresses climate change and the risk of flooding, to improve and protect water quality, to protect natural habitats and the amenity of residents and ensure the future maintenance of the Sustainable Drainage System in perpetuity and in order to comply with the requirements of Policy GA1 V (y) of the East Herts District Plan 2018 and Policies LA1 of the Gilston Area Neighbourhood Plan</p>
13	Supplementary FRA	<p>Prior to the approval of the SLMP a supplementary assessment of flood risk and climate change shall be submitted to, and approved in writing by, the District Planning authority. This should include the following elements:</p> <ul style="list-style-type: none"> • Additional investigations, surveys and appropriate modelling to establish the detailed areas at risk of flooding from ordinary watercourses, surface water flooding and groundwater flooding (including spring fed watercourses). This would include definition of functional floodplain of ordinary watercourses. No development will occur within the high and medium flood risk areas for main rivers, ordinary watercourses, and surface water flow paths.

		<ul style="list-style-type: none"> • Detailed Analysis of baseline flow conditions of receiving watercourses. Requires full surveys of all watercourses including any culverted structures impacting a watercourse. This should also include a detailed modelling for ordinary watercourses and main rivers to establish the flood levels that may be required to input to drainage modelling of surcharge outfalls. • Full condition survey of all existing structures on all watercourses impacted by the development within the development boundary with an assessment on how any culverts can be daylighted and open naturalised watercourses reinstated without adverse effects on flood risk. • All watercourses, ordinary or main river will be retained (but for the avoidance of doubt may be modified and enhanced), with only culverting for access proposed and any works that require consent will be applied for from the relevant authority. • An assessment of the 1 in 100 year plus 35% and the 1 in 100 year plus 70% climate change allowances for the Stort, Eastwick Brook, Fiddlers Brook and Pole Hole Brook. • A sequential approach to the development to avoid any less to highly vulnerable land uses being located within the design flood (1 in 100 year plus 70%). Submission of the proposed development areas with the flood outlines overlaid will help to demonstrate that this has been achieved. • Ensure that any built development which occurs within the design flood is designed to the 1 in 100 year plus 70% climate change allowance. • A strategic overview of flooding incorporating both fluvial and pluvial flooding and how they interact. Detail on expected flow rates for any new connections (surface water, sewer etc.) to the main river network will need to be provided. • Consideration for an emergency flood evaluation plan if any residual risk from any source of flooding as required.
--	--	--

		<p>Village Masterplans and Reserved Matter Applications shall be informed by the approved supplementary assessment of flood risk and climate change or as may subsequently be agreed, in writing, by the District Planning authority.</p> <p>Reason: to reduce the risk of flooding and vulnerability to climate change to the proposed development and its future users in accordance with Policy WAT1 'Flood Risk Management' of the East Herts District Plan (2018)</p>
14	Strategic Landscape Ecology Strategy	<p>Prior to or at the same time as the submission of the SLMP a Strategic Landscape Ecology Strategy for the strategic landscape area informed by the Gilston Park Estate Biodiversity Strategy (May 2019) and the Gilston Park Estate Outline Ecological Management Plan (November 2020), and up to date ecology surveys (only required where necessary and appropriate having regard to CIEEM guidance 'Advice note on the lifespan of ecological reports and surveys' April 2019), shall be submitted to and approved in writing by the LPA and shall include the following:</p> <ul style="list-style-type: none"> • Measures to protect and enhance retained assets (noting commitments secured at the outline application stage); • Identify opportunities to create new biodiversity assets and links to existing off site ecological networks; • Demonstration of how the above measures contribute to achievement of 10% min net gain target for the overall Gilston Park Estate site based on an up to date Biodiversity Net Gain metric or alternative methodology as agreed by the LPA; • Framework management and maintenance strategy. <p>Reason: To ensure that the development maintains, enhances and contributes appropriately to the local and wider ecological network in accordance with Policy NE2 of the East Herts District Plan and Policies AG1, AG2, AG3, AG4, AG7 and LA1 of the Gilston Area Neighbourhood Plan.</p>

15	Strategic Landscape Energy & Sustainability Strategy	<p>Prior to or at the same time as the SLMP, an Strategic Landscape Energy and Sustainability Strategy shall be submitted to and approved in writing by the LPA. The strategy shall confirm the measures to be implemented to minimise climate impacts arising from the strategic landscape aspects of the development in accordance with the Sustainable Development principles in the Development Specification hereby approved.</p> <p>REASON: In order that the development appropriately mitigates and adapts to the impact of climate change, minimises the impact of pollution and reduces pressure on natural resources in accordance with policies CC2, CC3 and DES4 of the East Herts District Plan and Policy AG1 of the Gilston Area Neighbourhood Plan.</p>
STAGE 2: SITE-WIDE REQUIREMENTS		
16	Archaeological WSI	<p>No demolition shall be carried out nor shall any development commence in any part of the site, until an Archaeological Written Scheme of Investigation covering that part of the site has been submitted to and approved in writing by the LPA. The scheme shall include an assessment of archaeological significance and research questions; and</p> <ul style="list-style-type: none"> i. The programme and methodology of site investigation and recording through evaluation ii. The programme and methodology of site investigation and recording for any further works as suggested by the evaluation iii. The programme for post investigation assessment iv. Provision to be made for analysis of the site investigation and recording v. Provision to be made for publication and dissemination of the analysis and records of the site investigation vi. Provision to be made for archive deposition of the analysis and records of the site investigation

		<p>vii. Nomination of a competent person or person/organisation to undertake the works set out within the Archaeological Written Scheme of Investigation.</p> <p>Reason: to ensure the appropriate investigation for presence /recording of heritage assets and to comply with the requirements of Policy GA1 V (o).</p>
17	Implementation of WSI	<p>The development hereby approved shall not take place other than in complete accordance with the programme of archaeological works set out in the Written Scheme of Investigation approved under condition 15.</p> <p>Reason: to ensure the appropriate investigation for presence /recording of heritage assets and to comply with the requirements of Policy GA1 V (o).</p>
18	Post investigation Assessment	<p>No part of the development shall be occupied or brought into use until the site investigation and post investigation assessment for that part of the development has been completed in accordance with the programme set out in the Written Scheme of Investigation approved under condition 15 and submitted to and approved in writing by the LPA, and thereafter provision made for analysis and publication where appropriate.</p> <p>Reason: to ensure the appropriate investigation for presence /recording of heritage assets and to comply with the requirements of Policy GA1 V (o).</p>
19	Opportunistic Use of Minerals	<p>Prior to the commencement of ground works in each phase of the development, a Minerals Management Plan (MMP) for the sustainable extraction of minerals on an opportunistic basis shall be submitted to and approved in writing by the District Planning Authority. Thereafter, the relevant phase or phases of the development must not be carried out other than in accordance with the approved MMP. The MMP must include the following:</p>

		<p>a) an evaluation of the opportunities to extract minerals (sand and gravel, hoggin and other soils with engineering properties); and</p> <p>b) a proposal for maximising the extraction of minerals, providing targets and methods for the appropriate recovery and highest value of beneficial use of the minerals (where feasible without the need for processing); and</p> <p>c) a method to record and report on a quarterly/biannually/yearly basis to the Mineral Planning Authority/District Planning Authority the quantity of recovered mineral for re-use on site.</p> <p>Reason: In order to prevent mineral sterilisation, contribute to resource efficiency, promote sustainable construction practices and reduce the need to import primary materials in accordance with Policy 5 of the adopted Hertfordshire Minerals District Plan Review and the National Planning Policy Framework'.</p>
STAGE 3: CONSTRUCTION		
20	Gilston Park Estate CTEMP	<p>Prior to the commencement of any part of the development, including any enabling works, a Gilston Park Estate Construction Traffic and Environmental Management Plan (CTEMP) for that part of the development shall be submitted to and approved in writing by the District Planning Authority. The plan shall include the following (where relevant):</p> <ul style="list-style-type: none"> a) Updated Code of Construction Practice b) The construction programme and phasing (including for any temporary development), including details of any measures to be taken to coordinate construction activities across the Gilston Area to manage and reduce environmental effects. c) Access and routeing arrangements for construction vehicles, including approximate numbers and types of vehicles; location of any highway works necessary to enable construction to take place; haul routes into and through the development site; temporary

		<p>traffic management or construction accesses from the local highway network including the method of segregating construction traffic from general traffic, pedestrians and cyclists; highway signage strategy; measures to be taken to reduce congestion and avoid peak periods such as school pick up/drop off times; and approach to monitoring and enforcement.</p> <p>d) Hours of operation for construction, demolition, and delivery of materials</p> <p>e) Details of servicing and delivery, including details of site access, compound, hoarding, construction related parking, loading, unloading, turning areas and materials storage areas</p> <p>f) Details of any works to Public Rights of Way, footways, bridleways and cycle ways to enable construction to take place</p> <p>g) A scheme of chassis and wheel cleaning for construction vehicles and cleaning of affected public highways. The access roads shall be hard surfaced between the cleaning facility and the highway and must be kept free of mud and debris at all times</p> <p>h) Details of a materials management scheme</p> <p>i) An air quality and dust management plan</p> <p>j) Details of noise and vibration mitigation and monitoring scheme</p> <p>k) Mechanisms to deal with other environmental impacts including light and odour</p> <p>l) Details of community liaison, communication and consultation arrangements with local residents and businesses, including details of how complaints will be managed</p> <p>m) Measures to protect existing vegetation and landscape features, any tree works, and vegetation removal to accommodate construction activity</p> <p>n) Post construction restoration/reinstatement measures for the working areas and any temporary access arrangements</p> <p>o) Measures to be implemented to ensure wayfinding for both occupiers of the site and for those travelling through it.</p> <p>p) A surface water management scheme to outline construction related drainage control measures to protect watercourses and sources, including the River Stort</p> <p>q) Measures for the protection of identified archaeological and built heritage assets</p>
--	--	--

		<p>r) Appointment of a suitably qualified Ecological Clerk of Works and details of ecological supervision</p> <p>s) Measures to be taken to seek approval from the highway authority that the highway extent has been marked out accurately prior to construction.</p> <p>t) Demonstrate how the CTEMP for the part of the development has been cognisant of the CTEMP(s) for prior parts.</p> <p>u) Confirmation of details of a watching brief on excavations on the eastern side of Village 2 for opportunistic prior extraction</p> <p>v) Evaluate the availability of construction materials from mineral workings in proximity to the site and opportunities to use available materials, where possible</p> <p>Thereafter, the construction of the development shall only be carried out in complete accordance with the relevant approved CTEMP.</p> <p>Reason: In the interests of highway safety and the control of environmental impacts on existing and future residents in accordance with policies TRA2, CFLR3, EQ2, EQ3 and EQ4 of the adopted East Herts District Plan 2018 and Policy AG8 and EX1 of the Gilston Area Neighbourhood Plan</p>
21	SWMP	<p>No part of the development hereby permitted shall be commenced until a SWMP for that part has been submitted to and approved in writing by the LPA in consultation with the WPA. The SWMP shall thereafter be implemented in accordance with the approved details.</p> <p>Reason: In order to identify, reuse, manage and reduce the amount of waste produced on site in accordance with Policy 12 of the Hertfordshire Waste Core Strategy.</p>

STRATEGIC INFRASTRUCTURE		
22	Foul Water Disposal /Sewerage	<p>No part of the development shall be occupied until confirmation has been provided that either</p> <ul style="list-style-type: none"> (I) Wastewater network upgrades required to accommodate foul water flows for that part of the development have been completed; or (II) A housing and infrastructure phasing plan has been agreed with Thames Water to allow that part of the development to be occupied. <p>Where a housing and infrastructure phasing plan has been agreed with Thames Water, no occupation shall take place other than in accordance with the agreed housing and infrastructure phasing plan.</p> <p>Reason: Network reinforcement works are likely to be required to accommodate the proposed development. Any reinforcement works identified will be necessary in order to avoid sewage flooding and/or potential pollution incidents.</p>
23	V1 Interim Access from A414	<p>The interim access to Village 1 from the A414 shall be constructed wholly in accordance with the approved Central Stort Crossing Interim Junction Tie-in Arrangement drawing (VD17516-CCi-100-GA RevP03) and shall be fully open and operational prior to the occupation of any homes in Village 1.. The access arrangements shall thereafter be retained until the Central Stort Crossing and Final Village 1 Access Arrangements have been delivered as approved through planning permission no. 3/19/1046/FUL</p> <p>Reason: To restrict the development to that applied for and for which the environmental, transport and infrastructure impacts have been assessed, and to ensure that the development meets the policy standards required by the development plan and any other material considerations including national and local policy guidance.</p>

24	V1 Interim Access from Eastwick Road	<p>The interim access to Village 1 from Eastwick Road shall be constructed wholly in accordance with the approved Central Stort Crossing Interim Junction Tie-in Arrangement drawing (VD17516-CCi-100-GA Rev P03) and shall be fully open and operational prior to the occupation of any homes in Village 1. The access arrangements shall thereafter be retained until the Central Stort Crossing and Final Village 1 Access Arrangements have been delivered as approved through planning permission no. 3/19/1046/FUL</p> <p>Reason: To restrict the development to that applied for and for which the environmental, transport and infrastructure impacts have been assessed, and to ensure that the development meets the policy standards required by the development plan and any other material considerations including national and local policy guidance</p>
25	V1 Access Arrangements Tree Protection	<p>The Village 1 Interim Access Arrangements shall not be constructed other than in complete accordance with the approved Tree Protection Plan Village 1 Access Drawing 200731-1.1-GPA-V1-TPP-MM read together with the Tree Survey Schedule contained within Appendix 13.4 of the Environmental Statement Volume 3.</p> <p>Reason: To restrict the development to that applied for and for which the environmental, transport and infrastructure impacts have been assessed, and to ensure that the development meets the policy standards required by the development plan and any other material considerations including national and local policy guidance</p>
26	V1 Access Arrangements Landscaping	<p>The V1 Access Arrangements Planting Plan shown on approved drawings HNP495-GRA-X-XX-DR-L-5151 Rev02, 5152 Rev 02, 5153 Rev 02, 5154 Rev 02, and 5155 Rev 01 read together with approved Gilston River Crossings and Village Development Access Planting Schedule HNP495-GRA-SC-001_Rev 03 shall be implemented in the first planting season following completion of the V1 Access Arrangements. Any trees, shrubs or grassed areas which die, are diseased or vandalised within the first five years following completion shall be replaced within the next planting season.</p>

		Reason: To restrict the development to that applied for and for which the environmental, transport and infrastructure impacts have been assessed, and to ensure that the development meets the policy standards required by the development plan and any other material considerations including national and local policy guidance
27	Interim V2 Access	<p>Notwithstanding the details shown on the submitted Village 2 Interim Phase General Arrangement Drawing (VD17516/V2i-100-GA Rev P01), a revised arrangement for the interim access to Village 2, north of the Pye Corner/Eastwick Road Junction shall be submitted to and approved in writing by the District Planning Authority. The revised arrangement shall demonstrate how the road alignment minimises, as far as possible, loss of ancient hedgerow H194 and how left-turn in/right-turn out movements are to be prevented. Thereafter, the interim access to village 2 shall be constructed wholly in accordance with the approved drawing and shall be fully operational prior to the occupation of the first dwelling in Village 2 (unless the STC link between Village 1 and 2 is in place in which case the trigger shall be prior to the occupation of 1,000 homes in Village 2). The access shall thereafter be retained until the Eastern Stort Crossing and Final Village 2 Access has been delivered as approved through planning permission no. 3/19/1051/FUL.</p> <p>Reason: To restrict the development to that applied for and for which the environmental, transport and infrastructure impacts have been assessed, and to ensure that the development meets the policy standards required by the development plan and any other material considerations including national and local policy guidance</p>
28	V2 Interim Access Tree Protection	The Village 2 Interim Access shall not be constructed other than in complete accordance with the approved Tree Protection Plan Village 2 Access Drawing 200901-1.4-GPA-V2-TPP-MM read together with the Tree Survey Schedule contained within Appendix 13.4 of the Environmental Statement Volume 3 unless otherwise agreed in writing by the LPA.

		Reason: To restrict the development to that applied for and for which the environmental, transport and infrastructure impacts have been assessed, and to ensure that the development meets the policy standards required by the development plan and any other material considerations including national and local policy guidance
29	V2 Interim Access Landscaping	<p>The Village 2 Access Planting Plan shown on approved drawing HNP495-GRA-X-XX-DR-L-5161 Rev 02 read together with approved Gilston River Crossings and Village Development Access Planting Schedule HNP495-GRA-SC-001_Rev 03 shall be implemented in the first planting season following completion of the V2 Access unless otherwise agreed in writing by the LPA. Any trees, shrubs or grassed areas which die, are diseased or vandalised within the first five years following completion shall be replaced within the next planting season.</p> <p>Reason: To restrict the development to that applied for and for which the environmental, transport and infrastructure impacts have been assessed, and to ensure that the development meets the policy standards required by the development plan and any other material considerations including national and local policy guidance</p>
30	STC V1-2	<p>Prior to the occupation of any homes in Village 2, the Sustainable Transport Corridor link between the Village 1 Access and Village 2 (as defined in the Development Specification and shown on Parameter Plan 4: Access and Movement) shall be fully completed and operational. The STC link shall thereafter be retained in perpetuity.</p> <p>Reason: To restrict the development to that applied for and for which the environmental, transport and infrastructure impacts have been assessed, and to ensure that the development meets the policy standards required by the development plan and any other material considerations including national and local policy guidance</p>
31	STC V3-6	Prior to the occupation of any homes in each of Villages 3, 4, 5 or 6, the Sustainable Transport Corridor link (as defined in the Development Specification and shown on Parameter Plan 4:

		<p>Access and Movement) between that village and the Village 1 Access shall be fully completed and operational. The STC link shall thereafter be retained in perpetuity.</p> <p>Reason: To restrict the development to that applied for and for which the environmental, transport and infrastructure impacts have been assessed, and to ensure that the development meets the policy standards required by the development plan and any other material considerations including national and local policy guidance</p>
STAGE 4: VILLAGE MASTERPLANS & DESIGN CODES		
32	Village Masterplans	<p>A Village Masterplan (VMP) for each of the six villages identified on Parameter Plan 5 hereby approved, shall be submitted to and approved in writing by the LPA, prior to the approval of any Reserved Matters application for residential or commercial floorspace within the boundary of that village.</p> <p>Reason: To ensure a coordinated and comprehensive approach to development in accordance with Policies GA1, DES1 and DES4 of the East Herts District Plan and Policy AG1, AG5, AG6, LA1, BU1, BU2, BU3, BU4, H1 and D1 of the Gilston Area Neighbourhood Plan.</p>
33	Village Masterplan Scope	<p>The relevant VMP shall be produced in general accordance with the provisions of the Gilston Area Charter Supplementary Planning Document (July 2020), the Strategic Landscape Design Code and Regulatory Plan, and the plans and documents approved in Conditions 1 and 2. The scope of the VMP shall specifically incorporate the following for the relevant village:</p> <ul style="list-style-type: none"> - guidance on the broad location and quantum of business and commercial, retail and leisure floorspace within the village - the approximate location of village sport and play facilities - the interaction with the relevant village buffer (which lies outside of the VMP area)

		<ul style="list-style-type: none"> - the approximate location of proposed leisure and commuter routes for pedestrian, cyclists, equestrians and other active travel modes including connections beyond village boundaries to the strategic landscape areas - the approximate location of proposed designated Public Rights of Way and design principles for improvements and/or modifications to existing Public Rights of Way - the approximate location of proposed public transport infrastructure and active travel infrastructure including cyclists such as cycle hire facilities <p>Reason: To ensure a coordinated and comprehensive approach to development in accordance with Policies DES1, DES2 and DES4 of the East Herts District Plan and Policies AG1, AG2, AG4, AG7, BU4, TRA1, TRA2, and D1 of the Gilston Area Neighbourhood Plan.</p>
34	Village Phasing	<p>The relevant VMP shall be accompanied by a Village Infrastructure Delivery Plan which will set out the anticipated phasing of key infrastructure within the relevant village. The identified infrastructure shall thereafter come forward in accordance with the Village Infrastructure Delivery Plan unless there are unforeseen events / obstacles to delivery and alternative timing for provision is agreed in writing by the District Planning Authority. The Delivery Plan may, by written agreement with the District Planning Authority, be updated from time-to-time to reflect increased certainty of delivery of infrastructure</p> <p>Reason: To allow consideration of the impacts of the development and to ensure timely delivery of the necessary infrastructure needed to support the development in accordance with Policy DEL1 of the East Herts District Plan and Policy AG9 of the Gilston Area Neighbourhood Plan.</p>
35	Village Design Codes	<p>Each VMP shall be supported by a Village Design Code and associated Regulatory Plan which shall be produced in general accordance with the provisions of the Gilston Area Charter Supplementary Planning Document (July 2020), the Strategic Landscape Design Code and Regulatory Plan, and the plans and documents approved in Conditions 1 and 2.</p>

		<p>The relevant Village Design Code and Regulatory Plan will provide a set of simple, concise, illustrated design requirements to provide specific, detailed parameters for the physical development of the village.</p> <p>As a minimum the code shall include principles for the following:</p> <p>1. Village design principles for:</p> <ul style="list-style-type: none"> • Block structure • Public Realm • Green and blue infrastructure including multifunctional SuDS plus consideration for groundwater and watercourse safeguarding zones (flooding and pollution) • Maintenance strips for SuDS and all watercourses or water features (springs) • Biodiversity and amenity benefits SUDS • Response to heritage (key groupings) • Routes and movement network, integrating with the wider movement network • All modes parking typologies • Street hierarchy and character types • Sustainable Transport Hubs (and bus parking) • Land uses • Density • Building heights • Edges, nodes and gateways • Frontage, access and servicing • Built form • Identity • Areas that will be publicly lit, including streets, recreation areas and other public spaces in accordance with the lighting design principles in the Development Specification (section 3.17)
--	--	--

		<ul style="list-style-type: none"> • Approach to public art • Indicative village materials palette • Planting strategy <p>2. A scalable Regulatory Plan to assist users in navigating where the provisions of the code will apply.</p> <p>3. Reporting of the Design Code Testing process including how the outcomes have informed the final Design Code.</p> <p>4. Design Code Compliance Checklist.</p> <p>All subsequent Reserved Matters shall accord with the approved Village Design Code and Regulatory Plan, and shall be accompanied by a completed Compliance Checklist which demonstrates compliance with the Code.</p> <p>Reason: In order to achieve a coordinated approach to development and high quality design outcomes in accordance with policies GA1, DES1 and DES4 of the East Herts District Plan Policies AG1, AG5, AG6, LA1, BU1, BU2, BU3, BU4, H1 and D1 Gilston Area Neighbourhood Plan.</p>
36	Management & Maintenance of Streets	<p>Prior to or at the same time as the submission of each VMP, full details of the proposed roles and responsibilities for future management and maintenance of all streets within that masterplan area, including a highway adoptions plan, shall be submitted to and approved in writing by the LPA in consultation with the Highway Authority. The streets shall thereafter be maintained in accordance with the approved details until such time as an agreement has been entered into under Section 38 of the Highways Act 1980 or a Private Management and Maintenance Company has been established.</p>

		Reason: In order to achieve a coordinated approach to development and high quality design outcomes in accordance with policies GA1, DES1 and DES4 of the East Herts District Plan Policies AG1, AG5, AG6, LA1, BU1, BU2, BU3, BU4, H1 and D1 Gilston Area Neighbourhood Plan.
37	Village SuDs Strategy	<p>Prior to the approval of each Village Masterplan, a Village Sustainable Drainage System scheme for that village shall be submitted to and approved in writing by the District Planning Authority in consultation with Hertfordshire County Council as Lead Local Flood Authority. The scheme shall accord with the SuDS principles set out in the approved Strategic SuDS Strategy, the Strategic Landscape Masterplan, and the Strategic Design Code and shall include the following details:</p> <ul style="list-style-type: none"> • A Scheme following the SuDS discharge hierarchy with consideration given to rainwater reuse systems as a first step on the hierarchy prior to going to infiltration prior to going by gravity to a surface watercourse. • A detailed ground investigation report for areas where infiltration drainage is favourable, for either full infiltration or part infiltration design. Infiltration testing will be to BRE 365 standard (or equivalent) and undertaken at the location and depth of proposed SuDS features. The investigation will include evidence of seasonally high groundwater levels to be undertaken for an agreed period to show that there is at least 1m between the base of any proposed infiltration feature and seasonally high groundwater level. A full scope of the groundwater assessment of monitoring locations and timescales to be agreed with the LPA • Where infiltration is not favourable, each village will be split into appropriate sub catchments and appropriate locations where surface water discharge can outfall to a watercourse shall be confirmed. Each SuDS sub catchment shall be able to be delivered in full alongside the appropriate development phase it falls within and shown on a phasing drawing and plan. • Pre-development greenfield runoff rates and volumes will be confirmed for each sub catchment and all post-development scenarios be limited to the equivalent 100% AEP (1 in 1

		<p>year), 3.33% AEP (1 in 30 year) and 1% AEP (1 in 100 year) for the corresponding critical storm durations.</p> <ul style="list-style-type: none"> • Full, detailed drainage modelling for any village SuDS network (and specifically village 1 access road) to demonstrate how the system operates during up to and including the 100% AEP, 3.33% AEP including an allowance for climate change and the 1%AEP rainfall event including an allowance for climate change ensuring the agreed discharge rates for that sub catchment are not exceeded for the critical storm durations if infiltration is not feasible. Half drain down times for all infiltration storage features should be included. Urban creep will be included within any assumptions of impermeable area. Any sports pitches shall be included within the drainage network. • Full detailed engineering drawings of any SuDS, surface water storage or conveyance feature including cross and long sections, location, size, volume, depth and any inlet and outlet features. This should be supported by a clearly labelled drainage layout plan showing any SuDS storage and conveyance networks. Total storage volumes will be provided within each sub-catchment. • The usage of above ground and other surface water storage and conveyance features with a priority focused on rainwater reuse, interception and source control. Any above ground management of surface water (extent and depth) not in a drainage feature will be clearly shown on a drawing along with appropriate mitigation measures and flood resistance and resilience to vulnerable parts of the development included. • Provision of appropriate water quality assessment including specific requirements for sensitive discharge locations such as ecological designations, groundwater source protections zones, surface drinking water protection zones or areas previously used for landfill. Specific water quality assessments may be required for runoff from main roads. • The use of flood resistance and resilience measures included in the design. A minimum of 300mm must be provided between the design flood level and the finished floor level. A
--	--	---

		<p>minimum of 150mm is recommended above external ground levels that are sloping away from vulnerable areas such as doorways.</p> <ul style="list-style-type: none"> • Integration of SuDS to enhance any proposed amenity space. • Provision of biodiversity enhancement within SuDS provision. • Compliance with the agreed SuDS Design Code. • Details of exceedance routes, including those for an event which exceeds to 1% AEP rainfall event including climate change event and how impacts to vulnerable parts of the development will be minimised. • A management and maintenance plan including maintenance and operational activities • Confirmation of how the measures proposed will integrate appropriately and cumulatively with any wider SuDS infrastructure already approved and/or implemented. In addition to a Construction Environmental Management Plan there will be a SuDS implementation strategy, to ensure that flood risk is not increased on this site and elsewhere and the function of any SuDS is not compromised by building activity. <p>All Reserved Matters Applications within the relevant village shall be in accordance with the details thus approved</p> <p>Reason: To ensure the development appropriately addresses climate change and the risk of flooding, to improve and protect water quality and to protect natural habitats and the amenity of residents and to comply with the requirements of Policy GA1 V (y) of the adopted East Herts District Plan 2018 and Policy LA1 of the Gilston Area Neighbourhood Plan..</p>
38	Village Landscape & Visual Appraisal	<p>VMP to be submitted pursuant to condition 30 shall be supported by a landscape and visual appraisal compliance statement to demonstrate that the proposals contained in the relevant village masterplan will not give rise to any new or materially different significant effects in comparison with that reported in the Environmental Statement</p>

		Reason in accordance with Policy DES2, DES3 and DES4 of the East Herts District Plan (2018) and Policy AG3 and AG5 of the Gilston Area Neighbourhood Plan.
39	Village Ecology Strategy	<p>Prior to or at the same time as the submission of each VMP a Village Ecology Strategy for that village informed by the Gilston Park Estate Biodiversity Strategy (May 2019) and the Gilston Park Estate Outline Ecological Management Plan (November 2020), and up to date ecology surveys (only required where necessary and appropriate having regard to CIEEM guidance 'Advice note on the lifespan of ecological reports and surveys' April 2019), and cognisant of the approved Strategic Landscape Ecology Strategy, shall be submitted to and approved in writing by the LPA and shall include the following:</p> <ul style="list-style-type: none"> • Measures to protect and enhance retained assets (noting commitments secured at the outline application stage); • Identify opportunities to create new biodiversity assets and links to existing off site ecological networks; • Demonstration of how the above measures contribute to achievement of 10% min net gain target for the overall Gilston Park Estate site based on an up to date Biodiversity Net Gain metric or alternative methodology as agreed by the LPA; • Framework management and maintenance strategy <p>Reason: To ensure that the development maintains, enhances and contributes appropriately to the local and wider ecological network in accordance with Policy NE2 of the East Herts District Plan and Policies AG1 of the Gilston Area Neighbourhood Plan.</p>
40	Village Energy & Sustainability Strategy	Prior to or at the same time as the submission of each VMP, a Village Energy and Sustainability Strategy for that village shall be submitted to and approved in writing by the LPA. The strategy shall confirm the measures to be implemented to minimise climate impacts arising from

		<p>development in that village in accordance with the Sustainable Development principles in the Development Specification hereby approved.</p> <p>The approved measures shall thereafter inform each Reserved Matters submission within the relevant Village.</p> <p>Reason: In order that the development appropriately mitigates and adapts to the impact of climate change, minimises the impact of pollution and reduces pressure on natural resources in accordance with policies CC2, CC3 and DES4 of the East Herts District Plan and Policy BU1, BU2 of the Gilston Area Neighbourhood Plan.</p>
41	Parking Strategy for all vehicle modes	<p>Prior to or at the same time as the submission of each VMP, a parking strategy of all vehicle modes and land uses within the relevant village shall be submitted to and approved in writing by the LPA. The parking strategy shall support walkable neighbourhoods and include the following where relevant:</p> <ul style="list-style-type: none"> • Parking ratios, including allocated and unallocated spaces • Electric vehicle parking • Options for off-plot solutions • Zero parking/car-free zones • Cycle parking ratios and locations • Indicative locations for car club parking • Mobility impaired spaces • Motorcycle parking ratios and locations <p>Reserved matters applications shall thereafter demonstrate how they have been informed by the approved strategy</p> <p>Reason In accordance with Policy BU1, BU2, BU3, BU4 and TRA1 of the Gilston Area Neighbourhood Plan .</p>

42	Village 5 sports facilities	<p>The Village 5 Masterplan shall be supported by details which confirm the location and intended end users (community/school/both) of the following sports facilities:</p> <ul style="list-style-type: none"> • 1 x adult sized and floodlit artificial grass surface football pitches • 1 x adult sized and floodlit artificial hockey pitch • 1 x artificial cricket wicket • Leisure Centre (minimum facilities as per agreed Leisure Centre Feasibility Study). • Gym/Health Club including 60 fitness stations minimum • Community sized sports hall <p>The details submitted shall demonstrate that the locations identified have sufficient capacity to accommodate the facilities and any required supporting/ancillary facilities to Sport England and National Governing Body guidance, and would appropriately complement and not compromise the wider functions of the Gilston Area green infrastructure and open space network.</p> <p>The approved details shall inform the Reserved Matters applications that follow.</p> <p>Reason: To ensure that the development makes appropriate provision for sports to support the health and wellbeing of the growing community at Gilston in accordance with policies GA1, CFLR1, CFLR7 and CFLR10 and Policies C1 and LA1 of the Gilston Area Neighbourhood Plan</p>
STAGE 5: RESERVED MATTERS REQUIREMENTS AND COMPLIANCE CONDITIONS		
43	Energy & Sustainability Statement	<p>The plans and particulars for each reserved matters application shall include an Energy and Sustainability Statement that demonstrates how that part of the development achieves the requirements set out in the relevant Strategic Landscape or Village Energy & Sustainability Strategy.</p>

		<p>The development shall thereafter be implemented in accordance with the details approved.</p> <p>Reason: In order that the development appropriately mitigates and adapts to the impact of climate change, minimises the impact of pollution and reduces pressure on natural resources in accordance with policies CC2, CC3 and DES4 of the East Herts District Plan Policy AG1 and BU1 of the Gilston Area Neighbourhood Plan .</p>
44	Transport, Travel & Access	<p>The plans and particulars to be submitted as reserved matters under condition 4 shall include details of the following, as appropriate:</p> <ul style="list-style-type: none"> • Detailed street layouts, footways and cycleways • Proposed adoption plan • Foul and surface drainage provision (where relevant) • Details of cycle parking provision including design, quantum and siting • Details of how any communal amenities for cyclists (if relevant to the proposal) are to be designed in (e.g. showers/lockers) <p>Development shall thereafter be carried out in accordance with the approved details.</p> <p>Reason: in accordance with Policies DES4 of the East Herts District Plan and Policy BU4 of the Gilston Area Neighbourhood Plan .</p>
45	Buffers to Existing Waterways	<p>No development shall commence adjacent to an existing waterway alongside the main river watercourses or an ordinary watercourse waterway until such time as a scheme, for that specific waterway, for the provision and management of 20 metre wide buffers to existing waterways alongside the main river watercourses and 10m buffers to an ordinary watercourse (unless it is demonstrated that development is sited outside the 1 in 100 year 70% climate change allowance flood envelope) has been submitted to and approved in writing by the LPA. The scheme shall include for that relevant waterway:</p>

		<ul style="list-style-type: none"> Plans showing the extent and layout of the buffer zone Design principles for any proposed planting scheme (for example, native species) Design principles demonstrating how the buffer zone will be protected during development and managed over the longer term including adequate financial provision and named body responsible for management plus production of a detailed management plan Design principles of any proposed footpaths, fencing, furniture, lighting etc. This should aim to maximise undisturbed habitat with native vegetation and minimise any footpaths or furniture within the 8 metres zone closest to the top of the riverbank. Where footpaths or furniture are required, these will be kept as natural as possible, making use of natural materials and information provide on how impermeable areas will be drained. Design principles of how access to watercourses will be maintained for flood management inspection and maintenance by both vehicular (large, heavy vehicles) and pedestrian access Details of any SuDS, natural flood management or flood storage measures to reduce the risk of flooding. <p>All Reserved Matters Applications relating to these buffers shall be in accordance with the approved details</p> <p>Reason: This approach is supported by paragraphs 174 and 180 of the NPPF which recognise that the planning system should conserve and enhance the environment by minimising impacts on and providing net gains in biodiversity and policy WAT3 of the East Herts District Plan (2018).</p>
46	Existing Trees, Hedgerows & Woodlands	With each Reserved Matters application for individual parts of the development, a tree survey and impact assessment (updated from that undertaken to date as considered necessary and appropriate), tree protection plan and arboricultural method statement or that part of the development shall be submitted to and approved in writing by the LPA. The development shall thereafter be carried out in accordance with the approved details.

		Reason: in accordance with Policies NE3 of the East Herts District Plan and Policy AG2 and LA1, of the Gilston Area Neighbourhood Plan .
47	Landscape Schemes	<p>With each Reserved Matters application for part of the development, a composite hard and soft landscaping scheme for that part shall be submitted to and approved in writing by the LPA. The landscaping scheme shall be prepared in accordance with the relevant Design Code and include the following (where relevant):</p> <ul style="list-style-type: none"> • Details of the extent and type of new planting • Details of maintenance regimes • Details of any new habitat created on site • Details of treatment of site boundaries and/or buffers around waterbodies and woodlands, hedgerows and trees • Details of brown and green roofs • Planting Plans that show the location of proposed plant species • Written specifications (including cultivation and other operations associated with the establishment of grassland and planting) • Schedules of plants, noting species, planting sizes and proposed numbers / densities • Implementation timetables • Landscape Management Plan • Surface treatment of paths and access routes • Fencing/gates to culvert openings • Details of proposed lighting <p>The development of the part shall thereafter be carried out in accordance with the approved details.</p>

		Reason: In accordance with Policies DES3 and NE3 of the East Herts District Plan and Policy LA1 of the Gilston Area Neighbourhood Plan.
48	Neighbourhood Open Space and Play	<p>Reserved matters applications which include residential development shall demonstrate how provision of neighbourhoods greens and neighbourhood play spaces has been addressed in accordance with the Development Specification (paragraph 3.7.4).</p> <p>Reason: in accordance with Policy CFLR1 of the East Herts District Plan Policy LA1 of the Gilston Area Neighbourhood Plan.</p>
49	Heritage Design Principles	<p>All reserved matters applications for development within Sensitive Development Areas (as identified on Parameter Plan 2) shall take into account the relevant Sensitive Development Area principles in the Development Specification (paragraphs 4.3.9 to 4.3.12)</p> <p>Reason: in accordance with Policies GA1, DES2 and HA1 of the East Herts District Plan and Policy AG1, AG6 and H1 of the Gilston Area Neighbourhood Plan.</p>
50	Operational Fixed Plant Noise	<p>Noise resulting from the operation of fixed plant shall not exceed 5dBA below the existing background level (or 10dBA below if there is a tonal quality) when measured or calculated according to BS4142:1997 + A1:2019, at a point one metre external to the nearest noise sensitive building</p> <p>Reason: In order to ensure an adequate level of amenity for residents of the new dwellings in accordance with policy EQ2 of the adopted East Herts District Plan 2018.</p>
51	Village Noise Management	Prior to or at the same time as the submission of the Village 1 and Village 6 Masterplan and subsequent relevant reserved matters applications for residential development within those villages, a noise assessment shall be submitted to and approved in writing by the LPA, which demonstrates the noise control measures, including through the design, layout and materials, will achieve compliance with the levels set out in the Development Specification (section 3.14) and British Standards BS8233 or prevailing best practice guidance as agreed with the LPA. The

		<p>development shall thereafter be carried out and maintained in accordance with the approved details.</p> <p>Reason: In order to ensure an adequate level of amenity for residents of the new dwellings in accordance with policy EQ2 of the adopted East Herts District Plan 2018.</p>
52	CLEMP	<p>Prior to the commencement of any part of the development hereby permitted other than enabling works, a Construction Landscape and Ecology Management Plan (CLEMP) for that part shall be submitted to and approved in writing by the District Planning Authority. The CLEMP shall include full details of both hard and soft landscaping and ecology management during construction, including the following (where relevant):</p> <ol style="list-style-type: none"> 1. Proposed finished levels and contours 2. Means of enclosure 3. Minor artefacts and structures (e.g. street furniture, play equipment, refuse or other storage units, signs, lighting as applicable) 4. Proposed functional services above and below ground (e.g. drainage, power, communications cables, pipelines etc indicating lines, manholes and supports etc) 5. Details of existing soft landscaping features to be retained and methods of protection, 6. Implementation timetables, including clearance to avoid nesting periods 7. Preparation of an annual work plan, including monitoring and enhancement actions which shall include the provision, improvement and maintenance of habitats for a period of not less than 5 years from completion of the relevant part of the development 8. The implementation of a species-specific mitigation measures for that part as set out in the Environmental Statement and application documents 9. Reporting plan for notifying the LPA of any unforeseen issues or damage to retained assets. <p>Thereafter, the construction of the development shall not be undertaken other than in complete accordance with the approved details.</p>

		Reason: To protect and provide for protected species and habitats of ecological interest in accordance with Policies NE1, NE2 and NE3 of the East Herts District Plan 2018 and to ensure the provision, establishment and maintenance of a Reasonable standard of landscaping in accordance with Policies BISH5, DES3 and DES4 of the East Herts District Plan 2018.
53	OLEMP	<p>Prior to or at the same time as the submission of each Reserved Matters application, an Operational Landscape and Ecology Management Plan (OLEMP) for that part of the site shall be submitted to and approved in writing by the District Planning Authority. The OLEMP shall be cognisant of the Strategic Landscape Ecology Strategy, the relevant Village Ecology Strategy and shall include full details of the following (where relevant):</p> <p>(i) Confirmation of the landscape/habitat resources for the development parcel i.e.</p> <ul style="list-style-type: none"> - Description/quantity of retained habitats and landscape features and their purpose - Description/quantity of created habitats and landscape features (inc. those for protected species etc) and their purpose - Confirmation of net biodiversity units for area and linear habitats achieved on that part of the site, and contribution towards achievement of 10% min net gain target for the overall Gilston Park Estate site, based on an up to date Biodiversity Net Gain metric or alternative methodology as agreed by the LPA <p>(ii) Management Measures for resources</p> <ul style="list-style-type: none"> - Works to retained trees as identified in updated Arboriculture surveys and impact assessments - Management of vegetation to enable 'curated views' or that frame vistas and key views of local landmarks etc. - New planting areas – establishment and aftercare <ul style="list-style-type: none"> • Short term 0-5 years - Five-year establishment maintenance period (e.g temporary fencing to protect planting (esp. from grazing cattle) during establishment period / replacement of failures etc.)

