West Oxfordshire District Council

Salt Cross Garden Village Area Action Plan: Proposed Main Modifications

Habitats Regulations Assessment Report

Final report
Prepared by LUC
July 2022

West Oxfordshire District Council

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Chapter 1
Introduction

1.1 LUC has been commissioned by West Oxfordshire District Council (WODC) to carry out a Habitats Regulations Assessment (HRA) in relation to the Area Action Plan (AAP) for Salt Cross Garden Village. Expert input relating to air quality has been provided by Air Quality Assessments Ltd.

1.2 This report presents the findings of the Screening and Appropriate Assessment stages of the HRA, which have been undertaken in relation to the Pre-Submission Draft version of the AAP (July 2020) as proposed to be updated by the Schedule of Proposed Main Modifications (July 2022). This report is an updated version of the HRA Report that was previously prepared for the Pre-Submission Draft AAP in August 2020, which in turn built on the HRA Screening Report that was prepared for the Preferred Options version of the AAP in December 2019.

Background to the AAP

1.3 The West Oxfordshire Local Plan 2031 was adopted in September 2018 by WODC. Policy EW1 in the Local Plan allocates the Oxfordshire Cotswolds Garden Village Strategic Location for Growth (the garden village has since become known as 'Salt Cross'). The garden village site is located on land north of the A40 near Eynsham, situated between Oxford in the east and Witney in the west.

1.4 Policy EW1 requires an AAP to be prepared to lead the comprehensive development of the garden village. Once adopted, the AAP will form part of the statutory development plan alongside the West Oxfordshire Local Plan and will be used as the basis for determining any future planning applications for the garden village site.

1.5 The AAP must comply with the National Planning Policy Framework (NPPF). Examples of other national and local plans and strategies of relevance to the AAP include the Government's 25 Year Environmental Plan and the Clean Growth Strategy, as well as the Oxfordshire Housing and Growth Deal, the Local Transport Plan, the Oxfordshire Local Industrial Strategy, and the Oxfordshire Energy Strategy.

1.6 The garden village will provide about 2,200 homes, a 40ha science and technology park and various supporting facilities and services including a park and ride system and new schools. It will also involve the creation of green spaces and ecological corridors.

The requirement to undertake Habitat Regulations Assessment of Development Plans

1.7 The requirement to undertake HRA of development plans was confirmed by the amendments to the Habitats Regulations published for England and Wales in 2007[1]. The currently applicable version is the Conservation of Habitats and Species Regulations 2017[2] (as amended). When preparing the AAP for the garden village, WODC is therefore required by law to carry out an HRA. WODC can commission consultants to undertake HRA work on its behalf and this (the work documented in this report) is then reported to and considered by WODC as the 'competent authority'. WODC will consider this work and may only progress the AAP if it considers that the Plan will not adversely affect the integrity of any European site or have a significant effect on qualifying habitats or species for which the European sites e designated for. The requirement for authorities to comply with the Habitats Regulations when preparing a Plan is also noted in the Government's online Planning Practice Guidance (PPG)[3].

1.8 HRA refers to the assessment of the potential effects of a development plan on one or more sites afforded the highest level of protection in the UK: Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). These were classified under European Union (EU) legislation but, since 1st January 2021, are protected in the UK by the Habitats Regulations 2017[4] (as amended). Although the EU Directives from which the UK's Habitats Regulations originally derived are no longer binding, the Regulations still make reference to the lists of habitats and species that the sites were designated for, which are listed in annexes to the EU Directives:

- SACs are designated for particular habitat types (specified in Annex 1 of the EU Habitats Directive[5]) and species (Annex II).
- SPAs are classified for rare and vulnerable birds (Annex I of the EU Birds Directive[6]), and for regularly occurring migratory species not listed in Annex I.

1.9 The term 'European sites' was previously commonly used in HRA to refer to 'Natura 2000' sites[7] and Ramsar sites (international designated under the Ramsar Convention). However, a Government Policy Paper[8] on changes to the Habitats Regulations 2017 post-Brexit states that:

- Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new 'national site network'.
- The national site network includes existing SACs and SPAs; and new SACs and SPAs designated under these Regulations.
- Designated Wetlands of International Importance (known as Ramsar sites) do not form part of the national site network. Many Ramsar sites overlap with SACs and SPAs and may be designated for the same or different species and habitats.
- Although Ramsar sites do not form part of the new national site network, the Government Policy Paper[9] confirms that all Ramsar sites remain protected in the same way as SACs and SPAs.
- Currently, the Government also expects potential SPAs (pSPAs)[10], Candidate SACs (cSACs)[11] and Sites of Community Importance (SCIs)[12] to be included within the assessment.

1.10 In LUC's view and unless the Government provides any guidance to the contrary, potential effects on Ramsar sites should continue to form part of the HRA of plans and projects since the requirement for HRA of plans and projects that might adversely affect Ramsar sites forms an essential part of the protection confirmed by the Government Policy Paper. Furthermore, the NPPF[13] and practice guidance[14] currently still state that competent authorities responsible for carrying out HRA should treat Ramsar sites in the same way as SACs and SPAs.

1.11 The requirement for HRA does not apply to other nationally designated wildlife sites such as Sites of Special Scientific Interest (SSSIs) or National Nature Reserves

[1] *The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007* (2007) SI No. 2007/1843. TSO (The Stationery Office), London.
[2] *The Conservation of Habitats and Species Regulations 2017* (2017) SI No. 2017/1012, TSO (The Stationery Office), London.
[3] https://www.gov.uk/guidance/appropriate-assessment
[4] The Conservation of Habitats and Species Regulations 2017 (2017) SI No. 2017/1012, as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579), TSO (The Stationery Office), London.
[5] Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive')
[6] Directive 2009/147/EC of 30 November 2009 on the conservation of wild birds (the 'Birds Directive')
[7] The network of protected areas identified by the EU: https://ec.europa.eu/environment/nature/natura2000/index_en.htm
[8] https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017
[9] https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017
[10] Potential SPAs are sites that have been approved by the Minister for formal consultation but not yet proposed to the European Commission, as listed on the GOV.UK website.
[11] Candidate SACs are sites that have been submitted to the European Commission, but not yet formally adopted, as listed on the JNCC's SAC list.
[12] SCIs are sites that had been adopted by the European Commission before the day of the UK's exit from the EU (31 January 2020) but not yet formally designated as SACs by the UK Government.
[13] NPPF para 176, available from https://www.gov.uk/guidance/national-planning-policy-framework
[14] The HRA Handbook, Section A3. David Tyldesley & Associates, a subscription based online guidance document: https://www.dtapublications.co.uk/handbook/European

(NNRs); therefore, for clarity, this report uses the term 'European sites', rather than 'national site network'.

1.12 The overall purpose of the HRA is to conclude whether or not a proposal or policy, or whole development plan would adversely affect the integrity of the site in question. This is judged in terms of the implications of the plan for a site's 'qualifying features' (i.e. those Annex I habitats, Annex II species, and Annex I bird populations for which it has been designated). Significantly, HRA is based on the precautionary principle. Where uncertainty or doubt remains, an adverse effect should be assumed.

Stages of HRA

1.13 The HRA of development plans is undertaken in stages (as described below) and should conclude whether or not a proposal would adversely affect the integrity of the European site in question.

1.14 The HRA should be undertaken by the 'competent authority', in this case WODC. LUC has been commissioned by WODC to carry out HRA work on the Council's behalf, although this is to be reported to and considered by WODC as the competent authority, before adopting the AAP. The HRA also requires close working with Natural England as the statutory nature conservation body[15] in order to obtain the necessary information, agree the process, outcomes and mitigation proposals. The Environment Agency, while not a statutory consultee for the HRA, is also in a strong position to provide advice and information throughout the process as it is required to undertake HRA for its existing licences and future licensing of activities.

Requirements of the Habitats Regulations

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

- Step 1: Under Reg. 105(1)(b), consider whether the plan is directly connected with or necessary to the management of the sites. If not, then the considerations proceed to Step 2.
- Step 2: Under Reg. 105(1)(a) consider whether the plan is likely to have a significant effect on a European site, either alone or in combination with other plans or projects (the 'Significance Test'). If yes, proceed to Step 3.

  *[Steps 1 and 2 are undertaken as part of Stage 1: HRA Screening in **Table 1.1**.]*
- Step 3: Under Reg. 105(1), make an Appropriate Assessment of the implications for the European site in view of its current conservation objectives (the 'Integrity Test'). In so doing, it is mandatory under Reg. 105(2) to consult Natural England, and optional under Reg. 105(3) to take the opinion of the general public.

  *[This step is undertaken during Stage 2: Appropriate Assessment shown in **Table 1.1**.]*
- Step 4: In accordance with Reg. 105(4), but subject to Reg. 107, give effect to the land use plan only after having ascertained that the plan would not adversely affect the integrity of a European site.
- Step 5: Under Reg. 107, if Step 4 is unable to rule out adverse effects on the integrity of a European site and no alternative solutions exist then the competent authority may nevertheless agree to the plan or project if it must be carried out for 'imperative reasons of overriding public interest' (IROPI).

Typical stages

1.16 **Table 1.1** summarises the stages and associated tasks and outcomes typically involved in carrying out a full HRA, based on various guidance documents[16] [17] [18].

Table 1.1: Stages of HRA

Stage	Task	Outcome
Stage 1: HRA Screening	Description of the development plan and confirmation that it is not directly connected with or necessary to the management of European sites. Identification of potentially affected European sites and their conservation objectives[19]. Review of other plans and projects.	Where effects are unlikely, prepare a 'finding of no significant effect report'. Where effects judged likely, or lack of information to prove otherwise, proceed to Stage 2.

[15] Regulation 5 of the Habitats Regulations 2017.
[16] European Commission (2001) Assessment of plans and projects significantly affecting European Sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.
[17] UK Government Planning Practice Guidance, available from https://www.gov.uk/guidance/appropriate-assessment
[18] The HRA Handbook. David Tyldesley & Associates, a subscription based online guidance document: https://www.dtapublications.co.uk/handbook/European
[19] Conservation objectives are published by Natural England for SACs and SPAs.

Stage	Task	Outcome
	Assessment of Likely Significant Effects of the development plan alone or in combination with other plans and projects, prior to consideration of avoidance or reduction ('mitigation') measures[20].	
Stage 2: Appropriate Assessment (where Stage 1 does not rule out likely significant effects)	Information gathering (development plan and European sites[21]). Impact prediction. Evaluation of development plan impacts in view of conservation objectives of European sites. Where impacts are considered to directly or indirectly affect qualifying features of European sites, identify how these effects will be avoided or reduced ('mitigation').	Appropriate Assessment report describing the plan, European site baseline conditions, the adverse effects of the plan on the European site, how these effects will be avoided or reduced, including the mechanisms and timescale for these mitigation measures. If effects remain after all alternatives and mitigation measures have been considered proceed to Stage 3.
Stage 3: Assessment where no alternatives exist and adverse impacts remain taking into account mitigation	Identify 'imperative reasons of overriding public interest' (IROPI). Demonstrate no alternatives exist. Identify potential compensatory measures.	This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.

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

Relevant case law

1.18 This HRA has been prepared in accordance with relevant case law findings from recent years, including most notably the 'People over Wind' and 'Holohan' rulings from the Court of Justice for the European Union (CJEU).

1.19 The *People over Wind, Peter Sweetman v Coillte Teoranta* (April 2018) judgment ruled that Article 6(3) of the Habitats Directive should be interpreted as meaning that mitigation measures should be assessed as part of an Appropriate Assessment and should not be taken into account at the screening stage. The precise wording of the ruling is as follows:

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

1.20 In light of the above, the HRA Screening stage does not rely upon avoidance or mitigation measures to draw conclusions as to whether the AAP could result in 'likely significant effects' on European sites, with any such measures being considered at the Appropriate Assessment stage as relevant.

1.21 The HRA has also considered the *Holohan v An Bord Pleanala* (November 2018) judgement which stated that:

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

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

[20] In line with the CJEU judgment in Case C-323/17 People Over Wind v Coillte Teoranta, mitigation must only be taken into consideration at this stage and not during Stage 1: HRA Screening.

[21] In addition to European site citations and conservation objectives, key information sources for understanding factors contributing to the integrity of European sites include (where available) conservation objectives supplementary advice and Site Improvement Plans prepared by Natural England.

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

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

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

HRA work carried out previously

1.23 At an early stage of the development of the AAP, advice was sought by WODC from Natural England who recommended that the following required consideration:

- The AAP should be screened under Regulation 105 of the Conservation of Habitats and Species Regulations 2017.
- Air Pollution – in particular, traffic impacts on local roads within the vicinity of the garden village site. Designated sites at risk from local impacts are those within 200m of a road with increased traffic.
- Protecting and Enhancing Environment Assets – the AAP needs to make provisions for appropriate quantity and quality of greenspace to meet identified local needs as outlined in paragraph 96 of the NPPF. Guidance can be sought from Natural England's work on Accessible Natural Greenspace Standard (ANGSt) in assessing current level of accessible natural greenspace and planning improved provision.

1.24 An HRA Screening Report was prepared in December 2019 in relation to the Preferred Options version of the AAP. The conclusion of the Screening Report was that there could be likely significant effects on Oxford Meadows SAC in relation to increased air pollution and Appropriate Assessment was therefore required; all other types of effects on European sites were able to be screened out. That HRA screening exercise was updated in August 2020 to reflect the contents of the Pre-Submission Draft version of the AAP and the report was expanded to include the Appropriate Assessment stage of the HRA. The report (including both the screening and Appropriate Assessment stages) has now been updated again to take into account the Schedule of Proposed Main Modifications to the AAP which has been prepared following Examination hearings.

1.25 The HRA Screening Report for the Preferred Options AAP was sent to Natural England for consultation in December 2019, and the response received can be found in **Appendix A**. Natural England was supportive of the conclusions of the report. The HRA Report for the Pre-Submission Draft AAP was also sent to Natural England for consultation in 2020 and the response received is presented in **Appendix A**. Natural England was again supportive of the HRA Report and the conclusions of the screening and Appropriate Assessment stages.

1.26 The West Oxfordshire Local Plan was also subject to HRA throughout its preparation, with the submitted HRA report (March 2015)[22] being updated in October 2016[23] to take into account the Main Modifications to the Plan. The HRA considered all Local Plan policies, including policy EW1 which allocates the garden village. Policy EW1 was screened in as having potential for likely significant effects on Oxford Meadows SAC and Cothill Fen SAC, but following Appropriate Assessment the HRA concluded that there will be no adverse effects on the integrity of any European site from the implementation of the Local Plan as modified, either alone or in combination with other plans and projects. Despite this conclusion, the AAP is still being subject to HRA throughout its preparation, reflecting Natural England's advice, the precautionary principle which underpins the HRA process and in order to allow for the most up-to-date case law to be taken into account.

Structure of this report

1.27 This chapter (**Chapter 1**) has described the background to the preparation of the AAP and the requirement to undertake HRA. The remainder of the report is structured into the following sections:

- **Chapter 2** describes the content of the Pre-Submission Draft version of the AAP as proposed to be modified. It also describes the European sites in and around West Oxfordshire that could be affected by the AAP and

[22] URS (March 2015) West Oxfordshire Pre-Submission Local Plan: Habitats Regulations Assessment.