		<ul style="list-style-type: none"> • Medium term 5-10 years – (e.g woodland thinning etc) • Long term 10 years + <p>(iii) Access arrangements to enable management and maintenance.</p> <p>(iv) On site interpretation measures to inform public about the form and function of habitat and landscape areas.</p> <p>The measures in the OLEMP shall be designed and fully implemented in accordance with the details thus approved.</p> <p>Reason: To ensure that the development maintains, enhances and contributes appropriately to the local and wider ecological network in accordance with Policy NE2 of the East Herts District Plan.</p>
54	OLEMP Verification	<p>Five years following completion of each Reserved Matters approval (plus every five years thereafter for a period of 30 years) a OLEMP monitoring report shall be submitted to LPA for approval. The report shall confirm the effectiveness of the OLEMP and shall be carried out by a Chartered Member of the Landscape Institute (CMLI) and/or other suitably qualified professional. As a minimum the report shall include a suite of quantitative and qualitative indicators using methods such as annual site walkovers, surveys and fixed-point photography, to monitor the implementation and effectiveness of mitigation/management measures. The report shall include any remediation works required in order to address where measures may not be functioning and/or meeting Biodiversity Net Gain targets expected. The details of all survey findings shall be shared with Herts Ecological Record database and any remediation works identified shall thereafter be implemented in accordance with the approved details.</p> <p>Reason: To ensure that the development maintains, enhances and contributes appropriately to the local and wider ecological network in accordance with Policy NE2 of the East Herts District Plan.</p>

55	RMA SuDS Details	<p>Prior to or in conjunction with the submission of each Reserved Matters application for individual parts of the development, details and construction drawings of the sustainable drainage components, flow control mechanisms and a construction method statement for that part shall be submitted to and approved in writing by the District Planning Authority in consultation with Hertfordshire County Council as Lead Local Flood Authority. The details submitted must accord with the relevant Village Sustainable Drainage System Strategy and Design Code, the scheme shall then be constructed in accordance with the approved drawings, method statement and modelling calculations prior to the first use of that part of the development. No alteration to the approved drainage scheme shall occur without prior written approval of the District Planning Authority. The details to be submitted shall include the following:</p> <ul style="list-style-type: none"> • Detailed design of all drainage following the SuDS discharge hierarchy with rainwater reuse systems as a first step on the hierarchy prior to going to infiltration prior to going by gravity to a surface watercourse. • Specific detailed evidence of areas where infiltration drainage is favourable, for either full infiltration or part infiltration design. Infiltration testing will be to BRE 365 standard (or equivalent) and undertaken and the location and depth of proposed SuDS features. With additional groundwater monitoring data to show that there is at least 1m between the base of any proposed infiltration feature and seasonally high groundwater level. • Where infiltration is not favourable, sub catchments and appropriate locations where surface water discharge can outfall to a watercourse shall be confirmed (in line with the strategic and village masterplan). Each SuDS sub catchment (or part thereof) shall be able to be delivered in full alongside the appropriate part of the development it falls within and shown on a phasing drawing and plan.
----	------------------	---

		<ul style="list-style-type: none"> • Pre-development greenfield runoff rates and volumes will be confirmed for each sub catchment and all post-development scenarios be limited to the equivalent 100% AEP (1 in 1 year), 3.33% AEP (1 in 30 Year) and 1% AEP (1 in 100 year). • Full, detailed drainage modelling for the SuDS drainage network to demonstrate how the system operates during up to and including the 100% AEP, 3.33% AEP including an allowance for climate change and the 1%AEP critical storm events including an allowance for climate change ensuring discharge rates do not exceed the agreed greenfield discharge rates for the corresponding storm durations. Half drain down times for all infiltration storage features should be included. Urban creep will be included within any assumptions of impermeable area. Any sports pitches shall be included within the drainage network. • Full detailed engineering drawings of any SuDS, surface water storage or conveyance feature including cross and long sections, location, size, volume, depth and any inlet and outlet features. This should be supported by a clearly labelled drainage layout drawing showing any SuDS storage and conveyance networks. The drawings should show any 'node numbers' that have been referred to in drainage modelling supporting calculations and it also show invert and cover levels, finished floor levels and proposed external ground levels. Total storage volumes will be provided within each sub-catchment. • The usage of above ground and other surface water storage and conveyance features with a priority focused on rainwater reuse, interception and source control. Any above ground management of surface water (extent and depth) not in a drainage feature will be clearly shown on a drawing along with appropriate mitigation measures and flood resistance and resilience to vulnerable parts of the development included. • Provision of appropriate water quality assessment including specific requirements for sensitive discharge locations such as ecological designations, groundwater source protections zones, surface drinking water protection zones or areas previously used for landfill. Specific water quality assessments may be required for runoff from main roads.
--	--	--

		<ul style="list-style-type: none"> • The use of flood resistance and resilience measures included in the design. A minimum of 300mm must be provided between the design flood event and the finished floor level. A minimum of 150mm is recommended above external ground levels that are sloping away from vulnerable areas such as doorways. • Integration of SuDS to enhance any proposed amenity space. • Provision of biodiversity enhancement within SuDS provision. • Compliance with the agreed SuDS principles within the approved Design Code(s) • Phasing plan for the provision of SuDS and drainage infrastructure within each part of the development to show that any strategic SuDS features are in place and operational prior to the occupation/first use of the relevant part of the development. • Details of final exceedance routes, including those for an event which exceeds to 1% AEP rainfall event including climate change event or blockage of the drainage network. • A management and maintenance plan including maintenance and operational activities. • Confirmation of how the measures proposed will integrate appropriately and cumulatively with any wider SuDS infrastructure already approved and/or implemented. In addition to a Construction Environmental Management Plan there will be a SuDS implementation strategy to ensure that flood risk is not increased on this site and elsewhere and the function of any SuDS is not compromised by building activity. • The development shall be fully implemented and subsequently maintained, in accordance with the timing / phasing arrangements embodied within the development, or within any other period as may subsequently be agreed, in writing, by the District Planning authority. The development shall not be carried out otherwise than in accordance with the details thus approved <p>Reason: To ensure the development appropriately addresses climate change and the risk of surface water flooding, to improve and protect water quality and to protect natural habitats and</p>
--	--	--

		the amenity of residents and ensure the future maintenance of the Sustainable Drainage System in perpetuity. In accordance with Gilston Area Neighbourhood Plan Policy LA1.
56	SuDS Verification Report	<p>Prior to the first use of each part of the development a final Completion and Verification Report to a specification agreed and defined by the LPA, signed off by an appropriate, qualified person or body which demonstrates that the sustainable urban drainage measures have been implemented as per the details approved under Condition 59; for that part of the development shall be submitted to and approved in writing by the District Planning Authority in consultation with Hertfordshire County Council as Lead Local Flood Authority. It shall include the following:</p> <ul style="list-style-type: none"> • Provision of a Completion and Verification Report appended with substantiating evidence demonstrating the approved construction details and specifications have been implemented in accordance with the surface water drainage scheme. The verification shall include photographs of excavations and soil profiles/horizons, installation of any surface water structure, during construction and final make up, and the control mechanism. • Provision of a complete set of as built drawings for site drainage. • Post-construction surveys including a CCTV survey for any underground features and piped networks. • A management and maintenance plan for the SuDS features and drainage network. • Final arrangements for adoption and any other measures to secure the operation of the scheme throughout its lifetime <p>Reason: To prevent the increased risk of surface water flooding, to improve and protect water quality, protect natural habitats and the amenity of residents, ensure the future maintenance of the Sustainable Urban Drainage System in perpetuity and comply with the requirements of Policy GA1 V (y) of the adopted East Herts District Plan 2018.</p>

57	Contamination Investigation & Remediation	<p>No part of the development hereby approved shall commence until a remediation strategy to deal with the risks associated with contamination of that part of the site, has been submitted to, and approved in writing by, the District Planning authority. This strategy will include the following components:</p> <ol style="list-style-type: none"> 1. A investigation scheme, based on the preliminary risk assessment/desk studies to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off-site. 2. The results of the investigation and the detailed risk assessment referred to in (1) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken. 3. A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in (2) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action. Any changes to these components require the written consent of the District Planning authority. <p>The scheme shall thereafter be implemented as approved.</p> <p>Reason: To ensure that the development does not contribute to, and is not put at unacceptable risk from or adversely affected by, unacceptable levels of water pollution in line with paragraphs 170 and 178 of the NPPF and Policy WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and policy AG7 of the Gilston Area Neighbourhood Plan.</p>
58	Verification Report	<p>Prior to each part of development being occupied/brought into use, a verification report demonstrating the completion of works set out in the approved remediation strategy and the effectiveness of the remediation for that part of the development shall be submitted to, and</p>

		<p>approved in writing, by the District Planning authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met.</p> <p>Reason: To ensure that the site does not pose any further risk to human health, land or the water environment by demonstrating that the requirements of the approved verification plan have been met and that remediation of the site is complete. This is in line with paragraph 170 and 178 of the NPPF and Policies EQ1 and WAT3 of the East Herts District Plan (2018).</p>
59	Contamination Monitoring & Maintenance Plan	<p>No part of the development hereby permitted shall commence until a monitoring and maintenance plan in respect of contamination, including a timetable of monitoring and submission of reports to the District Planning authority for that part of the development has been submitted to and approved in writing by, the District Planning authority. The reports as specified in the approved plan, including details of any necessary contingency action arising from the monitoring shall be submitted to and approved in writing by the LPA in accordance with the details approved. The monitoring and maintenance plan shall thereafter be fully implemented and complied with in accordance with the approved details.</p> <p>Reason: To ensure that the site does not pose any further risk to human health, land, or the water environment by managing any ongoing contamination issues and completing all necessary long-term remediation measures. This is in line with paragraph 170 and 178 of the NPPF and Policies EQ1 and WAT3 of the East Herts District Plan (2018).</p>
60	Unsuspected Contamination	<p>If, during development, contamination not previously identified is found to be present at part of the site then no further development shall be carried out on that part until a remediation strategy detailing how this contamination will be dealt with has been submitted to, and approved in writing by, the District Planning authority. The remediation strategy shall thereafter be implemented in accordance with the approved details.</p>

		Reason: To ensure that the development does not contribute to and is not put at unacceptable risk from or adversely affected by unacceptable levels of land or water pollution from previously unidentified contamination sources at the development site. No site investigation can fully characterise a site. This is in line with paragraph 170 and 178 of the NPPF and Policies EQ1 and WAT3 of the East Herts District Plan (2018).
61	Infiltration Drainage	<p>No drainage systems for the infiltration of surface water to the ground are permitted other than where a scheme for infiltration drainage has first been submitted to and approved in writing by the LPA. Any proposals for such infiltration drainage that are submitted for approval must be supported by an assessment of the risks to controlled waters. The development shall thereafter be carried out in accordance with the approved details</p> <p>Reason: This condition relates to areas where contamination is present and may be mobilised due to the infiltration of surface water or where contaminated surface water may result in an input of contaminants to groundwater.</p>
62	Piling/Deep Foundations	<p>Piling, deep foundations or other intrusive groundworks (investigation boreholes/tunnel shafts/ground source heating and cooling systems) using penetrative methods shall not be carried out other than where a scheme has first been submitted to and approved in writing by the LPA. The scheme shall include an assessment of impacts on noise and vibration as well as details of the measures to be taken to mitigate any adverse effects. The groundworks shall thereafter be carried out in accordance with the approved details.</p> <p>Reason: To ensure that the proposed Piling, deep foundations or other intrusive groundworks (investigation boreholes/tunnel shafts/ground source heating and cooling systems) using does not harm groundwater resources in line with paragraph 170 and 178 of the NPPF and Policy WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and does not</p>

		have an adverse impact on the local amenity in accordance with policy EQ2 of the East Herts District District Plan.
63	Borehole Investigations	<p>Prior to the installation of any boreholes at the site for the investigation of soils, groundwater or geotechnical purposes, a scheme for managing borehole investigations shall be submitted to and approved in writing by the LPA. The scheme shall provide details of how redundant boreholes are to be decommissioned and how any boreholes that need to be retained, post-development, for monitoring purposes will be secured, protected and inspected. The scheme as approved shall thereafter be implemented in complete accordance with the approved details</p> <p>REASON: To ensure that redundant boreholes are safe and secure, and do not cause groundwater pollution or loss of water supplies in line with paragraph 170 and 178 of the NPPF and Policies EQ2 and WAT3 'Water of the East Herts District Plan (2018).</p>
64	WFD Mitigation & Enhancement Strategy	<p>No development shall take place until a water framework directive mitigation and enhancement strategy has been submitted to and approved in writing by the District Planning Authority. The strategy shall include the following elements:</p> <ul style="list-style-type: none"> • Evidence that the final development would cause no deterioration of waterbody status of the River Stort and Stort Navigation and associated waterbodies, not prevent future improvement to the waterbody, not contribute to cumulative deterioration, using up to date Water Framework Directive classification data • Long term objectives, management responsibilities and maintenance schedules • Details of any proposed enhancements to watercourses and their corridors to support improving overall water framework directive status • Details of suitable mitigation and/or compensation as required <p>The strategy shall thereafter be carried out in accordance with the approved details</p>

		Reason: To ensure compliance with the Water Framework Directive as implemented in England and the protection of wildlife and supporting habitat and to secure opportunities for enhancing the site's nature conservation value. This approach is supported by paragraphs 170 and 175 of the NPPF and Policy WAT3 of the East Herts District Plan (2018).
65	Details of river crossings and underpasses	<p>No development shall commence in Villages 2, 4 or 6 until such time as full details of any vehicular or pedestrian river crossings or underpasses or other works (e.g. enhancement proposals) on main rivers within that village, informed by a detailed Water Framework Directive assessment have been submitted to, and approved in writing by, the District Planning authority. This should include:</p> <ul style="list-style-type: none"> • Detailed plans, long-sections and cross-sections of the works and its relationship to the main river channel and corridor; • A minimum of an 8 metre unobstructed buffer zone from the top of the bank surrounding the watercourse or landward toe of any defence or culvert, is maintained around main rivers for access and biodiversity; • Any reduction must demonstrate how any impacts on flood risk, water quality or biodiversity are to be mitigated or compensated for, taking into account the Water Framework Directive and agreed in writing with the District Planning Authority. <p>The development shall thereafter be fully implemented and subsequently maintained, in accordance with the details approved or as may subsequently be agreed, in writing, by the District Planning authority.</p> <p>Reason: Parameter Plan 4 details the proposed strategic access points including vehicular and public rights of way. This identifies the locations at which the primary vehicular and pedestrian corridors cross watercourses. These crossings/underpasses are also highlighted within the preliminary WFD assessment. This condition is necessary to ensure that there are no detrimental impacts to water quality, biodiversity, the structural integrity of main river watercourses and to</p>

		reduce the risk of flooding to the proposed development and future users. This is in accordance with Policies WAT1 'Flood Risk Management' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018)
66	Delivery and Servicing Management Plan	Prior to occupation of any non-residential floorspace, a Delivery and Servicing Management Plan (DSMP) for that floorspace shall be submitted to and approved in writing by the District Planning Authority. Thereafter, deliveries to and servicing of that floorspace shall be in accordance with the approved DSMP unless otherwise agreed in writing by the District Planning authority.
67	Village 6 Curled Hook Moss	<p>Prior to the commencement of development in Village 6 an Ecological Management Plan and Surface Water Drainage Strategy shall be submitted to and approved in writing with the District Planning Authority to:</p> <ul style="list-style-type: none"> • Carry out a ground investigation in the vicinity of where Curled Hook Moss was observed along Stone Basin Springs, including water level and quality monitoring, to determine the hydrogeological conditions that provide base-rich water that is required for this moss species. • Carry out a hydrological risk assessment to determine the risk to this moss species from development of Village 6 and any changes in the prevailing hydrogeological regime. • Where required following the risk assessment, ensure that the Surface Water Drainage Strategy for Village 6 includes appropriate mitigation measures to mitigate the risk of adverse impacts to the Curled Hook Moss where it is found along Stone Basin Springs. • In keeping with the Surface Water Drainage Strategy, ensure that any SuDS proposed have a suitable long term management and maintenance regime. <p>Reason: in accordance with Policies WAT1 'Flood Risk Management' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018)</p>

Informatives

1. 'Enabling works' are defined as [to be added]
2. 'Local Planning Authority' means East Herts Council.
3. 'Highway Authority' means Hertfordshire County Council. The Local Planning Authority will consult with the Highway Authority when providing agreement in writing on applications to discharge relevant conditions.
4. Section 106 (S106) Agreement:
This planning permission is also subject to a Planning Obligation under S106 of the Town and Country Planning Act 1990 (as amended).
5. Other Consents:
The permission does not convey any consent which may be required under any legislation other than the Town and Country Planning Acts. Any permission required under the Highways Act, Building Regulations or under any other form of law, must be obtained from the relevant authority or body e.g. Fire Officer, Health and Safety Executive, Environment Agency etc. Neither does this permission negate or override any private covenants which may affect the land.
6. Highways Agreements:
The applicant is advised that in order to implement this permission, it will be necessary for the developer of the site to enter into agreements with Hertfordshire County Council as Highway Authority under Section 278 and Section 38 of the Highways Act 1980 to ensure satisfactory completion of the site access and road improvements. The construction must be undertaken to the Highway Authority's detailed design / specification and to their satisfaction. Construction must be undertaken by a contractor who is authorised to work in the public highway. Before works commence the applicant will need to apply to the Highway Authority to obtain their permission and meet their requirements. In addition, that the agreements under Section 38 of Highways Act for the highways authorities to adopt the newly constructed public highway (and any related features that are required for its operation) on its satisfactory completion include financial provision for future maintenance. Highways Development Management teams should be consulted on any drainage features that are proposed for adoption by Hertfordshire County Council. Any drainage features to be adopted shall be designed and built to accommodate the Highway Authorities adoption requirements and an appropriate commuted sum, based on the approved feature maintenance plan must be agreed.
7. Storage of Materials:
The applicant is advised that the storage of materials associated with the construction of this development should be provided within the site on land which is not public highway, and the use of such areas must not interfere with the public highway. If this is not possible, authorisation should be sought from the Highway Authority before construction works commence. Further information is available via the website:

<https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/business-and-developer-information/business-licences/materials-on-the-highway.aspx>

8. Obstruction of Public Highway Land:

It is an offence under section 137 of the Highways Act 1980 for any person, without lawful authority or excuse, in any way to wilfully obstruct the free passage along a highway or public right of way. If this development is likely to result in the public highway or public right of way network becoming routinely blocked (fully or partly) the applicant must contact the Highway Authority to obtain their permission and requirements before construction works commence. Further information is available via the website:

<https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/highways-roads-and-pavements.aspx>

9. Road Deposits:

It is an offence under section 148 of the Highways Act 1980 to deposit mud or other debris on the public highway, and section 149 of the same Act gives the Highway Authority powers to remove such material at the expense of the party responsible. Therefore, best practical means shall be taken at all times to ensure that all vehicles leaving the site during construction of the development are in a condition such as not to emit dust or deposit mud, slurry or other debris on the highway. Further information is available via the website:

<https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/highways-roads-and-pavements.aspx>

10. Stopping Up of Public Highway Land:

An application for a "stopping up" order to extinguish highway rights over the land will need to be made. In this respect, this initially needs to be made to Hertfordshire County Council via <https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/changes-to-your-road/stopping-up-the-highway.aspx#>

If this proposal is acceptable to the highway authority, then you would need to either make an application to the County Council, as highway authority, for a highway "stopping up" order under Section 116 of the Highways Act 1980 for the area of land in question.

Any such application together with a plan showing the area concerned should be sent to Legal Services, Hertfordshire County Council, County Hall, Pegs Lane, Hertford, SG13 8DE. The costs of making such an order would be in the region of £3,500 - £5,500 which includes the formal consultation and application to the Magistrates Court.

Alternatively, if any such request is in conjunction with the redevelopment of the property, then you may wish to apply for a "stopping up" Order pursuant to Section 247 of the Town and Country Planning Act 1990. All such applications would need to be made to the Secretary of State's National Transport Casework Team (nationalcasework@dft.gov.uk, see also the DfT website); and

In the meantime, note that when an area of highway is "stopped up" then the surface of the land reverts back to the original owner of the subsoil of the land. This may or not be the applicant.

Details of the ownership of land may be available at the Land Registry, Leicester Office, Westbridge Place, Leicester, LE3 5DR. Their phone number is 0333 011 3500. Land Registry can also be contacted by e-mail on contact@uklandregister.co.uk

11. Highways Structures:

The applicant is advised that in connection with any proposals for highway structures it will be necessary for the developer of the site to contact the Hertfordshire County Council Bridge Asset Management Team in connection with the requirements of Department for Transport Standard CG 300: Technical Approval of Highway Structures. Further details can be obtained from the Highway Authority by telephoning 0300 123 4047 or by email: highway.structures@hertfordshire.gov.uk

12. PROW Obstruction:

The Public Right of Way should remain unobstructed by vehicles, machinery, materials, tools and any other aspects of the construction during works. The safety of the public using the route and any other routes to be used by construction traffic should be a paramount concern during works, safe passage past the site should be maintained at all times. The condition of the route should not deteriorate as a result of these works. Any adverse effects to the surface from traffic, machinery or materials (especially overspills of cement & concrete) should be made good by the applicant to the satisfaction of this Authority. All materials should be removed at the end of the construction and not left on the Highway or Highway verges.

If the above conditions cannot reasonably be achieved then a Temporary Traffic Regulation Order would be required to close the affected route and divert users for any periods necessary to allow works to proceed. A fee would be payable to Hertfordshire County Council for such an order. Further information on the rights of way network is available via the website. Please contact Rights of Way, Hertfordshire County Council on 0300 123 4047 or by email on row@hertfordshire.gov.uk for further information in relation to the works that are required along the route including any permissions that may be needed to carry out the works.

https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/countryside-access/rights-of-way/rights-of-way.aspx#DynamicJumpMenuManager_1_Anchor_1

13. Land Contamination:

The applicant is advised that any unsuspected contamination that becomes evident during the development of the site shall be brought to the attention of the Local Planning Authority and appropriate mitigation measures agreed.

14. Thames Water Assets:

The proposed development is located within 15 metres of Thames Water's underground assets and as such, the development could cause the assets to fail if appropriate measures are not taken. Please read Thames Water's guide 'Working Near Our Assets' to ensure your workings are in line with the necessary processes you need to follow if you are considering working above or near their pipes or other structures which is available via <https://www.thameswater.co.uk/developers/larger-scale-developments/sewers-and-wastewater/build-over-or-near-a-sewer>.

Should you require further information contact Thames Water on email: developer.services@thameswater.co.uk or phone: 0800 009 3921 (Monday to Friday, 8am to 5pm). Write to: Thames Water Developer Services, Clearwater Court, Vastern Road, Reading, Berkshire RG1 8DB.

15. Additional Regulatory Considerations:

Additional regulatory consideration may be required on some of specialist matters relevant to this permission as follows:

- I. Archaeological requirements: contact Hertfordshire County Council Historic Environment Team via email: historic.environment@hertfordshire.gov.uk and phone: 01992 555 021.
- II. Sewer protection requirements: the site has public sewers running across or close to it which may be affected by the proposed building works. It may be necessary to divert the sewer and water course and carry out other works to protect it and the proposed building works before any site works are commenced. Contact: Thames Water Development Planning, Asset Investment Unit, Maple Lodge, Denham Way, Rickmansworth, WD3 9SQ. Phone number: 01923 898 072.
- III. Ground water pollution risk: parts of the site are located within the groundwater protection zone of Sawbridgeworth Pumping Station. The construction works and operation of the proposed development should be in accordance with the relevant British Standards and Best Management Practices, thereby significantly reducing the pollution risk. Construction works may exacerbate any existing pollution. Please refer to CIRIA Publication C532 'Control of water pollution from construction – guidance for consultants and contractors'.
- IV. Protected species including bats / reptiles / great crested newts: if found during development, works must stop immediately and professional ecological advice must be sought on how to proceed. A licence may be required from Natural England who can be contacted on email: enquiries@naturalengland.org.uk or phone: 0300 060 3900 / 01206 796 666.
- V. Nesting birds are protected under the Wildlife and Countryside Act 1981 and care should be taken in vegetation clearance works between 1st March and 30th September.

16. Land Drainage:

Land drainage procedures, rights and legal requirements taking account of Environment Agency and Lead Local Flood Authority (LLFA) requirements and advice. All works to ordinary watercourses, including widening of the channel to include additional storage will require ordinary watercourse consent from the LLFAs. It is the applicant's responsibility to check that they are complying with common law if the drainage scheme proposes to discharge into an off-site ditch/pipe. The applicant should seek consent where appropriate from other downstream riparian landowners. Any works proposed to be carried out that may affect the flow within an ordinary watercourse (including erection of flow control structures, any culverting of an ordinary watercourse or works taking place within and/ or over the culvert or within 3 metres of the top of bank of the ordinary watercourse) will also require the prior written consent from the LLFA under Section 23 of the Land Drainage Act 1991. This includes any permanent and or temporary works regardless of planning permission.

The LLFAs have a duty to maintain an asset register and records of assets which have a significant impact on the risk of flooding. In order to capture proposed Sustainable Urban Drainage (SuDS) features which may form part of the future register, details of and location of the SuDS assets created or modified through the development should be provided in a GIS layer on completion of the development. For further advice on what the LLFA expect to be contained within the FRA to support a planning application, please refer to the Developers Guide and Checklist on the surface water drainage webpage via: <https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/water/surface-water-drainage/surface-water-drainage.aspx>. This link also includes Hertfordshire County Council's policies on SuDS in Hertfordshire.

17. Surface Water Discharge to River Stort:

Any surface water discharge to the River Stort will require prior consent from the Canal & River Trust. Please contact Chris Lee from the Canal River Trust Utilities Team via Lee.Chris@canalrivertrust.org.uk.

18. Property Gazetteer Custodian Requirements:

The development will involve the numbering of properties and naming of new streets. The applicant MUST consult the Director of Finance and Support Services. Application for this purpose should be made to the Local Land and Property Gazetteer Custodian, East Herts Council, Wallfields, Hertford, SG13 8EQ. Phone number: 01279 655 261.

19. Bins:

Bins for apartment buildings should be ordered direct from the Council's contractor ten weeks in advance of first occupation. Bins for houses should be ordered direct from the Council's contractor two weeks in advance of first occupation.

Application Ref: 3/19/1046/FUL

Mr Philip Murphy
Quod
Quod
8-14 Meard Street
London
W1F 0EQ

Town and Country Planning Act 1990 (as amended)

DECISION NOTICE

Alterations to the existing Fifth Avenue road/rail bridge, and creation of new bridges to support the widened highway to west of the existing structure to create the Central Stort Crossing, including embankment works, pedestrian and cycle facilities, a pedestrian and cycle bridge over Eastwick Road, lighting and landscaping works and other associated works
Land Adj To Fifth Avenue Existing Eastwick Crossing Hertfordshire/Harlow

In pursuance of their powers under the above mentioned Act and the Orders and Regulations for the time being in force thereunder, the Council hereby

Grant Planning Permission subject to Conditions

For the development proposed in your application received 20th May 2019 and registered on 12th June 2019 and shown on the approved plans.

Conditions:

1. Consistent implementation of permissions across Local Planning Authority boundaries: No development shall commence until planning permissions are granted for the development as a whole, as detailed in planning applications reference 3/19/1046/FUL (East Herts District) and HW/CRB/19/00220 (Harlow District).

Reason: To ensure, for the development to perform its function, sections of the new roads and bridges must be constructed as a whole across local authority boundaries, that the relevant phases of the development are capable of being built on both sides of the local authority boundary.

2. Approved Drawings and Documents:
Subject to any contrary details, drawings and timetables approved under any condition, the development shall be carried out in accordance with the approved drawings listed in the Decision Notice.

Reason: To restrict the development to that applied for and for which the environmental, transport and infrastructure impacts have been assessed, and to ensure that the development meets the policy standards required by the development plan and any other material considerations including national and local policy guidance.

3. Time Limit for Commencement:
The development hereby approved shall be begun within a period of three years commencing on the date of this notice.

Reason: To comply with the requirements of Section 91 of the Town and Country Planning Act 1990 and to ensure the timely implementation of the development.

4. Linking Implementation to the Outline:
The development hereby permitted shall not be commenced (save for Enabling Works) unless and until planning permission has been granted for the development pursuant to planning application no. 3/19/1045/OUT (Gilston Area Villages 1-6).

Reason: The harm to the Green Belt and other harms arising from the development are outweighed by the significant public benefit arising from its contribution towards a shift towards active and sustainable travel associated with strategic growth in the Gilston Area and the wider Harlow and Gilston Garden Town in accordance with Policies GA1 'The Gilston Area' and GA2 'The River Stort Crossings' of the East Herts District Plan (2018) and Policies HGT1 'Development and Delivery of Garden Communities in the Harlow and Gilston Garden Town' and SIR1 'Infrastructure Requirements' of the Harlow Local Development Plan (2020).

5. Submission and approval of phasing plans and documents:
Prior to the commencement of the development hereby approved (save for Enabling Works), a Phasing Plan shall be submitted to and approved in writing by the Local Planning Authority. The Phasing Plan shall set out the details of the proposed sequence of development and the extent and location of individual development phases or sub-phases.

Once approved, the development shall be implemented in accordance with the approved Phasing Plan (or any subsequent revision thereof approved in writing by the Local Planning Authority).

Reason: To ensure proper management of the phasing of the development, compliance with essential pre-commencement conditions on the development and the provision of relevant mitigation at appropriate times throughout the development, in a way that does not prevent or unnecessarily hinder practical implementation, and in the interests of the amenity of occupiers and users of the site and in accordance with the requirements of Policies DEL1 'Infrastructure and Service Delivery' and DEL4 'Monitoring of the Gilston Area' of the East Herts District Plan (2018), and Policy IN2 'Impact of Development on the Highways Network Including Access and Servicing' of the Harlow Local Development Plan (2020).

6. Energy & Sustainability Strategy:
Prior to the commencement of any construction works (save for Enabling Works) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5) an Energy and Sustainability Strategy for that phase or sub-phase shall be submitted to and approved in writing by the Local Planning Authority.

The Strategy will include details of the measures to be implemented to minimise climate impacts arising from the development taking account of all levels of the energy hierarchy and consideration of the East Herts Sustainability Supplementary Planning Document and Harlow and Gilston Garden Town Sustainability Guidance.

The Energy and Sustainability Strategy will specifically address the following:

- a) How green infrastructure, urban greening and water management have been integrated;
- b) Reducing energy and carbon embodied in construction materials through re-use and recycling of existing materials where possible, and the use of sustainable materials and local sourcing where possible;
- c) Considering high quality innovative design, new technologies and construction techniques, including zero or low carbon energy/energy generation and water efficient, design and sustainable construction methods;
- d) Demonstration that energy and carbon reduction and sustainability has been considered in all stages of the commissioning, procurement, transportation and construction processes.

The phase or sub-phase of the development shall thereafter be implemented in accordance with the relevant approved energy and sustainability strategy.

Reason: In order that the development appropriately mitigates and adapts to the impact of climate change, minimises the impact of pollution and reduces pressure on natural resources in accordance with Policy CC2 'Climate Change Mitigation' of the East Herts District Plan (2018) and Policy PL3 'Sustainable Design, Construction and Energy Usage' of the Harlow Local Development Plan (2020).

7. Materials:

Prior to the commencement of any above ground construction works (save for Enabling Works) on any phase or sub-phase of the site (as defined in plans and documents approved pursuant to Condition 5), the external materials of construction for the structures on that phase or sub-phase shall be submitted to and approved in writing by the Local Planning Authority. The development shall thereafter be carried out only using the approved materials.

Reason: In the interests of amenity and good design in accordance with Policy DES4 'Design of Development' of the East Herts District Plan (2018) and Policies PL1 'Design Principles for Development' and 2 'Amenity Principles for Development' of the Harlow Local Development Plan (2020).

8. Levels:

Prior to the commencement of construction works (save for Enabling Works) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5) detailed plans showing the existing and proposed ground levels for that phase or sub-phase of the site relative to adjoining land, shall be submitted to, and approved in writing by the Local Planning Authority and the development shall be carried out in accordance with the approved details.

Reason: To ensure that the development is properly related to the levels of adjoining development in the interests of neighbour amenity and good design in accordance with Policy DES4 'Design of Development' of the East Herts District Plan (2018) and Policies PL1 'Design Principles for Development' and 2 'Amenity Principles for Development' of the Harlow Local Development Plan (2020).

9. Details of river / canal crossings and related structures (in respect of management of water course related environmental issues):

Prior to the commencement of construction works (save for Enabling Works) for each relevant phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5) full details of any vehicular or pedestrian river crossings or underpasses on main rivers, or other relevant works (e.g. realignment of a watercourse), informed by a detailed Water Framework Directive assessment, for that phase or sub-phase shall be submitted to, and approved in writing by, the Local Planning Authority.

This should include (as relevant to that phase of the development):

- a) Detailed plans, long-sections and cross-sections of the road or pedestrian crossing/underpass structure or other relevant works, and its relationship to the main river channel and corridor;
- b) A minimum of an 8 metre unobstructed buffer zone is maintained around main rivers for access and biodiversity, except adjacent to structures (as shown on the approved plans in Condition 2). Any reduction must demonstrate how any impacts on flood risk, water quality or biodiversity are to be mitigated or compensated for, taking into account the Water Framework Directive and be agreed in writing with the Local Planning Authority.

The development shall be fully implemented and subsequently maintained, in accordance with the details approved or with any amendments as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To ensure compliance with the Water Framework Directive and the protection of wildlife and supporting habitat and to secure opportunities for enhancing the site's nature conservation value. This approach is supported by paragraphs 174 and 180 of the NPPF 2021 and Policy WAT3 'Water Quality and Water Environment' of the East Herts District Plan 2018, and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

10. Details of Stort Navigation (canal) crossing and related structures (in respect of management of the navigable water way and its amenities):

Prior to the commencement of any phase or sub-phase of the development (save for Enabling Works) related to the Stort Navigation canal road bridge (as defined in plans and documents approved pursuant to Condition 5) , full details of the following shall be submitted to and approved in writing by the local planning authority;

- a) Details of materials and finishes to be used in the construction of the canal road bridge abutments, beams, deck and parapets;
- b) Details of vehicle and pedestrian restraint systems;
- c) The proposed layout and materials of the ramp and steps adjacent to the towpath, including any railings and detail of how the ramp will interact with the bridge holes adjacent;
- d) A lighting strategy for the tow path tunnel which demonstrates how a balance can be achieved between ensuring safety for vehicles, pedestrians, cyclists and users of the highway whilst also ensuring that the proposals would not cause an unacceptable impact on amenity, biodiversity or landscape and visual effects.
- e) A maintenance strategy in relation to the above.

The canal road bridge shall thereafter be implemented in accordance with the approved details prior to its first use.

Reason: To ensure the proposals have no adverse impact on highway safety, amenity or the character, appearance and biodiversity of the Stort Navigation (canal) or the use of its towpath and in accordance with policies TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation', NE3 'Species and Habitats', EQ3 'Light Pollution', CFLR3 'Public Rights of Way', CFLR4 'Water Based Recreation' and WAT3 'Water Quality and the Water Environment' of the East Herts District Plan (2018) and Policies WE1 'Strategic Green Infrastructure', WE3 'General Strategy for Biodiversity and Geodiversity' PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems', PL1 'Design Principles for Development', PL2 'Amenity Principles for Development' PL8 'Green Infrastructure and Landscaping', PL9 'Biodiversity and Geodiversity Assets', PL10 'Pollution and Contamination', and IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan (2020).

11. Pedestrian/ Cycle Bridges (Eastwick Road and Stort Navigation) (Detailed design): Prior to the commencement of the phase or sub-phase of the development (save for Enabling Works) related to the pedestrian and cycle bridges over Eastwick Road and over the Stort Navigation (as defined in plans and details approved pursuant to Condition 5), a Design Brief shall be submitted to and approved in writing by the Local Planning Authority. The Design Brief shall set out the basis upon which the design of the bridges will be determined and shall have regard to inclusive design, the safety and needs of diverse and / or vulnerable users of the Pedestrian/ Cycle Bridges. The Design Brief shall include details of an engagement strategy identifying how the design shall be informed through engagement.

Prior to the construction of the pedestrian and cycle bridges over Eastwick Road and over the Stort Navigation (save for Enabling Works) (as defined in plans and details approved pursuant to Condition 5), full details shall be submitted to and approved in writing by the Local Planning Authority.

The submitted details shall have regard to inclusive design, the safety and needs of diverse and / or vulnerable users of the Pedestrian/ Cycle Bridges, and shall include as a minimum:

- a) Full elevation drawings and cross sections to demonstrate the scale and layout of the bridge, including gradients
- b) Details of materials and appearance
- c) Details of structures including fencing, chicanes, seating, signage
- d) Hard and soft landscaping proposals, including measures to ensure a satisfactory boundary relationship between the Stort Navigation Pedestrian and Cycle Bridge and adjacent land uses to the east of the bridge
- e) Details of lighting
- f) Details of how innovative, sustainable design solutions have been incorporated
- g) Details of how sustainable construction methods and materials have been incorporated
- h) Demonstration of compliance with approved parameters pursuant to Condition 2 (VD17516-CC-121-CoMP P03, VD17516-CC-121.1-COMP P03 and CSC Footbridge Design Parameters Revision C)
- i) A maintenance strategy in relation to the above.

The construction of the pedestrian and cycle bridge over Eastwick Road and over the Stort Navigation shall be carried out in accordance with the approved details and shall be practically completed and open to the public within six months of the completion of the full Central Stort Crossing.

Reason: To allow for approval of the details of this part of the development, as the detailed design of the bridge is not included in approved application drawings and to ensure the delivery of a high quality sustainable design solution for the crossing that supports sustainable travel and both compliments and avoids adverse impacts on the character and appearance of the River Stort and the use of its towpath. This is in accordance with policies CC1 'Climate Change Adaptation', CC2 'Climate Change Mitigation', TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation' and DES4 'Design of Development' of the East Herts District Plan (2018) and Policies PL1 'Design Principles for Development', PL2 'Amenity Principles for Development', Policy PL3 'Sustainable Design, Construction and Energy Usage', SIR2 'Enhancing Key Gateways' and IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan (2020).

12. Lighting Strategy:

Prior to the commencement of construction works (save for Enabling Works) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Lighting Strategy for that phase or sub-phase shall have regard to inclusive design, the safety and needs of diverse and / or vulnerable users of the Pedestrian and Cycle Bridges and routes, including under bridges as applicable, and shall be submitted to and approved in writing by the Local Planning Authority.

The Strategy shall include the following details as a minimum:

- a) Details of the proposed location(s) of all lighting to be installed.
- b) Details of the make and model of the proposed lighting.
- c) A LUX plan demonstrating the light spill from the proposed lighting.
- d) A timetable for provision.
- e) An operation and maintenance plan.