[23] Aecom (October 2016) West Oxfordshire Local Plan: Habitats Regulations Assessment Incorporating Appropriate Assessment.

summarises the key issues that need to be considered during the HRA.

- **Chapter 3** describes the approach that has been taken to the HRA of the AAP.
- **Chapter 4** sets out the findings of the Screening stage of the HRA for the Pre-Submission Draft version of the AAP, taking into account the proposed Main Modifications.
- **Chapter 5** sets out the findings of the Appropriate Assessment stage of the HRA for the Pre-Submission Draft version of the AAP as proposed to be modified.
- **Chapter 6** summarises the HRA conclusions and explains the next steps.

1.28 The information in the main body of the report is supported by the following appendices:

- **Appendix A** presents the consultation responses that were received from Natural England in relation to the HRA Screening Report for the Preferred Options AAP (December 2019) and the HRA Report for the Pre-Submission Draft AAP (August 2020).
- **Appendix B** presents a map showing the European sites within West Oxfordshire District (+15km).
- **Appendix C** sets out detailed information about the European sites that are the focus of this HRA.
- **Appendix D** includes the screening matrices for the policies in the Pre-Submission Draft AAP, taking into account the Schedule of Proposed Main Modifications.
- **Appendix E** includes the location of Oxford Meadows in relation to the A40 and A34.
- **Appendix F** includes the location of the air quality monitoring transects used within the Oxford Meadows SAC.
- **Appendix G** includes the air quality modelling methodology.
- **Appendix H** sets out the total annual mean NOx on each transect along the A40.
- **Appendix I** presents the Schedule of Proposed Main Modifications (July 2022) and identifies whether each modification affects the HRA conclusions reached previously.

Chapter 2
The Salt Cross Garden Village AAP

2.1 The Pre-Submission Draft version of the AAP (July 2020) as proposed to be modified by the Schedule of Proposed Modifications (July 2022) sets out a vision and objectives for Salt Cross Garden Village as well as a series of policies. The vision for the garden village states that:

> By 2031, Salt Cross will be established as a thriving and inclusive community, epitomising all that is good about West Oxfordshire but with its own strong and distinctive character, form and identity, embracing and celebrating the site's rural setting and important local heritage.
>
> Salt Cross will be known for its emphasis on the environment, quality and innovation and will tackle the challenges presented by climate change 'head-on,' adopting a zero-carbon and natural capital based approach providing a model example of how to plan a new community for the 21st century in a logical, organic and sustainable way. The perfect setting for wildlife and people to flourish together.
>
> Those who live there will enjoy a healthy, high quality of life, with affordable, attractive and energy efficient homes set within leafy, walkable village neighbourhoods closely integrated with extensive green space including a new countryside park and supported by a range of facilities including schools, community space, leisure and recreation and local shopping opportunities.
>
> Those who work there will be drawn by a broad range of exciting employment and training opportunities with high quality business space in an attractive rural setting, reliable and integrated public transport choices and 'future proofed' infrastructure including digital connectivity to enable and encourage high rates of home and remote working.
>
> Those who visit will experience a strong sense of place, will be able to easily and safely find their way around, enjoy a broad range of different activities and opportunities and leave wanting to return time and time again.

2.2 In order to take the vision forward, seven core themes have been identified which form the basis of the AAP:

- Climate action
- Healthy place shaping
- Protecting and enhancing environmental assets

- Movement and connectivity
- Enterprise, innovation and productivity
- Meeting current and future housing needs
- Building a strong, vibrant and sustainable community

2.3 Climate action is purposefully identified as the first theme and forms a 'golden thread' that runs through the AAP, linking to a broad range of issues including transport, design, green space, biodiversity, water management and others.

2.4 The AAP is set out in chapters according to the above themes, with each chapter presenting objectives and policies relating to the theme, which will be used to guide the development of the garden village. There are 30 policies in total.

Potential impacts of the Local Plan on European sites

2.5 **Table 2.1** below sets out the range of potential impacts that development in general and related activities may have on European sites. This has been used as a starting point to help identify the types of effects that the AAP could have on European sites. The AAP will not result in all of the different types of impacts and activities. More information about the types of impacts that the AAP could have, and which therefore need to be considered in this HRA, is provided in **Chapter 3**.

Table 2.1: Potential impacts and activities adversely affecting European sites

Broad categories and examples of potential impacts on European sites	Examples of activities responsible for impacts
Physical loss Removal (including offsite effects, e.g. foraging habitat) Mine collapse Smothering Habitat degradation	Development (e.g. housing, employment, infrastructure, tourism) Infilling (e.g. of mines, water bodies) Alterations or works to disused quarries Structural alterations to buildings (bat roosts) Afforestation Tipping Cessation of or inappropriate management for nature conservation
Physical damage Sedimentation / silting Prevention of natural processes Habitat degradation Erosion Trampling Fragmentation Severance / barrier effect Edge effects Fire	Flood defences Dredging Mineral extraction Recreation (e.g. motor cycling, cycling, walking, horse riding, water sports, caving) Development (e.g. infrastructure, tourism, adjacent housing etc.) Vandalism Arson Cessation of or inappropriate management for nature conservation
Non-physical disturbance Noise Vibration Visual presence Human presence Light pollution	Development (e.g. housing, industrial) Recreation (e.g. dog walking, water sports) Industrial activity Mineral extraction Navigation Vehicular traffic Artificial lighting (e.g. street lighting)
Water table/availability Drying Flooding / stormwater Water level and stability Water flow (e.g. reduction in velocity of surface water Barrier effect (on migratory species)	Water abstraction Drainage interception (e.g. reservoir, dam, infrastructure and other development) Increased discharge (e.g. drainage, runoff)
Toxic contamination Water pollution Soil contamination Air pollution	Agrochemical application and runoff Navigation Oil / chemical spills Tipping Landfill Vehicular traffic Industrial waste / emissions
Non-toxic contamination Nutrient enrichment (e.g. of soils and water) Algal blooms Changes in salinity Changes in thermal regime Changes in turbidity	Agricultural runoff Sewage discharge Water abstraction Industrial activity Flood defences Navigation

Broad categories and examples of potential impacts on European sites	Examples of activities responsible for impacts
Air pollution (dust)	Construction
Biological disturbance Direct mortality Out-competition by non-native species Selective extraction of species Introduction of disease Rapid population fluctuations Natural succession	Development (e.g. housing areas with domestic and public gardens) Predation by domestic pets Introduction of non-native species (e.g. from gardens) Fishing Hunting Agriculture Changes in management practices (e.g. grazing regimes, access controls, cutting/clearing)

Chapter 3
Approach to HRA

3.1 This chapter describes the approach that has been taken to the HRA of the AAP throughout its development.

Identification of European sites which may be affected by the AAP

3.2 In order to initiate the search of European sites that could potentially be affected by the AAP, it is established practice to consider European sites within the local planning authority area covered by a plan, and also within a buffer distance around the boundary of the plan area.

3.3 A distance of 15km from the West Oxfordshire District boundary was used as a starting point to identify European sites that could be affected by new development at the Salt Cross Garden Village north of Eynsham in West Oxfordshire. Consideration was also given to European sites potentially connected to the plan area beyond this distance; for example through hydrological pathways or recreational visits by residents of West Oxfordshire.

3.4 The European sites identified for inclusion in the HRA are listed below and are mapped in **Figure 1** in **Appendix B**.

3.5 European sites within West Oxfordshire District:

- Oxford Meadows SAC

3.6 European sites outside of West Oxfordshire District:

- Cothill Fen SAC
- Hackpen Hill SAC
- Little Wittenham SAC
- North Meadow and Clattinger Farm SAC
- River Lambourn SAC

3.7 There are no SPAs or Ramsar sites within West Oxfordshire District (+15km).

3.8 Hackpen Hill, Little Wittenham, North Meadow and Clattinger Farm and River Lambourn SACs are all situated outside the District boundary (either within, or very close to, the 15km buffer around the District) but were initially considered within this HRA as they had been included within the HRA for the West Oxfordshire Local Plan and to determine if there were any pathways between the garden village and these European sites which may affect their integrity, or the qualifying species/habitats for which they are designated for.

3.9 However, given the location of the garden village boundary within the District, these four SACs are therefore even further than 15km from the garden village boundary. The HRA for the West Oxfordshire Local Plan screened out these SACs, concluding that the Local Plan (including the garden village allocation) would not have likely significant effects on them as there are no impact pathways between the sites and the plan area. Therefore, these SACs are screened out of this HRA and the only European sites that needed to be considered further were Oxford Meadows SAC and Cothill Fen SAC.

Ecological attributes of the European sites

3.10 The designated features and conservation objectives of the two screened in European sites, together with current pressures on and potential threats, have been presented in **Appendix C** using the Standard Data Forms for SACs published on the JNCC website[24] as well as Natural England's Site Improvement Plans[25] and the most recent conservation objectives published on the Natural England website (most were published in 2014)[26].

3.11 An understanding of the designated features of each European site and the factors contributing to its integrity informs the assessment of the potential likely significant effects of the AAP. This approach is useful for understanding the inter-dependencies of non-qualifying species and habitats upon which the qualifying species depend, as recently highlighted as a requirement by the 'Holohan' ruling.

3.12 In general, the six SACs initially included in this screening exercise are designated for their lowland hay meadows, grassland, fen and riverine habitats with no mobile species, except for Little Wittenham SAC which is designated for great crested newts.

Screening Methodology

Assessment of 'Likely Significant Effect'

3.13 As required under Regulation 105 of The Conservation of Habitats and Species Regulations 2017 (the 'Habitats Regulations'), an assessment has been undertaken of the 'likely significant effects' of the policies in the Pre-Submission Draft version of the AAP, taking into account the Schedule of Proposed Main Modifications (July 2022). The assessment has been undertaken in order to identify which policies would be likely to have a significant effect on European sites in West Oxfordshire (+15km). **Appendix D** presents the screening matrices for the AAP policies, taking into account the proposed Main Modifications, and **Chapter 4** summarises the screening findings and conclusions.

3.14 The screening assessment has been conducted without taking pre-embedded mitigation into account, in accordance with the 'People over Wind' judgment. Where a policy could potentially provide some mitigation for the effects of other proposals within the AAP, this is noted in **Appendix D** but such mitigation has not influenced the screening conclusions. It has, however, been considered during the Appropriate Assessment stage of the HRA where relevant (see **Chapter 5**).

3.15 With reference to the broad impact types shown in **Table 2.1**, consideration has been given to the potential for the development proposed in the AAP to result in significant effects associated with:

- physical loss of/damage to habitat;
- non-physical disturbance (noise, vibration and light);
- non-toxic contamination;
- air pollution;
- recreation pressure; and,
- changes to hydrological regimes.

3.16 Toxic contamination of air and water is addressed within air pollution and changes to hydrological regimes. For the SACs considered within this HRA, biological disturbance is only likely to occur as a result of recreation-related activities; therefore this issue is addressed within recreation pressure.

3.17 A risk-based approach involving the application of the precautionary principle has been adopted in the assessment, such that a conclusion of 'no significant effect' has only been reached where it is considered very unlikely, based on current knowledge and the information available, that a proposal in the Pre-Submission Draft AAP as proposed to be modified would have a significant effect on the integrity of a European site.

Interpretation of 'likely significant effect'

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

3.19 In the Waddenzee case[27], the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 102 in the Habitats Regulations), including that:

[24] www.jncc.defra.gov.uk
[25] http://publications.naturalengland.org.uk/category/5458594975711232
[26] http://publications.naturalengland.org.uk/category/6490068894089216
[27] European Court of Justice in Case C-127/02 Landelijke Vereniging tot Behoud van de Waddenzee

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

3.20 An opinion delivered to the Court of Justice of the European Union[28] commented that:

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

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

In-combination effects

3.22 Regulation 102 of the Habitats Regulations requires an Appropriate Assessment where "*a land use plan is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is not directly connected with or necessary to the management of the site*". Therefore, it is necessary to consider whether any impacts identified from the AAP may combine with other plans or projects to give rise to significant effects in combination. At the Screening stage, in-combination effects could be ruled out if there was no impact pathway identified between the garden village and the European site. However, where a potential effect has been identified, even if not significant from the AAP alone, the potential for in-combination effects is considered further in **Chapter 5**.

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

Chapter 4
Screening Findings

HRA Screening of Policies

4.1 A review of the policies in the Pre-Submission Draft version of the AAP taking into account the Schedule of Proposed Main Modifications (July 2022) has been undertaken in order to identify which will result in development that could have likely significant effects on the European sites that are the focus of this HRA. **Appendix D** presents the screening matrices for the AAP policies.

4.2 It should be noted that, given that the Main Modifications include the deletion of Policy 27: Key Development Principles, some of the policy numbers used in the AAP will be amended at such time as the document is adopted. Throughout this report, the policy numbers referred to are those in the Pre-submission AAP.

Policies with no likely significant effects

4.3 The majority of the AAP policies, as well as the AAP vision, are not expected to have significant effects on European sites because they will not result directly in new development. This applies to the following policies:

- Policy 1: Climate Resilience and Adaptation
- Policy 2: Net Zero Carbon Development
- Policy 3: Towards 'Zero Waste' through the Circular Economy
- Policy 4: Adopting Healthy Place Shaping Principles
- Policy 5: Social Integration, Interaction and Inclusion
- Policy 6: Providing Opportunities for Healthy Active Play, Leisure and Lifestyles
- Policy 7: Green Infrastructure
- Policy 8: Enabling Healthy Local Food Choices
- Policy 9: Biodiversity Net Gain
- Policy 12: Conserving and Enhancing the Historic Environment of Salt Cross
- Policy 13: Movement and Connectivity Key Design Principles
- Policy 15: Public Transport
- Policy 21: Employment Skills and Training

- Policy 23: Housing Mix
- Policy 24: Build to Rent
- Policy 25: Custom and Self-Build Housing
- Policy 26: Specialist Housing Needs
- Policy 28: Land uses and layout – the spatial framework
- Policy 29: Design requirements
- Policy 31: Long-term maintenance and stewardship

4.4 A number of the other policies in the AAP would not result in development and also include avoidance measures which could help mitigate the potential effects of the garden village development. This is the case for the following policies:

- Policy 10: Water Environment
- Policy 11: Environmental Assets
- Policy 14: Active and Healthy Travel
- Policy 16: Reducing the Overall Need to Travel Including by Car
- Policy 20: Homeworking

4.5 In line with the People over Wind judgement, the potential mitigation provided by these policies has not been taken into account during the screening stage of the HRA and has instead been considered as part of the Appropriate Assessment (see **Chapter 5**).

Possible Likely Significant Effects

4.6 The following policies are identified as resulting in development and likely significant effects on European sites cannot therefore be ruled out:

- Policy 17: Road Connectivity and Access
- Policy 18: Salt Cross Science and Technology Park
- Policy 19: Small-scale Commercial Opportunities and Flexible Business Space
- Policy 22: Housing Delivery
- Policy 30: Provision of supporting infrastructure

HRA Screening by Impact

4.7 The likelihood of the European sites included in this screening exercise being significantly affected by development proposed within the garden village site according to the AAP policies is set out below by the broad categories of impact considered. **Table 4.1** at the end of this section summarises the screening conclusions for each European site in relation to these broad types of impact.