The strategy shall demonstrate how a balance can be achieved between ensuring safety for pedestrians, cyclists and users of the highway whilst also ensuring that the lighting proposals would not cause an unacceptable impact on amenity, biodiversity or landscape and visual effects.

The strategy shall demonstrate how consideration has been given to new and alternative technologies and innovative approaches to securing appropriate levels of light and reduction of energy consumption.

The approved lighting strategy shall thereafter be implemented in accordance with the approved details.

Reason: In the interests of highway safety, the river environment, its users and its biodiversity and in accordance with policies TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation', NE3 'Species and Habitats', EQ3 'Light Pollution', CFLR3 'Public Rights of Way', CFLR4 'Water Based Recreation' CC2 'Climate Change Mitigation', CC3 'Renewable and Low Carbon Energy' and WAT3 'Water Quality and the Water Environment' of the East Herts District Plan (2018) and Policies WE1 'Strategic Green

Infrastructure', WE3 'General Strategy for Biodiversity and Geodiversity' PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems', PL1 'Design Principles for Development', PL2 'Amenity Principles for Development', 'PL3 Sustainable Design, Construction and Energy Usage', PL8 'Green Infrastructure and Landscaping', PL9 'Biodiversity and Geodiversity Assets', PL10 'Pollution and Contamination', and IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan (2020).

13. Public Realm Strategy for Burnt Mill Lane:

Prior to the commencement of the phase or sub-phase of the development directly associated with Burnt Mill Lane, Burnt Mill Close and the junction of Burnt Mill Lane with the existing Fifth Avenue crossing (as shown on Drawing VD17516-CC-100.1-GA P07 and as defined in plans and details approved pursuant to Condition 5), details of a Public Realm Strategy shall be submitted to and approved in writing by the Local Planning Authority.

The strategy shall include:

- a) Details of proposed function, layout and design
- b) Details of proposed surface and materials
- c) Soft and hard landscaping, including details of any proposed structures
- d) Measures to manage vehicular access and vehicle speed, including signage and wayfinding
- e) Measures to prioritise walking and cycling at the junction of Burnt Mill Lane and Fifth Avenue
- f) Details of lighting
- g) A maintenance strategy in relation to the above.

Reason: To allow for approval of the details of this part of the development, as the detailed design of the Burnt Mill Lane enhancements are not included in approved application drawings. And to ensure the delivery of a high quality public realm strategy for the route that supports active and sustainable travel.

14. Construction Environment Management Plan (CEMP):

Prior to the commencement of construction works (save for Enabling Works, but excluding site clearance, demolition and tree removal) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a detailed Construction Environmental Management Plan (CEMP) for that phase or sub-phase of the development shall be submitted to and approved in writing by the Local Planning Authority.

CEMPs shall include the following as a minimum:

- a) Updated Code of Construction Practice;
- b) The construction programme and phasing;
- c) Hours of operation and delivery of materials;
- d) Details of any highway works necessary to enable construction to take place, including access;
- e) Parking and loading arrangements;
- f) Emergency planning response including fire prevention and control and worker welfare

- g) Bird Hazard Management Plan to mitigate risks to highway and aerodrome safety caused by the hazard from birds attracted to the site during construction;
- h) Details of site compound: location relative to the CSC site, lighting, hoarding, security, parking, material storage areas, and utilities, including measures taken to utilise renewable energy sources and to reduce energy consumption;
- i) Implementation of an Air Quality Dust Management Plan, incorporating measures for control of dust and dirt on the public highway including siting and details of wheel washing facilities, cleaning of site entrances, site tracks and the adjacent public highway;
- j) Details of consultation and complaint management with local businesses and neighbours including contact details;
- k) Waste management proposals;
- l) Mechanisms to deal with environmental and heritage impacts such as noise and vibration, air quality and dust, light and odour, including pollution incident response processes; and
- m) Surface water management plan during construction;
- n) Demonstrate how the CEMP for that phase has been cognisant of the CEMP(s) for prior phases.

All works shall be carried out in accordance with the approved relevant CEMP thereafter, or with any amendments as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: In the interests of amenity and to limit and control environmental impacts in accordance with policies TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation', DES4, 'Design of Development', EQ2 'Noise Pollution', EQ4 'Air Quality', WAT1 'Flood Risk Management', WAT2 'Source Protection Zones' and WAT3 'Water Quality and the Water Environment' of the adopted East of the East Herts District Plan (2018) and Policies PL2 'Amenity Principles for Development', PL10 'Pollution and Contamination', PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' and IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan (2020).

15. Construction Traffic Management Plan (CTMP):

Prior to the commencement of construction works (save for Enabling Works, but excluding site clearance, demolition and tree/ vegetation removal) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Construction Traffic Management Plan (CTMP) for that phase or sub-phase shall be submitted to and approved in writing by the Local Planning Authority.

CTMPs shall include the following details as a minimum:

- a) Construction vehicle numbers, type, routing;
- b) Access arrangements to the site;
- c) Traffic management requirements;
- d) Delivery and unloading arrangements;
- e) A construction travel plan to include site operatives and other on-site personnel
- f) Timing of construction activities (including delivery times and removal of waste) and to avoid school pick up/drop off times;
- g) Provision of sufficient on-site/ compound parking prior to commencement of construction activities;
- h) Post construction restoration/reinstatement of the working areas and temporary access to the public highway;

- i) Where works cannot be contained wholly within the site a plan should be submitted showing the site layout on the highway including extent of hoarding, pedestrian routes and remaining road width for vehicle movements.
- j) Measures to be taken to seek approval from the highway authority that the highway extent has been marked out accurately prior to construction.
- k) Demonstrate how the CTMP for that phase has been cognisant of the CTMP(s) for prior phases.

Thereafter, the construction of the development shall only be carried out in accordance with the approved CTMP, or with any amendments as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To protect highway safety and the amenity of users of the public highway and rights of way in accordance with policies TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation', DES4 'Design of Development', EQ2 'Noise Pollution', EQ4 'Air Quality', WAT1 'Flood Risk Management', WAT2 'Source Protection Zones' and WAT3 'Water Quality and the Water Environment' of the adopted East of the East Herts District Plan 2018 and Policies PL1 'Design Principles for Development', PL2 'Amenity Principles for Development', PL10 'Pollution and Contamination', PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' and IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan 2020, as well as relevant Highway Authority policies.

16. Construction Landscape and Ecological Management Plan (CLEMP):
Prior to the commencement of any construction works (save for Enabling Works, but excluding site clearance, demolition and tree/vegetation removal) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Construction Landscape and Ecological Management Plan (CLEMP) for that phase or sub-phase of the development shall be submitted to and approved in writing by the Local Planning Authority.

CLEMPs shall include the following details as a minimum:

- a) Measures taken to minimise impacts on the landscape and landscape character during construction
- b) Description and evaluation of features to be managed, including bat commuting routes and other ecologically sensitive areas or species, trees, hedgerows, woodlands, watercourses and other existing environmental features on-site and off-site
- c) Measures to be taken to protect and manage the features identified above during the construction process, including pre-construction checks, construction methodology, and watching briefs/Ecological Clerk of Works
- d) Details of the body or organisation responsible for implementation of the CLEMP and timetables for implementation
- e) Details of ongoing monitoring (including timetables) and details of how and when any remedial action will be identified, agreed and implemented
- f) Demonstrate how the CLEMP for that phase has been cognisant of the CLEMP(s) for prior phases.

Thereafter, the construction of the development shall only be carried out in accordance with the approved CLEMP, or with any amendments as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To secure the protection of existing landscape features and habitats of ecological interest and protected species in accordance with Policies NE1 'International, National and Locally Designated Nature Conservation Sites', and NE3 'Species and Habitats' of the East Herts District Plan (2018) and Policies WE3 'General Strategy for Biodiversity and PL9 'Biodiversity and Geodiversity Assets', of the Harlow Local Development Plan (2020).

17. Implementation of Floodplain Compensation Measures:

The development hereby permitted shall be carried out in complete accordance with the submitted Highways Drainage Strategy and Drawings VD17516-CC-502 P05 and VD17516-CC-502.1 P05 and the following measures they detail:

- a) Compensatory storage shall be provided south of the A414 in accordance with drawing VD17516-CC-502 P05. A compensation area of 5,233m³ will be provided by lowering land (Highways Drainage Strategy Chapter 8, bullet point 3).
- b) These measures shall be fully implemented prior to any widening of the existing crossing in accordance with the scheme's phasing and timing arrangements (as defined in plans and details approved pursuant to Condition 5).

The measures detailed above shall be retained thereafter throughout the lifetime of the development.

Reason: To reduce the risk of flooding to the proposed development and future occupants and prevent flooding elsewhere by ensuring that compensatory storage of flood water is provided in accordance with Policy WAT1 'Flood Risk Management' of the East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

18. Water Framework Directive Mitigation and Enhancement Strategy:

No phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), shall take place until a Water Framework Directive Mitigation and Enhancement Strategy for that phase or sub-phase has been submitted to, and approved in writing by, the Local Planning Authority.

The strategy for that phase or sub-phase shall be carried out as approved and any subsequent variations shall be agreed in writing by the Local Planning Authority.

The scheme shall include the following elements as relevant to that phase or sub-phase:

- a) Evidence that the development will cause no deterioration of waterbody status, nor prevent future improvement to the waterbody, nor contribute to cumulative deterioration of the River Stort and Stort Navigation using up to date Water Framework Directive classification data;
- b) Long-term objectives, management responsibilities and maintenance schedules;
- c) Update the existing scour assessment in the current Water Framework Directive assessment to confirm impacts and mitigation requirements (if additional mitigation needed) for the final design;
- d) Details of any proposed enhancements to watercourses and their corridors to support improving overall Water Framework Directive status (with reference to the approved Species and Habitat Protection and Enhancement Plan)

Reason: To ensure compliance with the Water Framework Directive and the protection and enhancement of biodiversity in accordance with Policy WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

19. Risk Assessment & Method Statement:

Prior to the commencement of any construction works (save for Enabling Works) for each phase or sub-phase of the development that involves works adjacent to the Stort Navigation (canal) (as defined in plans and documents approved Pursuant to Condition 5), a risk assessment and method statement outlining all works to be carried out adjacent to or affecting (directly or indirectly) the Stort Navigation (canal) in that phase or sub-phase must be submitted to, and approved in writing, by the Local Planning Authority.

The submitted details will include an assessment of any works to the banks of the River Stort Navigation and any works that may increase loading on the canal infrastructure.

Development shall thereafter be carried out in accordance with the approved risk assessment and method statements relevant to that phase or sub-phase.

Reason: To ensure that the works have no adverse impact on the structural integrity of the river walls and towpath. Information should be provided prior to commencement as impacts on the canal corridor may occur during the initial demolition and construction phases. In the interests of users of the Stort Navigation and the water environment in accordance with WAT3 'Water Quality and the Water Environment' of the East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems', of the Harlow Local Development Plan (2020).

20. Land, Air & Water Contamination Investigation & Remediation:

Prior to the commencement of any construction works (save for Enabling Works) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), an Investigation and Remediation Strategy to deal with the risks associated with the contamination of land, air and water relevant to that phase or sub-phase shall be submitted to, and approved in writing by, the Local Planning Authority.

The investigation and remediation strategy shall include the following elements:

- a) A site investigation scheme, based on the preliminary risk assessment/desk studies, to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off-site;
- b) The results of the site investigation and the detailed risk assessment referred to in a) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how and when they are to be undertaken;
- c) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in b) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

The Remediation Strategies shall thereafter be implemented in complete accordance with the approved details.

Reason: To ensure that the development does not contribute to and is not put at unacceptable risk from, or adversely affected by, unacceptable levels of land, air or water pollution in accordance with Policies EQ1 'Contaminated Land and Land Instability' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

21. Land, Air & Water Contamination Verification Report:
Prior to the completion of each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Verification Report demonstrating the completion of works set out in the approved remediation strategy and the effectiveness of the remediation for that phase or sub-phase shall be submitted to, and approved in writing, by the Local Planning Authority.

The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met.

Reason: To ensure that the site does not pose any further risk to human health or the water environment by demonstrating that the requirements of the approved investigation and remediation strategy and its remediation criteria have been met and that remediation of the site is complete in accordance with Policies EQ1 'Contaminated Land and Land Instability' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

22. Contamination Monitoring and Maintenance Plan:
Prior to the commencement of any construction works (save for Enabling Works) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Monitoring and Maintenance plan for that phase or sub-phase in respect of land, air and water contamination, including a timetable of monitoring and submission of reports to the Local Planning Authority has been submitted to and approved in writing by, the Local Planning Authority.

The Monitoring and Maintenance Plan shall cover the period of construction of that phase or sub-phase plus a period of six months, and shall be cognisant of prior phases or sub-phases.

The Monitoring and Maintenance Plan shall thereafter be fully implemented and complied with in accordance with the approved details.

REASON: To ensure that the site does not pose any further risk to human health or the water environment by demonstrating that the requirements of the approved monitoring and maintenance plan have been met in accordance with Policies EQ1 'Contaminated Land and Land Instability' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality,

Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

23. Unsuspected Contamination:

If, during site investigation works and/or development, contamination not previously identified is found to be present at the site then all works in that phase or sub-phase must immediately cease and no further development shall be carried out in that phase or sub-phase until a remediation strategy detailing how this contamination will be dealt with has been submitted to, and approved in writing by, the Local Planning Authority without delay.

The remediation strategy shall thereafter be implemented in accordance with the approved details.

Reason: To ensure that the development does not contribute to and is not put at unacceptable risk from or adversely affected by unacceptable levels of land or water pollution from previously unidentified contamination sources at the development site. No site investigation can fully characterise a site. This approach is in accordance with Policies EQ1 'Contaminated Land and Land Instability' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

24. Site Waste Management Plan:

Prior to the commencement of any demolition or construction works (save for Enabling Works, but excluding demolition), for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Site Waste Management Plan (SWMP) for that phase or sub-phase shall be submitted to and approved in writing by the Local Planning Authority.

The Site Waste Management Plan shall set out the following:

- a) Details of waste arising during both the site preparation, demolition and construction phases- type and estimated volume;
- b) Confirmation that opportunities to reuse waste generated by the site are maximised;
- c) where residual waste is to be disposed from the site, details shall be provided as to the volumes, type and timing of waste disposal from the site;
- d) Where waste is being transported to, together with details of the waste carrier;

Demolition and construction shall take place in accordance with the relevant approved Site Waste Management Plan for that phase or sub-phase.

Reason: In order to minimise waste and ensure most sustainable disposal in accordance with Policy CC2 'Climate Change Mitigation' of the East Herts District Plan (2018) and Policy PL3 'Sustainable Design, Construction and Energy Usage' of the Harlow Local Development Plan (2020).

25. Infiltration Drainage:

No drainage systems for the infiltration of surface water to the ground are permitted other than with the written consent of the Local Planning Authority. Any proposals for such systems must be supported by an assessment of the risks to controlled waters. The development shall be carried out in accordance with the approved details.

Reason: This condition relates to where contamination is present and may be mobilised due to the infiltration of surface water or where contaminated surface water may result in an input of contaminants to groundwater. To ensure that the development does not contribute to, and is not put at unacceptable risk from or adversely affected by, unacceptable levels of water pollution caused by mobilised contaminants. This approach is in accordance with Policies EQ1 'Contaminated Land and Land Instability' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

26. Piling/Deep Foundations Method Statement:

No piling, deep foundations or other intrusive groundworks (investigation boreholes/tunnel shafts/ground source heating and cooling systems) using penetrative methods shall be undertaken until a Piling/ Deep Foundation Method Statement has first been submitted to and approved in writing by the Local Planning Authority in consultation with potentially affected parties responsible for sub-surface infrastructure.

The Statement shall include an assessment of impacts on noise, vibration, land stability, ground water levels, underground pipes and other infrastructure as well as details of the measures to be taken to mitigate any adverse effects.

The groundworks shall thereafter be carried out in accordance with the approved details.

REASON: To ensure that the proposed Piling, deep foundations or other intrusive groundworks (investigation boreholes/tunnel shafts/ground source heating and cooling systems) do not harm groundwater resources, damage essential infrastructure and do not have an adverse impact on the local amenity in accordance with Policies EQ1 'Contaminated Land and Land Instability', EQ2 'Noise Pollution' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

27. Scheme for Managing Borehole Investigation:

Prior to commencement of any phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), that involves the installation of, or use of, existing boreholes, a scheme for managing any borehole installed for the investigation of soils, groundwater or geotechnical purposes shall be submitted to and approved in writing by the Local Planning Authority.

The scheme shall provide details of how redundant boreholes are to be decommissioned and how any boreholes that need to be retained, post-development, for monitoring purposes will be secured, protected and inspected.

The scheme as approved shall be implemented prior to the operational use of each phase or sub-phase of development and no boreholes should be decommissioned until it has been agreed in writing that they are no longer required.

Reason: To ensure that a sufficient monitoring network is maintained to allow for the completion of any monitoring required and to ensure that redundant boreholes are safe and secure, and do not cause groundwater pollution or loss of water supplies in accordance with Policy WAT3 'Water Quality and Water Environment' of East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

28. Implementation of Drainage Strategy:

The development hereby approved shall be carried out in accordance with the principles of the approved Drainage Strategy (Reference number: EHUK-VEC-1XX-XX—TN-D-9001 B) and shall include and follow the mitigation details identified for each drainage catchment including:

- a) Specification to demonstrate and follow an appropriate Sustainable Drainage System (SuDS) management and treatment train.
- b) Prioritise on-surface conveyance features.
- c) Provision of biodiversity enhancement within SuDS provision.
- d) Provision of drainage catchments as per the agreed characteristic below - or such discharge rates and storage volumes agreed with the Local Planning Authority following detailed design:
 - o Catchment C1 - limiting the surface water runoff generated by the critical storm events to the maximum of 17 l/s for the 1 in 30 year event providing a minimum of 898m3 of storage.
 - o Catchment C2 - limiting the surface water runoff generated by the critical storm events to the maximum of 5 l/s for the 1 in 30 year event providing a minimum of 215m3 of storage.
 - o Catchment C3 - limiting the surface water runoff generated by the critical storm events to the maximum of 5 l/s for the 1 in 30 year event providing a minimum of 95m3 of storage.

The mitigation measures shall be fully implemented prior to operational use of the development and subsequently in accordance with the timing / phasing arrangements embodied within the scheme, or within any other period as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To ensure the development appropriately addresses climate change and the risk of flooding, to ensure satisfactory storage of and disposal of surface water from the entire strategic drainage network, to improve and protect water quality and to protect natural habitats in accordance with Policy WAT3 'Water Quality and Water Environment' of East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

29. Detailed Surface Water Drainage Scheme:

Prior to the commencement of each phase or sub-phase of the development (save for Enabling Works) (as defined in plans and documents approved pursuant to Condition 5), a Detailed Surface Water Drainage Scheme for that phase or sub-phase, or for the whole

affected catchment based on the approved Drainage Strategy and sustainable drainage principles, shall be submitted to and approved in writing by the Local Planning Authority in consultation with Hertfordshire County Council/ Essex County Council as Lead Local Flood Authorities.

The Scheme shall accord with the approved SuDS principles and shall include the following details as relevant to that phase or sub-phase:

- a) Demonstration of an appropriate, final and detailed SuDS management and treatment train for each outfall.
- b) Information on ground conditions, including desk-based assessment, exploratory hole logs, in-situ test data, including infiltration tests undertaken in accordance with the BRE 365 testing procedure and, records of groundwater level monitoring, undertaken for a minimum period of 6 months over the autumn/winter period. .
- c) Verification of the suitability of infiltration of surface water for the development.
- d) Any existing drainage network within the extents of the planning application boundary, into which new highway runoff is being discharged, shall be checked to be functional/operational and the highway authority to be advised of existing blockages which need maintenance to repair. Additional attenuation storage shall be provided if identified as required, to reflect any net increases in runoff quantities being discharged into the existing networks, to avoid downstream flooding.
- e) Detailed plan showing the finalised drainage catchment areas.
- f) Full, detailed modelling for the strategic network to demonstrate how the system operates during up to and including the 1 in 1 year, the 1 in 30 year and the 1 in 100 year rainfall event including 40% allowance for climate change. Primarily surface water storage to be provided for up to and including the 1 in 30 year rainfall event.
- g) Full detailed engineering drawings of any SuDS, surface water storage or conveyance feature including cross and long sections, location, size, volume, depth and any inlet and outlet features. This should be supported by a clearly labelled, detailed drainage layout plan showing any SuDS and pipe networks. The plan should show any pipe 'node numbers' that have been referred to in network calculations and it should also show invert and cover levels of manholes. Total storage volumes provided within each catchment should be identified.
- h) Identification of opportunities to address existing surface water flooding in the immediate vicinity of the development site, within the extents of the red line planning application boundary.
- i) Detailed topographical surveys of the site and any existing watercourses.
- j) A Catchment Walkover of receiving watercourses shall be undertaken including topographical survey, details of water levels, and the location of existing structures that may constrain flows along watercourses receiving surface water runoff from the development, to ensure that there is sufficient capacity to accommodate future changes in flows.
- k) Full condition survey of all existing structures on all watercourse networks impacted by the proposed development or located within the development site.
- l) Full details of connection points to ordinary watercourses and main rivers, including cross sections and long sections drawings of any new proposed structures.
- m) Details of final exceedance routes above the designed 1 in 30 year return period, also including those for an event which exceeds to 1:100 rainfall event including climate change event.
- n) A management and maintenance plan including maintenance and operational activities. This should include land ownership plans with identified operators responsible for any future maintenance for the lifetime of the development.
- o) Phasing plan for the provision of SuDS and drainage infrastructure within each drainage catchment.

- p) Final, detailed planting plans for all proposed SuDS features and its surrounding area.
- q) Assessment of all works impacting on any existing ordinary watercourses and identification with acknowledgement of any needed ordinary watercourse consents.
- r) Demonstrate that all storage features can half empty within 24 hours for the 1 in 30 year plus 40% climate change critical storm event.
- s) The appropriate level of treatment for all runoff leaving the site, in line with the Simple Index Approach in chapter 26 of the CIRIA SuDS Manual C753 and Highways England Water Risk Assessment Tool (HEWRAT).
- t) A written report summarising the final strategy and highlighting any minor changes to the approved strategy.

The surface water drainage network shall be designed and fully implemented in accordance with the details and phasing plan thus approved.

Reason: To prevent flooding by ensuring the satisfactory storage of / disposal of surface water from the site; to ensure the effective operation of SuDS features over the lifetime of the development; and to provide mitigation of any environmental harm which may be caused to the local water environment. Failure to provide the above required information before commencement of works may result in a system being installed that is not sufficient to deal with surface water occurring during rainfall events and may lead to increased risk and pollution hazard from the site. This is in accordance with Policy WAT3 'Water Quality and Water Environment' of East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

30. SuDS Completion & Verification Report:
Within three months of completion of SuDS works for each phase or sub-phase (as defined in plans and documents approved pursuant to Condition 5), or for a defined catchment relevant to the development, a final Completion and Verification Report for that phase or sub-phase or catchment shall be submitted to, and approved in writing by the Local Planning Authority in consultation with Hertfordshire County Council/ Essex County Council as Lead Local Flood Authorities.

The Completion and Verification Report shall include the following details:

- a) Provision of a Completion and Verification Report appended with substantiating evidence demonstrating the approved construction details and specifications for the SuDS features and drainage network have been implemented in accordance with the surface water drainage scheme. The verification report shall include photographs of excavations and soil profiles/horizons, installation of any surface water structure, during construction and final make up, and the control mechanism.
- b) Provision of a complete set of as built drawings for site drainage.
- c) Post-construction surveys including a CCTV survey for any underground features and piped networks.
- d) A management and maintenance plan for the SuDS features and drainage network, which should include details of the maintenance activities/ frequencies for each feature.

e) Final arrangements for adoption with identified operators responsible for future maintenance and any other measures to secure the operation of the scheme throughout its lifetime.

Reason: To ensure approved drainage measures are fully implemented and appropriate maintenance arrangements are put in place to enable the surface water drainage system to function as intended to ensure mitigation against flood risk. Failure to provide the above required information prior to occupation may result in the installation of a system that is incomplete and / or not properly maintained and may increase flood risk or pollution hazard from the site. This is in accordance with Policy WAT3 'Water Quality and Water Environment' of East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

31. Tree and Hedge Removal:

Until the end of five years following completion of each phase of the development (as defined in plans and documents approved pursuant to Condition 5), all existing trees and hedges which are shown on the approved drawings as being retained, shall be retained and shall not be damaged, cut down, uprooted or destroyed without the prior consent of the Local Planning Authority.

Reason: To ensure the continuity of amenity afforded by existing trees and hedges, in accordance with Policy DES3 'Landscaping' of the East Herts District Plan (2018) and Policy PL7 'Trees and Hedgerows' of the Harlow Local Development Plan (2020).

32. Tree and Hedge Protection Measures:

No phase or sub-phase of development (as defined in plans and documents approved pursuant to Condition 5) shall commence until full details of the tree and hedge protection measures in respect of that phase or sub-phase have been submitted to, and approved in writing by, the Local Planning Authority and until the approved protection has been erected on site.

Protection measures shall be in accordance with BS5837: 2012 Trees in Relation to Design, Demolition and Construction, and be in place for the duration of the works on site. In the event that trees or hedging die, become damaged or otherwise defective within five years of completion of development within that phase or sub-phase, the Local Planning Authority shall be notified as soon as reasonably practicable, and remedial action agreed and implemented. The agreed remediation strategy and associated planting shall be undertaken during the first available planting season.

Reason: To ensure the continuity of amenity afforded by existing trees and hedges, in accordance with Policy DES3 'Landscaping' of the East Herts District Plan (2018) and Policy PL7 'Trees and Hedgerows' of the Harlow Local Development Plan (2020).

33. Landscaping Strategy and Management and Maintenance Plan:

Prior to the first public use of any phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a detailed hard and soft Landscaping Strategy for that phase or sub-phase shall be submitted to and approved by the Local Planning Authority, in consultation with the Highway Authority.

The Landscaping Strategy shall include as a minimum the following details:

a) Planting schedule to show species, sizes, number and densities;

- b) Planting plans to show the location of proposed planting based on the approved landscaping drawings but informed by a consideration of the screening properties of the proposed planting;
- c) Written specifications to demonstrate cultivation and other operations associated with the establishment of grassland and planting;
- d) Details of hard landscaping proposals including surface treatment of SuDS maintenance access routes, fencing, gates, benches, lighting, bins and other structures;
- e) Details of signage and wayfinding;
- f) Details of any public art;
- g) Implementation timetables;
- h) Landscape Management and Maintenance Plan;
- i) Demonstration how the Landscape Strategy for that phase or sub-phase has been cognisant of the Landscape Strategies for prior phases.

The development shall be carried out in accordance with the approved Landscaping Scheme and the approved timetable and Landscape Management and Maintenance Plan.

Any trees or plants that, within a period of five years after planting, are removed, die or become, in the opinion of the Local Planning Authority, in consultation with the Highway Authority, seriously damaged or defective, shall be replaced as soon as is reasonably practicable with others of species, size and number as originally approved, unless the Local Planning Authority gives its written consent to any variation

Reason: In order to provide green infrastructure and landscaping in accordance with Policies NE4 'Green Infrastructure' and DES3 'Landscaping' of the East Herts District Plan (2018) and Policy 'PL8 Green Infrastructure and Landscaping' and SIR2 'Enhancing Key Gateways' of the Harlow Local Development Plan (2020).

34. Legally Protected Species and Habitat Protection and Enhancement Plan:
No phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5) shall commence (save for Enabling Works, but excluding site clearance, demolition and tree/ vegetation removal), until a Species and Habitat Protection and Enhancement Plan for that phase or sub-phase has been submitted to and approved in writing by the Local Planning Authority.

The Species and Habitat Protection and Enhancement Plan shall detail measures to mitigate and/or compensate damages to protected and notable species (under The Wildlife and Countryside Act 1981) and their associated habitat.

The Species and Habitat Protection and Enhancement Plan must be based on up-to-date surveys and consider the whole duration of that phase or sub-phase of the development, from the construction phase through to completion.

The plan shall include the following (as far as is relevant to that phase or sub-phase):

- a) Up-to-date ecological surveys conducted by a suitably qualified ecologist, at the appropriate time of year;

- b) Details and drawings of the road crossings and culverts, including how they will interact with the watercourses (e.g. abutments, buffer zones, shading, lighting);
- c) Details of how the development will mitigate and compensate for any impacts it may have on protected species and their associated habitats and habitat corridors including floodplain restoration and how it will enhance habitats and corridors;
- d) Details of improvements to watercourse riparian corridors and river channels;
- e) Measures to be taken to ensure the safe movement of terrestrial mammals through/ beneath the structures;
- f) Measures to be taken to provide bird and bat nesting and roosting sites on or around elevated structures;
- g) Measures to be taken to avoid disturbance to landscaping and habitats adjacent to pedestrian/cycle routes;
- h) Demonstration of how the above measures contribute towards biodiversity gain based on an up to date biodiversity net gain metric or alternative methodology as agreed by the Local Planning Authority;
- i) Description and evaluation of any features to be managed;
- j) Any specific ecological trends and constraints on the site that might influence management;
- k) Aims, objectives, actions and methods to ensure effective management;
- l) Preparation of a works schedule including an annual work plan capable of being rolled forward every 5 years;
- m) Details of ongoing management, maintenance, monitoring and remedial measures;
- n) A programme for implementation;
- o) Details of the body or organisation responsible for implementation and management of the plan;
- p) A scheme for the long-term funding and management mechanisms by which implementation, long term management and protection of these species and habitats will be secured.

The development shall be carried out in accordance with the approved details and the plan shall be implemented and the site managed in accordance with the approved details.

Reason: In order to provide an up to date baseline of biodiversity information and to ensure biodiversity is protected as far as possible and habitats are created and enhanced in accordance with Policies NE3 'Species and Habitats' and WAT3 'Water Quality and the Water Environment' of the East Herts District Plan (2018) and Policies WE3 'General Strategy for Biodiversity and Geodiversity' PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems', and PL9 'Biodiversity and Geodiversity Assets' of the Harlow Local Development Plan (2020).

35. Habitat Compensation Ecological Management Plan - Off-Site:
Prior to the commencement of any phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), that results in the loss of habitat in the Parndon Moat Marsh Local Wildlife Site and Local Nature Reserve, and the Eastwick and Parndon Meads Local Wildlife Site, a Habitat Compensation Ecological Management Plan shall be submitted to and approved in writing by the Local Planning Authority setting out how 1.33 Ha of compensatory habitat will be provided within the area of land identified in Drawing HNP495-GRA-SK-0011 Rev 03 - CSC Ecological Compensation.

The Plan shall include the following:

- a) Details of how the development will mitigate and compensate for any impacts it may have on protected species and their associated habitats and habitat corridors including floodplain restoration and how it will enhance habitats and corridors;
- b) Demonstration of how the above measures contribute towards achieving a biodiversity net gain based on an up to date biodiversity metric or alternative methodology as agreed by the Local Planning Authority;
- c) Description and evaluation of any features to be managed;
- d) Any specific ecological trends and constraints on the site that might influence management;
- e) Aims, objectives, actions and methods to ensure effective management;
- f) Preparation of a works schedule including an annual work plan capable of being rolled forward every 5 years;
- g) Details of ongoing management, maintenance, monitoring and remedial measures;
- h) A programme for implementation;
- i) Details of the body or organisation responsible for implementation and management of the plan;
- j) A scheme for the long-term funding and management mechanisms by which implementation, long term management and protection of these species and habitats will be secured.

Thereafter, the Plan shall be implemented in accordance with the approved details and programme.

Reason: To ensure that the development compensates for the loss of designated sites of nature conservation interest in accordance with Policy NE1 and NE3 of the East Herts District Plan (2018) and Policy PL8 and PL9 of the Harlow Local Development Plan (2020).

36. Biodiversity Monitoring and Verification Plan:

Five years following completion of the development hereby approved (plus every five years thereafter for a period of 30 years) a Biodiversity Monitoring and Verification Report and Action Plan shall be submitted to the Local Planning Authority for approval.

The Report shall confirm the effectiveness or otherwise of the Landscape Management and Maintenance Plan (Condition 33), Species and Habitat Protection and Enhancement Plan (Condition 34) and Habitat Compensation Ecological Management Plan - Off-Site (Condition 35). The submission must be made by a suitably qualified professional.

As a minimum the report shall include a suite of quantitative and qualitative indicators using methods such as annual site walkovers, surveys and fixed-point photography, to monitor the implementation and effectiveness of mitigation/ management measures. The report shall include any remediation works required in order to address where measures may not be functioning and/or meeting net gain targets expected. The details of all survey findings shall be shared with Herts Ecological Record database.

Any remediation works identified shall thereafter be implemented in accordance with the approved details.

Reason: To ensure that the development maintains, enhances and contributes appropriately to biodiversity in accordance with Policies NE3 'Species and Habitats' and WAT3 'Water Quality and the Water Environment' of the East Herts District Plan (2018) and Policies WE3 'General Strategy for Biodiversity and Geodiversity' PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems', and PL9 'Biodiversity and Geodiversity Assets' of the Harlow Local Development Plan 2020.

37. Archaeological Written Scheme of Investigation:

No demolition shall be carried out nor shall any development commence in any phase or sub-phase of the site (as defined in plans and documents approved pursuant to Condition 5), until an Archaeological Written Scheme of Investigation covering that phase or sub-phase of the site has been submitted to and approved in writing by the Local Planning Authority.

The Written Scheme of Investigation shall include an assessment of archaeological significance and research questions; and details of:

- a) The programme and methodology of site investigation and recording as suggested by the evaluation
- b) The programme for post investigation assessment
- c) Provision to be made for analysis of the site investigation and recording
- d) Provision to be made for publication and dissemination of the analysis and records of the site investigation
- e) Provision to be made for archive deposition of the analysis and records of the site investigation
- f) Nomination of a competent person or person/organisation to undertake the works set out within the Archaeological Written Scheme of Investigation.

Reason: To ensure the appropriate investigation for presence / recording of heritage assets in accordance with Policy HA3 'Archaeology' of the East Herts District Plan (2018) and Policy PL12 'Heritage Assets and their Settings' of the Harlow Local Development Plan (2020).

38. Implementation of Archaeological Investigation:

No development shall take place in any phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5) other than in complete accordance with the programme of archaeological investigation and works set out in the Written Scheme of Investigation for that phase approved pursuant to Condition 37.

Reason: to ensure the appropriate investigation for presence / recording of heritage assets and to comply with the requirements of Policy GA1 of the East Herts District Plan 2018, Policy PL12 of the Harlow Local Development Plan and paragraph 211 of the NPPF 2021.

39. Post Archaeological investigation Assessment:

No phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), shall be brought into use until the site investigation and post investigation assessment has been completed for that phase or sub-phase in accordance with the programme set out in the Written Scheme of Investigation approved pursuant to Condition 37 and the provision made for analysis and publication where appropriate.

Reason: To ensure the appropriate investigation for presence / recording of heritage assets in accordance with Policy HA3 'Archaeology' of the East Herts District Plan (2018) and

Policy PL12 'Heritage Assets and their Settings' of the Harlow Local Development Plan (2020).

40. Land Restoration:

In the event that outline planning permission has not been granted for planning application EHDC Ref 3/19/1045/OUT within 18 months of the date of this permission and Enabling Works have been undertaken:

(1) a Land Restoration Scheme of Work to restore any land that has been subject to and/or impacted by the Enabling Works shall be submitted to and approved by the Local Planning Authority within 21 months of the date of this permission; and

(2) any works carried out in connection with the development hereby permitted (e.g. as Enabling Works) shall be removed and the land restored to its former condition in accordance with the Scheme of Work and programme approved by the local planning authority.

The Land Restoration Scheme of Work to be submitted shall include a programme, detailed specifications and/or plans for remedial and restoration works, full details of replacement tree planting and landscaping along with a maintenance plan to the effect that should any part of replacement planting fail within a period of five years after planting these will be replaced.

The restoration works shall be carried out and completed in complete accordance with the approved details of the Land Restoration Scheme and evidence shall be provided to the satisfaction of the Local Planning Authority of the completion of the restoration works to be confirmed in writing.

If at any period within 21 months of the date of this permission any Enabling Works have been carried out and planning permission has not been granted for the outline planning application EHDC Ref 3/19/1045/OUT, no further material operation shall be carried out on the application site except for restoration works in full accordance with the approved Land Restoration Scheme of Work.

Reason: Permitting "Enabling Works" enables the realisation of public benefits and helps to meet local plan requirements. If the crossing permission is unable to be implemented prior to expiry (on account of condition 4 not being satisfied) than any works to or harm caused to the crossing site is to be rectified so to reverse the effects of the "Enabling Works". In order to ensure the satisfactory replacement of landscaping features which are of amenity and/or biodiversity value, in accordance with Policies NE4 'Green Infrastructure', DES3 'Landscaping', DES4 (III) 'Design of Development' and TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation' of the East Herts District Plan (2018) and Policy 'PL8 Green Infrastructure and Landscaping' of the Harlow Local Development Plan (2020).

41. Employment and Training Strategy:

Prior to the commencement of construction works on any part of the development hereby approved (save for Enabling Works), an Employment and Training Strategy shall be submitted to and approved in writing by the Local Planning Authority. The Strategy shall

set out the details of how employment and training opportunities will be provided to the local population during the construction phase of the development.

The Employment and Training Strategy shall provide details of the following:

- a) A schedule of new employment opportunities to be created through the proposed development, including (but not limited to) long-term job creation, short term/temporary job creation, apprenticeships, work placements, work experience and pre-employment training scheme placements.
- b) The process by which jobs will be advertised to local people
- c) The method in which the provision of jobs for local residents will be monitored
- d) Details of training programmes and opportunities, including through local education and further education establishments such as (but not limited to) Hertfordshire University, Herts Regional College, Harlow College and Job Centre Plus.

Once approved, the Employment and Training Strategy shall be implemented (including by all sub-contractors) in accordance with the approved details (or any subsequent revision thereof approved in writing by the Local Planning Authority).

Reason: To ensure opportunities are created for local residents to access employment and/or training during the construction of the development, in accordance with Policy GA1 (r) 'The Gilston Area' and ED6 'Lifelong Learning' of the East Herts District Plan (2018) and Policy PR4 'Improving Job Access and Training' of the Harlow Local Development Plan (2020).

42. Low Noise Road Surfacing:

Prior to the commencement of the development (save for Enabling Works), details of the low noise road surfacing to be provided on the section of Eastwick Road relevant to the development shall be submitted to and approved in writing by the Local Planning Authority in consultation with the Highway Authority

The development shall be delivered in accordance with the approved details.

Reason: In the interests of amenity and to limit and control environmental impacts in accordance with policies TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation', DES4, 'Design of Development', EQ2 'Noise Pollution', of the adopted East of the East Herts District Plan (2018) and Policies PL2 'Amenity Principles for Development', PL10 'Pollution and Contamination' and IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan (2020).

Informatives:

- 1. A) 'Enabling Works' comprises "site clearance and demolition; tree/vegetation removal (in accordance with the approved plans in Condition 2); soil investigations (including soakage testing, window sampling, boreholes, CBR's and gas monitoring); ecology surveys; archaeology surveys (including geo physical surveys, window samples and trenching); slip trenches to investigate existing services; drainage surveys (such as CCTV and jetting); river modelling; and topographical surveys"
- 2. B) 'Local Planning Authority' means either East Herts Council and/or Harlow District Council. Both Councils will consult the other when providing agreement in writing on applications to discharge conditions.