Physical damage and loss

4.8 Any development resulting from the AAP would take place within the garden village site boundary; therefore only European sites within the garden village boundary could be affected through direct physical damage or loss of habitat from within the site boundaries. No European sites lie within the garden village site boundary and **therefore direct impacts from physical damage and loss can be screened out from the assessment.**

4.9 Habitat loss from development in areas outside of European site boundaries may also result in likely significant effects where that habitat contributes towards maintaining the interest feature for which the European site is designated (generally referred to as 'functionally linked habitats'). This includes land or waterbodies which may provide offsite movement corridors or feeding and sheltering habitat for mobile species such as bats, birds and fish.

4.10 Both Oxford Meadows SAC and Cothill Fen SAC have been screened out from further assessment on the basis of distance from the garden village site and because their qualifying features do not include transient species and are therefore not susceptible to off-site habitat loss.

No likely significant effects are therefore predicted as a result of physical damage and loss of habitat at any European sites, either alone or in-combination.

Non-physical disturbance

4.11 Noise and vibration effects, e.g. during the construction of new housing or employment development, are most likely to disturb bird species and are thus a key consideration with respect to European sites where birds are the qualifying features, although such effects may also impact upon some mammals and fish species. Artificial lighting at night (e.g. from street lamps, flood lighting and security lights) has the potential to affect nocturnal qualifying features (such as bats) where it occurs in close proximity to key habitat areas. Impacts associated with human presence have been covered within the 'recreation' assessment below.

4.12 It has been assumed that the effects of noise, vibration and light are most likely to be significant within a distance of 500 metres of either the European site boundary or known areas of functionally linked habitats. There is also evidence of 300 metres being used as a distance up to which certain bird

species can be disturbed by the effects of noise[29]; however, it has been assumed (on a precautionary basis) that the effects of noise, vibration and light pollution are capable of causing an adverse effect if development takes place within 500 metres of a European site with qualifying features sensitive to these disturbances.

4.13 All European sites were screened out of the assessment as they do not support qualifying species that are susceptible to impacts from non-physical disturbance.

No likely significant effects are predicted as a result of non-physical disturbance at any European sites, either alone or in-combination.

Non-toxic contamination

4.14 Habitats can be subject to non-toxic contamination, such as nutrient enrichment, changes in salinity and smothering from dust, due to industrial activities, agriculture, construction and water abstraction and discharge. European sites with the potential to be affected by non-toxic contamination are likely to be sites that lie within close proximity of, or those that are hydrologically connected to, areas of development provided for by the plan. Potential changes to water quantity and quality are separately considered below.

4.15 No European sites lie within or adjacent to the area covered by the AAP and therefore all European sites can be screened out of the assessment.

No likely significant effects are predicted as a result of non-toxic contamination at any European sites, either alone or in-combination.

Air pollution

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

4.17 In terms of vehicle traffic, nitrogen oxides (NOx, i.e. NO and NO_2) are considered to be the key pollutants. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and NOx can cause eutrophication of soils and water.

4.18 Based on the Highways Agency Design Manual for Road and Bridges (DMRB) Manual Document LA105: Air Quality[30] (which was produced to provide advice regarding the design, assessment and operation of trunk roads (including motorways)), it is assumed that air pollution from roads is unlikely to be significant beyond 200m from the road itself. Where increases in traffic volumes are forecast, this 200m buffer needs to be applied to the relevant roads in order to make a judgement about the likely geographical extent of air pollution impacts.

4.19 The DMRB Guidance for the assessment of local air quality in relation to highways developments provides criteria that should be applied at the screening stage of an assessment of a plan or project, to ascertain whether there are likely to be significant impacts associated with routes or corridors. Based on the DMRB guidance, affected roads which should be assessed are those where:

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

4.20 Where significant increases in traffic are possible on roads within 200m of European sites, traffic forecast data may be needed to determine if increases in vehicle traffic are likely to be significant. In line with the Wealden judgment[31], the traffic growth considered by the HRA should be based on the effects of development provided for by the AAP in combination with other drivers of growth such as development proposed in neighbouring districts and demographic change.

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

4.22 The key commuting corridor for new housing and employment development will include the A40, A44, A34, A4144, A420, and A4142. Oxford Meadows SAC is within 200m of the A40 and A34, with the A40 being the key route for consideration due to its proximity to the garden village site and

[29] British Wildlife Magazine. October 2007
[30] *Design Manual for Road and Bridges: LA105, Air Quality.* Highways Agency (2019). https://www.standardsforhighways.co.uk/dmrb/search/10191621-07df-44a3-892e-c1d5c7a28d90
[31] Wealden v SSCLG [2017] EWHC 351 (Admin)

direct route to north Oxford. The A34 is not directly connected with the garden village site but may see an increase in vehicle movements as a result of the development, depending on how many of the vehicles originating from the garden village travel onto the A34 at north Oxford and move southwards past the SAC. Oxfordshire County Council has commissioned traffic modelling work in relation to the AAP, although this did not produce AADT predictions. However, the County Council advised that if the data had been available in that format, the expectation was that the increase in traffic would be above the significance threshold of 1,000 AADT along the A40. In line with the precautionary principle, it has therefore been assumed that this is the case and likely significant effects on the Oxford Meadows SAC as a result of increased traffic along the A40 and potentially the A34 cannot be ruled out.

4.23 Cothill Fen SAC is situated more than 200m from a strategic road and is therefore screened out of the assessment.

Likely significant effects relating to increased air pollution from the AAP are not able to be screened out in relation to the A40 and A34 and the Oxford Meadows SAC and require further consideration at the Appropriate Assessment stage to determine whether increased air pollution as a result of the AAP will result in adverse effects on site integrity, either alone or in-combination.

Likely significant effects on other European sites as a result of increased air pollution from vehicle traffic can be screened out of the assessment.

Recreation

4.24 Recreational activities and human presence can result in significant effects on European sites as a result of erosion, trampling and introduction of non-native species, as well as associated impacts such as fire and vandalism or disturbance to sensitive features, such as birds through both terrestrial and water-based forms of recreation. Recreation can physically damage habitat as a result of trampling and the use of vehicles and also through erosion associated with water-based activities such as boat wash and terrestrial activities, such as use of vehicles.

4.25 The AAP will result in housing growth and associated population increase within West Oxfordshire and specifically within the garden village location north of Eynsham. Where increases in population are likely to result in significant increases in recreation at a European site which is vulnerable to disturbance, or habitat damage by human presence, either alone or in-combination, the potential for likely significant effects will require assessment.

4.26 Cothill Fen SAC is screened out of the assessment as the qualifying features are not considered to be vulnerable to increases in recreation.

4.27 While Oxford Meadows SAC could be susceptible to increased recreational use (either through contamination from dog fouling or introduction of non-native species from walkers' boots), the HRA that was undertaken for the Oxford City Local Plan[32] identified a distance of 1.9km around the SAC within which new development could have impacts associated with increased dog walking. The area covered by the AAP is more than 1.9km from the SAC and the A40 lies between the garden village site and the SAC, meaning that the SAC is not considered to be a likely destination for dog walkers from the garden village. Recreational impacts on the Oxford Meadows SAC are therefore screened out of this HRA.

Likely significant effects on all European sites as a result of recreation pressure can be screened out of the assessment.

Water quantity and quality

4.28 An increase in demand for water abstraction and treatment resulting from the growth proposed in the AAP could result in changes in hydrology at European sites. Depending on the qualifying features and particular vulnerabilities of the European sites, this could result in likely significant effects; for example due to changes in environmental or biotic conditions, water chemistry and the extent and distribution of preferred habitat conditions. To fully understand the potential impacts of proposed development on European sites a review of relevant Water Cycle Studies (WCS) was undertaken to inform the West Oxfordshire Local Plan HRA[33].

4.29 Oxford Meadows SAC is directly linked to waterbodies within the garden village site via the River Thames and smaller tributaries which adjoin it. Therefore, changes in water quantity and quality through increased demand for water supply and increased wastewater discharges is potentially a key issue for this site.

4.30 A water cycle study[34] was carried out in 2016 to inform the preparation of the West Oxfordshire Local Plan HRA (undertaken by AECOM[23]), in order to ensure that the

[32] Levett-Therivel (September 2018) Oxford Local Plan 2036 Habitats Regulations Assessment: Appropriate Assessment.
[33] AECOM (October 2016) West Oxfordshire Local Plan: Habitats Regulations Assessment incorporating Appropriate Assessment
[34] AECOM (2016) West Oxfordshire Water Cycle Study – Phase 1 Scoping Study

proposed growth within the district did not have an impact on water quality or quantity.

4.31 The water cycle study concluded that there was sufficient capacity for planned development within the water catchment area in which the Oxford Meadows SAC is situated, sufficient capacity to cope with increased wastewater as a result of the garden village, and that there would be no adverse effects on the qualifying features or overall integrity of the site. Therefore, the Oxford Meadows SAC can be screened out from this assessment.

4.32 Cothill Fen SAC is also screened out as there is no hydrological connectivity with the garden village site.

No likely significant effects on any European sites are predicted as a result of water quality and quantity changes as a result of the AAP either alone or in-combination.

Summary of Screening Conclusions

4.33 HRA screening of the Salt Cross Garden Village AAP (Pre-Submission Draft, taking into account the Schedule of Proposed Main Modifications July 2022) has been undertaken in accordance with available guidance and based on a precautionary approach.

4.34 As shown in **Table 4.1** below, the findings of the HRA screening exercise have determined that likely significant effects cannot be ruled out, and therefore Appropriate Assessment needs to be undertaken, in relation to air pollution at Oxford Meadows SAC. This likely significant effect could occur as a result of the following AAP policies: Road Connectivity and Access (17), Salt Cross Science and Technology Park (18), Small-scale Commercial Opportunities and Flexible Business Space (19), Housing Delivery (22) and Provision of supporting infrastructure (30).

4.35 These conclusions take into account the Schedule of Proposed Main Modifications (July 2022); however the screening conclusions are unchanged from those that were reported in the August 2020 HRA Report for the Pre-Submission Draft AAP.

In-combination effects

4.36 Likely significant effects in relation to physical damage and loss of habitat, non-physical disturbance, non-toxic contamination and increased recreation pressure in-combination with other plans and projects can be ruled out because, as described earlier in this chapter, the AAP will not affect European sites in these ways.

4.37 In relation to water quality and quantity, as described earlier in this chapter, the AAP is not expected to have likely significant effects on any European sites. The Water Cycle Study that helped to inform this conclusion examines the impacts of other growth, not just the Salt Cross Garden Village, and an assessment of in-combination effects on water quality and quantity has therefore been effectively carried out through that study.

4.38 In relation to air pollution, as described earlier in this chapter, the AAP could result in a likely significant effect on Oxford Meadows SAC as a result of increased vehicle traffic along the A40. It is therefore necessary to carry out Appropriate Assessment, regardless of the potential for effects to also occur as a result of the proposal in combination with other development. Natural England's guidance on assessment of road traffic emissions under the Habitats Regulations[35] notes that '*if a proposal alone is above the likely significant effect thresholds, there is no need to also look for the risk of in-combination effects before proceeding to the Appropriate Assessment stage'*.

[35] Natural England (June 2018) Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations

Table 4.1: Summary of Screening Findings by Type of Impact

	Physical damage/loss of habitat	Non-physical disturbance	Non-toxic contamination	Air pollution	Recreation pressure	Water quantity and quality
Oxford Meadows SAC	No LSE	No LSE	No LSE	LSE	No LSE	No LSE
Cothill Fen SAC	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
North Meadow and Clattinger Farm SAC	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
Hackpen Hill SAC	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
Little Wittenham SAC	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
River Lambourn SAC	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE

Chapter 5
Appropriate Assessment

Introduction to the Appropriate Assessment stage of HRA

5.1 Following the screening stage, the plan-making authority is required under Regulation 102 of the Habitats Regulations 2017 (as amended) to make an 'Appropriate Assessment' of the implications of the plan for European sites, in view of their conservation objectives.

5.2 The Appropriate Assessment should consider the impacts of the plan (either alone or in-combination with other projects or plans) on the integrity of European sites with respect to their conservation objectives and to their structure and function[36].

5.3 A European site's integrity depends on it being able to sustain its 'qualifying features' (i.e. those Annex 1 habitats, Annex II species, and Annex 1 bird populations for which it has been designated) and to ensure their continued viability. A high degree of integrity is considered to exist where the potential to meet a European site's conservation objectives is realised and where the European site is capable of self-repair and renewal with a minimum of external management support.

5.4 The Appropriate Assessment stage seeks to determine whether implementation of the plan or project in question (in this case the AAP) will result in an adverse effect on the integrity of the whole European site in question (many European sites are made up of a number of fragments of habitat). This stage therefore needs to focus on those impacts judged likely to have a significant effect on the qualifying features of European sites, or where insufficient certainty regarding this remained at the screening stage. It also considers the potential for in-combination effects from development proposed elsewhere in West Oxfordshire and in neighbouring authorities' Local Plans. Consideration should be given to mitigation measures that already are or may be included in the AAP to reduce the likelihood and significance of effects on European sites.

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

Outcomes of the HRA of the West Oxfordshire Local Plan Main Modifications

5.5 In relation to the Oxford Meadows SAC, the HRA of the West Oxfordshire Local Plan Main Modifications, concluded that:

- There was the prospect of a likely significant effect from the West Oxfordshire Local Plan on the Oxford Meadows SAC via changes in air quality.
- Increased housing provision, including Salt Cross Garden Village, would likely result in an *"increase in nitrogen deposition and NOx concentration within a small part of the Oxford Meadows SAC as it lies adjacent to the A34 and A40"*.
- As a precaution, until the Oxfordshire authorities undertake more detailed studies to investigate air quality within the SAC adjacent to the A34 and A40, it was assumed that an air quality effect may exist.
- Appropriate plan-level measures to address the issue (as accepted for other local authorities) were identified and are reflected in the Local Plan proposed Main Modifications which enabled a conclusion of no adverse effect to be reached and enabled the West Oxfordshire Local Plan to be adopted.
- The Oxfordshire authorities are undertaking more detailed studies to investigate air quality within the SAC adjacent to the A34 and A40, which will in turn inform specific mitigation interventions.

5.6 As a result of the HRA, Policy EH2 – Biodiversity includes the requirement for a Habitats Regulation Assessment to be undertaken of any development proposal that is likely to have a significant adverse effect, either alone or in combination, on the Oxford Meadows SAC, particularly in relation to air quality and nitrogen oxide emissions and deposition.

Scope of the Appropriate Assessment

5.7 As described in the previous chapter, likely significant effects arising from the Salt Cross Garden Village AAP were only identified for Oxford Meadows SAC and only in relation to air quality. The approach taken to the Appropriate Assessment has therefore been informed by Natural England's guidance for competent authorities on assessing road traffic emissions under the Habitats Regulations[37].