3. C) 'Highway Authority' means either Essex County Council and/or Hertfordshire County Council. The Local Planning Authorities will consult with the Highway Authorities when providing agreement in writing on applications to discharge conditions.
4. D) The permission does not convey any consent which may be required under any legislation other than the Town and Country Planning Acts. Any permission required under the Highways Act, Building Regulations or under any other form of law, must be obtained from the relevant authority or body e.g. Fire Officer, Health and Safety Executive, Environment Agency etc. Neither does this permission negate or override any private covenants which may affect the land.
5. E) The permission is for construction of new public highway infrastructure. As a result the permission cannot be implemented without the prior approval of the local highway authorities (Hertfordshire County Council and Essex County Council). Before works commence the applicant will need to apply to the Highway Authority to obtain their permission and meet their requirements. In order to implement this permission it will be necessary for the developer of the site to enter into agreements with the County Councils as Highway Authorities under Section 278 and Section 38 of the Highways Act to ensure satisfactory completion of the road improvements. The construction must be undertaken to the Highway Authorities' detailed design / specification and to their satisfaction. Construction must be undertaken by a contractor who is authorised to work in the public highway.
6. F) A structural reassessment of the deck and associated bearings of Burnt Mill Station Bridge (Essex) is required to be carried out to the latest standards; CS454 for normal traffic loading and CS458 for special type vehicles, prior to the detailed design stage. The results of the reassessment should be submitted to Essex County Council for approval.
7. G) Implementation also requires:
 - I. that necessary property rights for use and access to all land required for the extended / enlarged and new highways (including drainage features and drainage rights and connections to existing water courses) have been legally secured in the public interest.
 - II. that the agreements under Section 38 of Highways Act for the highways authorities to adopt the newly constructed public highway (and any related features that are required for its operation) on its satisfactory completion include financial provision for future maintenance. Highways Development Management teams should be consulted on any drainage features that are proposed for adoption by Hertfordshire County Council/ Essex County Council. Any drainage features to be adopted shall be designed and built to accommodate the Highway Authorities adoption requirements and an appropriate commuted sum, based on the approved feature maintenance plan must be agreed.
8. H) The highway authorities also advise that, to ensure any works as part of this development are carried out in accordance with other the provisions of the Highways Act 1980 and other relevant processes, the following advice is considered:
 - I. Public Rights of Way:
Public Rights of Way should remain unobstructed by vehicles, machinery, materials, tools and any other aspects of the construction during works. The safety of the public using the route and

any other routes to be used by construction traffic should be a paramount concern during works. Safe passage past the site should be maintained at all times. The condition of the route should not deteriorate as a result of these works. Any adverse effects to the surface from traffic, machinery or materials (especially overflows of cement & concrete) should be made good to the satisfaction of this Authority. All materials should be removed at the end of the construction and not left on the Highway or Highway verges. If the above conditions cannot reasonably be achieved, then a Temporary Traffic Regulation Order would be required to close the affected route and divert users for any periods necessary to allow works to proceed. A fee would be payable to the relevant County Council for such an order. Further information should be sought in relation to the works that are required along the route including any permissions that may be needed to carry out the works.

II. Obstruction of public highway land:

It is an offence under Section 137 of the Highways Act 1980 for any person, without lawful authority or excuse, in any way to wilfully obstruct the free passage along a highway or public right of way. If this development is likely to result in the public highway or public right of way network becoming routinely blocked (fully or partly) the applicant must contact the Highway Authority to obtain their permission and requirements before construction works commence.

III. Storage of materials:

The applicant is advised that the storage of materials associated with the construction of this development should be provided within the site on land which is not public highway, and the use of such areas must not interfere with the public highway. If this is not possible, authorisation should be sought from the Highway Authority before construction works commence.

IV. Road Deposits:

It is an offence under Section 148 of the Highways Act 1980 to deposit mud or other debris on the public highway, and Section 149 of the same Act gives the Highway Authority powers to remove such material at the expense of the party responsible. Therefore, best practical means shall be taken at all times to ensure that all vehicles leaving the site during construction of the development are in a condition such as not to emit dust or deposit mud, slurry or other debris on the highway.

9. I) Other legal procedures providing wider public and private interest safeguards must be satisfied before implementation. These include:

I. Procedural Orders for any changes to existing public highway that affect public and / or private interests.

II. Procedural Orders for bridging the navigable waterway.

III. Land drainage procedures, rights and legal requirements taking account of Environment Agency and Lead Local Flood Authority (LLFA) requirements and advice. All works to ordinary watercourses, including widening of the channel to include additional storage will require ordinary watercourse consent from the LLFAs. It is the applicant's responsibility to check that they are complying with common law if the drainage scheme proposes to discharge into an off-site ditch/pipe. The applicant should seek consent where appropriate from other downstream riparian landowners. Any works proposed to be carried out that may affect the flow within an ordinary watercourse will also require the prior written consent from the LLFA under Section 23 of the Land Drainage Act 1991. This includes any permanent and or temporary works regardless of planning permission. The LLFAs have a

duty to maintain an asset register and records of assets which have a significant impact on the risk of flooding. In order to capture proposed Sustainable Urban Drainage (SuDS) features which may form part of the future register, details of and location of the SuDS assets created or modified through the development should be provided in a GIS layer on completion of the development.

10. J) Additional regulatory consideration may be required on some of specialist matters relevant to this permission as follows:
 - I. Archaeological requirements (Hertfordshire and Essex County Councils)
 - II. Local Land and Property Gazetteer Custodian requirements (District Councils); the development may involve the naming of new streets and numbering of properties)
 - III. Sewer protection requirements; the site has public sewers running across or close to it which may be affected by the proposed building works. It may be necessary to divert the sewer and water course and carry out other works to protect it and the proposed building works before any site works are commenced (Thames Water Development Planning, Asset Investment Unit, Maple Lodge, Denham Way, Rickmansworth, WD3 9SQ Telephone: 01923 898072)
 - IV. Ground water pollution risk; parts of the site are located within the groundwater protection zone of Sawbridgeworth Pumping Station. The construction works and operation of the proposed development should be in accordance with the relevant British Standards and Best Management Practices, thereby significantly reducing the pollution risk. Construction works may exacerbate any existing pollution. Please refer to CIRIA Publication C532 'Control of water pollution from construction- guidance for consultants and contractors'
 - V. Protected species including bats / reptiles / great crested newts; if found during development, works must stop immediately and professional ecological advice must be sought on how to proceed. A licence may be required from Natural England who can be contacted on 01206 796666. Nesting birds are protected under the Wildlife and Countryside Act 1981 and care should be taken in vegetation clearance works between 1st March and 30th September.

This Decision Relates to Plan Numbers:

VD17516-CC-101-LS (1 OF 3) A414 FIFTH AVENUE (1 OF 3) LONGITUDINAL SECTION 1 OF 3 P03 (Section Details)
VD17516-CC-101.1-LS (2 OF 3) A414 PEDESTRIAN FOOTBRIDGE LONGITUDINAL SECTION 2 OF 3 P03 (Section Details)
VD17516-CC-101.2-LS (3 OF 3) A414 FIFTH AVENUE NORTHERN ARM LONGITUDINAL SECTION 3 OF 3 P03 (Section Details)
VD17516-CC-100-GA (1 OF 2) GENERAL ARRANGEMENTS 1 OF 2 P07 (Layout)
VD17516-CC-100.1-GA (2 OF 2) GENERAL ARRANGEMENTS (SHEET 2 OF 2) P07 (Layout)
VD17516-CC-105-RL (SHEET 1 OF 2) RED LINE BOUNDARY P02 (Site plan)
VD17516-CC-105.1-RL (SHEET 2 OF 2) RED LINE BOUNDARY P02 (Site plan)

VD17516-CC-106 XS A414 FIFTH AVENUE TYPICAL CROSS SECTIONS (SHEET 1 OF 2) P03 (Section Details)

VD17516-CC-107 XS A414 FIFTH AVENUE TYPICAL CROSS SECTIONS (SHEET 2 OF 2) P03 (Section Details)

VD17516-CC-109-TR A414 FIFTH AVENUE 16.5M LARGE ARTICULATED VEHICLE SWEPT PATHS P02 (Other)

VD17516-CC-110-TR A414 FIFTH AVENUE 10M RIGID AND SINGLE DECK BUS VEHICLE SWEPT PATHS P02 (Other)

VD17516-CC-111-VS PROPOSED VISIBILITY (SHEET 1 OF 2) P03 (Proposed Access Visibility Splays)

VD17516-CC-112-VS PROPOSED VISIBILITY (SHEET 2 OF 2) P03 (Proposed Access Visibility Splays)

VD17516-CC-111.2-VS PROPOSED VISIBILITY FIFTH AVENUE BURNT MILL LANE (SHEET 1 OF 3) P03 (Proposed Access Visibility Splays)

VD17516-CC-111.4-VS PROPOSED VISIBILITY FIFTH AVENUE BURNT MILL LANE (SHEET 3 OF 3) P03 (Proposed Access Visibility Splays)

VD17516-CC-120-EX EXISTING LAYOUT PLAN (SHEET 1 OF 2) P02 (Layout)

VD17516-CC-120.1-EX EXISTING LAYOUT PLAN (SHEET 2 OF 2) P02 (Layout)

VD17516-CC-121- COMP A414 Pedestrian/Cyclist Bridge Design Parameters (SHEET 1 of 2) P03 (Other)

VD17516-CC-121.1- COMP A414 Pedestrian/Cyclist Bridge Design Parameters (SHEET 2 of 2) P03 (Other)

REVISION C NOVEMBER 20 CENTRAL STORT CROSSING ADOPTABLE FOOTBRIDGES - DESIGN COMPETITION PARAMETERS REVISION C (Other)

VD17516-CC-122- PROPOSED SPEED STRATEGY PLAN P02 (Other)

VD17516-CC-123 - SURF PROPOSED VS EXISTING LEVELS (SHEET 1 OF 2) P02 (Land Levels)

VD17516-CC-123.1 PROPOSED VS EXISTING LEVELS (SHEET 2 OF 2) P02 (Land Levels)

VD17516-CC-160- AR HIGHWAYS AREAS PLAN (SHEET 1 OF 2) P03 (Other)

VD17516-CC-160.1- AR HIGHWAYS AREAS PLAN (SHEET 2 OF 2) P03 (Other)

VD17516-CC-170-AP PRELIMINARY ADOPTION PLANS P02 (Other)

VD17516-CC-170.1-AP PRELIMINARY ADOPTION PLANS P02 (Other)

VD17516-CC-180- ST STRUCTURES LOCATION PLAN (SHEET 1 OF 2) P03 (Location Plan)

VD17516-CC-180.1 STRUCTURES LOCATION PLAN P03 (Location Plan)

VD17516-CC-400-PROPOSED VEHICLE RESTRAINT SYSTEMS P05 (Other)

VD17516-CC-400.1- PROPOSED VEHICLE RESTRAINT SYSTEMS P05 (Other)

VD17516-CCi-100- GA INTERIM JUNCTION TIE-IN GENERAL ARRANGEMENTS P03 (Proposed Access)

VD17516-CC-STR- 010 RIVER STORT BRIDGE -PRELIMINARY DESIGNS GA DRAWINGS P03 (Other)

VD17516-CC-STR-020 STORT NAVIGATION BRIDGE-PRELIMINARY DESIGNS GA DRAWINGS P03 (Other)

VD17516-CC-STR- 050 HARLOW RAILWAY BRIDGE - PRELIMINARY DESIGN GA DRAWINGS SHEET 1 of 2 P03 (Other)

VD17516-CC-STR- 051 HARLOW RAILWAY BRIDGE - PRELIMINARY DESIGN GA DRAWINGS SHEET 2 of 2 P03 (Other)

VD17516-CC-501 PRELIMINARY PROPOSED DRAINAGE SHEET 1 OF 2 P03 (Drainage)

VD17516-CC-501.1 PRELIMINARY PROPOSED DRAINAGE SHEET 2 OF 2 P03 (Drainage)

VD17516-CC-502 PRELIMINARY DRAINAGE STRATEGY SHEET 1 OF 2 P05 (Drainage)

VD17516-CC-502.1 PRELIMINARY DRAINAGE STRATEGY SHEET 2 OF 2 P05 (Drainage)




VD17516-CC-503 PRELIMINARY DRAINAGE SWALE C1 P03 (Drainage)

VD17516-CC-504 PRELIMINARY DRAINAGE SWALE C2 P03 (Drainage)

VD17516-CC-505 PRELIMINARY DRAINAGE SWALE C3 P01 (Drainage)

Development Management

➡ 01279 655261
➡ www.eastherts.gov.uk
➡ East Herts Council, Wallfields, Pegs Lane, Hertford, SG13 8EQ

 EastHertsDC
 EastHerts
 easthertscouncil



VD17516-CC-506 PRELIMINARY DRAINAGE FLOOD COMPENSATION LEVEL FOR LEVEL LONG SECTION (Drainage)
HNP495-GRA-X-XX- DR-L-5171 CENTRAL STORT CROSSING PLANTING PLAN (1/5) REV 05 (Landscaping)
VD17516-CC-507 PRELIMINARY DRAINAGE PROPOSED SuDS CATCHMENT AREA SHEET 1 OF 2 P02 (Drainage)
VD17516-CC-507.1 PRELIMINARY DRAINAGE PROPOSED SuDS CATCHMENT AREA SHEET 2 OF 2 P02 (Drainage)
201109-3.3-GPA-CC-TPP-MM TREE PROTECTION PLAN CENTRAL STORT CROSSING (Other)
HNP495-GRA-X-XX- DR-L-5172 CENTRAL STORT CROSSING PLANTING PLAN (2/5) REV 04 (Landscaping)
HNP495-GRA-X-XX- DR-L-5173 CENTRAL STORT CROSSING PLANTING PLAN (3/5) REV 03 (Landscaping)
HNP495-GRA-X-XX- DR-L-5174 CENTRAL STORT CROSSING PLANTING PLAN (4/5) REV 02 (Landscaping)
HNP495-GRA-X-XX- DR-L-5175 CENTRAL STORT CROSSING PLANTING PLAN (5/5) REV 02 (Landscaping)
HNP495-GRA-SC-001 GILSTON RIVER CROSSING AND VILLAGE DEVELOPMENT ACCESSES PLANTING SCHEDULE REV 03 (Landscaping)
HNP495-GRA-SK-0011 CSC ECOLOGICAL COMPENSATION REV 03 (Landscaping)
EHUK-VEC-1XX-XX-TN-D-9001 B DRAINAGE STRATEGY REV B (Drainage)

Notes:

1. Your proposed works may require building control approval. Please contact Hertfordshire Building Control Ltd who will help you through the process. Please contact them on 0208 207 7456 or email building.control@hertfordshirebc.co.uk.
2. East Herts District Council would like to know what you think about our Planning Service process. We would be very grateful if you could complete the survey, by using this link <https://www.surveymonkey.co.uk/r/FQMRJR9>. There are only four questions to answer, so it will take no time at all. We want to improve our customer experience, so please take the time to let us know what you think.

Dated: 18th March 2022

On Behalf Of Development Management

Signed: 
Jenny Pierce

SEE ATTACHED NOTES

TOWN AND COUNTRY PLANNING ACT 1990
PLANNING (LISTED BUILDINGS & CONSERVATION AREAS) ACT 1990

Appeals to the Secretary of State

- If you are aggrieved by the decision of your local planning authority to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Secretary of State under section 78 of the Town and Country Planning Act 1990.
- As this is a decision on a planning application relating to the same or substantially the same land and development as is already the subject of an enforcement notice [reference], if you want to appeal against your local planning authority's decision on your application, then you must do so within 28 days of the date of this notice.*
- If an enforcement notice is served relating to the same or substantially the same land and development as in your application and if you want to appeal against your local planning authority's decision on your application, then you must do so within:
28 days of the date of service of the enforcement notice, or within 6 months [12 weeks in the case of a householder appeal] of the date of this notice, whichever period expires earlier.*
- As this is a decision to refuse planning permission for a householder application, if you want to appeal against your local planning authority's decision then you must do so within 12 weeks of the date of this notice.*
- As this is a decision to refuse planning permission for a minor commercial application, if you want to appeal against your local planning authority's decision then you must do so within 12 weeks of the date of this notice.*
- As this is a decision to refuse express consent for the display of an advertisement, if you want to appeal against your local planning authority's decision then you must do so within 8 weeks of the date of receipt of this notice.*
- If you want to appeal against your local planning authority's decision then you must do so within 6 months of the date of this notice.*
- Appeals can be made online at: <https://www.gov.uk/planning-inspectorate>.
If you are unable to access the online appeal form, please contact the Planning Inspectorate to obtain a paper copy of the appeal form on tel: 0303 444 5000.
- The Secretary of State can allow a longer period for giving notice of an appeal but will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.
- The Secretary of State need not consider an appeal if it seems to the Secretary of State that the local planning authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.
- If you intend to submit an appeal that you would like examined by inquiry then you must notify the Local Planning Authority and Planning Inspectorate (inquiryappeals@planninginspectorate.gov.uk) at least 10 days before submitting the appeal. [Further details are on GOV.UK](#).

Appeals under the Control of Advertisement Regulations

The same provision relating to rights of appeal against the Local Planning Authority's decision applies to advertisements with the following differences:

- Notice of appeal must be given in writing to the Secretary of State within 8 weeks from the date of this notice.
- The notice of appeal must be accompanied by a copy of the following documents:
 - (a) The application forms
 - (b) All relevant plans and particulars
 - (c) This notice of decision
 - (d) All other relevant correspondence with the Authority




The Secretary of State may require a statement of additional matters from either the applicant or the Local Planning Authority, and may with the agreement of both the applicant and the authority determine the appeal without affording an opportunity to appear before an Inspector.

Purchase Notices

- If either the Local Planning Authority or the First Secretary of State refuses permission to develop land or grants it subject to conditions, the owner may claim that he can neither put the land to a reasonably beneficial use in its

Development Management

➡ 01279 655261
➡ www.eastherts.gov.uk
➡ East Herts Council, Wallfields, Pegs Lane, Hertford, SG13 8EQ

 EastHertsDC
 EastHerts
 easthertscouncil



existing state nor render the land capable of a reasonably beneficial use by the carrying out of any development which has been or would be permitted.

- In these circumstances, the owner may serve a purchase notice on the Council in whose area the land is situated. This notice will require the Council to purchase his interest in the land in accordance with the provisions of Part VI of the Town and Country Planning Act 1990.

Compensation

- In certain circumstances compensation may be claimed from the Local Planning Authority if permission is refused or granted subject to conditions by the Secretary of State on appeal or on reference of the application to him.
- These circumstances are set out in Section 169 and related provisions of the Town and Country Planning Act 1971.

Application Ref: 3/19/1051/FUL

Philip Murphy
Quod
8-14 Meard Street
London
W1F 0EQ

Town and Country Planning Act 1990 (as amended)

DECISION NOTICE

Erection of a new road, pedestrian and cycle bridge; replacement of an existing rail bridge at River Way; alterations to the existing local highway network; lighting and landscaping works; listed building works to Fiddlers Brook Bridge; and other associated works.

Land To The South And East Of Gilston Village And North Of River Stort Gilston Hertfordshire/Harlow

In pursuance of their powers under the above mentioned Act and the Orders and Regulations for the time being in force thereunder, the Council hereby

Grant Planning Permission subject to Conditions

For the development proposed in your application received 20th May 2019 and registered on 12th June 2019 and shown on the approved plans.

Conditions:

1. Consistent Implementation of Permissions Across Local Planning Authority Boundaries:
No development shall commence until planning permissions are granted for the development as a whole, as detailed in planning applications reference 3/19/1051/FUL (East Herts District) and HW/CRB/19/00221 (Harlow District).

Reason: To ensure, for the development to perform its function, sections of the new roads and bridges must be constructed as a whole across local authority boundaries, such that the relevant phases of the development are capable of being built on both sides of the local authority boundary.

2. Approved Drawings and Documents:
Subject to any contrary details, drawings and timetables approved under any condition, the development shall be carried out in accordance with the approved drawings listed in the Decision Notice.

Reason: To restrict the development to that applied for and for which the environmental, transport and infrastructure impacts have been assessed, and to ensure that the development meets the policy standards required by the development plan and any other material considerations including national and local policy guidance.

3. Time Limit for Commencement:

The development hereby approved shall be begun within a period of five years commencing on the date of this notice.

Reason: To comply with the requirements of Section 91 of the Town and Country Planning Act 1990 and to ensure the timely implementation of the development.

4. Linking Implementation to the Outline:

The development hereby permitted shall not be commenced (save for Enabling Works) unless and until planning permission has been granted for the development pursuant to planning application no. 3/19/1045/OUT (Gilston Area Villages 1-6).

Reason: The harm to the Green Belt and other harms arising from the development are outweighed by the significant public benefit arising from its contribution towards a shift towards active and sustainable travel and by enabling delivery of the strategic growth in the Gilston Area (which includes the outline development at Villages 1-6 and Village 7) and the wider Harlow and Gilston Garden Town, both during the plan period and beyond 2033, in accordance with Policies GA1 'The Gilston Area' and GA2 'The River Stort Crossings' of the East Herts District Plan (2018) and Policies HGT1 'Development and Delivery of Garden Communities in the Harlow and Gilston Garden Town' and SIR1 'Infrastructure Requirements' of the Harlow Local Development Plan (2020).

5. Submission and approval of phasing plans and documents:

Prior to the commencement of the development hereby approved (save for Enabling Works), a Phasing Plan shall be submitted to and approved in writing by the Local Planning Authority. The Phasing Plan shall set out the details of the proposed sequence of development and the extent and location of individual development phases or sub-phases.

Once approved, the development shall be implemented in accordance with the approved Phasing Plan (or any subsequent revision thereof approved in writing by the Local Planning Authority).

Reason: To ensure proper management of the phasing of the development, compliance with essential pre-commencement conditions on the development and the provision of relevant mitigation at appropriate times throughout the development, in a way that does not prevent or unnecessarily hinder practical implementation, and in the interests of the amenity of occupiers and users of the site and in accordance with the requirements of Policies DEL1 'Infrastructure and Service Delivery' and DEL4 'Monitoring of the Gilston Area' of the East Herts District Plan (2018), and Policy IN2 'Impact of Development on the Highways Network Including Access and Servicing' of the Harlow Local Development Plan (2020).

6. Energy & Sustainability Strategy:

Prior to the commencement of any construction works (save for Enabling Works) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5) an Energy and Sustainability Strategy for that phase or sub-phase shall be submitted to and approved in writing by the Local Planning Authority.

The Strategy will include details of the measures to be implemented to minimise climate impacts arising from the development taking account of all levels of the energy hierarchy and consideration of the East Herts Sustainability Supplementary Planning Document and Harlow and Gilston Garden Town Sustainability Guidance.

The Energy and Sustainability Strategy will specifically address the following:

- a) How green infrastructure, urban greening and water management have been integrated;
- b) Reducing energy and carbon embodied in construction materials through re-use and recycling of existing materials where possible, and the use of sustainable materials and local sourcing where possible;
- c) Considering high quality innovative design, new technologies and construction techniques, including zero or low carbon energy/energy generation and water efficient, design and sustainable construction methods;
- d) Demonstration that energy and carbon reduction and sustainability has been considered in all stages of the commissioning, procurement, transportation and construction processes.

The phase or sub-phase of the development shall thereafter be implemented in accordance with the relevant approved Energy and Sustainability Strategy.

Reason: In order that the development appropriately mitigates and adapts to the impact of climate change, minimises the impact of pollution and reduces pressure on natural resources in accordance in accordance with Policy CC2 'Climate Change Mitigation' of the East Herts District Plan (2018) and Policy PL3 'Sustainable Design, Construction and Energy Usage' of the Harlow Local Development Plan (2020).

7. Materials:

Prior to the commencement of any above ground construction works (save for Enabling Works) on any phase or sub-phase of the site (as defined in plans and documents approved pursuant to Condition 5), the external materials of construction for the structures on that phase or sub-phase shall be submitted to and approved in writing by the Local Planning Authority. The development shall thereafter be carried out only using the approved materials.

Reason: In the interests of amenity and good design in accordance with Policy DES4 'Design of Development' of the East Herts District Plan (2018) and Policies PL1 'Design Principles for Development' and PL2 'Amenity Principles for Development' of the Harlow Local Development Plan (2020).

8. Levels:

Prior to the commencement of construction works (save for Enabling Works) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5) detailed plans showing the existing and proposed ground levels for that phase or sub-phase of the site relative to adjoining land, shall be submitted to, and approved in writing by the Local Planning Authority and the development shall be carried out in accordance with the approved details.

Reason: To ensure that the development is properly related to the levels of adjoining development in the interests of neighbour amenity and good design in accordance with Policy DES4 'Design of Development' of the East Herts District Plan (2018) and Policies PL1 'Design Principles for Development' and PL2 'Amenity Principles for Development' of the Harlow Local Development Plan (2020).

9. Details of river / canal crossings and related structures (in respect of management of water course related environmental issues):

Prior to the commencement of construction works (save for Enabling Works) for each relevant phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), full details of any vehicular or pedestrian river crossings or underpasses on main rivers, or other relevant works (e.g. realignment of a watercourse), informed by a detailed Water Framework Directive assessment, for that phase or sub-phase shall be submitted to, and approved in writing by, the Local Planning Authority.

This should include (as relevant to that phase of the development):

- a) Detailed plans, long-sections and cross-sections of the road or pedestrian crossing/underpass structure or other relevant works, and its relationship to the main river channel and corridor, with specific provision for the diversion of Pole Hole Brook, potential realignment of Fiddlers Brook at Fiddlers Bridge and the new pedestrian bridge between Pye Corner and Terlings Park;
- b) A minimum of an 8 metre unobstructed buffer zone is maintained around main rivers for access and biodiversity, except adjacent to structures (as shown on the approved plans in Condition 2). Any reduction must demonstrate how any impacts on flood risk, water quality or biodiversity are to be mitigated or compensated for, taking into account the Water Framework Directive and be agreed in writing with the Local Planning Authority.

The development shall be fully implemented and subsequently maintained, in accordance with the details approved or with any amendments as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To ensure compliance with the Water Framework Directive and the protection of wildlife and supporting habitat and to secure opportunities for enhancing the site's nature conservation value. This approach is supported by paragraphs 174 and 180 of the NPPF 2021 and Policy WAT3 'Water Quality and Water Environment' of the East Herts District Plan 2018, and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

10. Details of Stort Navigation (canal) crossing and related structures (in respect of management of the navigable water way and its amenities):

Prior to the commencement of any phase or sub-phase of the development (save for Enabling Works) related to the Stort Navigation canal road bridge (as defined in plans and documents approved pursuant to Condition 5), full details of the following shall be submitted to and approved in writing by the local planning authority;

- a) Details of materials and finishes to be used in the construction of the canal road bridge abutments, beams, deck and parapets;
- b) Details of vehicle and pedestrian restraint systems;
- c) A lighting strategy for the towpath tunnel which demonstrates how a balance can be achieved between ensuring safety for vehicles, pedestrians, cyclists and users of the highway whilst also ensuring that the proposals would not cause an unacceptable impact on amenity, biodiversity or landscape and visual effects;
- d) A maintenance strategy in relation to the above.

The canal road bridge shall thereafter be implemented in accordance with the approved details prior to its first use.

Reason: To ensure the proposals have no adverse impact on highway safety, amenity or the character, appearance and biodiversity of the Stort Navigation (canal) or the use of its towpath and in accordance with policies TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation', NE3 'Species and Habitats', EQ3 'Light Pollution', CFLR3 'Public Rights of Way', CFLR4 'Water Based Recreation' and WAT3 'Water Quality and the Water Environment' of the East Herts District Plan (2018) and Policies WE1 'Strategic Green Infrastructure', WE3 'General Strategy for Biodiversity and Geodiversity', PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems', PL1 'Design Principles for Development', PL2 'Amenity Principles for Development', PL8 'Green Infrastructure and Landscaping', PL9 'Biodiversity and Geodiversity Assets', PL10 'Pollution and Contamination', and IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan (2020).

11. Lighting Strategy:

Prior to the commencement of construction works (save for Enabling Works) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Lighting Strategy for that phase or sub-phase shall have regard to inclusive design, the safety and needs of diverse and / or vulnerable users of the Pedestrian and Cycle routes, including under bridges as applicable, and shall be submitted to and approved in writing by the Local Planning Authority.

The Strategy shall include the following details as a minimum:

- a) Details of the proposed location(s) of all lighting to be installed.
- b) Details of the make and model of the proposed lighting.
- c) A LUX plan demonstrating the light spill from the proposed lighting.
- d) A timetable for provision.
- e) An operation and maintenance plan.

The strategy shall demonstrate how a balance can be achieved between ensuring safety for pedestrians, cyclists and users of the highway whilst also ensuring that the lighting proposals would not cause an unacceptable impact on amenity, biodiversity or landscape and visual effects.

The strategy shall demonstrate how consideration has been given to new and alternative technologies and innovative approaches to securing appropriate levels of light and reduction of energy consumption.

The approved lighting strategy shall thereafter be implemented in accordance with the approved details.

Reason: In the interests of highway safety, the river environment, its users and its biodiversity and in accordance with policies TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation', NE3 'Species and Habitats', EQ3 'Light Pollution', CFLR3 'Public Rights of Way', CFLR4 'Water Based Recreation' CC2 'Climate Change Mitigation', CC3 'Renewable and Low Carbon Energy' and WAT3 'Water Quality and the Water Environment' of the East Herts District Plan (2018) and Policies WE1 'Strategic Green Infrastructure', WE3 'General Strategy for Biodiversity and Geodiversity', PL11 'Water

Quality, Water Management, Flooding and Sustainable Drainage Systems', PL1 'Design Principles for Development', PL2 'Amenity Principles for Development', 'PL3 Sustainable Design, Construction and Energy Usage', PL8 'Green Infrastructure and Landscaping', PL9 'Biodiversity and Geodiversity Assets', PL10 'Pollution and Contamination' and IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan (2020).

12. Terlings Park and Stort Valley Noise Mitigation - East Herts Council only:
Prior to the commencement of construction works (save for Enabling Works) on Road 1 of the development (as defined in plans and documents approved pursuant to Condition 5), full details of the following shall be submitted to and approved in writing by the local planning authority in consultation with the local highway authority:
- a) For Road 1, a detailed noise attenuation scheme based on Drawings HNP495-GRA-X-XX- DR-L-5122 Rev 11 (Eastern Stort Crossing (Western Spur) Planting Plan 2/3); and HNP495-GRA-X-XX- DR-L-5309 Rev 04 (Eastern Stort Crossing Planting Section), but including low noise road surfacing;
 - b) For Road 3, demonstration that the proposed vehicle restraint barrier and/ or low noise road surfacing will be of a specification suitable for achieving noise attenuation within the Stort Valley;
 - c) A programme of regular noise monitoring of sensitive receptors including a methodology and a timetable of monitoring and submission of reports to the Local Planning Authority.

The approved scheme noise attenuation scheme shall thereafter be implemented in accordance with the approved scheme prior to first public use of the relevant phase of the development.

Reason: To protect residential amenities in this location in accordance with policy EQ2 'Noise Pollution' of the East Herts District Plan (2018) and PL10 'Pollution and Contamination' of the Harlow local Development Plan (2020).

13. Construction Environment Management (CEMP)
Prior to the commencement of construction works (save for Enabling Works, but excluding site clearance, demolition and tree removal) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a detailed Construction Environmental Management Plan (CEMP) for that phase or sub-phase of the development shall be submitted to and approved in writing by the Local Planning Authority.

CEMPs shall include the following as a minimum:

- a) Updated Code of Construction Practice;
- b) The construction programme and phasing;
- c) Hours of operation and delivery of materials;
- d) Details of any highway works necessary to enable construction to take place, including access;
- e) Where relevant to the phase or sub-phase of the development that involves the demolition of and construction of the River Way Road Bridge, demonstration that satisfactory alternative pedestrian and vehicular access arrangements are approved and secured;
- f) Parking and loading arrangements;

- g) Emergency planning response including fire prevention and control and worker welfare
- h) Bird Hazard Management Plan to mitigate risks to highway and aerodrome safety caused by the hazard from birds attracted to the site during construction;
- i) Details of site compound: location relative to the ESC site, lighting, hoarding, security, parking, material storage areas, and utilities, including measures taken to utilise renewable energy sources and to reduce energy consumption;
- j) Implementation of an Air Quality Dust Management Plan, incorporating measures for the control of dust and dirt on the public highway including siting and details of wheel washing facilities, cleaning of site entrances, site tracks and the adjacent public highway;
- k) Details of consultation and complaint management with local businesses and neighbours including contact details;
- l) Waste management proposals;
- m) Mechanisms to deal with environmental and heritage impacts such as noise and vibration, air quality and dust, light and odour, including pollution incident response processes; and
- n) Surface water management plan during construction;
- o) Demonstrate how the CEMP for that phase has been cognisant of the CEMP(s) for prior phases.

All works shall be carried out in accordance with the approved relevant CEMP thereafter, or with any amendments as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: In the interests of amenity and to limit and control environmental impacts in accordance with policies TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation', DES4, 'Design of Development', EQ2 'Noise Pollution', EQ4 'Air Quality', WAT1 'Flood Risk Management', WAT2 'Source Protection Zones' and WAT3 'Water Quality and the Water Environment' of the adopted East of the East Herts District Plan (2018) and Policies PL2 'Amenity Principles for Development', PL10 'Pollution and Contamination', PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' and IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan (2020).

14. Construction Traffic Management Plan (CTMP):
Prior to the commencement of construction works (save for Enabling Works, but excluding site clearance, demolition and tree/ vegetation removal) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Construction Traffic Management Plan (CTMP) for that phase or sub-phase shall be submitted to and approved in writing by the Local Planning Authority.
CTMPs shall include the following details as a minimum:
- a) Construction vehicle numbers, type, routing;
 - b) Access arrangements to the site;
 - c) Traffic management requirements;
 - d) Delivery and unloading arrangements;
 - e) A construction travel plan to include site operatives and other on-site personnel

- f) Timing of construction activities (including delivery times and removal of waste) and to avoid school pick up/drop off times;
- g) Provision of sufficient on-site/ compound parking prior to commencement of construction activities;
- h) Post construction restoration/reinstatement of the working areas and temporary access to the public highway;
- i) Where works cannot be contained wholly within the site a plan should be submitted showing the site layout on the highway including extent of hoarding, pedestrian routes and remaining road width for vehicle movements.
- j) Measures to be taken to seek approval from the highway authority that the highway extent has been marked out accurately prior to construction.
- k) Demonstrate how the CTMP for that phase has been cognisant of the CTMP(s) for prior phases.

Thereafter, the construction of the development shall only be carried out in accordance with the approved CTMP, or with any amendments as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To protect highway safety and the amenity of users of the public highway and rights of way in accordance with policies TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation', DES4 'Design of Development', EQ2 'Noise Pollution', EQ4 'Air Quality', WAT1 'Flood Risk Management', WAT2 'Source Protection Zones' and WAT3 'Water Quality and the Water Environment' of the adopted East of the East Herts District Plan 2018 and Policies PL1 'Design Principles for Development', PL2 'Amenity Principles for Development', PL10 'Pollution and Contamination', PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' and IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan 2020, as well as relevant Highway Authority policies.

15. Construction Landscape and Ecological Management Plan (CLEMP):
Prior to the commencement of any construction works (save for Enabling Works, but excluding site clearance, demolition and tree/vegetation removal) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Construction Landscape and Ecological Management Plan (CLEMP) for that phase or sub-phase of the development shall be submitted to and approved in writing by the Local Planning Authority.

CLEMPs shall include the following details as a minimum:

- a) Measures taken to minimise impacts on the landscape and landscape character during construction
- b) Description and evaluation of features to be managed, including bat commuting routes and other ecologically sensitive areas or species, trees, hedgerows, woodlands, watercourses and other existing environmental features on-site and off-site
- c) Measures to be taken to protect and manage the features identified above during the construction process, including pre-construction checks, construction methodology, and watching briefs/Ecological Clerk of Works
- d) Details of the body or organisation responsible for implementation of the CLEMP and timetables for implementation
- e) Details of ongoing monitoring (including timetables) and details of how and when any remedial action will be identified, agreed and implemented
- f) Demonstrate how the CLEMP for that phase has been cognisant of the CLEMP(s) for prior phases.

Thereafter, the construction of the development shall only be carried out in accordance with the approved CLEMP, or with any amendments as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To secure the protection of existing landscape features and habitats of ecological interest and protected species in accordance with Policies NE1 'International, National and Locally Designated Nature Conservation Sites', and NE3 'Species and Habitats' of the East Herts District Plan (2018) and Policies WE3 'General Strategy for Biodiversity and PL9 'Biodiversity and Geodiversity Assets', of the Harlow Local Development Plan (2020).

16. Implementation of Floodplain Compensation Measures:

The development hereby permitted shall be carried out in complete accordance with the submitted Highways Drainage Strategy and Drawing VD17516-EC-STR-045 P02 and the following measures they detail:

a) Compensatory storage shall be provided by lowering the existing ground below the footprint of the Eastern Crossing culverts in accordance with drawing VD17516-EC-STR-045 P02 and the Highways Drainage Strategy Technical Note (Chapter 8, bullet point 5). A compensation area of 1,455m³ will be provided. These measures shall be fully implemented in accordance with the scheme's timing/phasing arrangements.

The measures detailed above shall be retained thereafter throughout the lifetime of the development.

Reason: To reduce the risk of flooding to the proposed development and future occupants and prevent flooding elsewhere by ensuring that compensatory storage of flood water is provided in accordance with Policy WAT1 'Flood Risk Management' of the East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

17. Water Framework Directive Mitigation and Enhancement Strategy:

No phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), shall take place until a Water Framework Directive Mitigation and Enhancement Strategy for that phase or sub-phase has been submitted to, and approved in writing by, the Local Planning Authority.

The strategy for that phase or sub-phase shall be carried out as approved and any subsequent variations shall be agreed in writing by the Local Planning Authority.

The scheme shall include the following elements as relevant to that phase or sub-phase:

- a) Evidence that the development will cause no deterioration of waterbody status, nor prevent future improvement to the waterbody, nor contribute to cumulative deterioration of the River Stort and Stort Navigation, Fiddlers' Brook and their associated tributaries (e.g. Pole Hole Brook) using up to date Water Framework Directive classification data;
- b) Long-term objectives, management responsibilities and maintenance schedules;

- c) Update the existing scour assessment in the current Water Framework Directive assessment to confirm impacts and mitigation requirements (if additional mitigation needed) for the final design;
- d) Details of any proposed enhancements to watercourses and their corridors to support improving overall Water Framework Directive status (with reference to the approved Species and Habitat Protection and Enhancement Plan);
- e) Consider the options and feasibility of modifications to the existing Fiddlers Brook culvert under Eastwick Road at Pye Corner, and the potential to increase its diameter for environmental benefit, taking into account flood risk impacts, other environmental constraints, as well as the cost implication and engineering constraints.

Reason: To ensure compliance with the Water Framework Directive and the protection and enhancement of biodiversity in accordance with Policy WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

18. Risk Assessment & Method Statement:

Prior to the commencement of any construction works (save for Enabling Works) for each phase or sub-phase of the development that involves works adjacent to the Stort Navigation (canal) (as defined in plans and documents approved Pursuant to Condition 5), a risk assessment and method statement outlining all works to be carried out adjacent to or affecting (directly or indirectly) the Stort Navigation (canal) in that phase or sub-phase must be submitted to, and approved in writing, by the Local Planning Authority.

The submitted details will include an assessment of any works to the banks of the River Stort Navigation and any works that may increase loading on the canal infrastructure.

Development shall thereafter be carried out in accordance with the approved risk assessment and method statements relevant to that phase or sub-phase.

Reason: To ensure that the works have no adverse impact on the structural integrity of the river walls and towpath. Information should be provided prior to commencement as impacts on the canal corridor may occur during the initial demolition and construction phases. In the interests of users of the Stort Navigation and the water environment in accordance with WAT3 'Water Quality and the Water Environment' of the East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems', of the Harlow Local Development Plan (2020).

19. Land, Air & Water Contamination Investigation & Remediation:

Prior to the commencement of any construction works (save for Enabling Works) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), an Investigation and Remediation Strategy to deal with the risks associated with the contamination of land, air and water relevant to that phase or sub-phase shall be submitted to, and approved in writing by, the Local Planning Authority.