5.8 A conclusion has been reached as to whether or not policies in the Pre-Submission Draft version of the Salt Cross Garden Village AAP taking into account the Schedule of Proposed Main Modifications (July 2022) would adversely affect the integrity of the Oxford Meadows SAC as a result of increased air pollution by considering whether the predicted impacts of the proposals (either alone or in-combination) have the potential to:

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

Exposure of the qualifying features of the Oxford Meadows SAC to emissions

5.9 Natural England's advice on assessing road traffic emissions recommends that consideration is initially given to the extent to which the qualifying features of the European site in question will be exposed to emissions resulting from the AAP. This is determined in part by the extent to which the feature is present within 200m of the road in question.

5.10 **Appendix E** sets out the location of the A40 and A34 in relation the Oxford Meadows SAC, and the parts of the SAC that are within 200m of each road. Oxford Meadows SAC is comprised of four Sites of Special Scientific Interest (SSSI). **Table 5.1** below sets out the area and percentage of each component SSSI of the SAC, and the area and percentage of the total area of the SAC, that is within 200m of the A40 and A34.

[37] Natural England (June 2018) Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations

Table 5.1: Area/percentage of each SSSI and the SAC as a whole within 200m of the A40 and A34

Component SSSI	A34			A40		
	Area (ha)	Intersect Area (ha)	Intersect %	Area (ha)	Intersect Area (ha)	Intersect %
Cassington Meadows SSSI	6.89	0	0	6.89	0.02	0.26
Pixey and Yarnton Meads SSSI	86.38	17.98	20.81	86.38	17.62	20.40
Port Meadow with Wolvercote Common & Green SSSI	167.14	0	0	167.14	0	0
Wolvercote Meadows SSSI	7.06	5.05	71.48	7.06	0	0
Oxford Meadows SAC	**267.48**	**23.02**	**8.61**	**267.48**	**17.64**	**6.60**

5.11 Although just over 15% of the total SAC is within 200m of both the A40 and A34, it is noted that the position of Oxford Meadows SAC in relation to the A40 and A34 means that the prevailing southwesterly wind will carry emissions generated from the A40 away from Oxford Meadows SAC[38] and, to a lesser extent the same applies to the A34[39]. Therefore, those parts of the SAC that are to the northeast of each road are more likely to receive nitrogen deposition within 200m of the road on a regular basis, and this would apply mostly to the small area of Pixey and Yarnton Meads SSSI and Wolvercote Meadows SSSI that are to the east of the A34.

Review of landscape features

5.12 A review of landscape features present in the SAC within 200m of the A40 and A34 using aerial photography, confirms that:

- Cassington Meadows SSSI: only field boundaries, which are considered 'site-fabric'[40], are present within the very small portion of the site (0.02 ha) that is within 200m of the A40.
- The majority of the other areas within 200m of the A40 and A34 contain the designated features for the Oxford Meadows SAC.
- Physical barriers in the form of 3-10m high hedgerows and woodland screen the A34 along approximately 70% of its length in relation to the SAC.
- Physical barriers in the form of 3-10m high hedgerows and woodland screen the A40 along its entire length in relation to the SAC.

5.13 In relation to the physical barriers, the HRA for the West Oxfordshire Local Plan noted:

"During the HRA of the Local Plan undertaken in 2015, it was noted that the SAC boundary also lies alongside the A34, but does not lie immediately adjacent, being separated from the road by the highway boundary/verge which is 20m wide on the north side of the A34 and 12m wide on the south side. The distance between the verge of the A40 and Oxford Meadows SAC to the south is approximately 6 - 10m. Therefore, the greatest NOx concentrations will fall within the highway boundary rather than the SAC. As such, it is entirely possible that even with a change in flows exceeding 1000 AADT as a result of the West Oxfordshire Local Plan the impact due to the principal pathway may not be significant."

5.14 In addition, the Air Quality Expert Group to DEFRA[41], states that:

"*When the wind blows from the road to the dense vegetation barrier there are reductions in concentrations on the downwind side of the barrier. These reductions decrease with distance*

[38] Oxford Meadows SAC is located on the windward side of the A40.
[39] Oxford Meadows SAC is partially located on the windward side of the A34.
[40] 'Site-fabric' is a general term used by Natural England to describe land and/or permanent structures present within a designated site boundary which are not, and never have been, part of the special interest of a site, nor do they contribute towards supporting a special interest feature of a site in any way, but which have been unavoidably included within a boundary for convenience or practical reasons. Areas of site-fabric will be deliberately excluded from condition assessment and will not be expected to make a contribution to the achievement of conservation objectives.
[41] Air Quality Expert Group: DEFRA (2018). *Impacts of Vegetation on Urban Air Pollution*. Air Quality Expert Group: Department for Environment Food & Rural Affairs, London.

away from the barrier and depend on the height and density of the barrier as well as other factors such as atmospheric stability and building morphology in the neighbourhood of the barrier. The measurements show a broad range in the maximum reduction in concentrations up to a factor of five, but reductions within a factor of two are more typical. It is noted that for the studies conducted in the field, some of the concentration reduction may be attributable to deposition rather than dispersion effects."

5.15 However, the paper goes on to state*: "In very light winds reductions in concentration are less apparent and in some cases increases are observed".*

Conclusion on exposure of the SAC's qualifying features to emissions

5.16 Taking all of the above into account, it can be assumed that a considerable percentage of the nitrogen pollutants arising from traffic emissions along the A40 and A34 do not actually reach the SAC. This is due to:

- The small area of the SAC within 200m of the A40 and A34 and the location of those parts of the SAC in relation to the two roads and the prevailing southwesterly wind which would carry emissions away from the SAC.
- The verges along the A40 and A34 (6m – 10m and 12m – 20m respectively), the vegetation the verges support and the known behaviour of particulates from vehicle emissions (in general and in a tree lined road scenario).

Current condition of the Oxford Meadows SAC

SSSI analysis

5.17 Analysis of the condition of the four component SSSIs making up the Oxford Meadows SAC is presented in **Table 5.2** below.

Table 5.2: Review of Oxford Meadows SAC component SSSI condition

Component SSSI	Size	Most recent Condition Assessment (2010 - 2011)
Cassington Meadows SSSI	6.89ha	Favourable
Pixey and Yarnton Meads SSSI	86.38ha	Favourable
Port Meadow with Wolvercote Common & Green SSSI	167.16ha	165ha Favourable 2.16ha Unfavourable Recovering
Wolvercote Meadows SSSI	7.06ha	Favourable
Oxford Meadows SAC	**267.49ha**	**Over 99% in favourable condition**

5.18 It can be seen that the component SSSIs forming the Oxford Meadows SAC are currently reported as being in a 99% favourable condition and no adverse factors associated with nutrient enrichment have been reported. None of the Port Meadow with Wolvercote Common & Green SSSI is within 200m of either the A40 or A34, therefore, the condition of the small area of that SSSI that is unfavourable recovering will not be impacted by air pollution along those roads. Natural England recognises that common standards monitoring (such as that undertaken to monitor SSSI condition status) is not designed to identify the effects of nutrient enrichment associated with nitrogen deposition, but at present the air quality at Oxford Meadows SAC is not resulting in measurable impacts on the grassland, including the proportion of Oxford Meadows SAC which is located within 200m of the A40 and A34. This is despite the existing traffic volumes present along the A40 and A34.

Trends

5.19 Using data from the Air Pollution Information System (APIS)[42] there has generally been a decrease in nitrogen pollutants reaching the grassland habitats present[43] in the Oxford Meadows SAC area:

- Total Nitrogen Deposition has steadily decreased from 17 to 15 Kg N/ha/yr from 2005 to 2017. Including:

[42] Air Pollution Information System. [Online]. APIS. Accessed 28.07.2020. Available at: http://www.apis.ac.uk/srcl/select-a-feature?site=UK0012845&SiteType=SAC&submit=Next

[43] Trend data has been discussed in relation to 'deposition to short vegetation', which is the best fit for the SAC designated grassland habitat.

  - NHx (reduced nitrogen) has steadily decreased at a slow rate from 7 to 6 kg N/ha/yr from 2005 to 2016 with a recent increase to 7.2 kg N/ha/yr in 2017.
  - NOx has steadily decreased from 7.5 to 4.2 kg N/ha/yr from 2005 to 2016 with a recent increase to 5 kg N/ha/yr in 2017.
- Acid Deposition has steadily decreased from 1.55 to 1.25 keq/ha/yr from 2005 to 2017.
- The concentration of Nitrogen Oxides in the air has steadily decreased from 37.5 to 20 ug/m^3 from 2005 to 2017.

Conservation objectives for the Oxford Meadows SAC

5.20 The conservation objectives of the Oxford Meadow SAC are to ensure that the integrity of the site is maintained or restored as appropriate, and to ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, 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.

5.21 The Oxford Meadows SAC Site Improvement Plan[44] does not include nitrogen deposition or air quality as a priority or issue and therefore there are no issues and actions in relation to nitrogen deposition or air quality.

5.22 However, Natural England's Supplementary advice on conserving and restoring site features for the Oxford Meadows SAC[45] outlines that concentrations and deposition of air pollutants must be maintained at or below the site-relevant Critical Load or Level values given for this feature of the site on the Air Pollution Information System.

5.23 Natural England's 2015 Atmospheric Nitrogen Theme Plan[46] identifies Oxford Meadows SAC as being less sensitive to nitrogen and not exceeding critical loads for nitrogen. However, the likelihood of an impact from nitrogen is outlined as 'uncertain'. Further, the Atmospheric Nitrogen Theme Plan identifies local agriculture sources of Nitrogen as being of 'Low' relevance at Oxford Meadows SAC.

Scope of Potential Impact

Likely traffic routes used and traffic arising from the garden village

5.24 Oxford Meadows SAC is within 200m of the A40 and A34. The A40 is the main road linking Oxford to Cheltenham and Cirencester. The A34 provides connections to Newbury and, via the A420, Swindon. The A40 and A34 are main routes between these settlements and therefore these roads will see an increase in vehicle traffic as a result of any future commercial or residential development in these areas.

5.25 Given the location of the garden village, it is expected that a proportion of new residents will undertake daily travel along the A40 with some continuing southwards along the A34. Survey work undertaken in February 2020 indicated that for traffic that was heading eastbound on the A40 (at a point to the west of Wolvercote roundabout), only 6% of traffic observed over a 12 hour period (7am to 7pm) headed south on the A34[47].

5.26 The annual average daily traffic (AADT) flows for the A40 adjacent to the Oxford Meadows SAC have been provided by Oxfordshire County Council, having been extracted from the VISSIM model of Eynsham (see **Table A2** in **Appendix G**). The predicted increase in AADT along the A40 arising from the garden village and the West Eynsham SDA is 2,805 AADT, which is above the 1,000 AADT screening threshold described in **Chapter 4**.

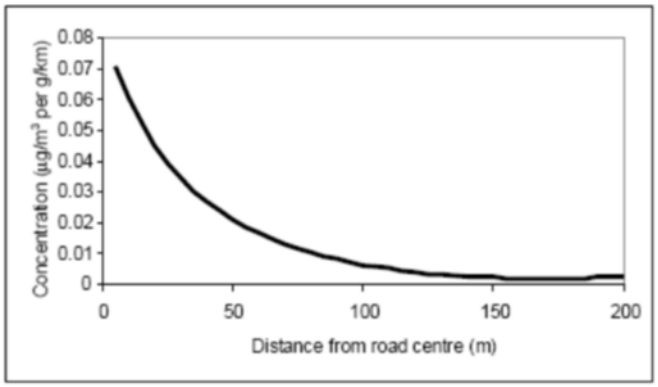
5.27 Given the survey work undertaken in February 2020 which observed the percentage of traffic taking the A34 from the A40 at Wolvercote roundabout north of Oxford, it is assumed that only 6% of traffic arising from the garden village (and the West Eynsham SDA) would travel south along the A34 and therefore the increase in AADT along the A34 from both of these new developments is estimated to be 6% of 2,805 (the increase along the A40), which equals 168 AADT and is well below the 1,000 AADT screening threshold. In addition, given the information provided above about the low likely exposure of the Oxford Meadow SAC to air pollution from the A34, impacts from the A34 have been scoped out of the following Air Quality Assessment as they are unlikely to give rise to significant effects.

[44] Natural England (2014). *Site Improvement Plan: Oxford Meadows: Improvement Programme for England's Natura 2000 Sites (IPENS): Planning for the Future*. Natural England, York.
[45] Natural England (2019). *European Site Conservation Objectives: Supplementary advice on conserving and restoring site features: Oxford Meadows Special Area of Conservation (SAC): Site Code: UK0012845*. Natural England, York.
[46] Natural England (2015). *Atmospheric Nitrogen Theme Plan: Developing a strategic approach for England's Natura 2000 sites*. Natural England, York.
[47] Personal Communication: Email dated 23rd July 2020 from Lynn Morgan, Oxfordshire County Council.

Review of nitrogen deposition behaviour from roads

5.28 According to the Department of Transport's Transport Analysis Guidance, "*beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is not significant".* **Figure 5.1** sets out the traffic contribution to pollutant concentration at different distances from the road centre, and shows that the pollutant concentration drops significantly in the first 50m from the road centre.

Figure 5.1: Traffic Contribution to Pollutant Concentration at Different Distances from the Road Centre[48]



Air Quality Assessment

Methods

5.29 Information on existing air quality within the study area has been collated from the following sources:

- The results of monitoring and the Air Quality Annual Status Reports undertaken by West Oxfordshire District Council (West Oxfordshire District Council, 2020).
- Background pollutant concentration maps published by Defra (Defra, 2020a). These cover the whole country on a 1 x 1 km grid.
- Background nitrogen deposition fluxes published by the Air Pollution Information System (APIS, 2020).

Road Traffic Impacts

Sensitive Locations

5.30 Concentrations have been modelled at ground level (0m) along four transects that run from the edge of the Oxford Meadows SAC closest to the A40 50m into the SAC. The transect locations are shown in **Appendix F**. Concentrations have been predicted every 1 m along the transect. The grid references for the transect receptor points are shown in **Appendix G**.

Assessment Scenarios

5.31 Annual mean concentrations of NOx have been predicted for the following scenarios:

- Model verification year (2019);
- 2031 without the Salt Cross Garden Village, without the West Eynsham SDA;
- 2031 without the Salt Cross Garden Village, with the West Eynsham SDA; and
- 2031 with the Salt Cross Garden Village, with the West Eynsham SDA.

5.32 The data available did not include a scenario 'with the Salt Cross Garden Village but without the West Eynsham SDA'; however the contribution of the garden village alone can be calculated by deducting the figures associated with the third scenario (without the Salt Cross Garden Village, with the West Eynsham SDA) from the figures associated with the fourth scenario (with both developments). This results in data which is attributable to only the garden village proposal.

In-combination Assessment

5.33 The modelled scenarios have been used to assess the impact of the Salt Cross Garden Village alone and in-combination with the West Eynsham SDA. Note that the 2031 scenarios all include other planned development within the Oxfordshire districts as provided to Oxfordshire County Council by the District Councils in Summer 2016. Therefore, the wider in-combination effects of development planned in West Oxfordshire and the other Oxfordshire districts have also been taken into account within this Appropriate Assessment.

Modelling Methodology

5.34 Concentrations have been predicted using the ADMS Roads (v5.0.0.1) dispersion model (CERC, 2020)[49]. The model requires the input of a range of data, details of which are provided in **Appendix G**, along with details of the model verification calculations.

Uncertainty

5.35 There are many factors that contribute to uncertainty when predicting pollutant concentrations. The emission factors utilised in the air quality model are dependent on traffic data, which have inherent uncertainties associated with them.

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

[49] Cambridge Environmental Research Consultants (2020). ADMS Roads (v5.0.0.1) Dispersion Model. CERC, Cambridge.

There are also uncertainties associated with the model itself, which simplifies real world conditions into a series of algorithms. The model verification process, as described in **Appendix G**, minimises the uncertainties; however, future year predictions use projected traffic data, emissions data, and background concentrations. The most recent emission factors and background data published by Defra have been used in this assessment.

5.36 Past analysis has shown a disparity between historical monitoring data and the projected background concentrations published by Defra (Carslaw, et al., 2011)[50]. This disparity is believed to have arisen due to the actual on-road performance of diesel vehicles when compared with emissions calculations based on the Euro standards and published in the Emissions Factor Toolkit (EFT) used for modelling. Air Quality Consultants Ltd (AQC) historically produced the Calculator Using Realistic Emissions for Diesels (CURED) tool that applied adjustments to diesel emission factors from the EFT to account for the possible underprediction of future emissions (AQC, 2018)[51].

5.37 Recent research has identified a significant reduction in roadside NOx concentrations in recent years (AQC, 2020a)[52]. Analysis of annual mean NOx concentrations at roadside monitoring sites, adjusted to remove inter-year differences due to meteorology, show an overall decrease of 6.4µg/m3/yr between 2013 and 2019, with an even greater rate of reduction between 2016 and 2019.

5.38 AQC have compared the scale of reductions in NOx emissions predicted by the latest version of the EFT (v9.0) with the reductions observed at roadside monitoring sites (AQC, 2020b)[53]. At an average site in the UK, the EFT is likely to under-predict the rate at which NOx emissions fall in the near future. Therefore, provided a dispersion model is verified against measurements made in 2016, or later, the use of EFT emissions will result in the most likely, or even conservative, future predicted NOx concentrations.

5.39 AQC consider that there is little value in continuing to use, or update, the CURED tool. Based on the evidence in the reports published by AQC, it is not considered necessary to undertake a sensitivity analysis with regard to future emissions.

Assessment Criteria and Significance

Assessment Criteria

5.40 Critical loads for nitrogen deposition onto sensitive ecosystems have been specified by the United Nations Economic Commission for Europe (UNECE). They 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. The critical load relates to the quantity of pollutant deposited from air to ground, whereas the critical level is the gaseous concentration of a pollutant in the air. It must be emphasised that an exceedance of the critical load does not provide a quantitative estimate of damage to an ecosystem, but only the potential for damage to occur. The critical loads for the ecosystems under consideration in this assessment, as defined in the Air Pollution Information System (APIS, 2020), are provided in **Table 5.3**.

Table 5.3: Critical loads

Site	Feature of Interest	Critical Load			
		Nutrient N (kg/ha/yr)		Acid N (keq/ha/yr)	
		Min	Max	Min	Max
Oxford Meadows SAC	Lowland hay meadows	20	30	2.058	4.558
	Apium repens - Creeping marshwort	20	30	4.856	5.071

5.41 The critical loads from the habitats most sensitive to nutrient or acid nitrogen deposition have been used, along with the NOx objective for the protection of vegetation and ecosystems, to determine the assessment criteria used in this HRA for the Oxford Meadows SAC, as shown in **Table 5.4**. Environment Agency online guidance also sets out a critical level for 24-hour NOx, which is a non-statutory level derived from the World Health Organisation (WHO) Air Quality Guidelines for Europe[54,55]. The WHO Guidelines state that:

"A strong case can be made for the provision of critical levels for short-term exposures. There are insufficient data to provide these levels with confidence at present, but current evidence

[50] Carslaw, D., Tate J., Murrells T., Stedman J., Li Y., Grice S., Kent A. and Tsagatakis I. (2011). *Trends in NOx and NO2 Emissions and Ambient Measurements in the UK*. Defra. London.
[51] AQC (2018). *Development of the CURED V3A Emissions Model. January*. AQC, Burnham-on-Sea.
[52] AQC (2020). *Nitrogen Oxides Trends in the UK 2013 to 2019*. AQC, Burnham-on-Sea.
[53] AQC (2020). *Performance of Defra's Emission Factor Toolkit 2013-2019*. AQC, Burnham-on-Sea.
[54] WHO (2000). *Air Quality Guidelines for Europe Second Edition*. World Health Organization. Geneva.
[55] Defra and EA [Online]. *Air Emissions Risk Assessment for your Environmental Permit*. Accessed: 28.07.2020. Available at: https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit

suggests values of about 75 µg/m3 for NOx … as 24-hour means."

Table 5.4: Assessment Criteria

Site	Annual Mean NOx (µg/m3)	Nutrient N (kg/ha/yr)	Acid N (keq/ha/yr)
Oxford Meadows SAC	30	20	2.058

5.42 Given the uncertainty associated with the short-term critical level for NOx and its non-statutory status, greater emphasis should be placed on the achievement of the annual mean NOx objective and an assessment of the impact on 24-hour NOx has not been included in this assessment.

Significance

5.43 There is no official guidance in the UK on how to describe air quality impacts, nor how to assess their significance. Online guidance published by Defra and the Environment Agency has been used in the first instance to screen out impacts that will have an insignificant effect[55]. The guidance explains that regardless of the baseline environmental conditions, a process can be considered as insignificant if:

'The long-term (annual mean) process contribution is less than 1% of the long-term environmental standard.'

5.44 It should be recognised that this criterion determines when an impact can be screened out as not significant. It does not imply that there will be damage to a habitat above this threshold, or that impacts will necessarily be significant above these criteria, merely that there is a potential for significant impacts to occur that should be considered using a detailed assessment methodology, such as a detailed dispersion modelling study (as has been carried out for this assessment in any event), in association with a qualified ecologist to consider the likelihood of an adverse effect on the integrity of the habitat. The Institute of Air Quality Management (IAQM) suggests that the 1% criterion should not be used rigidly and not to a numerical precision greater than the expression of the criteria themselves, i.e. only impacts clearly above 1% should be treated as potentially significant, rather than impacts that are about 1%, or slightly higher (IAQM, 2020).

5.45 For the purposes of this assessment, where concentrations and/or deposition rates are predicted to increase by 1% or less of the assessment criterion, the potential for significant impacts can be discounted, and no further assessment is necessary. If the initial screening shows the potential for significant impacts, i.e. concentrations and/or deposition rates are predicted to increase by more than 1% of the assessment criterion, the total concentrations and deposition rates (road contribution + background) will be compared with the critical level/loads. The overall effect of the air quality impacts should be judged as either likely to have an adverse effect on integrity or not following evaluation by a qualified ecologist with full consideration of the qualifying habitat's extent, distribution, structure and function.

Baseline Conditions

Background Concentrations and Fluxes

National Background Pollution Maps

5.46 Estimated background concentrations of NOx and NO_2 at the four transects in the Oxford Meadows SAC along the A40, derived from the national maps published by Defra, are shown in **Table 5.5**. The background concentrations are well below the critical level.

Table 5.5: Estimated Annual Mean Background Concentrations in 2019 and 2031 (µg/m3)[a]

Year	NOx	NO_2
2019	15.6 - 25.4	11.4 - 17.5
2031	11.5 - 17.7	8.6 - 12.7
Critical Level	**30**	**-**

a - Predicted background concentrations from the background maps are only available up to 2030; therefore, 2031 concentrations have been assumed to be the same as in 2030.

Diffusion Tube Monitoring

5.47 West Oxfordshire District Council has undertaken NO_2 diffusion tube monitoring along the A40 in 2019 (locations shown in **Figure 1 Appendix G**). The monitoring sites are located approximately 7km to the west of the SAC; however, the sites are likely to be representative of current air quality conditions close to the A40 and have also been used for model verification. Annual mean NOx concentrations have been estimated at the diffusion tube monitoring sites using the NO_2 to NOx calculator v7.1 published by Defra (Defra, 2020b)[56].

[56] Defra [Online]. *Local Air Quality Management (LAQM) Support.* Accessed 28.07.2020. Available at: http://laqm.defra.gov.uk/

5.48 **Table 5.6** summarises the 2019 monitoring data, which shows that the annual mean critical level for NOx is likely to have been exceeded at the diffusion tube monitoring sites close to the A40 in 2019. The diffusion tube monitoring site NAS8 is located to the north of the A40 adjacent to the road, while NAS9, where there was a marginal exceedance of the NOx critical level, is located to the south of the A40, on the same side of the road as the Oxford Meadows SAC. The difference in measured concentrations is likely to be due to the transport of road traffic emissions towards the north side of the A40 on the prevailing southwesterly wind (a windrose is shown in **Figure 2 Appendix G**).

Table 5.6: Measured Annual Mean NO_2 Concentrations and Estimated Annual Mean NOx Concentrations (µg/m3)

Site ID	Location	Type	NO_2	NOx
NAS8	A40 Whitehill House Cottage	Roadside	31.4	56.4
NAS9	A40 junction with Southleigh Turn	Roadside	18.7	30.1
Critical Level				**30**

Nutrient Nitrogen and Acid Nitrogen Deposition

5.49 Background nitrogen deposition fluxes across the Oxford Meadows SAC have been obtained from the APIS website and are shown in **Table 5.7**. The data are average fluxes from the years 2016 to 2018. Background deposition fluxes of acid nitrogen are below the critical load; however, background deposition fluxes of nutrient nitrogen may exceed the critical load in some areas of the SAC.

Table 5.7: Estimated Annual Mean Background Nitrogen Deposition 2016-2018 (µg/m3)

Year		Nutrient Nitrogen (kg/ha/yr)	Acid Nitrogen (keq/ha/yr)
2016-2018	Minimum	14.9	1.1
	Maximum	23.6	1.7
	Average	17.4	1.2
Critical Load		**20**	**2.058**

Predicted Baseline Concentrations

5.50 Baseline concentrations and deposition fluxes at the closest point of the four transects in the Oxford Meadows SAC to the A40, i.e. at 0m distance from the road, are set out in **Table 5.8**. These are the predicted baseline concentrations at 2019 and 2031 without the Salt Cross Garden Village or the West Eynsham SDA. The baseline road contributions of nutrient and acid nitrogen have been added to the average background nitrogen depositions in order to estimate total nitrogen deposition.

Table 5.8: Predicted Baseline Concentrations and Deposition Fluxes in 2019 and 2031[a]

Receptor	NOx (µg/m^3)		Nutrient Nitrogen (kg/ha/yr)		Acid Nitrogen (keq/ha/yr)	
	2019	**2031**	**2019**	**2031**	**2019**	**2031**
Transect 1	27.4	17.3	18.4	17.9	1.272	1.235
Transect 2	**42.4**	25.4	19.3	18.3	1.338	1.268
Transect 3	**46.5**	28.1	19.1	18.2	1.321	1.260
Transect 4	**44.7**	27.2	19.0	18.2	1.312	1.255
Assessment Criteria	30		20		2.058	

a - Exceedances of the assessment criteria are shown in bold.

5.51 In 2019, baseline annual mean NOx concentrations are predicted to be below the assessment criterion of 30 µg/m3 on Transect 1 closest to the A40; however, the assessment criterion is exceeded on Transects 2, 3 and 4 closest to the A40. By 2031 the baseline annual mean NOx concentrations are below the assessment criterion on all transects. The complete set of results for annual mean NOx concentrations at 1m intervals along each transect are provided in **Appendix H**.

5.52 At Transect 2, baseline annual mean NOx concentrations are predicted to exceed the assessment criterion up to 21m into the Oxford Meadows SAC in 2019. At Transects 3 and 4, annual mean NOx concentrations are predicted to exceed the assessment criterion along the full length of the modelled transects, 50m into the Oxford Meadows SAC in 2019.

5.53 Baseline nutrient and acid nitrogen deposition is predicted to be below the assessment criteria along the length of all the transect receptors in 2019 and 2031.

Impact Assessment

Screening

NOx

5.54 The effects of the predicted increase in traffic associated with the garden village alone, as well as in-combination with the West Eynsham development, on annual mean NOx concentrations at the closest point of the four transects in the Oxford Meadows SAC to the A40, i.e. at 0m distance from the road, are set out in **Table 5.9**. The screening criterion is exceeded at all four transects; therefore, further assessment has been undertaken to inform the conclusion regarding adverse effects on integrity, see below.

Table 5.9: Predicted Road Contribution to NOx in 2031

Receptor	Predicted Road Contribution of Annual Mean NOx (µg/m3)		% of Screening Criterion	
	Alone	In-combination	Alone	In-combination
Transect 1	0.7	0.8	**2**	**3**
Transect 2	1.4	1.5	**5**	**5**
Transect 3	1.2	1.4	**4**	**5**
Transect 4	1.1	1.3	**4**	**4**
Screening Criterion	-		**1**	

A - Exceedances of 1% of the assessment criterion are shown in bold.

Nitrogen Deposition

5.55 The predicted road contributions of the garden village both alone and in-combination with the West Eynsham SDA to nutrient and acid nitrogen deposition fluxes at the transect receptors located closest to the A40 are set out in **Table 5.10** and **Table 5.11** respectively. The predicted contributions are below the screening criteria for both nutrient and acid nitrogen deposition; therefore, the impacts would not be significant, and no further assessment has been undertaken. The effect due to road traffic emissions decreases with distance from source (A40) and there would not be significant impacts further along the transects.

Table 5.10: Predicted Road Contribution to Nutrient Nitrogen Deposition in 2031

Receptor	Predicted Road Contribution of Nutrient N (kg/ha/yr)		% of Nutrient N Screening Criterion	
	Alone	In-combination	Alone	In-combination
Transect 1	0.05	0.06	0	0
Transect 2	0.10	0.11	0	1
Transect 3	0.09	0.10	0	0
Transect 4	0.08	0.09	0	0
Screening Criterion	-		**1**	

Table 5.11: Predicted Road Contribution to Acid Nitrogen Deposition in 2031

Receptor	Predicted Road Contribution of Acid N (keq/ha/yr)		% of Acid N Screening Criterion a	
	Alone	In-combination	Alone	In-combination
Transect 1	0.004	0.004	0	0
Transect 2	0.007	0.008	0	0
Transect 3	0.006	0.007	0	0
Transect 4	0.006	0.006	0	0
Screening Criterion	-		**1**	

Further Assessment

NOx

Impacts of Salt Cross Garden Village Alone

5.56 Predicted total annual mean NOx concentrations at the closest point of the four transects in the Oxford Meadows SAC to the A40, i.e. at 0m distance from the road, are set out in **Table 5.12**. Predicted total NOx concentrations are below the 30µg/m^3 assessment criterion both with the Salt Cross Garden Village and without the garden village but with the West Eynsham SDA. The complete set of results for annual mean NOx concentrations along each transect are provided in **Appendix H**, and show that the NOx concentrations decrease further below the assessment criterion with distance from the road.