The investigation and remediation strategy shall include the following elements:

- a) A site investigation scheme, based on the preliminary risk assessment/desk studies, to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off-site;

- b) The results of the site investigation and the detailed risk assessment referred to in a) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how and when they are to be undertaken;
- c) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in b) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

The Remediation Strategies shall thereafter be implemented in complete accordance with the approved details.

Reason: To ensure that the development does not contribute to and is not put at unacceptable risk from, or adversely affected by, unacceptable levels of land, air or water pollution in accordance with Policies EQ1 'Contaminated Land and Land Instability' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

20. Land, Air & Water Contamination Verification Report:
Prior to the completion of each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Verification Report demonstrating the completion of works set out in the approved remediation strategy and the effectiveness of the remediation for that phase or sub-phase shall be submitted to, and approved in writing, by the Local Planning Authority.

The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met.

Reason: To ensure that the site does not pose any further risk to human health or the water environment by demonstrating that the requirements of the approved investigation and remediation strategy and its remediation criteria have been met and that remediation of the site is complete in accordance with Policies EQ1 'Contaminated Land and Land Instability' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

21. Contamination Monitoring and Maintenance Plan:
Prior to the commencement of any construction works (save for Enabling Works) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Monitoring and Maintenance plan for that phase or sub-phase in respect of land, air and water contamination, including a timetable of monitoring and submission of reports to the Local Planning Authority has been submitted to and approved in writing by, the Local Planning Authority.

The Monitoring and Maintenance Plan shall cover the period of construction of that phase or sub-phase plus a period of six months, and shall be cognisant of prior phases or sub-phases.

The Monitoring and Maintenance Plan shall thereafter be fully implemented and complied with in accordance with the approved details.

REASON: To ensure that the site does not pose any further risk to human health or the water environment by demonstrating that the requirements of the approved monitoring and maintenance plan have been met in accordance with Policies EQ1 'Contaminated Land and Land Instability' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

22. Unsuspected Contamination:

If, during site investigation works and/or development, contamination not previously identified is found to be present at the site then all works in that phase or sub-phase must immediately cease and no further development shall be carried out in that phase or sub-phase until a remediation strategy detailing how this contamination will be dealt with has been submitted to, and approved in writing by, the Local Planning Authority without delay.

The remediation strategy shall thereafter be implemented in accordance with the approved details.

Reason: To ensure that the development does not contribute to and is not put at unacceptable risk from or adversely affected by unacceptable levels of land or water pollution from previously unidentified contamination sources at the development site. No site investigation can fully characterise a site. This approach is in accordance with Policies EQ1 'Contaminated Land and Land Instability' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

23. Site Waste Management Plan:

Prior to the commencement of any demolition or construction works (save for Enabling Works, but excluding demolition), for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Site Waste Management Plan (SWMP) for that phase or sub-phase shall be submitted to and approved in writing by the Local Planning Authority.

The Site Waste Management Plan shall set out the following:

- a) Details of waste arising during both the site preparation, demolition and construction phases- type and estimated volume;
- b) Confirmation that opportunities to reuse waste generated by the site are maximised;
- c) where residual waste is to be disposed from the site, details shall be provided as to the volumes, type and timing of waste disposal from the site;
- d) Where waste is being transported to, together with details of the waste carrier;

Demolition and construction shall take place in accordance with the relevant approved Site Waste Management Plan for that phase or sub-phase.

Reason: In order to minimise waste and ensure most sustainable disposal in accordance with Policy CC2 'Climate Change Mitigation' of the East Herts District Plan (2018) and Policy PL3 'Sustainable Design, Construction and Energy Usage' of the Harlow Local Development Plan (2020).

24. Infiltration Drainage:

No drainage systems for the infiltration of surface water to the ground are permitted other than with the written consent of the Local Planning Authority. Any proposals for such systems must be supported by an assessment of the risks to controlled waters. The development shall be carried out in accordance with the approved details.

Reason: This condition relates to where contamination is present and may be mobilised due to the infiltration of surface water or where contaminated surface water may result in an input of contaminants to groundwater. To ensure that the development does not contribute to, and is not put at unacceptable risk from or adversely affected by, unacceptable levels of water pollution caused by mobilised contaminants. This approach is in accordance with Policies EQ1 'Contaminated Land and Land Instability' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

25. Piling/Deep Foundations Method Statement:

No piling, deep foundations or other intrusive groundworks (investigation boreholes/tunnel shafts/ground source heating and cooling systems) using penetrative methods shall be undertaken until a Piling/ Deep Foundation Method Statement has first been submitted to and approved in writing by the Local Planning Authority in consultation with potentially affected parties responsible for sub-surface infrastructure.

The Statement shall include an assessment of impacts on noise, vibration, land stability, ground water levels, underground pipes and other infrastructure as well as details of the measures to be taken to mitigate any adverse effects.

The groundworks shall thereafter be carried out in accordance with the approved details.

REASON: To ensure that the proposed Piling, deep foundations or other intrusive groundworks (investigation boreholes/tunnel shafts/ground source heating and cooling systems) do not harm groundwater resources, damage essential infrastructure and do not have an adverse impact on the local amenity in accordance with Policies EQ1 'Contaminated Land and Land Instability', EQ2 'Noise Pollution' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

26. Scheme for Managing Borehole Investigation:

Prior to commencement of any phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), that involves the installation of, or use of, existing boreholes, a scheme for managing any borehole installed for the investigation of

soils, groundwater or geotechnical purposes shall be submitted to and approved in writing by the Local Planning Authority.

The scheme shall provide details of how redundant boreholes are to be decommissioned and how any boreholes that need to be retained, post-development, for monitoring purposes will be secured, protected and inspected.

The scheme as approved shall be implemented prior to the operational use of each phase or sub-phase of development and no boreholes should be decommissioned until it has been agreed in writing that they are no longer required.

Reason: To ensure that a sufficient monitoring network is maintained to allow for the completion of any monitoring required and to ensure that redundant boreholes are safe and secure, and do not cause groundwater pollution or loss of water supplies in accordance with Policy WAT3 'Water Quality and Water Environment' of East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

27. Implementation of Drainage Strategy:

The development hereby approved shall be carried out in accordance with the principles of the approved Drainage Strategy (Reference number: EHUK-VEC-1XX-XX—TN-D-9001 B) and shall include and follow the mitigation details identified for each drainage catchment including:

- a) Specification to demonstrate and follow an appropriate Sustainable Drainage System (SuDS) management and treatment train.
- b) Prioritise on-surface conveyance features.
- c) Provision of biodiversity enhancement within SuDS provision.
- d) Provision of drainage catchments as per the agreed characteristic below - or such discharge rates and storage volumes agreed with the Local Planning Authority following detailed design:
 - o Catchment E1 - limiting the surface water runoff generated by the critical storm events to the maximum of 11.5 l/s for the 1 in 30 year event providing a minimum of 610m³ of storage.
 - o Catchment E2 - limiting the surface water runoff generated by the critical storm events to the maximum of 7.9 l/s for the 1 in 30 year event providing a minimum of 416m³ of storage.
 - o Catchment E3 - limiting the surface water runoff generated by the critical storm events to the maximum of 10.6 l/s for the 1 in 30 year event providing a minimum of 556m³ of storage.
 - o Catchment E4 - limiting the surface water runoff generated by the critical storm events to the maximum of 8.7 l/s for the 1 in 30 year event providing a minimum of 412m³ of storage.
 - o Catchment E5 - limiting the surface water runoff generated by the critical storm events to the maximum of 5 l/s for the 1 in 30 year event providing a minimum of 230m³ of storage.
 - o Catchment Road 2 - limiting the surface water runoff generated by the critical storm events to the maximum of 14.2 l/s for the 1 in 30 year event providing a minimum of 749m³ of storage.

o Catchment Eastwick Road - limiting the surface water runoff generated by the critical storm events to the maximum of 5 l/s for the 1 in 30 year event providing a minimum of 25m³ of storage.

The mitigation measures shall be fully implemented prior to operational use of the development and subsequently in accordance with the timing / phasing arrangements embodied within the scheme, or within any other period as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To ensure the development appropriately addresses climate change and the risk of flooding, to ensure satisfactory storage of and disposal of surface water from the entire strategic drainage network, to improve and protect water quality and to protect natural habitats in accordance with Policy WAT3 'Water Quality and Water Environment' of East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

28. Detailed Surface Water Drainage Scheme:

Prior to the commencement of each phase or sub-phase of the development (save for Enabling Works) (as defined in plans and documents approved pursuant to Condition 5), a Detailed Surface Water Drainage Scheme for that phase or sub-phase, or for the whole affected catchment based on the approved Drainage Strategy and sustainable drainage principles, shall be submitted to and approved in writing by the Local Planning Authority in consultation with Hertfordshire County Council/ Essex County Council as Lead Local Flood Authorities.

The Scheme shall accord with the approved SuDS principles and shall include the following details as relevant to that phase or sub-phase:

- a) Demonstration of an appropriate, final and detailed SuDS management and treatment train for each outfall.
- b) Information on ground conditions, including desk-based assessment, exploratory hole logs, in-situ test data, including infiltration tests undertaken in accordance with the BRE 365 testing procedure and, records of groundwater level monitoring, undertaken for a minimum period of 6 months over the autumn/winter period.
- c) Verification of the suitability of infiltration of surface water for the development.
- d) Any existing drainage network within the extents of the planning application boundary, into which new highway runoff is being discharged, shall be checked to be functional/operational and the highway authority to be advised of existing blockages which need maintenance to repair. Additional attenuation storage shall be provided if identified as required, to reflect any net increases in runoff quantities being discharged into the existing networks, to avoid downstream flooding.
- e) Detailed plan showing the finalised drainage catchment areas.
- f) Full, detailed modelling for the strategic network to demonstrate how the system operates during up to and including the 1 in 1 year, the 1 in 30 year and the 1 in 100 year rainfall event including 40% allowance for climate change. Primarily surface water storage to be provided for up to and including the 1 in 30 year rainfall event.
- g) Full detailed engineering drawings of any SuDS, surface water storage or conveyance feature including cross and long sections, location, size, volume, depth and

any inlet and outlet features. This should be supported by a clearly labelled, detailed drainage layout plan showing any SuDS and pipe networks. The plan should show any pipe 'node numbers' that have been referred to in network calculations and it should also show invert and cover levels of manholes. Total storage volumes provided within each catchment should be identified.

- h) Identification of opportunities to address existing surface water flooding in the immediate vicinity of the development site, within the extents of the red line planning application boundary.
- i) Detailed topographical surveys of the site and any existing watercourses.
- j) A Catchment Walkover of receiving watercourses shall be undertaken including topographical survey, details of water levels, and the location of existing structures that may constrain flows along watercourses receiving surface water runoff from the development, to ensure that there is sufficient capacity to accommodate future changes in flows.
- k) Full condition survey of all existing structures on all watercourse networks impacted by the proposed development or located within the development site.
- l) Full details of connection points to ordinary watercourses and main rivers, including cross sections and long sections drawings of any new proposed structures.
- m) Details of final exceedance routes above the designed 1 in 30 year return period, also including those for an event which exceeds to 1:100 rainfall event including climate change event.
- n) A management and maintenance plan including maintenance and operational activities. This should include land ownership plans with identified operators responsible for any future maintenance for the lifetime of the development.
- o) Phasing plan for the provision of SuDS and drainage infrastructure within each drainage catchment.
- p) Final, detailed planting plans for all proposed SuDS features and its surrounding area.
- q) Assessment of all works impacting on any existing ordinary watercourses and identification with acknowledgement of any needed ordinary watercourse consents.
- r) Demonstrate that all storage features can half empty within 24 hours for the 1 in 30 year plus 40% climate change critical storm event.
- s) The appropriate level of treatment for all runoff leaving the site, in line with the Simple Index Approach in chapter 26 of the CIRIA SuDS Manual C753 and Highways England Water Risk Assessment Tool (HEWRAT).
- t) A written report summarising the final strategy and highlighting any minor changes to the approved strategy.

The surface water drainage network shall be designed and fully implemented in accordance with the details and phasing plan thus approved.

Reason: To prevent flooding by ensuring the satisfactory storage of / disposal of surface water from the site; to ensure the effective operation of SuDS features over the lifetime of the development; and to provide mitigation of any environmental harm which may be caused to the local water environment. Failure to provide the above required information before commencement of works may result in a system being installed that is not sufficient to deal with surface water occurring during rainfall events and may lead to increased risk and pollution hazard from the site. This is in accordance with Policy WAT3 'Water Quality and Water Environment' of East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

Within three months of completion of SuDS works for each phase or sub-phase (as defined in plans and documents approved pursuant to Condition 5), or for a defined catchment relevant to the development, a final Completion and Verification Report for that phase or sub-phase or catchment shall be submitted to, and approved in writing by the Local Planning Authority in consultation with Hertfordshire County Council/ Essex County Council as Lead Local Flood Authorities.

The Completion and Verification Report shall include the following details:

- a) Provision of a Completion and Verification Report appended with substantiating evidence demonstrating the approved construction details and specifications for the SuDS features and drainage network have been implemented in accordance with the surface water drainage scheme. The verification report shall include photographs of excavations and soil profiles/horizons, installation of any surface water structure, during construction and final make up, and the control mechanism.
- b) Provision of a complete set of as built drawings for site drainage.
- c) Post-construction surveys including a CCTV survey for any underground features and piped networks.
- d) A management and maintenance plan for the SuDS features and drainage network, which should include details of the maintenance activities/ frequencies for each feature.
- e) Final arrangements for adoption with identified operators responsible for future maintenance and any other measures to secure the operation of the scheme throughout its lifetime.

Reason: To ensure approved drainage measures are fully implemented and appropriate maintenance arrangements are put in place to enable the surface water drainage system to function as intended to ensure mitigation against flood risk. Failure to provide the above required information prior to occupation may result in the installation of a system that is incomplete and / or not properly maintained and may increase flood risk or pollution hazard from the site. This is in accordance with Policy WAT3 'Water Quality and Water Environment' of East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

30. Tree and Hedge Removal:
Until the end of five years following completion of each phase of the development (as defined in plans and documents approved pursuant to Condition 5), all existing trees and hedges which are shown on the approved drawings as being retained, shall be retained and shall not be damaged, cut down, uprooted or destroyed without the prior consent of the Local Planning Authority.

Reason: To ensure the continuity of amenity afforded by existing trees and hedges, in accordance with Policy DES3 'Landscaping' of the East Herts District Plan (2018) and Policy PL7 'Trees and Hedgerows' of the Harlow Local Development Plan (2020).

31. Tree and Hedge Protection Measures:
No phase or sub-phase of development (as defined in plans and documents approved pursuant to Condition 5) shall commence until full details of the tree and hedge protection

measures in respect of that phase or sub-phase have been submitted to, and approved in writing by, the Local Planning Authority and until the approved protection has been erected on site.

Protection measures shall be in accordance with BS5837: 2012 Trees in Relation to Design, Demolition and Construction, and be in place for the duration of the works on site. In the event that trees or hedging die, become damaged or otherwise defective within five years of completion of development within that phase or sub-phase, the Local Planning Authority shall be notified as soon as reasonably practicable, and remedial action agreed and implemented. The agreed remediation strategy and associated planting shall be undertaken during the first available planting season.

Reason: To ensure the continuity of amenity afforded by existing trees and hedges, in accordance with Policy DES3 'Landscaping' of the East Herts District Plan (2018) and Policy PL7 'Trees and Hedgerows' of the Harlow Local Development Plan (2020).

32. Landscaping Strategy and Management and Maintenance Plan:

Prior to the first public use of any phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a detailed hard and soft Landscaping Strategy for that phase or sub-phase shall be submitted to and approved by the Local Planning Authority, in consultation with the Highway Authority.

The Landscaping Strategy shall include as a minimum the following details:

- a) Planting schedule to show species, sizes, number and densities;
- b) Planting plans to show the location of proposed planting, based on the approved landscaping drawings but informed by a consideration of the screening properties of the proposed planting;
- c) Written specifications to demonstrate cultivation and other operations associated with the establishment of grassland and planting;
- d) Details of hard landscaping proposals including surface treatment of SuDS maintenance access routes, fencing, gates, benches, lighting, bins and other structures;
- e) Details of signage and wayfinding;
- f) Details of any proposed Public Art;
- g) Implementation timetables;
- h) Landscape Management and Maintenance Plan;
- i) Demonstration how the Landscape Strategy for that phase or sub-phase has been cognisant of the Landscape Strategies for prior phases.

The development shall be carried out in accordance with the approved Landscaping Scheme and the approved timetable and Landscape Management and Maintenance Plan.

Any trees or plants that, within a period of five years after planting, are removed, die or become, in the opinion of the Local Planning Authority, in consultation with the Highway Authority, seriously damaged or defective, shall be replaced as soon as is reasonably practicable with others of species, size and number as originally approved, unless the Local Planning Authority gives its written consent to any variation

Reason: In order to provide green infrastructure and landscaping in accordance with Policies NE4 'Green Infrastructure' and DES3 'Landscaping' of the East Herts District Plan (2018); and Policy SIR 2 'Enhancing Key Gateway locations' and Policy 'PL8 Green Infrastructure and Landscaping' of the Harlow Local Development Plan (2020).

33. Legally Protected Species and Habitat Protection and Enhancement Plan:
No phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5) shall commence (save for Enabling Works, but excluding site clearance, demolition and tree/ vegetation removal), until a Species and Habitat Protection and Enhancement Plan for that phase or sub-phase has been submitted to and approved in writing by the Local Planning Authority.

The Species and Habitat Protection and Enhancement Plan shall detail measures to mitigate and/or compensate damages to protected and notable species (under The Wildlife and Countryside Act 1981) and their associated habitat.

The Species and Habitat Protection and Enhancement Plan must be based on up-to-date surveys and consider the whole duration of that phase or sub-phase of the development, from the construction phase through to completion.

The plan shall include the following (as far as is relevant to that phase or sub-phase):

- a) Up-to-date ecological surveys conducted by a suitably qualified ecologist, at the appropriate time of year;
- b) Details and drawings of the road crossings and culverts, including how they will interact with the watercourses (e.g. abutments, buffer zones, shading, lighting);
- c) Details of how the development will mitigate and compensate for any impacts it may have on protected species and their associated habitats and habitat corridors including floodplain restoration and how it will enhance habitats and corridors;
- d) Details of improvements to watercourse riparian corridors and river channels;
- e) Measures to be taken to ensure the safe movement of terrestrial mammals through/ beneath the structures;
- f) Measures to be taken to provide bird and bat nesting and roosting sites on or around elevated structures;
- g) Measures to be taken to avoid disturbance to landscaping and habitats adjacent to pedestrian/cycle routes;
- h) Demonstration of how the above measures contribute towards biodiversity gain based on an up to date biodiversity net gain metric or alternative methodology as agreed by the Local Planning Authority;
- i) Description and evaluation of any features to be managed;
- j) Any specific ecological trends and constraints on the site that might influence management;
- k) Aims, objectives, actions and methods to ensure effective management;
- l) Preparation of a works schedule including an annual work plan capable of being rolled forward every 5 years;
- m) Details of ongoing management, maintenance, monitoring and remedial measures;
- n) A programme for implementation;
- o) Details of the body or organisation responsible for implementation and management of the plan;
- p) A scheme for the long-term funding and management mechanisms by which implementation, long term management and protection of these species and habitats will be secured.

The development shall be carried out in accordance with the approved details and the plan shall be implemented and the site managed in accordance with the approved details.

Reason: In order to provide an up to date baseline of biodiversity information and to ensure biodiversity is protected as far as possible and habitats are created and enhanced in accordance with Policies NE3 'Species and Habitats' and WAT3 'Water Quality and the Water Environment' of the East Herts District Plan (2018) and Policies WE3 'General Strategy for Biodiversity and Geodiversity' PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems', and PL9 'Biodiversity and Geodiversity Assets' of the Harlow Local Development Plan (2020).

34. Habitat Compensation Ecological Management Plan - On-Site:

Prior to the commencement of any phase of the development (as defined in plans and documents approved pursuant to Condition 5) that results in the loss of habitat in the Fiddlers' Brook Marsh/Hollingson Meads Local Wildlife Site, and the Hollingson Meads area, a Habitat Compensation Ecological Management Plan shall be submitted to and approved in writing by the Local Planning Authority setting out how 0.82 Ha of compensatory habitat will be provided within the area of land identified on Drawing HNP495-GRA-SK-0010 Rev 01 - ESC Ecological Compensation or such other area of land agreed with the Local Planning Authority.

The Plan shall include the following:

- a) Details of how the development will mitigate and compensate for any impacts it may have on protected species and their associated habitats and habitat corridors including floodplain restoration and how it will enhance habitats and corridors;
- b) Demonstration of how the above measures contribute towards achieving a biodiversity net gain based on an up to date biodiversity metric or alternative methodology as agreed by the Local Planning Authority;
- c) Description and evaluation of any features to be managed;
- d) Any specific ecological trends and constraints on the site that might influence management;
- e) Aims, objectives, actions and methods to ensure effective management;
- f) Preparation of a works schedule including an annual work plan capable of being rolled forward every 5 years;
- g) Details of ongoing management, maintenance, monitoring and remedial measures;
- h) A programme for implementation;
- i) Details of the body or organisation responsible for implementation and management of the plan;
- j) A scheme for the long-term funding and management mechanisms by which implementation, long term management and protection of these species and habitats will be secured.

Thereafter, the Plan shall be implemented in accordance with the approved details and programme.

Reason: To ensure that the development compensates for the loss of designated sites of nature conservation interest in accordance with Policy NE1 and NE3 of the East Herts District Plan (2018) and Policy PL8 and PL9 of the Harlow Local Development Plan (2020).

35. Habitat Compensation Ecological Management Plan - Off-Site:

Prior to the commencement of any phase of the development (as defined in plans and documents approved pursuant to Condition 5) that results in the loss of habitat in the

Hollingson Meads area, a Habitat Compensation Ecological Management Plan shall be submitted to and approved in writing by the Local Planning Authority setting out how 4.11Ha of compensatory habitat will be provided within the area of land identified on Drawing HNP495-GRA-SK-0011 Rev 03 - CSC Ecological Compensation.

The Plan must include the following:

- a) Details of how the development will mitigate and compensate for any impacts it may have on protected species and their associated habitats and habitat corridors including floodplain restoration and how it will enhance habitats and corridors;
- b) Demonstration of how the above measures contribute towards achieving a biodiversity net gain based on an up to date biodiversity metric or alternative methodology as agreed by the Local Planning Authority;
- c) Description and evaluation of any features to be managed;
- d) Any specific ecological trends and constraints on the site that might influence management;
- e) Aims, objectives, actions and methods to ensure effective management;
- f) Preparation of a works schedule including an annual work plan capable of being rolled forward every 5 years;
- g) Details of ongoing management, maintenance, monitoring and remedial measures;
- h) A programme for implementation;
- i) Details of the body or organisation responsible for implementation and management of the plan;
- j) A scheme for the long-term funding and management mechanisms by which implementation, long term management and protection of these species and habitats will be secured.

Thereafter, the Plan shall be implemented in accordance with the approved details and programme.

Reason: To ensure that the development compensates for the loss of designated sites of nature conservation interest in accordance with Policy NE1 and NE3 of the East Herts District Plan (2018) and Policy PL8 and PL9 of the Harlow Local Development Plan (2020).

36. Biodiversity Monitoring and Verification Plan:

Five years following completion of the development hereby approved (plus every five years thereafter for a period of 30 years) a Biodiversity Monitoring and Verification Report and Action Plan shall be submitted to the Local Planning Authority for approval.

The Report shall confirm the effectiveness or otherwise of the Landscape Management and Maintenance Plan (Condition 32), Species and Habitat Protection and Enhancement Plan (Condition 33), Habitat Compensation Ecological Management Plan On-Site (Condition 34) and Habitat Compensation Ecological Management Plan - Off-site (Condition 35). The submission must be made by a suitably qualified professional.

As a minimum the report shall include a suite of quantitative and qualitative indicators using methods such as annual site walkovers, surveys and fixed-point photography, to monitor the implementation and effectiveness of mitigation/ management measures. The report shall include any remediation works required in order to address where measures may not

be functioning and/or meeting net gain targets expected. The details of all survey findings shall be shared with Herts Ecological Record database.

Any remediation works identified shall thereafter be implemented in accordance with the approved details.

Reason: To ensure that the development maintains, enhances and contributes appropriately to biodiversity in accordance with Policies NE3 'Species and Habitats' and WAT3 'Water Quality and the Water Environment' of the East Herts District Plan (2018) and Policies WE3 'General Strategy for Biodiversity and Geodiversity', PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' and PL9 'Biodiversity and Geodiversity Assets' of the Harlow Local Development Plan 2020.

37. Archaeological Written Scheme of Investigation:

No demolition shall be carried out nor shall any development commence (save for Enabling Works) in any phase or sub-phase of the site (as defined in plans and documents approved pursuant to Condition 5), until an Archaeological Written Scheme of Investigation covering that phase or sub-phase of the site has been submitted to and approved in writing by the Local Planning Authority.

The Written Scheme of Investigation shall include an assessment of archaeological significance and research questions; and details of:

- a) The programme and methodology of site investigation and recording as suggested by the evaluation;
- b) The programme for post investigation assessment;
- c) Provision to be made for analysis of the site investigation and recording;
- d) Provision to be made for publication and dissemination of the analysis and records of the site investigation;
- e) Provision to be made for archive deposition of the analysis and records of the site investigation;
- f) Nomination of a competent person or person/organisation to undertake the works set out within the Archaeological Written Scheme of Investigation.

Reason: To ensure the appropriate investigation for presence / recording of heritage assets in accordance with Policy HA3 'Archaeology' of the East Herts District Plan (2018) and Policy PL12 'Heritage Assets and their Settings' of the Harlow Local Development Plan (2020).

38. Implementation of Archaeological Investigation:

No development shall take place in any phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5) other than in complete accordance with the programme of archaeological investigation and works set out in the Written Scheme of Investigation for that phase approved pursuant to Condition 37.

Reason: to ensure the appropriate investigation for presence / recording of heritage assets and to comply with the requirements of Policy GA1 of the East Herts District Plan 2018, Policy PL12 of the Harlow Local Development Plan and paragraph 211 of the NPPF 2021.

39. Post Archaeological investigation Assessment:

No phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), shall be brought into use until the site investigation and post investigation assessment has been completed for that phase or sub-phase in accordance

with the programme set out in the Written Scheme of Investigation approved pursuant to Condition 37 and the provision made for analysis and publication where appropriate.

Reason: To ensure the appropriate investigation for presence / recording of heritage assets in accordance with Policy HA3 'Archaeology' of the East Herts District Plan (2018) and Policy PL12 'Heritage Assets and their Settings' of the Harlow Local Development Plan (2020).

40. Land Restoration:

In the event that outline planning permission has not been granted for planning application EHDC Ref 3/19/1045/OUT within 18 months of the date of this permission and Enabling Works have been undertaken:

(1) a Land Restoration Scheme of Work to restore any land that has been subject to and/or impacted by the Enabling Works shall be submitted to and approved by the Local Planning Authority within 21 months of the date of this permission; and

(2) any works carried out in connection with the development hereby permitted (e.g. as Enabling Works) shall be removed and the land restored to its former condition in accordance with the Scheme of Work and programme approved by the local planning authority.

The Land Restoration Scheme of Work to be submitted shall include a programme, detailed specifications and/or plans for remedial and restoration works, full details of replacement tree planting and landscaping along with a maintenance plan to the effect that should any part of replacement planting fail within a period of five years after planting these will be replaced.

The restoration works shall be carried out and completed in complete accordance with the approved details of the Land Restoration Scheme and evidence shall be provided to the satisfaction of the Local Planning Authority of the completion of the restoration works to be confirmed in writing.

If at any period within 21 months of the date of this permission any Enabling Works have been carried out and planning permission has not been granted for the outline planning application EHDC Ref 3/19/1045/OUT, no further material operation shall be carried out on the application site except for restoration works in full accordance with the approved Land Restoration Scheme of Work.

Reason: Permitting "Enabling Works" enables the realisation of public benefits and helps to meet local plan requirements. If the crossing permission is unable to be implemented prior to expiry (on account of condition 4 not being satisfied) than any works to or harm caused to the crossing site is to be rectified so to reverse the effects of the "Enabling Works". In order to ensure the satisfactory replacement of landscaping features which are of amenity and/or biodiversity value, in accordance with Policies NE4 'Green Infrastructure', DES3 'Landscaping', DES4 (III) 'Design of Development' and TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation' of the East Herts District Plan (2018) and Policy 'PL8 Green Infrastructure and Landscaping' of the Harlow Local Development Plan (2020).

41. Details and Delivery of Junction Improvements A414 Edinburgh Way/River Way and River Way Bus Stops:

Prior to the first operational use of Road 3:

- a) Detailed drawings shall be submitted to and approved in writing by the Local Planning Authority in consultation with the Highway Authority comprising proposed junction improvements to the A414 Edinburgh Way/River Way junction and for new bus stop(s) to River Way;
- b) The Applicant shall enter into a legal agreement under section 278 of the Highways Act 1980 to undertake the works in complete accordance with the approved details;
- c) The agreed works shall be practically complete to the satisfaction of the Highway Authority, demonstration of which shall be provided to the Local Planning Authority.

Reason: To ensure that off-site improvement works occur in a timely fashion in accordance with Policy TRA1 'Sustainable Transport' and Policy TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation' of the East Herts District Plan (2018), and Policy SIR2 'Enhancing Key Gateway Locations', Policy IN1 Development and Sustainable Modes of Travel' and Policy IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan (2020).

42. Employment and Training Strategy:

Prior to the commencement of construction works on any part of the development hereby approved (save for Enabling Works), an Employment and Training Strategy shall be submitted to and approved in writing by the Local Planning Authority. The Strategy shall set out the details of how employment and training opportunities will be provided to the local population during the construction phase of the development.

The Employment and Training Strategy shall provide details of the following:

- a) A schedule of new employment opportunities to be created through the proposed development, including (but not limited to) long-term job creation, short term/temporary job creation, apprenticeships, work placements, work experience and pre-employment training scheme placements;
- b) The process by which jobs will be advertised to local people;
- c) The method in which the provision of jobs for local residents will be monitored;
- d) Details of training programmes and opportunities, including through local education and further education establishments such as (but not limited to) Hertfordshire University, Herts Regional College, Harlow College and Job Centre Plus.

Once approved, the Employment and Training Strategy shall be implemented (including by all sub-contractors) in accordance with the approved details (or any subsequent revision thereof approved in writing by the Local Planning Authority).

Reason: To ensure opportunities are created for local residents to access employment and/or training during the construction of the development, in accordance with Policy GA1 (r) 'The Gilston Area' and ED6 'Lifelong Learning' of the East Herts District Plan (2018) and Policy PR4 'Improving Job Access and Training' of the Harlow Local Development Plan (2020).

43. Pye Corner Public Realm Improvements:

Within 6 months of the first operational use of Road 1 and Road 2 and in any event prior to commencement of Road 3, a Public Realm Enhancement Strategy for Pye Corner (which shall be located on land within the adopted highway boundary) together with a programme

for the delivery of the improvement works to Fiddlers' Brook Footbridge shall be submitted to and approved in writing by the LPA in consultation with the Highway Authority.

The Strategy shall detail the proposed enhancements and the programme and arrangements for delivering the details agreed which shall also include a programme for the delivery of the improvement works approved pursuant to Listed Building Consent 3/19/1049/LBC.

The approved details shall be delivered in accordance with the approved programme contained in the Strategy.

Prior to the first operational use of Road 3, the improvements approved including those to Fiddlers' Brook Footbridge pursuant to the Listed Building Consent 3/19/1049/LBC must have been carried out to the satisfaction of the Local Planning Authority.

Reason: To provide enhancements to the public realm of Pye Corner and Fiddlers' Brook Footbridge in the interests of amenity and place making following the closure of the road as a through-route to motorised vehicles, in line with the provisions of Policy GA1 'The Gilston Area', Policy GA2 'The River Stort Crossings', Policy HA1 'Designated Heritage Assets', Policy DES2 'Landscape Character', Policy DES3 'Landscaping', Policy DES4 'Design of Development', Policy TRA1 (Sustainable Transport', Policy TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation', and Policy CFLR9 'Health and Wellbeing' of the East Herts District Plan (2020).

44. Stort Navigation Footbridge Enhancements:

Within 12 months of the first operational use of Road 3, details of the proposed Scheme of Works to the decks and parapets of the two Stort Navigation Footbridges (identified on Drawing VD17516/EC-101-GA P04) shall be submitted to and approved in writing by the LPA in consultation with the Highway Authority.

The Scheme of Works shall demonstrate that the design facilitates the safe movement of pedestrians and cycles being walked across the bridges, the programme and arrangements for delivering the Works agreed.

The approved details shall be delivered in accordance with a programme contained in the Scheme of Works.

Reason: To provide enhancements to the public realm of the Stort Navigation in the interests of amenity and place making, following the closure of the road as a through-route to motorised vehicles, in line with the provisions of Policy GA1 'The Gilston Area', Policy GA2 'The River Stort Crossings', Policy TRA1 'Sustainable Transport', Policy TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation' of the East Herts District Plan (2018), and Policy IN1 Development and Sustainable Modes of Travel' and Policy IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan (2020).

Informatives:

1. A) 'Enabling Works' comprises "site clearance and demolition; tree/vegetation removal (in accordance with the approved plans in Condition 2); soil investigations (including soakage testing, window sampling, boreholes, CBR's and gas monitoring); ecology surveys; archaeology surveys (including geo physical surveys, window samples and trenching); slip trenches to investigate existing services; drainage surveys (such as CCTV and jetting); river modelling; and topographical surveys"
2. B) 'Local Planning Authority' means either East Herts Council and/or Harlow District Council. Both Councils will consult the other when providing agreement in writing on applications to discharge conditions.
3. C) 'Highway Authority' means either Essex County Council and/or Hertfordshire County Council. The Local Planning Authorities will consult with the Highway Authorities when providing agreement in writing on applications to discharge conditions.
4. D) The permission does not convey any consent which may be required under any legislation other than the Town and Country Planning Acts. Any permission required under the Highways Act, Building Regulations or under any other form of law, must be obtained from the relevant authority or body e.g. Fire Officer, Health and Safety Executive, Environment Agency etc. Neither does this permission negate or override any private covenants which may affect the land.
5. E) The permission is for construction of new public highway infrastructure. As a result the permission cannot be implemented without the prior approval of the local highway authorities (Hertfordshire County Council and Essex County Council). Before works commence the applicant will need to apply to the Highway Authority to obtain their permission and meet their requirements. In order to implement this permission it will be necessary for the developer of the site to enter into agreements with the County Councils as Highway Authorities under Section 278 and Section 38 of the Highways Act to ensure satisfactory completion of the road improvements. The construction must be undertaken to the Highway Authorities' detailed design / specification and to their satisfaction. Construction must be undertaken by a contractor who is authorised to work in the public highway.
6. F) Implementation also requires:
 - I. that necessary property rights for use and access to all land required for the extended / enlarged and new highways (including drainage features and drainage rights and connections to existing water courses) have been legally secured in the public interest.
 - II. that the agreements under Section 38 of Highways Act for the highways authorities to adopt the newly constructed public highway (and any related features that are required for its operation) on its satisfactory completion include financial provision for future maintenance. Highways Development Management teams should be consulted on any drainage features that are proposed for adoption by Hertfordshire County Council/ Essex County Council. Any drainage features to be adopted shall be designed and built to accommodate the Highway Authorities adoption requirements and an appropriate commuted sum, based on the approved feature maintenance plan must be agreed.
7. G) The highway authorities also advise that, to ensure any works as part of this development are carried out in accordance with other the provisions of the Highways Act 1980 and other relevant processes, the following advice is considered:

I. Public Rights of Way:

Public Rights of Way should remain unobstructed by vehicles, machinery, materials, tools and any other aspects of the construction during works. The safety of the public using the route and any other routes to be used by construction traffic should be a paramount concern during works. Safe passage past the site should be maintained at all times. The condition of the route should not deteriorate as a result of these works. Any adverse effects to the surface from traffic, machinery or materials (especially overspills of cement & concrete) should be made good to the satisfaction of this Authority. All materials should be removed at the end of the construction and not left on the Highway or Highway verges. If the above conditions cannot reasonably be achieved, then a Temporary Traffic Regulation Order would be required to close the affected route and divert users for any periods necessary to allow works to proceed. A fee would be payable to the relevant County Council for such an order. Further information should be sought in relation to the works that are required along the route including any permissions that may be needed to carry out the works.

II. Obstruction of public highway land:

It is an offence under Section 137 of the Highways Act 1980 for any person, without lawful authority or excuse, in any way to wilfully obstruct the free passage along a highway or public right of way. If this development is likely to result in the public highway or public right of way network becoming routinely blocked (fully or partly) the applicant must contact the Highway Authority to obtain their permission and requirements before construction works commence.

III. Storage of materials:

The applicant is advised that the storage of materials associated with the construction of this development should be provided within the site on land which is not public highway, and the use of such areas must not interfere with the public highway. If this is not possible, authorisation should be sought from the Highway Authority before construction works commence.

IV. Road Deposits:

It is an offence under Section 148 of the Highways Act 1980 to deposit mud or other debris on the public highway, and Section 149 of the same Act gives the Highway Authority powers to remove such material at the expense of the party responsible. Therefore, best practical means shall be taken at all times to ensure that all vehicles leaving the site during construction of the development are in a condition such as not to emit dust or deposit mud, slurry or other debris on the highway.

8. H) Other legal procedures providing wider public and private interest safeguards must be satisfied before implementation. These include:

I. Procedural Orders for any changes to existing public highway that affect public and / or private interests.

II. Procedural Orders for bridging the navigable waterway.

III. Land drainage procedures, rights and legal requirements taking account of Environment Agency and Lead Local Flood Authority (LLFA) requirements and advice. All works to

ordinary watercourses, including widening of the channel to include additional storage will require ordinary watercourse consent from the LLFAs. It is the applicant's responsibility to check that they are complying with common law if the drainage scheme proposes to discharge into an off-site ditch/pipe. The applicant should seek consent where appropriate from other downstream riparian landowners. Any works proposed to be carried out that may affect the flow within an ordinary watercourse will also require the prior written consent from the LLFA under Section 23 of the Land Drainage Act 1991. This includes any permanent and or temporary works regardless of planning permission. The LLFAs have a duty to maintain an asset register and records of assets which have a significant impact on the risk of flooding. In order to capture proposed Sustainable Urban Drainage (SuDS) features which may form part of the future register, details of and location of the SuDS assets created or modified through the development should be provided in a GIS layer on completion of the development.

9. I) Additional regulatory consideration may be required on some of specialist matters relevant to this permission as follows:
 - I. Archaeological requirements (Hertfordshire and Essex County Councils)
 - II. Local Land and Property Gazetteer Custodian requirements (District Councils); the development may involve the naming of new streets and numbering of properties)
 - III. Sewer protection requirements; the site has public sewers running across or close to it which may be affected by the proposed building works. It may be necessary to divert the sewer and water course and carry out other works to protect it and the proposed building works before any site works are commenced (Thames Water Development Planning, Asset Investment Unit, Maple Lodge, Denham Way, Rickmansworth, WD3 9SQ Telephone: 01923 898072)
 - IV. Ground water pollution risk; parts of the site are located within the groundwater protection zone of Sawbridgeworth Pumping Station. The construction works and operation of the proposed development should be in accordance with the relevant British Standards and Best Management Practices, thereby significantly reducing the pollution risk. Construction works may exacerbate any existing pollution. Please refer to CIRIA Publication C532 'Control of water pollution from construction- guidance for consultants and contractors'
 - V. Protected species including bats / reptiles / great crested newts; if found during development, works must stop immediately and professional ecological advice must be sought on how to proceed. A licence may be required from Natural England who can be contacted on 01206 796666. Nesting birds are protected under the Wildlife and Countryside Act 1981 and care should be taken in vegetation clearance works between 1st March and 30th September.