Table 5.12: Predicted 2031 Nitrogen Oxides Impacts Salt Cross Garden Village Alone

Receptor	Predicted Total NOx (µg/m^3)		Impact		
	Without Garden Village, with West Eynsham SDA	With Garden Village and West Eynsham SDA	Increase in total NOx from Garden Village Alone (µg/m^3)	Increase as Percentage of Assessment Criterion (%)	With Garden Village Total NOx as Percentage of Assessment Criterion (%)
Transect 1	17.4	18.1	0.7	2	60
Transect 2	25.5	26.9	1.4	5	90
Transect 3	28.2	29.4	1.2	4	98
Transect 4	27.3	28.4	1.1	4	95
Assessment Criterion	**30**		-		

Impacts of Salt Cross Garden Village In-combination with West Eynsham SDA

5.57 Predicted total annual mean NOx concentrations at the closest point of the four transects in the Oxford Meadows SAC to the A40, i.e. at 0m distance from the road, are set out in **Table 5.13**. Predicted total NOx concentrations are below the 30µg/m^3 critical level assessment criterion both without and with the Salt Cross Garden Village and West Eynsham SDA. Total NOx concentrations with the Salt Cross Garden Village and West Eynsham SDA are predicted to be 98% of the critical level at the worst-case receptor (Transect 3). The complete set of results for annual mean NOx concentrations along each transect are provided in **Appendix H**.

Table 5.13: Predicted 2031 Nitrogen Oxides Impacts Salt Cross Garden Village In-combination with West Eynsham SDA

Receptor	Predicted Total NOx (µg/m3)		Impact		
	Without Garden Village, without West Eynsham SDA	With Garden Village and West Eynsham SDA	Increase in total NOx from Garden Village and West Eynsham SDA (µg/m3)	Increase as Percentage of Assessment Criterion (%)	With Garden Village and West Eynsham SDA Total NOx as Percentage of Assessment Criterion (%)
Transect 1	17.3	18.1	0.8	3	60
Transect 2	25.4	26.9	1.5	5	90
Transect 3	28.1	29.4	1.4	5	98
Transect 4	27.2	28.4	1.3	4	95
Assessment Criterion	30		-		

Mitigation

5.58 Mitigation measures to reduce pollutant emissions from road traffic are principally being delivered in the longer term by

the introduction of more stringent emissions standards, largely via European legislation. The transport modelling report[57] published as part of the evidence base for the AAP states the following:

"In recent years, there have been significant technological advances and changes in the social, economic and environmental conditions which influence travel behaviour.

Current modelling does not take into account these future changing trends nor the mode shift that will take place as a result of the bold Connecting Oxford proposals and other policy interventions; the increasing momentum towards modal shift due to the climate emergency; and increased home/remote working. The HIF infrastructure improvements were also excluded from the modelling due to their uncertainty at the time that modelling for the OCGV and West Eynsham SDA began.

All of these initiatives will discourage driving along the A40 and will influence background traffic growth in the area as well as OCGV and West Eynsham SDA development-related trips.

Further work to model the impact of policy interventions and changing travel behaviours will be undertaken as part of the ongoing HIF modelling work and to further support the AAP process."

5.59 The Salt Cross Garden Village AAP already includes a number of policies that will help to reduce car journeys along the A40, as follows:

- Policy 13: Movement and Connectivity Key Design Principles
- Policy 14: Active and Healthy Travel
- Policy 15: Public Transport
- Policy 16: Reducing the Overall Need to Travel Including by Car
- Policy 20: Homeworking

5.60 In addition, Policy 11: Environmental Assets already requires the following report to accompany the outline planning application for the garden village proposal:

"An air quality assessment, assessing the impact of the operational characteristics of the development, the traffic generated by it and the cumulative effects on local air quality and wider air quality, including … the Oxford Meadows SAC, in accordance with up to date best practice."

5.61 Therefore, it is not considered necessary to make any further recommendations for policies in the AAP.

Assessment of effects on integrity of Oxford Meadows SAC

5.62 The air quality assessment has shown that the Salt Cross Garden Village will not increase above 1% of the critical loads for the Oxford Meadows SAC in relation to nutrient and acid nitrogen deposition within 50m of the A40.

5.63 In addition, despite the annual mean NOx concentration associated with the Garden Village increasing by more than 1% of the critical level, the NOx concentration within the Oxford Meadows adjacent to the A40 at 2031, associated with increased traffic from the Salt Cross Garden Village alone and in-combination with the West Eynsham SDA (and other planned housing growth within the Oxfordshire districts) will not exceed the critical level (30µg/m^3) for the qualifying habitats of the Oxford Meadows SAC. However, at some locations along the A40 (i.e. near Transects 2, 3 and 4), the predicted NOx concentrations at 2031 will be 90-98% of the critical level.

5.64 Although this is very close to the critical level, adverse effects on the integrity of the SAC are considered unlikely as a result of air pollution for the following reasons:

- The three component SSSI units in areas susceptible to nitrogen deposition (i.e. within 200m of the A40) are currently in 'favourable' condition despite the existing levels of nitrogen in the air, and the historic, long-term presence of main roads in the vicinity of this SAC. Therefore, the SAC may show some resilience to the effects of nitrogen deposition.
- Only 6.6% of the SAC is within 200m of the A40.
- Physical barriers in the form of high hedgerows and woodland are present between the road and the SAC for most of the length of the A40 that is adjacent to the SAC.
- The prevailing wind will generally move particulates north-east and away from the SAC which is located on the south and west of the A40.
- Policies in the AAP will help to reduce car journeys along the A40 and ensure that air quality impacts on the Oxford Meadows SAC are considered in further detail as

[57] Oxfordshire County Council (July 2020). *Garden Village AAP and West Eynsham SPD Evidence Base. 2031 Forecast Year Modelling. VISSIM Microsimulation. Modelling Report.* Available at: https://westoxon.gov.uk/media/k4qjr1g4/2031-forecast-year-modelling-final-report.pdf

part of the outline planning application for the Garden Village.

5.65 The potential increases in NOx concentrations associated with the Salt Cross Garden Village (alone and in-combination) are therefore considered unlikely to:

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

5.66 Therefore, it can be concluded that the Salt Cross Garden Village AAP as proposed to be modified will not result in adverse effects on the integrity of the Oxford Meadows SAC as a result of air pollution, either alone or in-combination with other plans and projects.

Chapter 6
Consultation and Next Steps

6.1 This HRA report concluded at the Screening stage that likely significant effects on the integrity of European sites around West Oxfordshire and neighbouring districts from policies in the AAP will not occur in relation to:

- physical loss or damage to on- or off-site habitat;
- non-physical disturbance;
- non-toxic contamination;
- water quality/quantity; and
- recreation pressure.

6.2 However, there could be likely significant effects on Oxford Meadows SAC in relation to increased air pollution. The same screening conclusions were reached in relation to the Pre-Submission Draft AAP in 2020 and have not been affected by the changes set out in the Schedule of Proposed Main Modifications (July 2022).

6.3 Therefore, this potential likely significant effect has been considered further through an Appropriate Assessment to determine whether the AAP will affect the integrity of the SAC. The Appropriate Assessment found that the Salt Cross Garden Village will not increase above 1% of the critical loads for the Oxford Meadows SAC in relation to nutrient and acid nitrogen deposition within 50m of the A40.

6.4 In addition, the annual mean NOx concentration at 2031 within the Oxford Meadows SAC adjacent to the A40, associated with increased traffic from the Salt Cross Garden Village alone and in-combination with the West Eynsham SDA (and other planned housing growth within the Oxfordshire districts) will not exceed the critical level (30µg/m3) for the qualifying habitats of the Oxford Meadows SAC.

6.5 The conclusions of the Appropriate Assessment are therefore that the Salt Cross Garden Village AAP will not result in adverse effects on the integrity of the Oxford Meadows SAC as a result of air pollution, either alone or in-combination with other plans and projects.

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July 2022

Appendix A

Consultation responses from Natural England

Table A.1: Consultation response from Natural England in relation to the Preferred Options HRA Report (December 2019)

Comment	Response
Thank you for providing us with a copy of the HRA Screening Report for the OCGV; I have reviewed the report and can confirm that I am satisfied with the conclusions. I note that Oxford Meadows has been screened-in for Appropriate Assessment due to Likely Significant Effects arising from air pollution from traffic; with regard to this we have published information on our approach to advising competent authorities on the assessment of road traffic emissions under the Habs Regs and would recommend that reference is made to this when traffic modelling data is available to inform the Appropriate Assessment.	Noted. The Natural England guidance referred to has been used to inform the Appropriate Assessment.

Table A.2: Consultation response from Natural England in relation to the Pre-Submission Draft HRA Report (August 2020)

Comment	Response
We have reviewed the HRA that supports the AAP and are satisfied with the HRA screening and with the conclusions of the Appropriate Assessment, which shows that the AAP will not result in adverse effects on the integrity of Oxford Meadows SAC as a result of air pollution, either alone of in-combination with other plans and projects.	Noted, no action required.

Appendix B

Map of European Sites within 15km of West Oxfordshire Local Authorities

Salt Cross Garden Village AAP HRA

Figure B.1: European sites within 15km of West Oxfordshire District

- West Oxfordshire District Boundary
- 15km Boundary Buffer
- District Boundaries
- Garden Village Boundary
- Special Areas of Conservation

Map Scale @A3: 1:260,000

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WEST OXFORDSHIRE DISTRICT COUNCIL

CB:CB EB:Bean_C LUC FIGX_T190628_EuropeanSites_A3L_2 16/09/2019

Source: NE, OS, WODC

Appendix C

Attributes of screened in European Sites

European site	Area (ha)	Location in relation to the Salt Cross Garden Village site	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
Within West Oxfordshire					
Oxford Meadows SAC	265.89	2.5km east with the majority of the site within the Cherwell District and Oxford City	Annex 1 Habitats Lowland hay meadows Creeping marshwort *Apium repens*	Lowland hay meadows The habitat is maintained through annually cutting for hay, with light aftermath grazing, seasonal flooding maintains an input of nutrients. Therefore, conservation measures for this feature will typically include grazing, cutting, scrub management, weed control, recreation/visitor management. Along with the maintenance of surface drainage features such as grips, gutters and foot drains, and retention of suitable land use infrastructure/patterns to enable site management e.g. pastoral livestock farming. Creeping marshwort *Apium repens* This species relies on damp and sparsely vegetated grasslands which are nutrient-rich and susceptible to winter flooding. This species requires periodic disturbance which can be achieved through cattle grazing or the seasonal flooding. This is to reduce competition for light as this species is a low-growing clonal perennial.	*The conservation objective is to ensure that the integrity of the site is maintained or restored as appropriate and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features.* *Subject to natural change, maintain or restore:* ■ the extent and distribution of habitats of qualifying species; ■ The structure and function (including typical species) of qualifying natural habitats ■ The structure and function of the habitats of qualifying species ■ The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely ■ The populations of qualifying species, and, ■ The distribution of qualifying species within the site." Key priorities and threats include: ■ Hydrological changes; ■ Invasive species such as *Crassula* ■ Water quality *The associated SSSI is predominantly in a favourable condition, with a small portion in an unfavourable condition but is recovering*.
Outside of West Oxfordshire:					

European site	Area (ha)	Location in relation to the Salt Cross Garden Village site	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
Cothill Fen SAC	43.55	9.3km south within Vale of White Horse District	Annex 1 Habitats Alkaline Fens Alluvial forests with Alnus glutinosa and Fraxinus excelsior; Alder woodland on floodplains	Alkaline Fens This habitat relies on calcium-rich, waterlogged soils which generally support a varied assemblage of mosses and floral species. These conditions have been achieved due to hydrological changes within the site's unique geology. The SAC contains one of the largest surviving examples of alkaline fen in the UK, and has been managed through moderate mowing or grazing with arisings removed to prevent nutrient enrichment, peat digging and creation of ponds. The SAC supports black bog-rush – blunt flowered rush *Schoenus nigricans – Juncus subnodulosus,* bottle sedge *Carex rostrata*¸ grass-of-Parnassus *Parnassia palustris,* common butterwort *Pinguicula vulgaris* and marsh helleborine *Epipactis palustris.* Alluvial forests The alkaline fens have transitioned into wet alder *Alnus glutinosa* woodland which are characteristicly found within floodplains. They often then transition further into dry woodlands. Alluvial forests typically support a varied community assemblage given the transitional conditions, comprising tall herb, reed and sedge species to marshy and lo-growing species. This habitat has become fragmented within the UK due to riverine woodland clearances.	*The conservation objective is to ensure that the integrity of the site is maintained or restored as appropriate and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features.* *Subject to natural change, maintain or restore:* ■ the extent and distribution of habitats of qualifying species; ■ the structure and function (including typical species) of qualifying natural habitats; and, ■ the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely. The key priorities and issues facing this site include: ■ Water quality and quantity ■ Air pollution *The associated SSSI is predominantly in a favourable condition, with the remainder in an unfavourable condition but recovering.*

Appendix D

HRA Screening Matrices for the Salt Cross Garden Village AAP

Table D.1 Policies with no pathway to European Sites

AAP Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected	Likely significant effect (LSE)?
Policy 1: Climate Resilience and Adaptation	None – the policy itself will not lead to development.	None	None	No LSE
Policy 2: Net Zero Carbon Development	None – the policy itself will not lead to development.	None	None	No LSE
Policy 3: Towards 'Zero Waste' through the Circular Economy	None – the policy itself will not lead to development.	None	None	No LSE
Policy 4: Adopting Healthy Place Shaping Principles	None – the policy itself will not lead to development but sets out principles of healthy place shaping which will apply to all development.	None	None	No LSE
Policy 5: Social Integration, Interaction and Inclusion	None – the policy itself will not lead to development.	None	None	No LSE
Policy 6: Providing Opportunities for Healthy Active Play, Leisure and Lifestyles	None – the policy itself will not lead to development.	None	None	No LSE
Policy 7: Green Infrastructure	None – the policy itself will not lead to development. This policy will promote a high quality network of blue and green infrastructure throughout the garden village, which could potentially provide mitigation and enhancement measures for the proposed development (mitigation will be considered during the Appropriate Assessment as relevant).	None	None	No LSE
Policy 8: Enabling Healthy Local Food Choices	None – this policy will not result in development.	None	None	No LSE
Policy 9: Biodiversity Net Gain	None – this policy will not result in development.	None	None	No LSE
Policy 10: Water Environment	None – the policy itself will not lead to development	None	None	No LSE
Policy 11: Environmental Assets	None – the policy itself will not lead to development.	None	None	No LSE

AAP Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected	Likely significant effect (LSE)?
Policy 12: Conserving and Enhancing the Historic Environment of Salt Cross	None – the policy itself will not lead to development.	None	None	No LSE
Policy 13: Movement and Connectivity Key Design Principles	None – the policy itself will not lead to development.	None	None	No LSE
Policy 14: Active and Healthy Travel	None – this policy will not result in built development; rather it focuses on the provision of walking and cycle links which may help to reduce the level of vehicular traffic and reduce nitrogen deposition within the site (mitigation will be considered during the Appropriate Assessment as relevant).	None	None	No LSE
Policy 15: Public Transport	None that will result in an increase in vehicle movements along the A40 (the only type of effect screened into this HRA).	N/A	None	No LSE
Policy 16: Reducing the Overall Need to Travel Including by Car	None – this policy itself will not result in development	None	None	No LSE
Policy 20: Homeworking	None – this policy itself will not result in development	None	None	No LSE
Policy 21: Employment Skills and Training	None – this policy itself will not result in development	None	None	No LSE
Policy 23: Housing Mix	None – the policy itself will not lead to development as it relates to the mix of housing. The quantum of housing to be provided is within the overall housing figure assessed separately.	None	None	No LSE
Policy 24: Build to Rent	None – the policy itself will not lead to development as it relates to the type of housing to be provided. The quantum of housing to be provided is within the overall housing figure assessed separately.	None	None	No LSE

AAP Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented	European site(s) potentially affected	Likely significant effect (LSE)?
Policy 25: Custom and Self-Build Housing	None – although this policy proposes that at least 5% of the total number of proposed residential units are comprised of serviced plots for self and custom build housings; it relates to the type of housing whereas the quantum of housing to be provided is within the overall housing figure assessed separately.	None	None	No LSE
Policy 26: Specialist Housing Needs	None – although this policy proposes the provision of specialised residential units; it relates to the type of housing whereas the quantum of housing to be provided is within the overall housing figure assessed separately.	None	None	No LSE
Policy 28: Land uses and layout – the spatial framework	None – the policy itself will not lead to development, but will determine the distribution and layout of development within the garden village site.	None	None	No LSE
Policy 29: Design requirements	None – the policy itself will not lead to development, but sets out design requirements that all development will need to comply with.	None	None	No LSE
Policy 31: Long-term maintenance and stewardship	None – the policy itself will not lead to development.	None	None	No LSE

Table D.2 Plan policies with potential pathway to European Sites

AAP Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effects if proposal implemented (taking into account only those effects screened in within Chapter 4)	European site(s) potentially affected	Significant effect
Policy 17: Road Connectivity and Access	New/improved highways infrastructure.	Increased vehicle traffic.	Oxford Meadows SAC	LSE
Policy 18: Salt Cross Science and Technology Park	Development of a campus of business floorspace, approximately 40 hectares in size.	Increased vehicle traffic (including commuters from elsewhere to access the site)	Oxford Meadows SAC	LSE
Policy 19: Small-scale Commercial Opportunities and Flexible Business Space	Development of small-scale commercial and flexible business space.	Increased vehicle traffic.	Oxford Meadows SAC	LSE
Policy 22: Housing Delivery	Development of 2,200 homes.	Increased vehicle traffic	Oxford Meadows SAC	LSE
Policy 30: Provision of supporting infrastructure	Development of transport infrastructure, schools, green and blue infrastructure, flood management and sewerage infrastructure to support delivery of the 2,200 homes.	Increased vehicle traffic	Oxford Meadows SAC	LSE

Appendix E

Location of Oxford Meadows in relation to the A40 and A34

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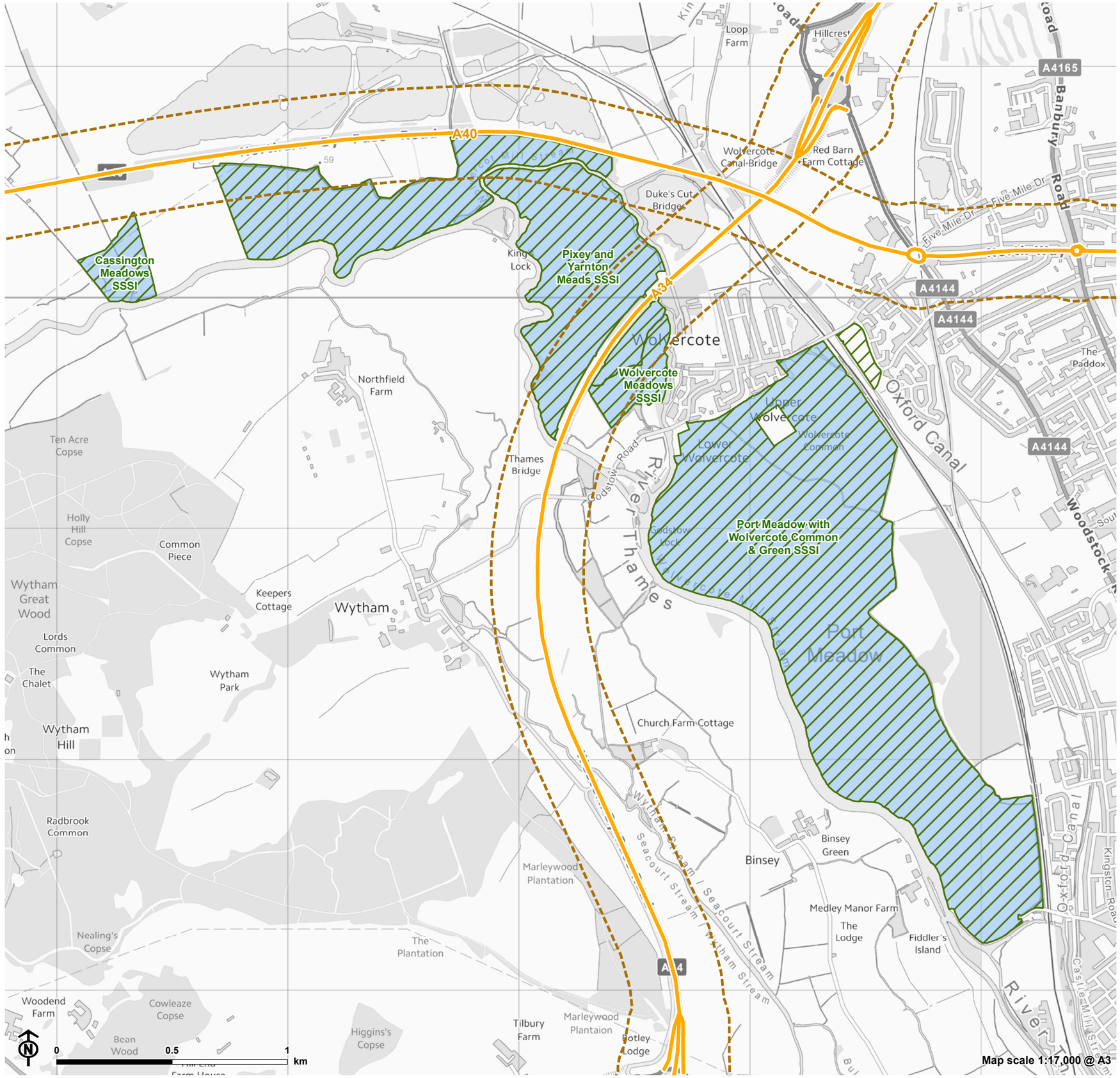
Figure E.1: Location of Oxford Meadows SAC in relation to the A40 and A34

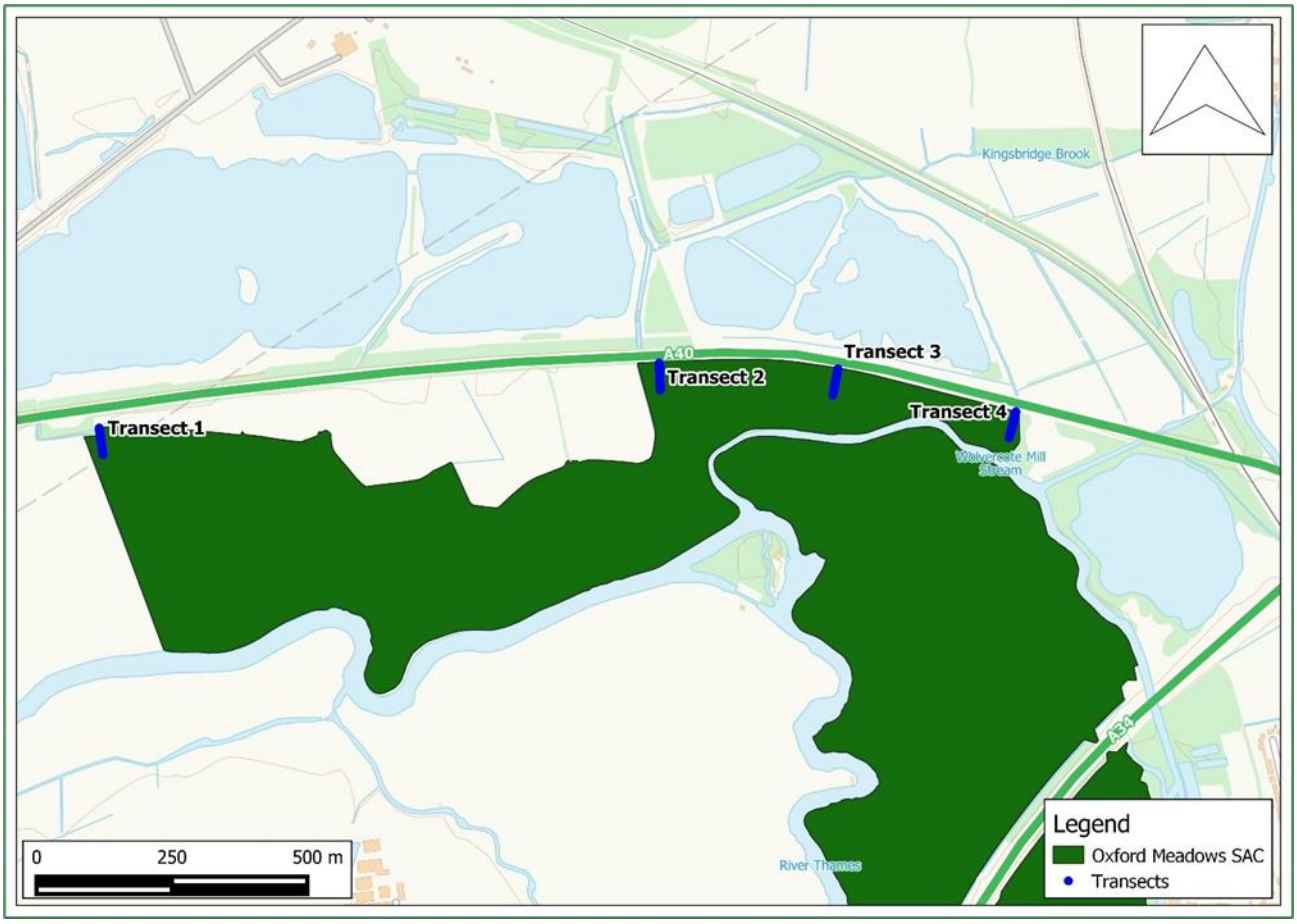


CB:MN EB:Nicholson_M LUC FIGAE-1_10887_r0_Designations_A3L 04/08/2020
Source: Natural England, OS

Appendix F

Oxford Meadows SAC and Location of the Monitoring Transects

Figure AF.1: Oxford Meadows SAC and Location of the Monitoring Transects



Appendix G
Modelling Methodology

Model Inputs

Receptors

Table G.1: Location of Transect Receptors

Receptor	Transect 1		Transect 2		Transect 3		Transect 4	
	x	y	x	y	x	y	x	y
0m	446706.9	210580.2	447741.8	210700.6	448071.8	210689.7	448400.7	210610.3
1m	446707.0	210579.2	447741.8	210699.6	448071.6	210688.7	448400.4	210609.3
2m	446707.2	210578.2	447741.8	210698.6	448071.4	210687.7	448400.2	210608.3
3m	446707.3	210577.2	447741.8	210697.6	448071.2	210686.7	448399.9	210607.4
4m	446707.4	210576.3	447741.9	210696.6	448071.0	210685.7	448399.7	210606.4
5m	446707.6	210575.3	447741.9	210695.6	448070.8	210684.8	448399.4	210605.4
6m	446707.7	210574.3	447742.0	210694.6	448070.7	210683.8	448399.2	210604.5
7m	446707.8	210573.3	447742.0	210693.6	448070.5	210682.8	448398.9	210603.5
8m	446708.0	210572.3	447742.1	210692.6	448070.3	210681.8	448398.7	210602.5
9m	446708.1	210571.3	447742.1	210691.6	448070.1	210680.8	448398.4	210601.6
10m	446708.3	210570.3	447742.1	210690.6	448069.9	210679.8	448398.2	210600.6
11m	446708.4	210569.3	447742.2	210689.6	448069.7	210678.9	448397.9	210599.6
12m	446708.5	210568.3	447742.2	210688.6	448069.5	210677.9	448397.7	210598.7
13m	446708.7	210567.3	447742.3	210687.6	448069.3	210676.9	448397.4	210597.7
14m	446708.8	210566.3	447742.3	210686.6	448069.1	210675.9	448397.2	210596.7
15m	446708.9	210565.4	447742.3	210685.6	448068.9	210674.9	448396.9	210595.8
16m	446709.1	210564.4	447742.4	210684.6	448068.7	210674.0	448396.7	210594.8
17m	446709.2	210563.4	447742.4	210683.6	448068.5	210673.0	448396.4	210593.8
18m	446709.4	210562.4	447742.4	210682.6	448068.3	210672.0	448396.2	210592.8
19m	446709.5	210561.4	447742.5	210681.6	448068.2	210671.0	448395.9	210591.9
20m	446709.6	210560.4	447742.5	210680.6	448068.0	210670.0	448395.7	210590.9
21m	446709.8	210559.4	447742.6	210679.6	448067.8	210669.1	448395.4	210589.9
22m	446709.9	210558.4	447742.6	210678.6	448067.6	210668.1	448395.2	210589.0
23m	446710.1	210557.4	447742.7	210677.6	448067.4	210667.1	448394.9	210588.0
24m	446710.2	210556.4	447742.7	210676.6	448067.2	210666.1	448394.7	210587.1
25m	446710.3	210555.5	447742.7	210675.6	448067.0	210665.1	448394.4	210586.1
26m	446710.5	210554.5	447742.8	210674.6	448066.8	210664.1	448394.2	210585.1
27m	446710.6	210553.5	447742.8	210673.6	448066.6	210663.2	448393.9	210584.1
28m	446710.8	210552.5	447742.8	210672.6	448066.4	210662.2	448393.7	210583.2
29m	446710.9	210551.5	447742.9	210671.6	448066.2	210661.2	448393.4	210582.2
30m	446711.0	210550.5	447742.9	210670.6	448066.0	210660.2	448393.2	210581.2
31m	446711.2	210549.5	447743.0	210669.6	448065.8	210659.2	448392.9	210580.3
32m	446711.3	210548.5	447743.0	210668.6	448065.7	210658.3	448392.7	210579.3
33m	446711.4	210547.5	447743.0	210667.6	448065.5	210657.3	448392.4	210578.3
34m	446711.6	210546.5	447743.1	210666.6	448065.3	210656.3	448392.2	210577.4
35m	446711.7	210545.6	447743.1	210665.6	448065.1	210655.3	448391.9	210576.4
36m	446711.8	210544.6	447743.2	210664.6	448064.9	210654.3	448391.7	210575.4
37m	446712.0	210543.6	447743.2	210663.6	448064.7	210653.3	448391.4	210574.5
38m	446712.1	210542.6	447743.3	210662.6	448064.5	210652.4	448391.2	210573.5
39m	446712.3	210541.6	447743.3	210661.6	448064.3	210651.4	448390.9	210572.5
40m	446712.4	210540.6	447743.3	210660.6	448064.1	210650.4	448390.7	210571.6
41m	446712.5	210539.6	447743.3	210659.6	448063.9	210649.4	448390.4	210570.6
42m	446712.7	210538.6	447743.4	210658.6	448063.7	210648.4	448390.2	210569.6
43m	446712.8	210537.6	447743.4	210657.6	448063.5	210647.5	448389.9	210568.6
44m	446713.0	210536.6	447743.5	210656.6	448063.3	210646.5	448389.7	210567.7
45m	446713.1	210535.6	447743.5	210655.6	448063.2	210645.5	448389.5	210566.7
46m	446713.3	210534.7	447743.6	210654.6	448063.0	210644.5	448389.2	210565.7
47m	446713.4	210533.7	447743.6	210653.6	448062.8	210643.5	448389.0	210564.8
48m	446713.5	210532.7	447743.6	210652.6	448062.6	210642.6	448388.7	210563.8
49m	446713.7	210531.7	447743.7	210651.6	448062.4	210641.6	448388.5	210562.8
50m	446713.8	210530.7	447743.7	210650.6	448062.2	210640.6	448388.2	210561.9

Traffic Data

1.1 The AADT flows for the A40 adjacent to the Oxford Meadows SAC have been provided by Oxfordshire County Council, having been extracted from the VISSIM model of Eynsham. The vehicle fleet composition data have been determined using 2019 data from a Department for Transport (DfT) count point located on the same stretch of the A40 (DfT, 2019a). The vehicle fleet composition is assumed to remain the same for the 2031 scenarios as it is in 2019. Traffic speeds have been estimated based on the speed limit (60 mph). The traffic data are shown in **Table G.2**. The modelled road network is shown in **Figure G.2**.