This Decision Relates to Plan Numbers:

VD17516-EC-100-GA (1 of 3) General Arrangement (1 of 3) P05 (Layout)
 VD17516-EC-100.1 GA (2 of 3) General Arrangement (2 of 3) P05 (Layout)
 VD17516-EC-101-GA (3 of 3) General Arrangement (3 of 3) P04 (Layout)
 VD17516-EC-102-LS Road 1 Longitudinal Section (Sheet 1 of 3) P03 (Section Details)
 VD17516-EC-103-LS Road 2 Longitudinal Section (Sheet 2 of 3) P02 (Section Details)
 VD17516-EC-104-LS Road 3 Longitudinal Section (Sheet 3 of 3) P03 (Section Details)
 VD17516/EC-104.1- LS River Way Longitudinal Section P01 (Section Details)

VD17516-EC-108- RL Red Line Boundary P03 (Site plan)
VD17516-EC-110-XS Eastern Stort Crossing Typical Cross Sections Sheet 1 of 2 P02 (Section Details)
VD17516-EC-111-XS Eastern Stort Crossing Typical Cross Sections Sheet 2 of 2 P03 (Section Details)
VD17516-EC-112-TR Village 1 / Terlings Park Access Swept Path Analysis Max Articulated/Refuse P01 (Road Plan/Layout)
VD17516-EC-113-TR ESC/Pye Corner Junction Swept Path Analysis Max Articulated/10m Rigid Goods P03 (Road Plan/Layout)
VD17516-EC-114-TR Village 2 Access Swept Path Analysis Max Articulated Goods Vehicle P02 (Road Plan/Layout)
VD17516-EC-115-TR Village 2 Access Swept Path Analysis 10m Rigid Goods Vehicle P02 (Road Plan/Layout)
VD17516-EC-119-TR River Way Roundabout Swept Path Analysis 10m Rigid Goods/Lights Goods Vehicle P02 (Road Plan/Layout)
VD17516-EC-116-TR Central Roundabout Swept Path Analysis Max Articulated Goods Vehicles P02 (Road Plan/Layout)
VD17516-EC-117-TR Central Roundabout Swept Path Analysis 10m Rigid Goods Vehicle P02 (Road Plan/Layout)
VD17516-EC-118-TR River Way Roundabout Swept Path Analysis Max Articulated Goods Vehicle P02 (Road Plan/Layout)
VD17516-EC-120.1-VS Road 1 Village 1 Resi Access Proposed Design Visibility P01 (Proposed Access Visibility Splays)
VD17516-EC-119.1-TR River Way Roundabout Swept Path Analysis 10m Rigid Goods Vehicle/Private Car P02 (Road Plan/Layout)
VD17516-EC-120-VS Road 1 - Fiddlers' Brook Junction Proposed Design Visibility P03 (Proposed Access Visibility Splays)
VD17516-EC-121- VS Road 2 - Eastwick Road Proposed Design Visibility P02 (Proposed Access Visibility Splays)
VD17516-EC-122-VS Road 1, 2, 3 - Central Roundabout Proposed Design Visibility P02 (Proposed Access Visibility Splays)
VD17516-EC-123-VS Road 3 - River Way Roundabout Proposed Design Visibility P02 (Proposed Access Visibility Splays)
VD17516-EC-123.1- VS River Way Roundabout Vertical Visibility (Proposed Access Visibility Splays)
VD17516-EC-109- EX P02 Existing Layout Plan P02 (Existing Site Plan)
VD17516-EC-133-TR 01 Burnt Mill Lane - Ghost Island Junction Vehicle Swept Path P01 (Road Plan/Layout)
VD17516-EC-140 P03 Proposed Speed Strategy Plan P03 (Other)
VD17516-EC-D141 P01 Existing Speed Limit Plan P01 (Other)
VD17516-EC-142- SURF Proposed vs Existing Levels P02 (Land Levels)
VD17516-EC-151- GEO Roundabout Geometry River Way Roundabout P02 (Road Plan/Layout)
VD17516-EC-150-GEO Roundabout Geometry Road 1, 2, 3 Central Roundabout P02 (Road Plan/Layout)
VD17516/EC-155- DfS Road 1 Proposed Departure from Standard P02 (Other)
VD17516-RW-RBT-120-DfS River Way Roundabout Proposed Departure from Standard P06 (Other)
VD17516-EC-170-AP Preliminary Adoption Plan Sheet 1 of 3 P02 (Other)




VD17516-EC-171-AP Preliminary Adoption Plan Sheet 2 of 3 P02 (Other)
 VD17516-EC-172-AP Preliminary Adoption Plan Sheet 3 of 3 P02 (Other)
 VD17516-EC-180-ST Structures Location Plan P03 (Road Plan/Layout)
 VD17516-EC-400- VRS Proposed Vehicle Restraint Systems P02 (Road Plan/Layout)
 VD17516-EC-401-VRS Proposed Vehicle Restraint Systems P03 (Road Plan/Layout)
 VD17516-V2i-100- GA Village 2 Interim Phase General Arrangement P01 (Road Plan/Layout)
 VD17516-EC-STR-030 Fiddlers Brook Bridge - Preliminary Design GA Drawings P03 (Road Plan/Layout)
 VD17516-EC-STR- 040 Stort Valley Flood Crossing - Preliminary Design GA drawings - Sheet 1 of 2 P02 (Road Plan/Layout)
 VD17516-EC-STR- 041 Stort Valley Flood Crossing - Preliminary Design GA drawings - Sheet 2 of 2 P01 (Road Plan/Layout)
 18303-FB-6-008 Fiddlers Bridge - Proposed Structural Repairs Rev A (Plans - Proposed)
 VD17516-EC-STR-045 Eastern Crossing Road 3 Proposed Structure Stort Valley - Sheet 1 of 2 P02 (Road Plan/Layout)
 VD17516-EC-STR-046 Eastern Crossing Road 3 Proposed Structure Stort Valley - Sheet 2 o P01 (Road Plan/Layout)
 VD17516-RW-STR-060 River Way Bridge Preliminary Design General Arrangements P02 (Plans - Proposed)
 1774-01-CIVIC-S-SK01 Fiddlers Bridge Gilston Proposed Balustrade P04 (Plans - Proposed)
 200928-3.6-GPA-EC-TPP-MM Tree Protection Plan Eastern Stort Crossing (Other)
 HNP495-GRA-X-XX-DR-L-5111 Eastern Stort Crossing Planting Plan 1/5 Rev 08 (Landscaping)
 HNP495-GRA-X-XX-DR-L-5112 Eastern Stort Crossing Planting Plan 2/5 Rev 08 (Landscaping)
 HNP495-GRA-X-XX- DR-L-5113 Eastern Stort Crossing Planting Plan 3/5 Rev 08 (Landscaping)
 HNP495-GRA-X-XX-DR-L-5114 Eastern Stort Crossing Planting Plan 4/5 Rev 10 (Landscaping)
 HNP495-GRA-X-XX-DR-L-5115 Eastern Stort Crossing Planting Plan 5/5 Rev 03 (Landscaping)
 HNP495-GRA-X-XX-DR-L-5121 Eastern Stort Crossing (Western Spur) Planting Plan 1/3 Rev 07 (Landscaping)
 HNP495-GRA-X-XX-DR-L-5122 Eastern Stort Crossing (Western Spur) Planting Plan 2/3 Rev 11 (Landscaping)
 HNP495-GRA-X-XX-DR-L-5123 Eastern Stort Crossing Western Spur) Planting Plan 3/3 Rev 09 (Landscaping)
 HNP495-GRA-X-XX-DR-L-5221 Eastern Stort Crossing (Western Spur) Detailed Planting Plan Rev 06 (Landscaping)
 HNP495-GRA-X-XX-DR-L-5309 Eastern Stort Crossing Planting Section Rev 04 (Landscaping)
 HNP495-GRA-X-XX-DR-L-5310 Eastern Stort Crossing Planting Elevation 1/2 Rev 03 (Landscaping)
 HNP495-GRA-X-XX-DR-L-5311 Eastern Stort Crossing Planting Elevation 2/2 Rev 03 (Landscaping)
 HNP495-GRA-SC-001 Gilston River Crossings and Village Development Accesses Planting Schedule Rev 02 (Landscaping)
 HNP495-GRA-SK-0010 ESC Ecological Compensation Rev 02 (Landscaping)
 HNP495-GRA-SK-0011 CSC Ecological Compensation Rev 03 (Landscaping)
 Drainage Strategy: EHUK-VEC-1XX-XX-TN-D-9001 B (Other)

Notes:

1. Your proposed works may require building control approval. Please contact Hertfordshire Building Control Ltd who will help you through the process. Please contact them on 0208 207 7456 or email building.control@hertfordshirebc.co.uk.
2. East Herts District Council would like to know what you think about our Planning Service process. We would be very grateful if you could complete the survey, by using this link <https://www.surveymonkey.co.uk/r/FQMRJR9>. There are only four questions to answer, so

Development Management

➤ 01279 655261
➤ www.eastherts.gov.uk
➤ East Herts Council, Wallfields, Pegs Lane, Hertford, SG13 8EQ

 EastHertsDC
 EastHerts
 easthertscouncil



it will take no time at all. We want to improve our customer experience, so please take the time to let us know what you think.

On Behalf Of Development Management

Dated: 18th March 2022

Signed:

A handwritten signature in black ink, appearing to be 'Jenny Pierce'.

Jenny Pierce

SEE ATTACHED NOTES

TOWN AND COUNTRY PLANNING ACT 1990
PLANNING (LISTED BUILDINGS & CONSERVATION AREAS) ACT 1990

Appeals to the Secretary of State

- If you are aggrieved by the decision of your local planning authority to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Secretary of State under section 78 of the Town and Country Planning Act 1990.
- As this is a decision on a planning application relating to the same or substantially the same land and development as is already the subject of an enforcement notice [reference], if you want to appeal against your local planning authority's decision on your application, then you must do so within 28 days of the date of this notice.*
- If an enforcement notice is served relating to the same or substantially the same land and development as in your application and if you want to appeal against your local planning authority's decision on your application, then you must do so within:
28 days of the date of service of the enforcement notice, or within 6 months [12 weeks in the case of a householder appeal] of the date of this notice, whichever period expires earlier.*
- As this is a decision to refuse planning permission for a householder application, if you want to appeal against your local planning authority's decision then you must do so within 12 weeks of the date of this notice.*
- As this is a decision to refuse planning permission for a minor commercial application, if you want to appeal against your local planning authority's decision then you must do so within 12 weeks of the date of this notice.*
- As this is a decision to refuse express consent for the display of an advertisement, if you want to appeal against your local planning authority's decision then you must do so within 8 weeks of the date of receipt of this notice.*
- If you want to appeal against your local planning authority's decision then you must do so within 6 months of the date of this notice.*
- Appeals can be made online at: <https://www.gov.uk/planning-inspectorate>.
If you are unable to access the online appeal form, please contact the Planning Inspectorate to obtain a paper copy of the appeal form on tel: 0303 444 5000.
- The Secretary of State can allow a longer period for giving notice of an appeal but will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.
- The Secretary of State need not consider an appeal if it seems to the Secretary of State that the local planning authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.
- If you intend to submit an appeal that you would like examined by inquiry then you must notify the Local Planning Authority and Planning Inspectorate (inquiryappeals@planninginspectorate.gov.uk) at least 10 days before submitting the appeal. [Further details are on GOV.UK](#).

Appeals under the Control of Advertisement Regulations

The same provision relating to rights of appeal against the Local Planning Authority's decision applies to advertisements with the following differences:

- Notice of appeal must be given in writing to the Secretary of State within 8 weeks from the date of this notice.
- The notice of appeal must be accompanied by a copy of the following documents:
 - (a) The application forms
 - (b) All relevant plans and particulars
 - (c) This notice of decision
 - (d) All other relevant correspondence with the Authority




The Secretary of State may require a statement of additional matters from either the applicant or the Local Planning Authority, and may with the agreement of both the applicant and the authority determine the appeal without affording an opportunity to appear before an Inspector.

Purchase Notices

- If either the Local Planning Authority or the First Secretary of State refuses permission to develop land or grants it subject to conditions, the owner may claim that he can neither put the land to a reasonably beneficial use in its

Development Management

➡ 01279 655261
➡ www.eastherts.gov.uk
➡ East Herts Council, Wallfields, Pegs Lane, Hertford, SG13 8EQ

 EastHertsDC
 EastHerts
 easthertscouncil



existing state nor render the land capable of a reasonably beneficial use by the carrying out of any development which has been or would be permitted.

- In these circumstances, the owner may serve a purchase notice on the Council in whose area the land is situated. This notice will require the Council to purchase his interest in the land in accordance with the provisions of Part VI of the Town and Country Planning Act 1990.

Compensation

- In certain circumstances compensation may be claimed from the Local Planning Authority if permission is refused or granted subject to conditions by the Secretary of State on appeal or on reference of the application to him.
- These circumstances are set out in Section 169 and related provisions of the Town and Country Planning Act 1971.

Please note you will no longer be receiving a hard copy of this communication.;

APPENDIX 22.1 – MITIGATION ROUTE MAP

Mitigation Route Map (Project Wide)

(1) Item	(2) Topic	(3) Source	(4) Issue	(5) Mitigation Measures	(6) Trigger	(7) Securing Mechanism	(8) Type of Mitigation
Environmental Statement Volume 1							
General							
PW001	All topics	n/a	Multi-disciplinary environmental effects during construction	Implementation of the Code of Construction Practice (CoCP).	Construction	Planning condition on consent	Embedded mitigation
PW002	All topics	n/a	Multi-disciplinary environmental effects during construction	Development and implementation of site-specific Construction Environmental Management Plans (CEMPs).	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW003	All topics	n/a	General adverse construction phase transport effects	Development and implementation of site-specific Construction Transport Management Plans (CTMPs).	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
Socio economics							
PW004	Socio economics	7.5.1	General adverse socio economic effects	On-site provision of community facilities including schools, primary healthcare, community space, indoor and outdoor leisure space and playspace.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
PW005	Socio economics	7.10	Construction phase: employment and supply chain opportunities	Development and implementation of an appropriately worded Business, Employment and Training Strategy to maximise the local benefits of construction.	Construction	S106 agreement	Additional mitigation
PW006	Socio economics	7.6.12	Loss of business premises	Places for People to engage with business owners on options for relocation due to land take required for Gilston Park Estate.	Construction	Voluntary agreement	Embedded mitigation
Human Health							
PW007	Human health	8.5.2	Human health: inaccessibility	Application of development-wide accessibility standards.	Operation	Planning condition on consent	Embedded mitigation
Transport							
PW008	Transport	9.5.27	Modal shift to sustainable transport	Creation of pedestrian and cycle linkages within the Village Development and to key external facilities that have appropriate travel distances.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
PW009	Transport	9.5.27	Modal shift to sustainable transport	Provision of segregated cycle and pedestrian routes adjacent to roads, on-street cycle routes on more lightly trafficked roads, shared surfaces, and segregated cycle and pedestrian routes not adjacent to roads.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
PW010	Transport	9.5.27	Modal shift to sustainable transport	Highlighting and improving the opportunities for walking and cycling the Stort Valley, including the existing towpath that provides an east-west walking and cycling route through Harlow.	Operation	S106 agreement	Embedded mitigation
PW011	Transport	9.5.27	Modal shift to sustainable transport	Provision of a proposed bus loop around the Village Development Site.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
PW012	Transport	9.5.27	Modal shift to sustainable transport	Proposals to introduce bus priority measures at several locations including via the new Central (Eastwick) Stort Crossing.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on consent)	Embedded mitigation
PW013	Transport	9.5.27	Modal shift to sustainable transport	Improved links to Harlow Town Rail Station.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
PW014	Transport	9.5.27	Modal shift to sustainable transport	Commitments from Abellio Greater Anglia and Network Rail to roll out new Electric Bombardier trains in Spring 2019; with trains being a combination of 10-carriage walk-through trains or five-carriage walk-through trains.	Operation	Other - commitment by other parties	Other mitigation
PW015	Transport	9.8.162	Modal shift to sustainable transport	Implementation of the Site-Wide Travel Plan.	Operation	Planning condition on outline consent	Embedded mitigation
Air Quality							
PW016	Air quality	10.5.1	General adverse construction phase air pollution effects	Development and implementation of an Air Quality and Dust Management Plan (AQDMP).	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW017	Air quality	10.5.5	General adverse construction phase air quality effects	Development plans which ensure an adequate separation distance between new and existing roads and newly-constructed residential units and other building uses sensitive to air pollution within the Site.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation

Mitigation Route Map

(1) Item	(2) Topic	(3) Source	(4) Issue	(5) Mitigation Measures	(6) Trigger	(7) Securing Mechanism	(8) Type of Mitigation
PW018	Air quality	10.6.59	Construction vehicles	Use NRMM vehicles that are reasonably new, adhere to recent emission standards and are well maintained to ensure that any air quality impact is negligible.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW019	Air quality	10.6.60	Construction vehicles	Construction vehicles using the local road network will meet the latest Euro emissions standard for Nox (Euro 6 / VI). Construction traffic should avoid Vezily Avenue.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW020	Air quality	10.6.64	Construction phase dust emissions	Undertake regular dust monitoring in the vicinity of the Site to monitoring the effectiveness of dust mitigation measures (as per a CEMP). The level of dust monitoring required is to be agreed between PfP and EHDC in advance of the commencement of works.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW021	Air quality	10.8.4	Construction phase dust emissions	Conduct regular liaison with any other high risk construction sites within 500m of the Site boundary, with a view to ensure plans are coordinated and dust and particulate matter emissions are minimised.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
Noise and Vibration							
PW022	Noise and vibration	11.5.16	Noise: building plant	To design building services plant to achieve operational noise limits consistent with the requirements of BS 4142.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
PW023	Noise and vibration	11.7.17	Construction phase noise effects	Ensure that vehicles employed for construction works will, where reasonably practicable, be fitted with effective exhaust silencers and shall be maintained in good working order and operated in a manner such that noise emissions are controlled and limited as far as reasonably practicable.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW024	Noise and vibration	11.7.17	Construction phase noise effects	Ensure that time slots are adopted for deliveries to ensure that convoys of vehicles do not arrive simultaneously and avoid unnecessary idling on-Site.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW025	Noise and vibration	11.7.17	Construction phase noise effects	Strict control to prevent temporary parking on kerbsides close to noise sensitive receptors near noise sensitive receptors.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW026	Noise and vibration	11.7.17	Construction phase noise effects	The use of clear signage to ensure that construction vehicles use only designated routes	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW027	Noise and vibration	11.8.36	Noise: building plant	To achieve operational fixed plant noise levels as outlined in Table 11.29 of the ES Addendum Volume 1, Chapter 11: Noise and Vibration.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
Archaeology							
PW028	Archaeology	12.5.3	General adverse construction phase archaeological effects	Conduct a programme of archaeological excavation and recording (Perservation by Record) prior to the commencement of and during development activities.	Construction	Site-specific CEMP (to be secured by planning condition on outline consent)	Embedded mitigation
PW029	Archaeology	12.6.12	General adverse construction phase archaeological effects	Monitoring of archaeological works by EHDC's archaeological advisor.	Construction	Site-specific CEMP (to be secured by planning condition on outline consent)	Additional mitigation
Cultural Heritage							
No mitigation measures identified as necessary.							
Landscape and Visual							
PW030	Landscape and Visual Impacts	13.6.105	General adverse construction phase LVIA effects	Temporary tree nurseries may be set up for the transplanted tree and proposed trees at an early stage to allow small trees to grow during the construction period	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW031	Landscape and Visual Impacts	13.6.105	General adverse construction phase LVIA effects.	Sensitively designed hoarding or boundary fencing for construction to enable such structures to be assimilated into the landscape/views	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW032	Landscape and Visual Impacts	13.6.105	General adverse construction phase LVIA effects.	Landscape enhancements to the Stort Valley proposed by the Stort Valley Partnership including tree and hedgerow planting, habitat creation/management and river restoration	Operation	S106 agreement	Embedded mitigation
PW033	Landscape and Visual Impacts	13.6.105	General adverse construction phase LVIA effects.	A programme of appropriate monitoring, agreed with the regulatory authority, so that compliance and effectiveness can be readily monitored and evaluated.	Operation	Planning condition on consent	Additional mitigation

Mitigation Route Map

(1) Item	(2) Topic	(3) Source	(4) Issue	(5) Mitigation Measures	(6) Trigger	(7) Securing Mechanism	(8) Type of Mitigation
PW034	Landscape and Visual Impacts	13.6.106	General adverse construction phase LVIA effects.	Other general design principles could also be included, such as: - Restricting heights within the Development as appropriate to avoid new buildings being prominent from listed buildings, conservation areas and their settings; - Creating buffers between new development and key heritage assets outside the site; - Strengthening existing tree bands and hedges as appropriate to help screen development, especially in ways which are characteristic of the locality; - Developing detailed plans for the development based on careful sightline analysis to ensure appropriate intervisibility with heritage assets; - Minimising visual impacts from infrastructure such as road, signage and lighting; and, - Using key views to ensure that buildings do not intrude unduly on the setting of the key heritage assets.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
Biodiversity							
PW035	Biodiversity	14.5.1	Implementation of the CoCP and CEMPs	Implementation of an Ecological Clerk of Works.	Construction	Planning condition on consent	Embedded mitigation
PW036	Biodiversity	14.5.3	Bat and Great Crested Newt (GCN) legislative compliance	As part of the CEMPs, include a requirement to ensure that for certain affects on bats and GCNs, a European Protected Species License (EPSL) is required to ensure compliance with legislation.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW037	Biodiversity	14.5.4	Newly created habitats: creation and ongoing management requirements	Implementation of the Outline Ecological Management Plan (OEMP).	Operation	Planning condition on outline consent	Embedded mitigation
PW038	Biodiversity	14.5.14	Light pollution	Adherence to the Outline Lighting Strategy (Appendix 19.2) and its principles: - Lighting levels and temporal extent must be minimised and commensurate with that required for security, safety and operational purposes; - Sports pitches within Gilston Park and Gilston Fields should not accommodate permanent high-level flood lighting; - Lighting design should avoid light spill onto trees, hedgerows, woodland edges and other light sensitive ecological areas to avoid disturbance impacts; - Lighting design should avoid adverse impacts on road users, the amenity of residents, neighbouring uses and the wider landscape through good design which minimises potential glare, light spill/trespass and sky glow; and, - Lighting should use high efficiency luminaries and be energy efficient where possible.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
PW039	Biodiversity	14.5.15	Surface water run-off	Surface water run-off will be controlled through a Sustainable Urban Drainage Systems (SUDs) scheme which will be integrated into the green infrastructure of the proposals. The SUDs will capture surface water and clean it before discharging it into the existing watercourses at a greenfield run-off rate (see Appendix 17.2: Flood Risk Assessment and Surface Water Drainage Strategy).	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
PW040	Biodiversity	Appendix 14.12: Para 5.2 & 5.3.	Reptiles	Translocation of reptiles from targeted translocation areas to pre-identified receptor areas, which are outside the Development footprint have been enhanced for reptiles, should future surveys identify a need (further details provided in Appendix 14.12, Para 5.2).	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW041	Biodiversity	Appendix 14.12: Para 5.7	Reptiles	Development and implementation of a management regime for reptile receptor areas, created as part of the mitigation proposals and the enhancement features, to ensure habitat remains suitable for reptiles in the long term.	Operation	Planning condition on consent	Additional mitigation
PW042	Biodiversity	Appendix 14.15: Para 5.5	Badgers	Undertaking of pre-construction surveys and applying of appropriate mitigation to enable sett closure licences to be obtained from Natural England, where necessary.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Additional mitigation
PW043	Biodiversity	Appendix 14.15: Para 5.6	Badgers: sett damage or obstruction	Provision of a minimum 20m buffer distance to construction fencing around all setts, with larger buffers for more sensitive setts that might be in intensive use at the time of works and a 30-50m buffer (depending on the type of construction works to be conducted) around main and annexe setts. Provision of construction fencing raised off the ground using concrete bases, to allow badgers free movement to and from the protected setts. The size of the buffers will be confirmed based on the findings of the pre-commencement survey, informed by previous survey information.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation

Mitigation Route Map

(1) Item	(2) Topic	(3) Source	(4) Issue	(5) Mitigation Measures	(6) Trigger	(7) Securing Mechanism	(8) Type of Mitigation
PW044	Biodiversity	Appendix 14.15: Para 5.7	Badgers: sett damage or obstruction	Implementation of best practice pollution prevention measures ensuring that all machinery, materials, fuel and chemical storage are over 50m from any sett.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW045	Biodiversity	Appendix 14.15: Para 5.8	Badgers: harm to or mortality of badgers	No works to take place before dawn or after dusk during the summer; adequate lighting will be used to enable workers to spot any active badgers when works are undertaken in dark/low light conditions during normal working hours in the winter; and, all work within 50m of main or annexe setts will be undertaken in good light conditions.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW046	Biodiversity	Appendix 14.15: Para 5.9	Badgers: harm to or mortality of badgers	All pits, excavations or tanks will be securely covered overnight to prevent Badgers falling in and being injured or trapped.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW047	Biodiversity	Appendix 14.15: Para 5.10	Badgers: sett disturbance	Highly disturbing works such as the use of very heavy machinery, pile-driving or pneumatic equipment will not be carried out within 50m of main or annexe setts.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW048	Biodiversity	Appendix 14.15: Para 5.12	Badgers: removal or blocking of movement routes	<div>- Retention of known badger paths and landscape features such as hedgerows and ditches extending away from main and annexe setts wherever possible.</div> <div>- Installation of tunnels underneath roads to maintain badger paths where necessary.</div> <div>- Location of the tunnel at the point where the road crosses the badger path or, if not, where there are exoisting landscape features such as hedgerows and ditches.</div> <div>- Provision of badger-proof fencing as necessary to funnel animals towards the tunnels.</div>	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW049	Biodiversity	Appendix 14.15: Para 5.14	Badgers: damage to or interference with setts	Provision of permanent screening buffers around all main, annexe and other significant setts using, where possible, 10-20m of prickly landscape planting using native species of local provenance; planted at the start of works to ensure establishment upon completion of construction.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW050	Biodiversity	Appendix 14.15: Para 8.1	Badgers: enhancement	Use native local provenance plant species, including fruit- and nut-bearing shrubs, in habitat creation that can provide food for badgers; and, creation of areas of short mown grassland suitable for foraging by badgers and scrub as cover.	Operation	Ecological Management Plan (to be secured by plannign condition on consent)	Embedded mitigation
Agriculture and soils							
PW051	Agriculture and soils	15.5.2	Loss of soil resource	Soil resources on the Site proposed for built development will be safeguarded for re-use in residential gardens, landscaping and amenity areas via appropriate stripping and storing during the construction phase. This will be carried out in accordance with the CoCP and any subsequent CEMPs.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW052	Agriculture and soils	15.6.11	Loss of soil resource	Development and implementation of a Soil Resource Plan(s) (SRP).	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
Ground Conditions							
PW053	Ground conditions	16.5.3	General adverse construction phase ground conditions effects	Development and implementation of a Materials Management Plan (MMP); through which suitable spoil could be reused to reduce the loss and exportation of soils from the Site (see also Agriculture and soils; PW042).	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW054	Ground conditions	16.5.4	Construction waste legislative compliance	Management of construction waste in accordance with the Waste Hierarchy and, where necessary, to be taken to appropriate licensed facilities.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW055	Ground conditions	16.5.5	Construction waste legislative compliance	<div>a) there was a demonstrable and legitimate engineering need for import, e.g. to raise development platform levels which could not be achieved using site won fill alone;</div> <div>b) the imported materials were deemed suitable for the intended use under the MMP and following the CL;AIRE DoWCoP, which in turn requires a risk assessment to support the re-use of the imported material at the receiving site; and</div> <div>c) the Qualified Person under DoWCoP, independent from the design team, reviews the MMP and underpinning risk assessment and makes a Declaration to the EA before any ground is broken or materials are imported.</div>	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation

Mitigation Route Map

(1) Item	(2) Topic	(3) Source	(4) Issue	(5) Mitigation Measures	(6) Trigger	(7) Securing Mechanism	(8) Type of Mitigation
PW056	Ground conditions	16.5.6	Construction workers: human health effects	Health and safety risk assessments will be carried out to identify working methods to reduce potential risks to site workers, visitors and off-site receptors (both human health and environmental receptors) in order to mitigate the human health impact on construction workers when coming into contact with potentially contaminated soils and water.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW057	Ground conditions	16.5.6	Construction workers: human health effects	All construction workers will be advised on the necessary PPE/RPE required for the work in specific areas of the Site.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW058	Ground conditions	16.5.8	Contaminated water/groundwater and leachate	Any groundwater or leachate control measures that are required will have the appropriate authorisations from the Environment Agency. Contaminated water will only be allowed to re-enter the ground when the appropriate consent is held, otherwise “dirty” waters will be treated as waste and sent off-site to an authorised treatment process.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW059	Ground conditions	16.5.13	Unexploded ordinance	UXO awareness briefings will conducted with all personnel involved with earthworks or other intrusive works.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW060	Ground conditions	16.5.13	Unexploded ordinance	Development and implementation of an emergency response procedure to respond to the possible discovery of UXO.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW061	Ground conditions	16.5.14	Contaminated land	Compliance with relevant environmental pollution control measures and implementation of good design practices to mitigate potential effects on receptors from the long term operation of the Development.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW062	Ground conditions	16.5.15	Contaminated land	Ground gas monitoring in order to determine the need for and implementation of appropriate gas protection measures in buildings. Protection measures will be designed after site categorisation with reference to CIRIA C66525 and BS 8485:2015.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW063	Ground conditions	16.5.18	Contaminated land	Construction materials used in the subsurface will be specified to suit the prevailing ground conditions.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
Water Resources and Flood Risk							
PW064	Water resources and flood risk	17.5.1	General adverse construction phase water resources and flood risk effects	Development and implementation of a Water Management Plan(s), as part of the site-specific CEMPs.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW065	Water resources and flood risk	17.5.2	General adverse construction phase water resources and flood risk effects	Alignment of subsequent site-specific CEMPs with best practice guidance such as Guidance for Pollution Prevention (GPP) including: - GPP 2: Above ground oil storage; - GPP 5: Works and maintenance in or near water for construction or maintenance works near, in, or over water; - GPP 8: Safe storage and disposal of used oils; - GPP 13: Vehicle washing and cleaning; - GPP 19: Vehicles: Service and Repair; - GPP 21: Pollution Incident Response Plans; - GPP 22: Dealing with Spills; and, - GPP 26: Safe storage - drums and intermediate bulk containers.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW066	Water resources and flood risk	17.5.4	General adverse construction phase water resources and flood risk effects	Adherance to the mitigation measures outlined in Appendix 6.1: CoCP.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW067	Water resources and flood risk	17.5.16	Foul water drainage	Adherance to Appendix 17.3: Foul Water Drainage Strategy to ensure the: - collection of sewage using conventional drainage systems which will be designed and built to adoptable standards; and, - delivery of pumping stations where the topography is such that conventional drainage would be too deep and unviable (these are likely in Villages 1, 4, 5 and 7 when this comes forward).	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
PW068	Water resources and flood risk	17.5.20	New or modified structures affecting water bodies	(It is assumed that) Any new utility cables and pipelines that may need to cross watercourses to facilitate the construction of the Development will be installed at a suitable depth beneath the river / stream bed using trenchless techniques. Using trenchless techniques and standard mitigation measures will avoid permanents impacts on the morphology of water courses.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation

Mitigation Route Map

(1) Item	(2) Topic	(3) Source	(4) Issue	(5) Mitigation Measures	(6) Trigger	(7) Securing Mechanism	(8) Type of Mitigation
PW069	Water resources and flood risk	17.6.28	Water quality monitoring	Development and implementation of a programme of pre-construction water quality monitoring. This will be undertaken to augment existing data and to: provide a robust baseline against which changes in water quality during construction works can be compared (pre-construction); to ensure that mitigation measures are operating as planned and preventing pollution (during construction); and, to verify that the works were completed without adversely affecting water quality (post-construction).	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW070	Water resources and flood risk	17.6.32	Water quality monitoring	Regular inspection and maintenance of the drainage systems and culverts as part of the Development, including systems to ensure that the potential for siltation and blockages is minimised under normal operation.	Operation	Planning condition on outline consent	Embedded mitigation
PW071	Water resources and flood risk	17.7.76	Curled Hook Moss: habitat loss	Development and implementation of a Curled Hook Moss Management Plan to protect and enhance habitat, particularly in relation to Village 6.	Operation	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
Services and Utilities							
PW072	Services and utilities	18.5.1	Damage to existing utilities apparatus during construction; diversion of existing utility apparatus during construction; and, new connection and reinforcement works	Construction of the Development in line with Parameter Plan 2: Village Corridors, Constraints and Developable Areas and Appendix 6.1: CoCP to avoid existing strategic utility apparatus and their associated easements (i.e. the National Grid electricity network; Affinity Water potable water network; and Cadent Gas high-pressure gas main).	Construction	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
PW073	Services and utilities	18.5.1	Potential risk to future occupiers from strategic utilities	Construction of the Development in adherence to Parameter Plan 2: Village Corridors, Constraints and Developable Areas and Appendix 6.1: CoCP to avoid existing strategic utility apparatus and their associated easements (i.e. the National Grid electricity network; Affinity Water potable water network; and Cadent Gas high-pressure gas main).	Construction	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
PW074	Services and utilities	18.5.4	Increased demand on utilities from the completed Development	Provision of utility reinforcement works as described in ES Volume 1, Chapter 5: Description of the Development (Para 5.3.75 - 5.3.82) and as agreed with the relevant Statutory Undertaker. This works will ensure sufficient capacity is available in the local utility network for the completed Development.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
PW075	Services and utilities	18.9.8	Increased demand on utilities from other developments	Development operator will liaise with the local Statutory Undertakers as required to understand capacity issues on the utility network. Development operator will also keep abreast of other potential developments in the local area, and potentially be able to share the cost of reinforcement upgrades with other developers and provide capacity for both the Development and other local developments.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Additional mitigation
Light							
PW076	Light	19.5.3	General adverse construction phase light effects	Where practicable, construction lighting in the Village Development Site and construction lighting in sensitive areas of the Central and Eastern Stort Crossings will be designed to comply with Environmental Zone E2 in accordance with the ILP Guidance Note.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation

Mitigation Route Map

[illegible]

Mitigation Route Map

(1) Item	(2) Topic	(3) Source	(4) Issue	(5) Mitigation Measures	(6) Trigger	(7) Securing Mechanism	(8) Type of Mitigation
PW082	Climate change: carbon emissions	20.5.2	Embodied carbon	The delivery of buffers as defined in the Development Specification and Parameter Plans to retain and protect habitat and, in turn, minimise the displacement of existing carbon sinks and potential carbon emissions to atmosphere.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
PW083	Climate change: carbon emissions	Table 20.13	Construction phase: embodied carbon	Provision of measures including: - Implementation of a specification to reduce the carbon of standard building materials and components (e.g. cement replacement and preference for readily available products with higher recycled content); - Off-site construction for efficiency of material use and reduced waste; - Adopt low carbon materials such as timber; and, - Challenging supply chain to provide products and materials with high recycled content.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW084	Climate change: carbon emissions	Table 20.13	Construction phase: transport to site	Provision of measures including: - Preference for materials and components that are locally sourced to minimise transportation distances; and, - Off-site modular construction to consolidate delivery requirements.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW085	Climate change: carbon emissions	Table 20.13	Construction phase: installation process	Use of off-site construction for energy efficient assembly and minimal requirement for on-site installation processes.	Construction	Site-specific CEMP (to be secured by planning condition on consent)	Embedded mitigation
PW086	Climate change: carbon emissions	Table 20.21	Carbon emissions: repair	Early consideration of material durability and possible risks of material degradation and damage due to the local environment (both present and future climate) to inform detailed design.	Operation	Sustainability Strategy commitments, to be secured by planning condition on outline consent)	Additional mitigation
PW087	Climate change: carbon emissions	Table 20.21	Carbon emissions: refurbishment	Maintenance planning to optimise the repair and replacement cycles of building elements and systems, thus minimising early failure and replacement arising from insufficient maintenance.	Operation	Sustainability Strategy commitments, to be secured by planning condition on outline consent)	Additional mitigation
PW088	Climate change: carbon emissions	Table 20.21	Carbon emissions: operational energy use	Enable the transition to low carbon heat sources within the natural replacement cycle by incorporating technologies such as air source heat pumps by occupiers; - Implement measures to encourage energy efficient behaviour in future occupants; and, - Ensure energy efficiency is considered in the procurement of new equipment in future.	Operation	Sustainability Strategy commitments, to be secured by planning condition on outline consent)	Additional mitigation
PW089	Climate change: carbon emissions	Table 20.21	Carbon emissions: natural capital (carbon sink and sequestration)	Sustainable management of the landscape, including agricultural land where possible, to increase potential of the landscape to sequester and store carbon.	Operation	Sustainability Strategy commitments, to be secured by planning condition on outline consent)	Additional mitigation
PW090	Climate change: climate change resilience assessment	Table 20.24	Species and habitats: inability to respond to changing climatic conditions	Protection of existing areas of ecological value through their retention and use of setbacks as defined by Parameter Plan 3: Green Infrastructure and Open Space.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
PW091	Climate change: climate change resilience assessment	Table 20.24	Species and habitats: inability to respond to changing climatic conditions	Expansion and connection of existing and new habitats which are linked through green corridors, for example expansion of the existing woodland resource to enhance its resilience.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Additional mitigation
PW092	Climate change: climate change resilience assessment	Table 20.24	Species and habitats: inability to respond to changing climatic conditions	Use of drought resistant species in landscaping.	Operation	Sustainability Strategy commitments, to be secured by planning condition on outline consent)	Additional mitigation
PW093	Climate change: climate change resilience assessment	Table 20.24	Species and habitats: inability to respond to changing climatic conditions	Future management of habitats to maximise biodiversity value.	Operation	Sustainability Strategy commitments, to be secured by planning condition on outline consent)	Additional mitigation

Mitigation Route Map

[illegible]

Mitigation Route Map (Village Development)

(1) Item	(2) Topic	(3) Source	(4) Issue	(5) Mitigation Measures	(6) Trigger	(7) Securing Mechanism	(8) Type of Mitigation
Environmental Statement Volume 1							
Socio Economics							
No mitigation identified as necessary.							
Human Health							
VD001	Human health	8.5.2	Access to health facilities and facilities which support a healthy lifestyle	A commitment to infrastructure triggers and a process of Village Masterplan and reserved matters planning approval.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD002	Human health	8.5.2	Adverse human health effects due to new home design	Delivery of new homes which comply with housing standards for daylight, sound insulation, private space and accessible and adaptable dwellings and temperature.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD003	Human health	8.5.2	Access to healthy food shops and growing opportunities	A commitment to infrastructure triggers and a process of Village Masterplan and reserved matters planning approval.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD004	Human health	8.5.2	Design of facilities to allow contact with natural, sustainable environments	A commitment to infrastructure triggers and a process of Village Masterplan and reserved matters planning approval.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
Transport							
VD005	Transport	9.5.24	Traffic build up at the Amwell roundabout	Delivery of off-site highway improvements at the Amwell roundabout to provide partial signalisation and regulate traffic flow.	Operation	Planning condition on outline consent	Additional mitigation
VD006	Transport	9.8.163	Servicing vehicle movements	Development and implementation of a Delivery and Servicing Management Plan (DSMP) detailing: - Routing restrictions; - Loading restrictions; - Timing restrictions; - Appropriate vehicle sizes and schedule of use; and, - Pedestrian and cyclist safety.	Operation	Planning condition on outline consent	Embedded mitigation
Air Quality							
VD007	Air quality	10.5.6	Offsite travel needs	Provision of day-to-day facilities and amenities (e.g. medical facilities and shops) within the Village Development site.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
Noise and Vibration							
No mitigation measures identified as necessary.							
Archaeology							
VD008	Archaeology	12.5.2	Adverse archaeological effects on Hunsdon Airfield, the Mount and the two moated sites which straddle Eastwick Hall Lane	Implementation of the CoCP.	Construction	Planning condition on outline consent	Embedded mitigation

VD009	Archaeology	12.5.7	Adverse archaeological effects in areas of high archaeological significance	Development and Implementation of Conservation Management Plans.	Operation	Planning condition on outline consent	Embedded mitigation
VD010	Archaeology	12.6.19	General adverse construction phase archaeological effects	Development and implementation of a comprehensive Archaeological Strategy to each village development; to be agreed with EHDC's archaeological advisor.	Construction	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD011	Archaeology	12.6.20	General adverse construction phase archaeological effects	Development and implementation of WSIs for each village development area.	Construction	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
Cultural Heritage							
VD012	Cultural Heritage	12.5.7	General adverse operational phase cultural heritage effects	<p>Adherence to the general design principles as laid out in the Development Specification:</p> <ul style="list-style-type: none"> - Control heights as appropriate to avoid new buildings being over prominent from heritage assets; - Implement the corridors defined on the Parameter Plans between new development and key heritage assets; - Strengthen existing tree bands and hedges as appropriate to help screen development, especially in ways which are characteristic of the locality; - Develop detailed plans for the development having regard to careful sightline analysis to ensure appropriate intervisibility with heritage assets; - Minimise potential impacts on the assets' setting from lighting, activity and noise; - Minimise impacts from infrastructure such as road signage and lighting; - During detailed design give consideration to views to and from heritage assets; and, - Use key views to ensure that buildings do not severely impact on the setting of the key heritage assets. 	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD015	Cultural Heritage	12.5.6	General adverse cultural heritage effects	Adherence to the design principles laid out in the Development Specification concerning future detailed design within the Sensitive Development Areas (A: Grade I listed St Mary's Church and associated assets; B: Eastwick Moated Site Scheduled Monument; C: The Mount Moated Site Scheduled Monument).	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
Landscape and Visual							
VD016	Landscape and Visual Impacts	13.5.4	On-site landscape features and habitat features: retention, establishment and management	Development and implementation of Landscape Management Plans (LMPs), to inform subsequent detailed applications, which include for the protection and management of all the planting areas, green infrastructure areas and retained existing vegetation / features including the 20m buffers around the retained Ancient Woodlands and the other buffers around retained existing features.	Operation	Planning condition on outline consent	Embedded mitigation
VD017	Landscape and Visual Impacts	13.5.6	Retention of on-site trees, woodlands and hedgerows	Adherence to Parameter Plan 1 outlining the on-site trees, woodland and hedgerows to be retained.	Construction	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation

VD018	Landscape and Visual Impacts	13.5.8	Retention of on-site trees, woodlands and hedgerows	Erection of protective fencing along the edges of the 20m Ancient Woodland buffers and other buffers.	Construction	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD019	Landscape and Visual Impacts	13.5.8	Retention of on-site trees, woodlands and hedgerows	Conduct appropriate tree safety works (for example where diseased tree limbs overhang the development areas)	Construction	Planning condition on outline consent	Embedded mitigation
VD020	Landscape and Visual Impacts	13.5.8	Retention of on-site trees, woodlands and hedgerows	To identify pests and diseases and undertake appropriate remedial action, pruning and tree surgery as identified by the arboricultural consultant as necessary for sound arboricultural reasons.	Construction	Site-specific CEMP (to be secured by planning condition on outline consent)	Embedded mitigation
VD021	Landscape and Visual Impacts	13.5.8	Retention of on-site trees, woodlands and hedgerows	Protective fencing will be erected around specimen trees / tree belts to be retained (where they abut a development area) and along hedgerows.	Construction	Site-specific CEMP (to be secured by planning condition on outline consent)	Embedded mitigation
VD022	Landscape and Visual Impacts	13.5.9	General adverse construction phase LVIA effects	Ground works / excavations in the vicinity of trees, woodlands and other landscape features will be carried out with care, and in accordance with the relevant levels drawings – there should be no abrupt changes of level or steep gradients in the vicinity of the areas of protective fencing.	Construction	Site-specific CEMP (to be secured by planning condition on outline consent)	Embedded mitigation
VD023	Landscape and Visual Impacts	13.5.11	General adverse construction phase LVIA effects	The use of chemicals (including chemicals used in general landscape operations such as herbicides and pesticides) will be strictly controlled in the vicinity of existing landscape features.	Construction	Site-specific CEMP (to be secured by planning condition on outline consent)	
VD024	Landscape and Visual Impacts	13.5.11	General adverse construction phase LVIA effects	The use of heavy plant in the vicinity of existing landscape features should also be minimised, to avoid direct damage to trees and woodlands (e.g. from tall cranes and scaffolding) and indirect effects such as spillage of fuel or diesel.	Construction	Site-specific CEMP (to be secured by planning condition on outline consent)	
VD025	Landscape and Visual Impacts	13.5.14	General adverse operational phase LVIA effects	Within the Village Corridors, built development will be set back from adjacent properties and the settlements of Gilston and Eastwick as well as utility infrastructure, heritage assets, watercourses, ancient woodland and other vegetation will be retained.	Construction	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD026	Landscape and Visual Impacts	13.5.15	General adverse operational phase LVIA effects	All areas of Ancient Woodland within the Site will be retained, along with areas of woodland and hedgerows indicated on Parameter Plan 1. Veteran trees will also be retained and protected across the Site.	Construction	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD027	Landscape and Visual Impacts	13.5.16	General adverse operational phase LVIA effects	Provisions as outlined in the Parameter Plans and Development Specification which include the retention of significant views, minimising harm to the heritage assets and carefully considering the relationship of these assets to nearby built development.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation

VD028	Landscape and Visual Impacts	13.5.17	General adverse operational phase LVIA effects	For the majority of the Site, building heights will not exceed two to three storeys. Specific zones are identified where a maximum building height of 18m could be achieved.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD029	Landscape and Visual Impacts	13.5.19	General adverse operational phase LVIA effects	Provision of several areas of Strategic Green Infrastructure including: - Two Country Parks (Eastwick Wood Park and Hunsdon Airfield Park) to provide areas of public open space / access and opportunities for walking, cycling, horse riding etc.; - New woodland planting at Eastwick Wood Park to establish productive woodland and habitat links and assist in screening distant views of Village 4 from Hunsdon Road and the Public Rights of Way (PRoWs) in the Widford area. - Active management of Hunsdon Airfield Park as farmland / woodland with increased public access compared to the existing situation.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD030	Landscape and Visual Impacts	13.5.20	General adverse operational phase LVIA effects	Provision of Community Parks at Gilston Park, Gilston Playing Fields and Home Wood; providing a range of community sports provision, as well as, informal recreation with club house and changing facilities, car and coach parking and floodlighting provided where appropriate, i.e. away from sensitive heritage and ecological areas.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD031	Landscape and Visual Impacts	13.5.21	General adverse operational phase LVIA effects	Provision of two Strategic Green Corridors (Eastwick Valley and Golden Brook/Fiddlers Brook) within the Development. Structural planting will be included within these corridors which will include woodland, woodland edge planting, hedgerows, coppice and areas of woodland pasture.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD032	Landscape and Visual Impacts	13.5.23	General adverse operational phase LVIA effects	Provision of improvements to public rights of way where links connect to the Development's pedestrian and cycle network. Details of these improvements will be provided at the village masterplan stage, and submitted as part of reserved matters applications.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD033	Landscape and Visual Impacts	13.5.24	General adverse operational phase LVIA effects	Retention and enhancement of areas of permanent pasture (for instance to the north of Eastwick and in Golden Valley) given they support a high diversity of flowering plants and grasses.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD034	Landscape and Visual Impacts	13.7.59	Green infrastructure and open spaces: landscape enhancements and new planting	Agree appropriate monitoring so that the effectiveness of the various landscape enhancements and new planting proposed within the strategic green infrastructure and open spaces within the Development will continue to establish and mature beyond 2040.	Operation	Planning condition on outline consent	Embedded mitigation
VD035	Landscape and Visual Impacts	13.7.60	Green infrastructure and open spaces: landscape enhancements and new planting	Development and implementation of a detailed Maintenance Schedule for those areas covered by the Landscape Management Plans, to be prepared by the appointed Landscape Contractor for the delivery of these works.	Operation	Planning condition on outline consent	Embedded mitigation

VD036	Landscape and Visual Impacts	13.7.61	Green infrastructure and open spaces: landscape enhancements and new planting	Management proposals should be undertaken with professional landscape design, ecological and landscape management advice. Appropriate personnel would be identified as responsible for implementation of the Landscape Management Plan(s) and associated inspections, programmes and monitoring.	Operation	Planning condition on outline consent	Embedded mitigation
VD037	Landscape and Visual Impacts	13.7.62	Green infrastructure and open spaces: landscape enhancements and new planting	<p>associated with the development should include:</p> <ul style="list-style-type: none"> - Ground preparation; - Minor topsoiling; - Grass cutting; - Edge trimming; - Tree hedge and shrub pruning; - General tree care; - Watering; - Treatment of pests and diseases; - Creation of habitat features; and, <p>Woodland management.</p>	Operation	Planning condition on outline consent	Embedded mitigation
Biodiversity							
VD038	Biodiversity	14.5.5	Newly created habitats: creation and ongoing management requirements	Development and implementation of detailed Ecological Management Plans (EMPs) for RMAs of the Village Development as they come forward.	Operation	Planning condition on outline consent	Embedded mitigation
VD039	Biodiversity	14.5.6; 14.5.7; 14.5.8	Adverse biodiversity effects on existing ecological features	Retention and protection the most valuable ecological features where possible and to enhance them through appropriate management as detailed in Parameter Plan 1: Existing Vegetation and Buildings.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD040	Biodiversity	14.5.9	Adverse biodiversity effects on existing ecological features	Protection of retained habitat through the creation of buffer zones (20m to Ancient Woodland, 20m to Existing Waterways, 10m to Existing Woodlands, 20m Ecological Buffers to other sensitive habitats) as detailed in Parameter Plan 2: Village Corridors, Constraints and Developable Areas.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD041	Biodiversity	14.5.10	Adverse biodiversity effects on existing ecological features and habitat connectivity	<p>Integration of existing habitats within the green infrastructure of the Village Development as shown in the Parameter Plan 2 and 3: Green Infrastructure and Open Space. These areas will include Landscape Areas which are not subject to built development and the creation of new ‘parks’, which will be naturalistic green spaces managed for biodiversity and recreation. The new parks include:</p> <ul style="list-style-type: none"> - Eastwick Wood Park (a new woodland park in the north of the Site, incorporating the blocks of ancient woodland); and, - Eastwick Valley Corridor, Eastwick Hall Corridor, Golden Brook Riparian Corridor and Fiddlers' Brook Corridor (all are Strategic Green Corridor parks). 	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation

VD042	Biodiversity	14.5.12	Stort tributaries: habitat connectivity and habitat enhancement	Creation of three Strategic Green Corridors (Eastwick Valley Corridor, Golden Brook Riparian Corridor and Fiddlers' Brook Corridor). At these locations, aquatic and terrestrial habitats will be subject to management to enhance biodiversity while sensitively integrating recreational uses. There will be a minimum 20m buffer from all watercourses within and adjacent to the Site from the top of bank to built development. Management measures will include where appropriate: - removal of Himalayan Balsam; - enhancement of straight channels to create more sinuous varied channels; - creation of floodplain scrapes; - increase instream habitat diversity; and, - replacement of 'hard engineered' bank revetment with 'soft engineering' methods.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD043	Biodiversity	14.6.49	Creation of woodland access routes	Any paths constructed in the woodlands in the Village Development area will be subject to detailed planning at the reserved matters stage for the relevant phase of development and will be designed with input from the consultant ecologist. Path routes will be designed to avoid the existing areas of high nature conservation interest within the woodlands and will be sited to avoid significant impact to the hydrological character of the fields. The paths will be as natural as possible compatible with access and site management.	Operation	Planning condition on outline consent	Embedded mitigation
VD044	Biodiversity	14.6.50	Creation of Community Play Areas	The Community Play Areas will be subject to detailed planning for the relevant phase of development and will be designed with input from the consultant ecologist. In the case of the facilities in Eastwick Wood Park they will be located in an area outside of the ancient woodland blocks and in the case of Home Wood they will be located and designed to avoid significant impacts on the woodland. Home Wood although listed on the Ancient Woodland Inventory has undergone extensive replanting and modifications over the last two centuries, which has resulted in a large amount of non-native species and a low number of AWVPs being present. This allows scope for the inclusion of Play Areas which are sensitively designed and situated to avoid any significant impacts on the woodland.	Operation	Planning condition on outline consent	Embedded mitigation
VD045	Biodiversity	14.6.52	Creation of grassland access routes	Any paths constructed in the retained fields will be subject to detailed planning at the reserved matters stage for the relevant phase of development and will be designed with input from the consultant ecologist. Paths routes will avoid the existing areas of high nature conservation interest within the retained fields and will be sited to avoid significant impact to the hydrological character of the fields. The paths will be as natural as possible; mown grasslands, gravel tracks etc, compatible with access and site management.	Operation	Planning condition on outline consent	Embedded mitigation
VD046	Biodiversity	14.6.57	Loss of bat foraging habitat	Habitat creation and enhancement measures as per the Biodiversity Strategy (Appendix 14.5) and the OEMP (Appendix 14.14) which exceed the level of compensation required to offset the predicted residual effects and so will result in overall positive effects on the bat foraging resource across the Site.	Operation	Planning condition on outline consent	Embedded mitigation
VD047	Biodiversity	14.6.58	Loss of Pipistrelle, Brown Long-eared and Serotine bat roosts at Eastwick Lodge	Provision of a purpose-built bat house (a building specifically designed to provide roosting opportunities for bats) within the proposed green infrastructure area to the east of Eastwick village.	Operation	Planning condition on outline consent	Embedded mitigation

VD048	Biodiversity	14.6.58	Loss of minor Pipistrelle roosts at Overhall Farm	Provision of a pole roost within the immediate vicinity of Overhall Farm.	Operation	Planning condition on outline consent	Embedded mitigation
VD049	Biodiversity	14.6.59	Bat habitat fragmentation	Key commuting features such as hedgerows and tree-lines will be substantially retained where possible, buffered from development, and reinforced by additional strategic landscape planting.	Operation	Planning condition on outline consent	Embedded mitigation
VD050	Biodiversity	14.6.59	Bat habitat fragmentation	Areas where commuting routes will be bisected by roads will be subject to detailed design to mitigate loss of permeability through measures such as minimisation of road width and lighting, infill planting, provision of artificial bat bridges, and retention of mature trees to provide natural aerial 'bridges' where possible	Operation	Planning condition on outline consent	Embedded mitigation
VD051	Biodiversity	14.6.60	Barbastelle bat habitat fragmentation	Detailed design of the Village Development will be informed by the results of a further programme of Barbastelle radio-tracking, undertaken to positively identify key flightlines and ensure the preservation thereof.	Operation	Planning condition on outline consent	Embedded mitigation
VD052	Biodiversity	14.6.62	Breeding and wintering bird habitat loss	Habitat compensation measures as proposed in Appendix 14.10: Birds.	Operation	Planning condition on outline consent	Embedded mitigation
VD053	Biodiversity	14.6.66	Great Crested Newt (GCN) habitat loss	Provision of new hedgerows, the enhancement of retained hedgerows, the creation of buffers to protect retained features (e.g. woodlands and grasslands) and the creation of semi-natural open spaces (e.g. the Valley Corridor parks) in line with the Development Specification and Parameter Plans will compensate for the loss of the existing habitats. The long-term management of these areas will ensure that they retain their value for GCN.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD054	Biodiversity	14.6.67	Great Crested Newt (GCN) habitat fragmentation	Provision of buffers around the retained woodland and hedgerows and the provision of new routes within newly planted hedgerows.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD055	Biodiversity	14.6.67	Great Crested Newt (GCN) habitat fragmentation	Provision of newt tunnels at various locations within Village 4 to enable safe crossing points for GCN (due to the close proximity of meta-population 3 to the Village).	Operation	Planning condition on outline consent	Embedded mitigation

VD056	Biodiversity	14.7.52	Woodlands: Urban effects and maintenance of access infrastructure	<p>Provision of various measures at detailed design stage including:</p> <ul style="list-style-type: none"> - Buffer Zone around woodlands close to the proposed settlements; - Management within woodlands to reduce effects from recreational use; - Layout and control of access points to woodlands; - Clearly marked footpaths that will direct visitors away from particularly sensitive ecological areas. Woodland management will be monitored and footpaths re-directed to other areas of low ecological value, where footpath erosion is identified as a significant issue; - Install dog mess bins across the Site, with these bins emptied at appropriate frequencies; - Checks undertaken for fly-tipping, focussed in areas particularly prone to such action, such as woodland margins and car parks; and where found any rubbish would be disposed of appropriately; and - Installation of interpretation boards at key locations to inform visitors of the site's ecological interest and dissuade anti-social behaviour, such as vandalism or collection/ picking of large quantities of native wild flowers. 	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD057	Biodiversity	14.7.56	Grasslands: Urban effects and maintenance of access infrastructure	<p>Provision of various measures at detailed design stage:</p> <ul style="list-style-type: none"> - Buffer Zones around woodlands close to the proposed settlements; - Management within woodlands to reduce effects from recreational use; - Layout and control of access points to grasslands; - Clearly marked footpaths that will direct visitors away from any particularly sensitive ecological areas. Grassland management will be monitored and footpaths re-directed to other areas of low ecological value, where footpath erosion is identified as a significant issue; - Install dog mess bins across the site, with these bins emptied at appropriate frequencies; - Checks undertaken for fly-tipping, focussed in areas particularly prone to such action, such as woodland margins and car parks; and where found any rubbish would be disposed of appropriately; and, - Installation of interpretation boards at key locations across the site to inform visitors of the site's ecological interest and dissuade anti-social behaviour, such as vandalism or collection/ picking of large quantities of native wild flowers. 	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD058	Biodiversity	14.7.61	Bats: noise and disturbance	Erection of compensatory artificial roosting sites and secured from both inadvertent and intentional human disturbance by measures including elevation, fencing and dense strategic planting.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD059	Biodiversity	14.7.61	Bats: noise and disturbance	Provision of access management measures (e.g. positively promoted surfaced paths and interpretation panels) to minimise disturbance impacts within areas of ancient woodland, which are of particular significance to roosting and foraging bats.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD060	Biodiversity	14.7.61	Bats: noise and disturbance; and, bats: increased mortality due to road traffic collision	The detailed traffic strategy will include measures to minimise traffic increases within green lanes, and to maintain their rural character.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation

VD061	Biodiversity	14.7.69	Farmland breeding and wintering birds: disturbance through recreational activities	Establishment of 'dogs on leads' areas where Public Rights of Way run across farmland to reduce the impact of disturbance from dogs on ground-nesting farmland birds.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD062	Biodiversity	14.7.70	Farmland breeding and wintering birds: disturbance through recreational activities	Provision of signposts, interpretation boards, new footpaths, dog bins and benches as well as information leaflets to residents in order to encourage people to use the new Eastwick Park Wood, rather than the remaining farmland areas.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD063	Biodiversity	14.7.72	Northern woodland breeding birds: disturbance through recreational activities	Creation of 20m buffer zones around each northern woodland, creation of new walking routes within Eastwick Wood Park to encourage recreation away from the more ecologically important woodlands (e.g. Golden Grove which currently supports Lesser Spotted Woodpecker; Black Hut Wood which supports Marsh Tit; and, Marshland Wood and Home Wood that have supported Marsh Tit in the past).	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD064	Biodiversity	14.7.75	Great Crested Newts (GCN): habitat fragmentation	Use of single-lane roads at key road/hedgerow junctions (where possible) thereby decreasing the physical barrier posed to GCN movements and the incidence of road mortality.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD065	Biodiversity	14.7.75	Great Crested Newts (GCN): habitat fragmentation	Use of amphibian gutters/tunnels of an 'ACO' type specification to channel GCN movements under roads, depending on the detailed design of road heights above ground level and the presence of kerbs. These measures will be maintained in good condition as part of ongoing site maintenance.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD066	Biodiversity	14.7.75	Great Crested Newts (GCN): habitat fragmentation	Use of drop kerbs, located at least every 50m, to aid GCN movement through the Village Development site and the use of kerb stones next to road drains or gully pots inset to allow a safe passage.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD067	Biodiversity	14.7.76	Great Crested Newts (GCN): harm to individual GCN	See Items 064, 065 and 066 above.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD068	Biodiversity	14.7.77	Great Crested Newts (GCN): hydrological changes affecting habitat	Implementation of SUDS as per Appendix 17.2: Flood Risk Assessment and Drainage Strategy.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD069	Biodiversity	Appendix 14.12: Para 7.2	Reptiles	Compensation for the loss of reptile habitat in the south-eastern corner of Habitat Parcel 5 in the form of the creation of 1x hibernation site for reptiles located within a pre-identified reptile receptor area, should further survey work recommend (further details provided in Appendix 14.12, Para 7.2).	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Additional mitigation
VD070	Biodiversity	Appendix 14.12: Para 7.3	Reptiles	Compensation for the loss of reptile habitat on the western side of Habitat Parcel 3 in the form of the creation of 1x egg laying site for Grass Snakes within a pre-identified reptile receptor area, should further survey work recommend (further details provided in Appendix 14.12, Para 7.3).	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Additional mitigation

VD071	Biodiversity	Appendix 14.12: Para 8.1	Reptiles	Enhancement of the Site through suitable reptile habitat creation such as the development of rough tussocky grassland surrounded by areas of scrub within areas of open space across the Site.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Additional mitigation
VD072	Biodiversity	Appendix 14.12: Para 8.1	Reptiles	Installation of a total of 6x additional hibernation sites for reptiles and a total of 3x additional egg laying sites for Grass Snakes across the Site in addition to any those described above as compensation (as well as any further enhancements which may be recommended following further surveys).	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Additional mitigation
VD073	Biodiversity	Appendix 14.15: Para 5.18	Badgers: Eastwick Manor Wood clan main and annexe setts	Displacement of badgers from the Eastwick Manor Wood main and annexe setts to a new sett(s) created nearby within retained open space under the terms of a Natural England sett closure licence.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD074	Biodiversity	Appendix 14.15: Para 7.1	Badgers: habitat compensation	Conversion of parts of Eastwick Wood Park, Golden Valley Riparian Corridor and community owned parkland to grassland with shrub and trees to provide higher value badger foraging habitat for Black Hut Wood, Roundsell Shaw, Golden Grove and Eastwick Mead Osier Bed clans. Native local provenance fruit- and nut-bearing species will be planted and the grassland areas will be mown/grazed to maximise the foraging value to Badgers. The conversion will take place at the start of the proposed works to allow these alternative foraging resources to develop and be useful to Badgers in the short to medium term window within which they are required. The provision of Maize strips will also be used to maintain the seasonal cereal resource that the Badgers are used to.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
Agriculture and Soils							
No mitigation measures identified as necessary.							
Ground Conditions							
VD075	Ground conditions	16.5.14	Contaminated land	Implementation of remediation measures on contaminated land as determined through detailed geo-environmental investigations at the detailed design stage for each plot or phase. This will be in line with regulatory/industry standard practice as well as the requirements of BS 10175: 2011+A2:201724, generic/detailed risk assessment procedures and with CLR11.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
Water Resources and Flood Risk							
VD076	Water resources and flood risk	17.5.11	Surface water runoff	Implementation of the SUDS Strategy, outlined in Appendix 17.2: Flood Risk Assessment and Drainage Strategy, which may include (but not be limited to): - Water butts, green roofs, permeable paving within courtyards and local parking etc. with restricted discharge into the downstream SuDS; - Street side rills, ditches, bio swales etc. A swale and linkage pipe system that provides attenuation, possible partial infiltration during transfer of surface water through the system to downstream SuDS; and, - Linked storage ponds constructed toward the termination of the SuDS before controlled discharge at discreet locations to the local watercourse.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation

VD077	Water resources and flood risk	17.5.22	Fiddler's Brook Enhancements	Provision of enhancements in the Fiddler's Brook Corridor, including improvements to the watercourses' hydromorphology as well as the riparian and flood plain habitats (see Appendix 17.4: Water Framework Directive Assessment). Measures may include: - the introduction of new bed forms; - the relocation of the current channel where it has been straightened and re-aligned; - enhancements to riparian habitats; - improved floodplain connectivity; and, - the removal of structures that may be impacting on flow conditions and sediment transport, where feasible.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD078	Water resources and flood risk	17.5.23	Operational phase Fiddler's Brook Enhancements	Development and implementation of a WFD Mitigation and Enhancement Strategy.	Operation	WFD Mitigation and Enhancement Strategy (to be secured by planning condition on outline consent)	Embedded mitigation

Services and Utilities

No mitigation identified as necessary.

Light

VD079	Light	19.5.7	General adverse operational phase light effects	- Lighting levels and temporal extent must be minimised and commensurate with that required for security, safety and operational purposes; - Pedestrian areas and hubs of social interaction should be appropriately illuminated to reduce the fear of crime and promote a community feeling; - Sports pitches within Gilston Park and Gilston Fields should not accommodate permanent high-level flood lighting; - Lighting design should minimise light spill onto trees, hedgerows, woodland edges and other light sensitive ecological areas to minimise disturbance impacts; - Lighting design should adopt a sensitive approach in the vicinity of heritage assets; - Lighting design should avoid adverse impacts on road users, the amenity of residents, neighbouring uses and the wider landscape through good design which minimises potential glare, light spill/trespass and sky glow; and - Lighting should use high efficiency luminaries and be energy efficient where possible.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
-------	-------	--------	---	--	-----------	---	---------------------

VD080	Light	19.5.9	General adverse operational phase light effects	<p>Wherever possible, detailed lighting design would use controlled light distribution, optimised optics (flat glass – controlled light distribution below the horizontal) and considerate luminaire positioning / minimal heights and tilting angles are;</p> <ul style="list-style-type: none">- Luminaire selection based on inherent glare control to an appropriate G class ranging between 4 and 6;- Wherever possible, modern, Light Emitting Diode (LED) luminaires would be employed throughout to minimise the obtrusive light spill footprint and be as energy efficient as possible;- All luminaires used around the Site perimeter would be mounted within the Site, so that the main photometric distribution of the luminaire will be towards the task area only;- Wherever possible, adopting a light quality that minimises disruption to existing ecological systems in the form of LED light sources (<4200K) which emit minimal ultra-violet and blue light;- Operational, secondary mitigation measures will be deployed as required, including:<ul style="list-style-type: none">o Use of light shields/baffles;o Reduced column height; and	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
Climate Change							
VD081	Climate change: carbon emissions	20.5.2	Embodied carbon	Design of the Village Masterplans to deliver approximate earthworks balance, where possible.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD082	Climate change: carbon emissions	20.5.2	Energy demand	Achievement of a 19% minimum reduction in regulated carbon emissions relative to prevailing Part L (Conservation of fuel and power) of the Building Regulations 2013.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD083	Climate change: carbon emissions	20.5.2	Energy demand	Adherence to the Energy Statement and the use innovative technologies and techniques in the future; achieved through greater fabric efficiencies, the move to a greater use of electricity as the grid decarbonises and other low carbon measures.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD084	Climate change: carbon emissions	20.5.2	Energy demand	Use of building orientation and massing to optimise daylight and passive solar gain to reduce energy demands whilst safeguarding against overheating from current and future climate change weather projections.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD085	Climate change: carbon emissions	20.5.2	Energy demand	Detailed design of lighting to be low energy, as per the Development Specification.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD086	Climate change: carbon emissions	20.5.2	Carbon emissions and microclimate	Implementation of the integrated green and blue infrastructure strategy to retain and enhance, as well as provide areas of new, landscaping together with existing watercourses and SUDS features as per the Parameter Plans in order to help sequester carbon emissions arising from the Development as well as provide passive shading and cooling to the local microclimate minimising energy demand for active cooling.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation

VD087	Climate change: carbon emissions	20.5.2	Microclimate	Provision of green corridors and green infrastructure will be provided within developable areas offering shading to reduce the potential for overheating to occupants, as set out in the Strategic Design Guide.	Operation	Strategic Design Guide (to be secured by planning condition on outline consent)	Embedded mitigation
VD088	Climate change: carbon emissions	20.5.2	Carbon emissions	Provision of the various enhancements to agricultural land / poorer quality habitats to increase the carbon sink and carbon sequestration capability of these areas (e.g. the creation of Eastwick Wood Park via new woodland pasture to link areas of Ancient Woodland together).	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD089	Climate change: carbon emissions	20.5.2	Water demand / supply	Use of drought resilient and native plant species to reduce water demand for irrigation.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD090	Climate change: carbon emissions	20.5.2	Water demand / supply	Installation of water saving measures and equipment to ensure that new homes achieve a mains water consumption minimum target of 110 litres or less per head per day, as per the Development Specification.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD091	Climate change: carbon emissions	20.5.2	Transport	Provision of local services and amenities (i.e. healthcare, education, community facilities) within walking/cycling distance and provision of walkable neighbourhoods to reduce the need to travel.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD092	Climate change: carbon emissions	20.5.2	Transport	Provision of new and extended bus routes and bus stops that are within a short distance of walking and cycling routes.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD093	Climate change: carbon emissions	20.5.2	Transport	Provision of on-Site employment opportunities within walking distance of new homes.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD094	Climate change: carbon emissions	20.5.2	Transport	Maintenance/management mechanisms to ensure land is managed sustainably, to be secured as described in the Governance Strategy which accompanies the application.	Operation	Governance Strategy, via Development Specification (to be secured by planning condition on outline consent)	Embedded mitigation
VD095	Climate change: carbon emissions	Table 20.21	Carbon emissions: natural capital (carbon sink and sequestration)	Sustainable management of the landscape, including agricultural land where possible, to increase potential of the landscape to sequester and store carbon.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation

VD096	Climate change: climate change resilience assessment	Table 20.24	Species and habitats: inability to respond to changing climatic conditions	Protection of existing areas of ecological value through their retention and use of setbacks as defined by Parameter Plan 3: Green Infrastructure and Open Space.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD097	Climate change: resilience assessment	Table 20.24	Species and habitats: inability to respond to changing climatic conditions	Expansion and connection of existing and new habitats which are linked through green corridors, for example expansion of the existing woodland resource to enhance its resilience.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD098	Climate change: resilience assessment	Table 20.24	Species and habitats: inability to respond to changing climatic conditions	Use of drought resistant species in landscaping.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD099	Climate change: resilience assessment	Table 20.24	Species and habitats: inability to respond to changing climatic conditions	Future management of habitats to maximise biodiversity value.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD100	Climate change: resilience assessment	Table 20.24	Species and habitats: inability to respond to changing climatic conditions	Future management plans of habitats and landscape to respond to climate change risks and incorporate measures to tackle invasive non-native species.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD101	Climate change: resilience assessment	Table 20.24	Agriculture and wildlife: water scarcity and flooding	Implementation of Appendix 17.2: Surface Water Drainage Strategy to provide a network of SUDS to manage water flow and avoid flood risk by achieving greenfield runoff rates for a 1 in 100 year storm event allowing for a 40% increase in rainfall intensity due to climate change.	Operation	Planning condition (to be secured by planning condition on outline consent)	Embedded mitigation
VD102	Climate change: resilience assessment	Table 20.24	Agriculture and wildlife: water scarcity and flooding	Implementation of measures to reduce potable water use beyond those required by the EHDC Local Plan (i.e. to achieve water consumption target of 110 litres per person per day or less for all domestic properties)	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD103	Climate change: resilience assessment	Table 20.24	Soils: increased seasonal aridity and wetness; Natural carbon stores and carbon sequestration	Implementation of a Soil Resource Plan (SRP) during construction to safeguard the integrity of valuable soil resources during handling and ensure soil is retained for future use on-site.	Construction	Site-specific CEMP (to be secured by planning condition on outline consent)	Embedded mitigation
VD104	Climate change: resilience assessment	Table 20.24	Soils: increased seasonal aridity and wetness; Natural carbon stores and carbon sequestration	Implementation of biodiversity enhancements as proposed which will have a dual benefit of restoring and protecting soil health to increase its resilience against climate change impacts.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD105	Climate change: resilience assessment	Table 20.24	Soils: increased seasonal aridity and wetness; Natural carbon stores and carbon sequestration	Provision of increased green infrastructure (hedgerows, grassland, trees and shrubs) and introduction of sustainable urban drainage solutions to manage surface water on site through natural infiltration solutions, e.g. swales.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation

VD106	Climate change: resilience assessment	Table 20.24	Soils: increased seasonal aridity and wetness; Natural carbon stores and carbon sequestration	Adoption of good soil and land management measures which encourage tenant farmers to embed climate change adaptation, reduce water demand and foster carbon storage.F116	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Additional mitigation
VD107	Climate change: resilience assessment	Table 20.24	Land management: practices exacerbating flood risk	Ongoing maintenance of the as-built drainage SuDS to help minimise the risk of flooding arising from unfavourable land management practices.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD108	Climate change: resilience assessment	Table 20.24	Infrastructure: flooding	Use of water resistant construction materials and equipment.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD109	Climate change: resilience assessment	Table 20.24	Extreme weather events	Risks from extreme weather events will be reduce by: - Detailed design to consider the effects of projected increases in peak summer temperatures (e.g. specifying materials and equipment which are resilient to high temperatures, considering the impact on the expansion of structures and resulting risk to structures and road surfaces); - Detailed design to consider effects of extreme cold weather events (e.g. specifying materials and equipment which are resilient to low temperatures); and, - Ensuring infrastructure within the Development is protected from extremes in temperature.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD110	Climate change: resilience assessment	Table 20.24	Health and wellbeing: high temperatures	The Development Specification and Parameter Plan 3: Green Infrastructure and Open Space sets minimum areas for retained, enhanced and new green infrastructure. People will be provided easy access to natural greenspace which provides shade.	Operation	Development Specification and/or Parameter Plans (to be secured by planning condition on outline consent)	Embedded mitigation
VD111	Climate change: resilience assessment	Table 20.24	Health and wellbeing: high temperatures	Appropriate insulation and ventilation of buildings will be considered at detail design stage. - A passive design approach to limit risk of overheating through appropriate window design and use of green infrastructure would be considered further at the detailed design stage. - Existing and new trees and green infrastructure will provide shade in hotter summers to reduce the ‘urban heat island’ effect and heat stress in the public realm.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD112	Climate change: resilience assessment	Table 20.24	People, communities and buildings: flooding	Surface water drainage design will include an allowance for a 40% increase in rainfall intensity due to climate change and ensure surface water is appropriately managed such that the flood risk to neighbouring areas is not increased.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
VD113	Climate change: resilience assessment	Table 20.24	Health and social care delivery: extreme weather	Detailed design of non-residential institution and community facilities to ensure resilience to extreme weather events.	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation

VD114	Climate change: resilience assessment	Table 20.24	Water supplies and resources	<p>Water efficiency measures (specified at detailed design stage), including low flush WC's, low-flow water fittings, greywater/rainwater recycling and/or the selection of robust and native plant species that would not generally require supplementary irrigation beyond the establishment period in order to help achieve a water consumption target of 110 litres per person per day or less.</p> <p>- Use of water meters to encourage occupants not to waste water.</p>	Operation	Village masterplan and/or RMA stage (to be secured by planning condition on outline consent)	Embedded mitigation
Cumulative Effects No mitigation measures identified as necessary.							

Mitigation Route Map (Eastern Stort Crossing)

(1) Item	(2) Topic	(3) Source	(4) Issue	(5) Mitigation Measures	(6) Trigger	(7) Securing Mechanism	(8) Type of Mitigation
Environmental Statement Volume 1							
Socio economic							
No mitigation measures identified as necessary.							
Human Health							
No mitigation measures identified as necessary.							
Transport							
ESC001	Transport	9.5.17	Delivery of Sustainable Transport Corridor	Utilisation of the existing rail crossing on River Way before passing over previous mineral extraction works and terminating at Eastwick Road, at the location of the eastern access into the site.	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
ESC002	Transport	9.5.21	Delivery of Sustainable Transport Corridor	Provision of a “bypass” to Pye Corner. This will pass from the location of the access to Terlings Park to join the proposed Eastern Stort Crossing. This will result in the closure of Pye Corner to through-traffic.	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
ESC003	Transport	9.5.21	Delivery of Sustainable Transport Corridor	Provision of a 5m wide shared footway/cycleway on the southern side of the carriageway along the entire length of both the Eastern Stort Crossing and the ‘bypass’.	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
ESC004	Transport	9.5.21	Delivery of Sustainable Transport Corridor	Provision of verge separation between the shared footway/cycleway and the adjacent carriageway.	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
ESC005	Transport	9.5.21	Delivery of Sustainable Transport Corridor	Provision of dropped kerbs sand tactile paving at the Eastern Stort Crossing / ‘bypass’ roundabout and the Eastern Stort Crossing/River Way roundabout to the south.	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
ESC006	Transport	9.5.23	Delivery of Sustainable Transport Corridor	Provision of a new footway/cycleway connecting with the existing towpath adjacent to the River Stort in the vicinity of the proposed Eastern Stort Crossing/River Way roundabout.	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
Air Quality							
No mitigation measures identified as necessary.							
Noise and Vibration							
ESC007	Noise and vibration	11.5.5	Road traffic noise: properties at the northern end of Terlings Park	Use of a low noise road surface on Eastern Stort Crossing.	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
ESC008	Noise and vibration	11.5.9	Road traffic noise: properties at the northern end of Terlings Park	Eastern Stort Crossing designed to be located in a cutting to further minimise noise effects.	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
ESC009	Noise and vibration	11.5.12	Road traffic noise: properties at the northern end of Terlings Park	Provision of a 3m high acoustic barrier at Terlings Park to minimise noise effects on properties at the northern end of Terlings Park.	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
Archaeology							
ESC010	Archaeology	12.5.4	General adverse construction phase archaeological effects	Implementation of the agreed WSI for the Eastern Stort Crossing application; with further mitigation provided subject to the results of archaeological investigations.	Construction	Planning condition on full consent	Additional mitigation
Cultural Heritage							
No mitigation measures identified as necessary.							
Landscape and Visual							

ESC011	Landscape and Visual	5.5.12	Effects on landscape character	Landscaping proposals reflect the existing landscape character, assimilating the highway into the surroundings. The landscape strategy would bring forward new groups of native trees planted within areas of rich grassland and occasional blocks of native scrubland planting.	Construction	Planning condition on full consent	Embedded mitigation
ESC012	Landscape and Visual	5.5.12	Visual Impact	Trees will be placed to respond to existing groups and provide screening to larger bridge structures such as abutments and ramps.	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
Biodiversity							
ESC013	Biodiversity	14.5.11	Habitat connectivity	Design of the Eastern Stort Crossing to use open span bridges and avoid the use of culverts.	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
ESC014	Biodiversity	14.5.16	General adverse operational phase biodiversity effects	Where the Eastern Stort Crossing crosses open water, it will be on an open span bridge and parts of the crossing on embankment will include measures to allow for the movement of flood water and wildlife.	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
ESC015	Biodiversity	14.6.54	Loss of approximately 0.67 ha of rank, species-poor grassland and nettle/thistle patches of the Fiddler's Brook Marsh LWS	Creation of an area of species-rich grassland as part of the floodplain grassland restoration/creation proposals on land within the Stort Valley, either within the ownership of Applicant, or managed by the Stort Valley Partnership, with the location to be agreed with the planning authority.	Operation	Planning condition on full consent	Additional mitigation
ESC016	Biodiversity	14.6.34	Breeding and wintering birds: habitat loss	See ESC014, ESC015 and ESC016.			
ESC017	Biodiversity	Appendix 14.15: Para 5.26	Badgers: removal or blocking of Redricks Lane movement route	Installation of badger tunnels at Redricks Lane (should pre-construction surveys suggests that badgers from the setts along Redricks Lane are using land within the proposed road corridors or further south) in order to maintain accessibility. Ideally the tunnels will be located where the proposed roads cross known Badger paths, or if not, where there are existing landscape features such as hedgerows and ditches. Badger-proof fencing will be used as necessary to funnel animals towards the tunnels.	Construction	Site-specific CEMP (to be secured by planning condition on outline consent)	Embedded mitigation
Agirculture and soils							
No mitigation measures identified as necessary.							
Ground Conditions							
ESC019	Ground conditions	16.7.20	Gas and groundwater conditions	Further site investigaton will be required for the highway construction of the Eastern Stort Crossing Site over the historic landfill and into the operational phase to inform the gas venting measures. Monitoring requirements will be defined following access and an appropriately designed investigation.	Construction	Planning condition on full consent	Additional mitigation
ESC020	Ground conditions	16.6.3	Contaminated land	Further intrusive ground investigation will be carried out on the Eastern Stort Crossing site in advance of site works to inform the site-wide Remediation Strategy.	Construction	Planning condition on full consent	Additional mitigation
Water Resources and Flood Risk							
ESC020	Water resources and flood risk	17.5.15	Surface water runoff	Provision of grass conveyance swales with check dams followed by a small pond / wetland feature. The pond / wetland will be located outside of flood zone 3 at Terlings Park to Central Roundabout (E1).	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation

ESC021	Water resources and flood risk	17.5.15	Surface water runoff	Provision of kerbs/deck kerbed drainage, gullies, catchpits and possible over-sized pipework below road to collect surface water before discharging to SuDS swale type features at ground level at River Way Roundabout to Central Roundabout (E3).	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
ESC022	Water resources and flood risk	17.5.15	Surface water runoff	Provision of a small pond or wetland feature within existing woodland that discharges into the existing ditch at the new roundabout with River Way (E4).	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
ESC023	Water resources and flood risk	-	General adverse operational phase effects	Design in keeping with the requirements of the Flood Risk Assessment and Surface Water Drainage Strategy (Appendix 17.2).	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation

Services and Utilities

No mitigation measures identified as necessary.

Light

ESC024	Light	19.5.10	General adverse operational phase light effects	Carriageway and footway/cycleway lighting for the Eastern Stort Crossing will be designed to BS5489:2013: Code of practice for the design of road lighting, to BS EN 13201-2 - 2015 Performance requirements and in line with Hertfordshire County Council standards unless superseded by another updated standard.	Operation	Planning condition on full consent	Embedded mitigation
ESC025	Light	19.5.12	Light spillage in the Stort Valley	Existing and outdated street lighting infrastructure within the extent of the affected highway where new junctions are to be formed will be replaced with new LED lighting with full cut-off luminaires. This is proposed to improve existing light spillage levels; <ul style="list-style-type: none">• New street lighting for the carriageway will consist of 10m or 12m high columns supporting full cut-off, LED luminaires;• Lighting columns will be attached or bolted to the bridge structure parapet and between culvert sections where located off the bridge deck;• Warm / neutral white light would be used to avoid conflict with rail signal lights being green, yellow and red);• Columns would be placed as far away as practicable from a rail bridge or the fence line of railway track; and• Glare would be minimized for the train driver by the use of luminaires conforming to an appropriate G class selected from BS EN 13201-2:2015, Table A.1 or shielding.	Operation	Planning condition on full consent	Embedded mitigation

Climate Change

ESC026	Climate change	20.5.2	Embodied carbon	Detailed design of Eastern Stort Crossing to achieve approximate earthworks balance, where possible.	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
ESC027	Climate change: resilience assessment	Table 20.24	Agriculture and wildlife: water scarcity and flooding	Implementation of Appendix 17.2: Surface Water Drainage Strategy to provide flood compensation to help manage water flow and avoid flood risk by achieving greenfield runoff rates for a 1 in 100 year storm event allowing for a 40% increase in rainfall intensity due to climate change.	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
ESC028	Climate change: resilience assessment	Table 20.24	Infrastructure: flooding	Provision of flood compensation within the footprint of the Eastern Stort Crossing structure.	Operation	Eastern Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation

Cumulative Effects

No mitigation measures identified as necessary.

Mitigation Route Map (Central Stort Crossing)

(1) Item	(2) Topic	(3) Source	(4) Issue	(5) Mitigation Measures	(6) Trigger	(7) Securing Mechanism	(8) Type of Mitigation
Environmental Statement Volume 1							
Socio economic							
No mitigation measures identified as necessary.							
Human Health							
No mitigation measures identified as necessary.							
Transport							
CSC001	Transport	9.5.12	Delivery of Sustainable Transport Corridor	Provision of a new signalised junction at the northern end of the new crossing connecting the upgraded A414/Fifth Avenue with A414/Eastwick Road.	Operation	Central Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
CSC002	Transport	9.5.13	Delivery of Sustainable Transport Corridor	Provision of new pedestrian and cycle crossing facilities as part of an improved Burnt Mill Junction.	Operation	Central Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
CSC003	Transport	9.5.14	Delivery of Sustainable Transport Corridor	Provision of the foot and cycle bridge over the A414 ('the Eastwick Road Footbridge') as part of the Central Stort Crossing Development.	Operation	Central Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
CSC004	Transport	9.5.21	Delivery of Sustainable Transport Corridor	Provision of a 5m wide footway/cycleway to the south of the Eastwick Crossing/River Way roundabout, to the west of the existing bridge	Operation	Central Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
CSC005	Transport	9.5.27	Delivery of Sustainable Transport Corridor	Provision of bus priority measures at several locations including via the new Central Stort Crossing.	Operation	Central Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
Air Quality							
No mitigation measures identified as necessary.							
Noise and vibration							
CSC006	Noise and vibration	11.5.5	1-7 Burnt Mill	Use of a low noise road surface at 1-7 Burnt Mill Lane.	Operation	Planning condition on full consent	Embedded mitigation
Archaeology							
CSC007	Archaeology	12.5.4	General adverse constuction phase archaeological effects	Implementation of the agreed WSI for the Central Stort Crossing application; with further mitigation provided subject to the results of archaeological investigations.	Construction	Planning condition on full consent	Embedded mitigation
Cultural Heritage							
No mitigation measures identified as necessary.							
Landscape and Visual							
CSC008	Landscape and Visual	5.4.8	Effects on landscape character	Landscaping proposals will reflect the existing landscape character, with scattered groups of new native tree planting within native species grassland and occasional blocks of native scrubland planting.	Operation	Planning condition on full consent	Embedded mitigation
CSC009	Landscape and Visual	5.4.8	Visual Impact	Trees will be placed to respond to existing groups and provide screening to larger bridge structures such as abutments and ramps. The existing swale along the western side of the embankment will be planted with meadow grassland mix to provide new habitat and visual amenity.	Operation	Central Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation

Biodiversity							
CSC010	Biodiversity	14.5.11	Habitat connectivity	Design of the Central Stort Crossing to use open span bridges and avoid the use of culverts.	Operation	Central Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
CSC011	Biodiversity	14.5.16	General adverse operational phase biodiversity effects	Layout and massing resulting in minimal land take and only a minor extension to the existing culvert of the River Stort.	Operation	Central Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
CSC012	Biodiversity	14.6.54	Loss of rank, species poor grassland and nettle/thistle patches as part of the loss of approximately 0.64 ha of the Parndon Moat Marsh LWS	Creation of an area of species-rich grassland as part of the floodplain grassland restoration/creation proposals as part of the Central Stort Crossing.	Operation	Planning condition on full consent	Additional mitigation
CSC013	Biodiversity	14.6.55	Loss of c. 1,800m2 of embankment grassland/scrub complex (c. 1800m2) as part of the loss of approximately 0.64 ha of the Parndon Moat Marsh LWS	Creation of grassland and scrub on the new embankment as part of the Central Stort Crossing development.	Operation	Central Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
CSC014	Biodiversity	14.6.55	Loss of c. 800m2 of swamp habitat (c. 800m2) as part of the loss of approximately 0.64 ha of the Parndon Moat Marsh LWS	Creation of new swamp habitat on the floodplain in areas within the Stort Valley (either within the ownership of Applicant, or managed by the Stort Valley Partnership; n.b. location to be agreed with the planning authority).	Operation	Planning condition on full consent	Additional mitigation
CSC015	Biodiversity	14.6.34	Breeding and wintering birds: habitat loss	See Items CSC011, CSC012 and CSC013 above.			
Agiculture and Soils							
No mitigation measures identified as necessary.							
Ground Conditions							
CSC016	Ground conditions	16.6.3	Contaminated land	Further intrusive ground investigation will be carried out on the Central Stort Crossing site in advance of site works to inform the site-wide Remediation Strategy.	Construction	Planning condition on full consent	Additional mitigation
Water Resources and Flood Risk							
CSC017	Water resources and flood risk	17.5.15	Surface water runoff	Provision of grass conveyance swales with check dams followed by a small pond / wetland feature at the A414 Central Crossing between junction with Eastwick Road in the north and the Stort Navigation in the south (road catchment C1).	Operation	Central Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
CSC018	Water resources and flood risk	17.5.16	Surface water runoff	Provision of grass conveyance swales with check dams followed by a small pond / wetland feature at the A414 Central Crossing south of River Stort Navigation (road catchment C2).	Operation	Central Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
CSC019	Water resources and flood risk	17.5.16	Surface water runoff	Adherance to Appendix 17.2: Foul Water Drainage Strategy to ensure the discharge of effluent to the existing Thames Water trunk sewer within the Stort Valley via a new sewer across the Central Stort Crossing, and another new connection beneath the River Stort close to Eastwick.	Operation	Planning condition on full consent	Embedded mitigation
CSC020	Water resources and flood risk	17.5.24	Floodplain compensation	Provision of an area of replacement flood storage due to the loss of floodplain associated with the widening of the A414 Fifth Avenue. This will be provided to the south east of the A414 junction with Eastwick Road, to the north of the River Stort (as detailed in Appendix 17.2: Flood Risk Assessment and Drainage Strategy).	Operation	Central Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation

CSC021	Water resources and flood risk	-	General adverse operational phase effects	Design in keeping with the requirements of the Flood Risk Assessment and Surface Water Drainage Strategy (Appendix 17.2)	Operation	Central Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
Services and Utilities							
No mitigation measures identified as necessary.							
Light							
CSC022	Light	19.5.10	General adverse operational phase light effects	Carriageway and footway/cycleway lighting for the Central Stort Crossing will be designed to BS5489:2013: Code of practice for the design of road lighting, to BS EN 13201-2 - 2015 Performance requirements and in line with Hertfordshire County Council standards unless superseded by another updated standard.	Operation	Planning condition on full consent	Embedded mitigation
CSC023	Light	19.5.11	Light spillage in the Stort Valley	<p>Existing street lighting along Fifth Avenue and along A414 and Eastwick Road affected by the Central Stort Crossing will be replaced with new LED lighting on new columns. This is proposed to improve existing light spillage levels;</p> <ul style="list-style-type: none"> • New street lighting for the carriageway will consist of 10m or 12m high columns supporting full cut-off, LED luminaires; • Warm / neutral white light would be used to avoid conflict with rail signal lights being green, yellow and red); • Columns would be placed as far away as practicable from a rail bridge or the fence line of railway track; and, • Glare would be minimized for the train driver by the use of luminaires conforming to an appropriate G class selected from BS EN 13201-2:2015, Table A.1 or shielding. 	Operation	Planning condition on full consent	Embedded mitigation
Climate Change							
CSC024	Climate change: carbon emissions	20.5.2	Embodied carbon	Detailed design of the Central Stort Crossing to achieve approximate earthworks balance, where possible.	Operation	Central Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
CSC025	Climate change: climate change resilience assessment	Table 20.24	Agriculture and wildlife: water scarcity and flooding	Implementation of Appendix 17.2: Surface Water Drainage Strategy to provide flood compensation to help manage water flow and avoid flood risk by achieving greenfield runoff rates for a 1 in 100 year storm event allowing for a 40% increase in rainfall intensity due to climate change.	Operation	Central Stort Crossing application plans (secured through planning condition on full consent)	Embedded mitigation
Cumulative Effects							
No mitigation measures identified as necessary.							

Definitions

- Column (1) provides the item number for each mitigation measure.
- Column (2) describes the topic area for which the mitigation is required.
- Column (3) provides the source of the issue identified (i.e. document and paragraph number).
- Column (4) describes the issue for which mitigation is required.
- Column (5) provides the detail of the proposed mitigation measure.
- Column (6) identifies the timing or 'trigger' for when the identified mitigation or measure **should be in place**. This refers to the ‘**construction**’ and/or ‘**operational**’ phases of the Development.
- Column (7) identifies the securing mechanism(s) for each measure.
- Column (8) categorises the type of mitigation; embedded or additional.



Appendix 3.5

Cumulative Schemes

Table 3.5: Cumulative Schemes

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
1		Harlow East (SP 5.3)	750	Land in Epping Forest District allocated for circa 750 new homes under the Draft Epping Forest Local Plan.	-	2.5km east	Construction dates unknown. Due to come forward between 2018 and 2032.	
2		Riddings Lane Garden Centre (Site L)	50	Land in Epping Forest District on the fringe of Harlow and allocated for circa 50 new homes under the Draft Epping Forest Local Plan.	-	3.8km south	Construction dates unknown. Due to come forward between 2018 and 2032.	
3		Land west of Katherines (SP 5.2)	1,100	Land in Epping Forest District on the fringe of Harlow and allocated for circa 1,100 new Land in Epping Forest District is located on the fringe of Harlow and allocated for circa 1,000 new homes. Homes under the Draft Epping Forest Local Plan.	-	2.6km south-west	Construction dates unknown. Due to come forward between 2018 and 2032.	
4	APP/N154 O/W/16/3 146636	Ymca Hostel - The Angle. Fourth Avenue,	69	Demolition of all Existing Buildings and Construction of 69 New Residential Dwellings, Including Flats and Houses,	Appeal allowed 28/09/16	920m south	Demolition works stated to commence early 2018 and to take 14 weeks. However, aerial photography does not	Demolition of the existing buildings on the Site has been

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
		Harlow, CM20 1DN		Ranging from 3 to 13 Storeys, With Associated Car Parking and Landscaping			indicate works have commenced.	undertaken lawfully (ref: HW/LDCE/20/0 0228).
5	HW/PL/11 /00055; as amended by HW/PL/15 /00142	Land to north of Gilden Way	1,200	Erection of 1,200 Dwellings, New Primary School, Community Buildings and Retail/Business/Live Work Units together with Associated Uses Comprising Allotments and Public Open Space, Plus Associated Infrastructure and Engineering Works, with Vehicular Access from Gilden Way.	Approved 21/05/15	1.5km east	Outline Permission stated construction was to take place from 2013 to 2018. Aerial photography does not show any indication of construction started for any Phase.	Aerial photography shows construction has begun and a number of dwellings are complete and occupied.
6	HW/PL/15 /00006			Approval of All Reserved Matters for Strategic Infrastructure and Phase 1 (Approximately 716 Dwellings and Associated Community Building, Commercial Units, Open Space and Facilities), In Accordance with Condition 1 of HW/PL/15/00142.	Phase 1 granted 08/09/2015			

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
7	HW/REM/ 15/00389			Approval of All Reserved Matters for Phase 2 (Approximately 195 Dwellings and Associated Open Space Including Sports Pavilion, Sports Pitches and Allotments), In Accordance with Condition 1 of HW/PL/15/00142, and the Revised Phasing Plan (Submitted Under Application HW/PL/15/00007).	Phase 2 granted 15/12/2015.			
8	Education Centre, Hodings Road, Harlow (HDC SHLAA Site Ref. 13)		24	N/A	2021-31	450m south-west	Construction dates unknown. Due to come forward between 2021 and 2031.	
9	Purford Green School, Harlow, CM18 6HP (HDC SHLAA Site Ref. 14)		30	N/A	2021-31	2.8km south-east	Construction dates unknown. Due to come forward between 2021 and 2031.	
10	East of the Downs School (HDC SHLAA Site Ref. 14)		25	N/A	2021-31	1.1km south	Construction dates unknown. Due to come forward between 2021 and 2031.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
11		Playing field south of Gilden Way (HDC SHLAA Site Ref. 22)	67	N/A	2021-31	2km east	Construction dates unknown. Due to come forward between 2021 and 2031.	
12		Former Scout Hut, Elderfield (HDC SHLAA Site Ref. 23)	6	N/A	2014-21	1.9km east	Construction dates unknown. Due to come forward between 2014 and 2021.	
13		Playing field and land east of Radburn Close south of Clifton Hatch (HDC SHLAA Site Ref. 30 (29Ref 017))	69	N/A	2021-31	3.4km south-east	Construction dates unknown. Due to come forward between 2021 and 2031.	
14		South of Hawthorns west of Riddings Lane (HDC SHLAA Site Ref. 31)	35	N/A	2021-31	3.2km south	Construction dates unknown. Due to come forward between 2021 and 2031.	
15	HW/FUL/18/00189	Land South Of 43-56 Bushey Croft Bushey Croft Harlow Essex	16	Development of 16 No. Affordable Homes Comprising 6 No. Two Bedroom and 10 No. Three Bedroom Houses on Land Between Bushey Croft and Rushes Mead	Permission granted 04/09/2018	2.9km south east	Construction dates unknown. Aerial photography does not indicate that construction has commenced.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
16		Garage blocks adjacent to Nicholls Tower (HDC SHLAA Site Ref. 36)	11	N/A	2021-31	2.5km south-east	Construction dates unknown. Due to come forward between 2021 and 2031.	
17		Elm Hatch and Public House (HDC SHLAA Site Ref. 38 (45Ref 3))	10	N/A	2014-21	2.1km south	Construction dates unknown. Due to come forward between 2014 and 2021.	
18		Stewards Farm (HDC SHLAA Site Ref. 39 (46Ref 035))	10	N/A	2021-31	3.9km south	Construction dates unknown. Due to come forward between 2021 and 2031.	
19		Land between Barn Mead and Five Acres (HDC SHLAA Site Ref. 40)	10	N/A	2021-31	2.6km south	Construction dates unknown. Due to come forward between 2021 and 2031.	
20		Kingsmoor House and gardens (HDC SHLAA Site Ref. 44 (51Ref 014))	9	N/A	2014-21	3.3km south	Construction dates unknown. Due to come forward between 2021 and 2031.	
21		Pollard Hatch plus garages and adjacent land (HDC SHLAA Site Ref. 45)	20	N/A	2014-21	2.8km south-west	Construction dates unknown. Due to come forward between 2014 and 2021.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
22		Katherines Hatch (HDC SHLAA Site Ref. 46 (56Ref 013))	10	N/A	2014-21	2.8km south-west	Construction dates unknown. Due to come forward between 2014 and 2021.	
23		Service bays rear of the Stow (HDC SHLAA Site Ref. 48 (57Ref 037)) [Application submitted for 88 units (HW/FUL/19/00257) pending decision]	8	N/A	2014-21	950m south	Construction dates unknown. Due to come forward between 2014 and 2021.	
24		Garages east of 99-102 Greenhills (HDC SHLAA Site Ref. 52 (62Ref 01))	16	N/A	2021-31	1.3km south	Construction dates unknown. Due to come forward between 2021 and 2031.	
25		Slacksbury Hatch and associated garages (HDC SHLAA Site Ref. 68 (78Ref 053))	10	N/A	2014-21	1.5km south-west	Construction dates unknown. Due to come forward between 2014 and 2021.	
26		Garage blocks between 1 and 36 Arkwrights (HDC SHLAA Site Ref. 70 (80Ref 055))	7	N/A	2014-21	1.5km south-east	Construction dates unknown. Due to come forward between 2014 and 2021.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
27	HW/FUL/18/00298; as amended by HW/NMA/19/00343	Lister House Perry Road Harlow Essex CM18 7LU	46	Demolition of Existing Medical Centre and Erection of 46 No. New Residential Apartments with Private Communal Garden and Associated Undercroft Parking	Permission granted 21/12/2018	2.8km south	Construction dates unknown. Due to come forward between 2021 and 2031.	
28	Kingsmoor Recreation Centre (HDC SHLAA Site Ref. 73)		35	N/A	2021-31	3.3km south	Construction dates unknown. Due to come forward between 2021 and 2031.	
29	Open Space to the south of Berecroft (HDC SHLAA Site Ref. 78 (88Ref 063))		294	N/A	2021-31	3.7km south	Construction dates unknown. Due to come forward between 2021 and 2031.	
30	Wissants and adjacent playground (HDC SHLAA Site Ref. 83 (93Ref 068))		6	N/A	2014-21	3.3km south-west	Construction dates unknown. Due to come forward between 2014 and 2021.	
31	Land and Buildings at Wych Elm inc. bus garage and fire station (HDC SHLAA Site Ref. 88)		500	N/A	2021-31 and beyond plan period	650m south	Construction dates unknown. Due to come forward between 2021 and 2031.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
31a		Wych Elm House, Wych Elm, Harlow, Essex, CM20 1QR (Part delivery of HDC SHLAA Site Ref. 88)	122	Demolition of existing buildings and the erection of a 2-11 storey building comprising 122 no. residential units (Class C3), and 763 sq. m of ground floor commercial floorspace (Classes A1, A2, A3, D1), together with associated works and public realm improvements.	Permission granted 06/02/20	0.9km south	Unknown. Aerial photography indicates that construction work has not commenced.	
32		Land Adjacent to Katherines School HDC SHLAA Site Ref. 96 (107Ref 079)	27	N/A	2014-21	2.75km south-west	Construction dates unknown. Due to come forward between 2014 and 2021.	
33		Fishers Hatch HDC SHLAA Site Ref. 98	10	N/A	2021-31	1.2km south	Construction dates unknown. Due to come forward between 2021 and 2031.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
34		Colt Hatch community centre and adjacent land HDC SHLAA Site Ref. 101	11	N/A	2021-31	1km south-west	Construction dates unknown. Due to come forward between 2021 and 2031.	
35		Land between Second Avenue and St Andrews Meadow HDC SHLAA Site Ref. 142	16	N/A	2014-21	1.9km south	Construction dates unknown. Due to come forward between 2014 and 2021.	
36		Northbrooks Playing Fields HDC SHLAA Site Ref. 161	70	N/A	2021-31	1.5km south-west	Construction dates unknown. Due to come forward between 2021 and 2031.	
37		Playing field west of Deer Park HDC SHLAA Site Ref. 171 (OthCan184)	69	N/A	2021-31	3km south-west	Construction dates unknown. Due to come forward between 2021 and 2031.	
38		Land northwest of Kingsland HDC SHLAA Site Ref. 241	41	N/A	2014-21	2km south	Construction dates unknown. Due to come forward between 2014 and 2021.	
39		Playground & land between Little Pynchons and Pear Tree Mead HDC SHLAA Site Ref. 245	12	N/A	2021-31	3km south	Construction dates unknown. Due to come forward between 2021 and 2031.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
40	Playground west of 93-100 Jocelyns HDC SHLAA Site Ref. 251		12	N/A	2021-31	940m east	Construction dates unknown. Due to come forward between 2021 and 2031.	
41	Sherards House and adjacent land HDC SHLAA Site Ref. 266 (PrCn45)		15	N/A	2021-31	2.3km south-west	Construction dates unknown. Due to come forward between 2021 and 2031.	
42	HW/PL/04 /00302 (as amended)	Phase 2 New Hall Farm and Hubbards Hall Farm (Whole Site), London Road, Harlow	2,300	Outline Planning Permission Is sought for the erection of 2,300 dwellings including parkland and recreation, employment and the development of the Local Centre into a full Neighbourhood Centre.	Outline permission granted 26/06/2012.	1.5km south-east	Construction period of approximately 15 years. Construction has commenced on-site with majority of Phase 2a completed.	Under construction. Early phases complete and occupied.
43	HW/PL/13 /00098 & HW/PL/13 /00100			The approval of reserved matters in relation to Parcel 1 of outline planning permission for Newhall Phase 2 (outline planning permission ref. HW/PL/04/00302)/ Phase 1 is being submitted as two linked applications, Area A and Area B, comprising in total 328 units.	Both RMAs granted approval 13/06/2013			

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
44	1 & 1a Walfords Close (HDC SHLAA Site Ref. 284 PrCn71)		12	N/A	2014-21	1.2km south-east	Construction dates unknown. Due to come forward between 2014 and 2021.	
45	Westgate House and MS carpark (HDC SHLAA Site Ref. 287 PrCn74)		170	N/A	2014-21	890m south	Construction dates unknown. Due to come forward between 2014 and 2021.	
46	Coppice Hatch and garages (HDC SHLAA Site Ref. 301 UCS23)		16	N/A	2021-31	2.3km south	Construction dates unknown. Due to come forward between 2021 and 2031.	
47	Pypers Hatch (HDC SHLAA Site Ref. 314 UCS45)		10	N/A	2021-31	1.75km south-east	Construction between 2021 and 2031.	
48	Garage block south-east of Fesants Croft (HDC SHLAA Site Ref. 327 UCS68)		7	N/A	2014-21	1.1km south	Construction dates unknown. Due to come forward between 2021 and 2031.	
49	Garage block south of 84-97 Barn Mead (HDC SHLAA Site Ref. 336 UCS80)		6	N/A	2021-31	2.5km south	Construction dates unknown. Due to come forward between 2021 and 2031.	
50	Land east of 144-154 Fennells (HDC SHLAA Site Ref. 343 UCS90)		23	N/A	2021-31	3.8km south	Construction dates unknown. Due to come forward between 2021 and 2031.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
51		Land associated with Hestor House and Hester Mews (HDC SHLAA Site Ref. 347 UCS99)	15	N/A	2021-31	500m south-west	Construction dates unknown. Due to come forward between 2021 and 2031.	
52		Maunds Hatch and Hall (HDC SHLAA Site Ref. 352 UCS109)	10	N/A	2021-31	3.4km south	Construction between 2021 and 2031.	
53		Summers Hatch (HDC SHLAA Site Ref. 361)	19	N/A	2021-31	3.6km south-west	Construction dates unknown. Due to come forward between 2021 and 2031.	
54	HW/FUL/15/00229 (as amended)	Aylets Field; the briars; Copshall Close; - known as Priority Estates	343	Outline Planning application for the Estate Regeneration: Demolish 218 Bungalows and Related Infrastructure, erect 343 One, Two, Three and Four-Storey, Detached, Semi-Detached and Terraced Houses and Flats (200 Affordable Dwellings and 143 Market Homes) and a Community Centre, Lay Out Estate Roads, Footpaths, Parking Spaces, Public and Private Amenity Areas,	Granted permission 07/01/16	3.3km south	Construction dates unknown. Aerial photography shows construction is in progress.	Phases 1 and 2 complete and residents in situ. Phase 3 under construction.

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
				Drainage Infrastructure, and Landscaping				
55	N/A	Green Belt North East Harlow	2,600	Will come forward when Local Plan is finalised. Based on work in Harlow Strategic Sites Assessment.	-	3km east	January 2021 to December 2031	
56	HW/COU OR/16/00 119	Greenway House Parkway Harlow Essex CM19 5QD	78	Change of Use from Office Use (Class B1) to 78 Dwellinghouses (Class C3)	Prior approval not required 03/06/2016	2.5km south-west	Unknown. No works have not yet commenced.	Complete. Residents in situ.
57	HW/COU OR/16/00 027	Templefields House, River Way Harlow, CM20 2EA	154	Change of Use from Class B1(a) (Offices) to Class C3 (Dwellinghouses) Comprising 154 Units (83 Studios, 68 x 2 Bedrooms)	Prior Approval not required 03/03/16	0.7km east	Unknown. No works have not yet commenced.	Complete. Residents in situ.
58	HW/FUL/17/00097	Proposed Redevelopment of Land at Harvey Centre, West	468	Demolition of the existing buildings and comprehensive re-development of the site to provide a mixed-use development (including 4 new buildings ranging	Granted 06/10/17	1km south	Demolition has commenced and construction is expected to be completed by 2021.	Aerial Photography does not indicate that

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
		Gate, Market Square, Broad Walk, West Gate, Harlow		from 3 to 16 storeys) comprising 468 residential units, circa 2,900 m2 of flexible retail floorspace, communal amenity space, a new pedestrian boulevard, car parking, cycle parking, with associated hard and soft landscaping, revised access and servicing arrangements.				works have commenced.
59	HW/OUTA M/17/002 46	Third Avenue, Harlow, CM19 5AW	N/A	Redevelopment of The Former GSK South Site To erect Up To 46,916m2 (GIA) of Class B8 Floorspace, Including Demolition of Buildings, Construction of New Paved Surfaces, Boundary Treatment and Landscaping, Parking and Associated Works.	Granted 22/12/17	2km south	Enabling works Q4 2018, construction due to commence 2019. Due to be complete by 2023.	Plot 2 and Plot 3 units constructed. Enabling works have commenced on Plot 4.
60	HW/FUL/1 7/00563	1-7 Burnt Mill Harlow CM20 2HT	172	Demolition of Existing Motor Dealership Buildings and Replacement with a Development Comprising 172 Residential Units, 1,155m ² of Office Floorspace	Granted 04/06/18	Adjacent to west	Construction dates unknown.	Aerial Photography does not indicate that works have

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
				(within Class B1) and 159 Car Parking Spaces.				commenced. Consent has now expired.
61		Land to the North of West Road (SAWB2)	125	Land to the north of West Road is allocated as a residential development site, to accommodate approximately 125 homes by 2022.	-	2.7km east	Construction dates unknown. Due to be complete by 2022.	
62		Land to the South of West Road (SAWB3)	175	Land to the south of West Road is allocated as a residential development site, to accommodate approximately 175 homes by 2022.	-	2.3km east	Construction dates unknown. Due to be complete by 2022.	
63		Land to the North of Sawbridgeworth (SAWB4)	200	Land to the north of Sawbridgeworth is allocated as a residential development site, to accommodate approximately 200 homes by 2027.	-	3.5km north-east	Construction dates unknown. Due to be complete by 2027.	
63a	3/18/2735 /FUL	Land At Cambridge Road,	184	Hybrid planning application comprising: Full planning permission for 85 dwellings along		4.6km east	Unknown	Application validated January 2019.

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
		Sawbridge- worth (Delivery of the SAWB4 Site)		with a new access onto Cambridge Road, provision of new spine road, landscaping, associated infrastructure and the demolition of existing dwelling; and Outline planning permission for 99 dwellings with associated open space, landscape and infrastructure with all matters reserved except access.				Awaiting decision.
64	Land North and East of Ware (WARE2)		1,000	Land to the North and East of Ware is allocated as a mixed-use development site, to accommodate approximately 1,000 new homes by 2033. II. In the longer term, and in the event that suitable mitigation measures to identified constraints on both the local and wider strategic road networks can be identified and agreed by HCC, a	-	4km west	Construction dates unknown. Due to be complete by 2033, with potential for a further 500 homes to be delivered in this location post 2033.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
				further 500 dwellings will also be delivered in this location.				
65	HW/CR3B /17/40003 (ECC ref: CC/EPF/08 /17)	Junction 7a on M11, Gilden Way, Harlow Essex	N/A	Construction of a new motorway junction (Junction 7a) on the M11 between existing junctions 7 and 8, to be located approximately 6km north of existing Junction 7, to the north of Moor Hall Road/Matching Road crossing and to the south of Sheering Village and the proposed construction of a new link road and roundabout to link the proposed Junction 7a to Gilden Way (B183) and Sheering Lower Road, to the north-east of Harlow Town in the district of Epping Forest. Proposed widening and road improvements to Sheering Road and Gilden Way (B183) from the proposed new Sheering Road roundabout to the London Road	Permission granted by ECC: 21/07.17	1.3km south-east	Due for completion in Q1 2021	The junction opened to traffic in June 2022.

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
				Roundabout, located within the district of Harlow.				
66	HW/LDCP/16/00488	A414 - A1184 Carriageway Dualing Scheme, Edinburgh Way, Harlow	N/A	Localised Highway Improvements to The A414, including Road Widening to Dual Carriageway Along Edinburgh Way Between The Roman Roundabout and The Harlow Mill Roundabout, Improvements To The Harlow Mill Roundabout and Roundabout Approaches from Station Approach and Cambridge Road. Improvements to include Provision for Pedestrians and Cyclists.	Granted 06/10/17	0.15km south	Eastbound carriageway widening/footway and drainage works were completed October 2019. Anticipated completion date of June 2020.	Works complete and operational.
67	HW/FUL/17/00130 (as amended by HW/NMA/17/00324)	A414 Link Road, London Road, Harlow	N/A	Second Primary Access and Associated Highway Works to Serve Newhall Phase II.	Granted by HDC: 06/07/17	1.4km south-east	Unknown.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
68	HW/CCRE G4/17/00 207 (ECC ref: CC/HLW/2 1/17	New access on A1184, Cambridge Road, Harlow	N/A	Planning Permission to Provide a new access from the A1184 (Cambridge Road) to The Templefields Enterprise Zone on River Way, Harlow. Scheme Includes Off Site Mitigation Works and Other Ancillary Works.	Granted by ECC: 28/07/2017	1km east	Unknown.	
69	3/19/2124 /O UT	Gilston Village 7	1,500	Outline planning application for development including demolition of existing structures, refurbishment and change of use of existing Grade II Listed Brickhouse Farm Barn and structures and erection of a residential led mixed use development comprising: up to 1,500 residential market and affordable homes; a mixed use local village centre; retail, business and community uses; primary school, early years and	Decision pending	Adjacent to the west of the Site	Construction anticipated to commence in 2022. Anticipated completion by 2030.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
				nursery facilities; leisure and sports facilities; open spaces, ecological areas, woodlands and public realm; pedestrian, cycle and vehicular accesses and network within the site; associated drainage, utilities, energy and waste facilities and infrastructure; works to and realignment of the existing highway; other supporting works, facilities and infrastructure; together with associated temporary enabling works or structures. With all matters reserved apart from detailed works to the A414 Church Lane junction.				
70	HW/FUL/18/00144	Edinburgh House Car Park,	361	Redevelopment of existing car park associated with former Pearson House.	Permission granted 12/09/19	0.4km south east	Unknown. Aerial photography indicates that construction work has not commenced.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
		Edinburgh Gate, Harlow, Essex		Erection of two blocks of between 2- 11 storeys in height comprising 361 dwellings including ground and first floor car parking together with associated development including podium and ground floor amenity space, landscaping, surface car parking, new pedestrian links, cycle and refuse stores				
71	3/14/1408 /F P	Land At Crane Mead, Crane Mead, Ware, Hertfordshire SG12 9PY	101	Demolition of the existing building and erection of a mixed-use development comprising 101 residential (C3) apartments and employment (B1) space, along with associated highway and landscape works.	Permission granted 14/11/14	5.5km west	Unknown. Aerial photography indicates construction work has not commenced.	
72	HW/OUTA M /17/00246 (as amended	New Frontiers Science Park Third Avenue Harlow	N/A	Redevelopment of The Former GSK South Site to erect up to 46,916 sqm (GIA) of Class B8 Floorspace, Including Demolition of Buildings, Construction of New	Permission granted 22/12/17	2.3km south west	Construction works anticipated to have commenced January 2018. Anticipated completion in December 2020.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
	by HW/NMA/ 18 /00091; HW/NMA/ 19 /00327; HW/NMA/ 19/00328; and, HW/NMA/ 19 /00412)	Essex CM19 5AW		Paved Surfaces, Boundary Treatment and Landscaping, Parking and Associated Works				
73	HW/OUTA M /17/00372	New Frontiers Science Park, Coldharbour Road, Harlow, Essex, CM19 5AD	N/A	Outline Application for up to 115,200 sq .m. (GIA) of Offices, Research and Development Laboratories (Class B1), Ancillary Facilities, New Accesses, Landscaping, Parking and Ancillary Works	Permission granted 23/10/18	2km south west	Enabling and construction due to commence in 2018 and 2019 respectively. Anticipated completion in 2024.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
74	3/13/0804 /OP (as amended)	Land At Bishops Stortford North, Bishops Stortford	2,200	Erection of up to 2,200 dwellings inclusive of affordable housing; green infrastructure, amenity and formal and informal recreation space; landscaping; development of 2 mixed use local centres on 4.1 hectares of land providing up to 21,000 sq.m. (gross) commercial floorspace (Use Class B1 a, b and c) inclusive of (if required) a maximum of 3,000 sq.m. (gross) for healthcare facilities (Use Class D1), together with retail floorspace (Use Classes A1, A2, A3, A4 & A5) up to a maximum of 1,200 sq.m. (gross), residential development (use Class C3), and the potential for other community/ cultural/leisure (Use	Permission granted 02/04/15	7km north east	Construction commenced Q2 2017. Anticipated completion date is not known.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
				Class D1 & D2) if required (floorspace to be agreed); the potential for an additional 0.5 hectares of land for up to 4,000 sq.m. (gross) commercial floorspace (Use Class B1 a, b and c) if required or for residential purposes (Use Class C3) if not; a primary school and associated facilities on 1.25 hectares of land; a further primary school on 2 hectares of land with the potential to extend by 1.08 hectares if required or for the expansion land to be used for residential purposes if not; 4 new junctions (A120, Hadham Road, Rye Street and Farnham Road); estate roads and public transport route; footpaths/ cycleways; site profiling/ earthworks; a noise bund with				

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
				barrier; a sustainable drainage system; utilities services including foul water pumping stations; 2 residential garden extensions; and the demolition of 221 Rye Street and 164 & 166 Hadham Road. (All matters reserved with the exception of full details of the appearance, landscaping, layout and scale of the residential element of Phase 1 and Access for Phases 1 & 2).				
75	HW/OUTA M/21/002 5	Land at Harvey Centre at West Gate on Market Square Broad Walk West Gate, Harlow	578	Hybrid planning application to demolish the existing buildings and provide a comprehensive re-development of the site with a mixed-use development comprising up to 578 residential units, up to 3,000sqm (GEA) flexible retail/drinking establishment/leisure/community /commercial space (Use Classes E	Approved October 2022.	1.5km south	Construction anticipated to begin in Q2 2022 and be completed by Q1 of 2031. As the application is still pending, the revised construction period is unknown.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
				and sui generis), communal residential amenity space, a new pedestrian boulevard, public realm improvements, car and cycle parking with associated plant and hard/soft landscaping. All matters are reserved for Blocks B, C2 and C3. Blocks A and C1 and associated public realm is submitted in detail. Amended Description Proposal.				
76	07/20/046 7/F	Former Turnford Surfacing Site Rye Works Rye Road Hoddesdon En11 0Gr	104	Redevelopment of a brownfield site to provide 104 residential units, consisting of 29 one bedroom apartments, 62 two bedroom apartments and 13 three bedroom town houses and one small commercial unit for A1/ A2/ A3/ B1a/ D1 or D2 use. Associated junction improvement works to Rye Road/ Fishermans		3.2km south west.	Unknown.	Application validated June 2020.

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
				Way and public tow path improvement works				
77	07/22/084 4/F	Land At Ratty's Lane Hoddesdon Hertfordshire EN11 0RF	N/A	Full planning application for the erection of a 5,650 sqm Industrial / Warehouse Building service yard and parking including access onto Ratty's Lane.		3.5km south west	Unknown.	Validated 01.09.2022 Application pending.
78	HW/FUL/19/00291	15 - 29 West Gate Harlow Essex CM20 1JP	163	Demolition of existing building and redevelopment of the site to provide a mixed use development within a part 8 and part 12 storey building comprising 163 residential units, circa 390sqm of flexible commercial (Use Class A1/A2/A3/A4/A5/D2) floorspace, and ancillary communal amenity, car parking and cycle storage.		4.8km south east	Unknown.	Planning Permission granted (subject to S106) 14.02.20
79	CC/HLW/01/20, as amended by	Gilden Way, Harlow	-	The construction of a new 2FE (420 pupils) Primary School with associated playing fields, hard play areas, MUGA, landscaping,	Approved January 2021.	3km east	Unknown.	

No.	Ref. No.	Site Address (Site Allocation)	Units	Proposals	Status/Date November 2020	Approx. Distance from Site Boundary	Timing Assumptions	Status August 2022 (if different to November 2020)
	CC/HLW/1 36/20			cycle/scooter storage, staff parking and supporting infrastructure. Relocation of existing Harlowbury Primary School in Harlow.	Granted April 2022			
80	HW/FUL/2 1/00625	Sir Frederick Gibberd College, Harlow	-	Construction of a new school for 64 pupils with complex, and severe social, emotional and mental health difficulties, aged 7-16 years old, with on-site residential accommodation for 15 pupils.		2km south	Unknown.	