1.2 The VISSIM baseline traffic data are from 2018. In order to verify the model against the most recent published monitoring data, the 2018 traffic data has been factored to 2019 using the TEMPRO System v7.2b (DfT, 2019b).

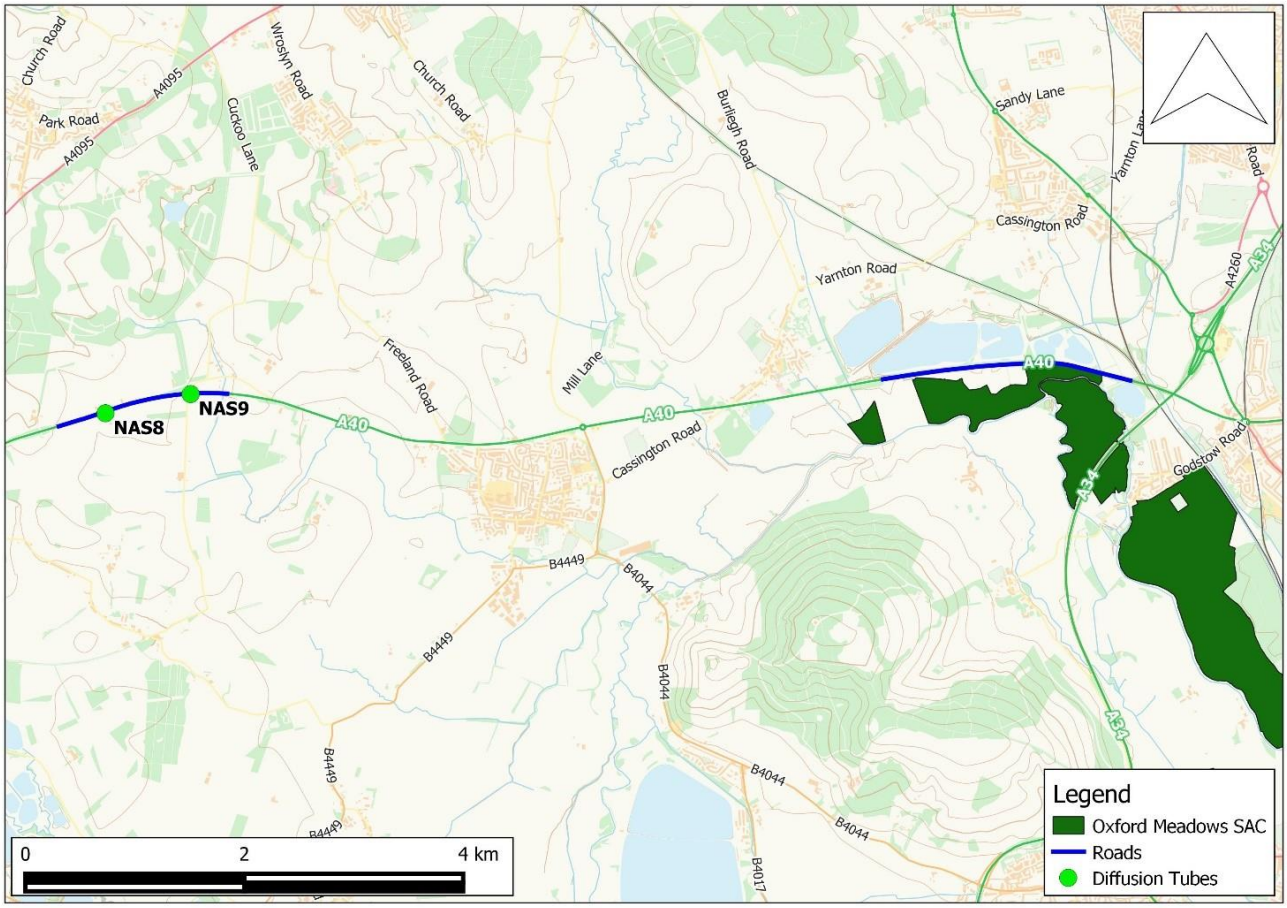
1.3 Diurnal flow profiles for the traffic have been derived from the national diurnal profiles published by the DfT (DfT, 2019c).

Table G.2: Summary of Traffic Data used in the Assessment[1]

Road Link	AADT				Fleet Composition (%)					
	2019	2031			Car	LGV	Rigid HGV	Artic HGV	Bus Coach	MC
		Baseline	With West Eynsham SDA	With West Eynsham SDA and Garden Village						
A40	18,617	23,441	23,722	26,246	75.2	15.0	4.3	3.7	0.5	1.4

[1] LGV = light goods vehicle (<3.5 tonnes), HGV = heavy goods vehicle (>3.5 tonnes), MC = motorcycle

Figure G.2: Modelled Roads and Diffusion Tube Monitoring Sites



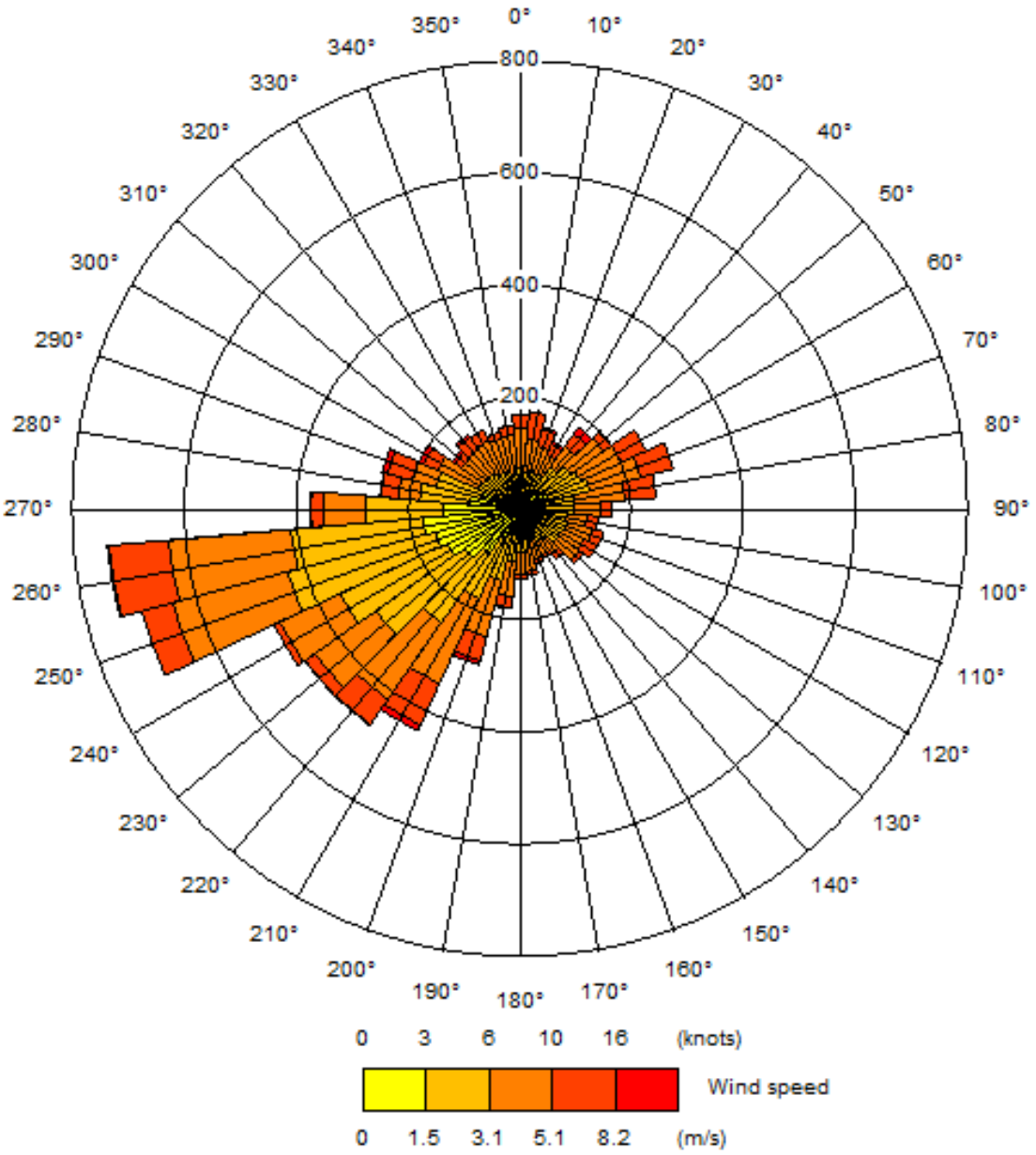
Emissions

1.4 Emissions have been calculated using the most recent version of the Emissions Factor Toolkit (EFT) v8.0.1 (Defra, 2020b). The traffic data were entered into the EFT in order to calculate a combined emission rate for each of the road links in the modelled network. Emissions data are only available up to 2030; therefore, it has been assumed that emissions in 2031 will be the same as those in 2030.

Meteorological Data

1.5 The model has been run using the full year of meteorological data that corresponds with the most recent set of published monitoring data used for model verification (2019). The meteorological data has been taken from the monitoring station located at RAF Brize Norton, approximately 18 km to the west-southwest of the SAC, which is considered suitable for the area. A wind rose of the data is shown in **Figure G.3**.

Figure G.3: Wind Rose RAF Brize Norton 2019



Background Concentrations

1.6 Background NOx and NO2 concentrations have been derived from those published by Defra (Defra, 2020a). These cover the whole country on a 1 km by 1 km grid and are published for each year from 2017 to 2030. The current maps have been verified against measurements undertaken during 2017. As the background maps are only available up to 2030, it has been assumed that background concentrations in 2031 will be the same as those in 2030.

1.7 Background nitrogen and acid deposition data have been taken from the APIS database (APIS, 2020).

Verification

1.8 The verification process seeks to minimise uncertainties associated with the air quality model by comparing the model output with locally measured concentrations. The model has been verified against data from two diffusion tube monitoring sites located close to the A40, approximately 7km to the west of the SAC. The verification methodology is described below.

Background Concentrations

1.9 Background concentrations at each of the monitoring sites in the verification year (2019) have been derived from those published by Defra (Defra, 2020a) and are shown in **Table G.3**.

Table G.3: Annual Mean NOx and NO2 Background Concentrations at the Monitoring Sites (µg/m3)

Monitoring Site ID	Monitoring Site Location	Grid Square	2019	
			NOx	NO2
NAS8	A40 Whitehill House Cottage	439500,210500	12.2	9.1
NAS9	A40 junction with Southleigh Turn	440500,210500	12.3	9.2

Traffic Data

1.10 for model verification have been determined using DfT data, factored to match the data from the VISSIM model by comparing the VISSIM data with the DfT data adjacent to the Oxford Meadows SAC. DfT traffic data for 2019 have yet to be published; therefore, the 2018 traffic data has been factored to 2019 using the TEMPRO System v7.2b (DfT, 2019b). Traffic speeds have been estimated based on a speed limit of 60mph. The traffic data used for verification are shown in **Table G.4**. The modelled road is shown in **Figure G.2**.

1.11 Diurnal flow profiles for the traffic have been derived from the national diurnal profiles published by the DfT (DfT, 2019c).

Table G.4: Summary of Traffic Data used for Verification (2019)[2]

Road Link	AADT	Fleet Composition (%)					
		Car	LGV	Rigid HGV	Artic HGV	Bus Coach	MC
A40	23,083	77.8	13.6	4.2	2.9	0.5	1.1

NO2

1.12 Most NO2 is produced in the atmosphere by reaction of nitric oxide (NO) with ozone. It is therefore most appropriate to verify the model in terms of primary pollutant emissions of nitrogen oxides (NOx = NO + NO2). The model has been run to predict the 2019 annual mean NOx concentrations at two diffusion tube monitoring sites located close to the A40, as shown in **Figure G.2**.

1.13 The model output of road-NOx has been compared with the 'measured' road-NOx, calculated from the measured annual mean NO2 concentrations and the background concentrations using the NOx from NO2 calculator v7.1 published by Defra (Defra, 2020b).

1.14 The slope of the best-fit line between the 'measured' road-NOx contribution and the model derived road-NOx contribution, forced through zero, has been used to determine the adjustment factor (Figure 4). The adjustment factor of 1.73 has been applied to the modelled road-NOx concentration for each receptor to provide adjusted modelled road-NOx concentrations. The NOx to NO2 calculator has then been used to determine total NO2 concentrations from the adjusted modelled road-NOx concentrations and the background NO2 concentrations. A comparison of the final adjusted modelled total NO2 at each monitoring site to the measured total NO2 shows close agreement (**Figure G.5**).

1.15 The results imply that the model has under-predicted the road-NOx contribution. This is a common experience with this and most other models. An evaluation of the model performance using statistical methods is shown in **Table G.5**.

[2] LGV = light goods vehicle (<3.5 tonnes), HGV = heavy goods vehicle (>3.5 tonnes), MC = motorcycle

Figure G.4: Comparison of Measured Road NOx to Unadjusted Modelled Road NOx Concentrations

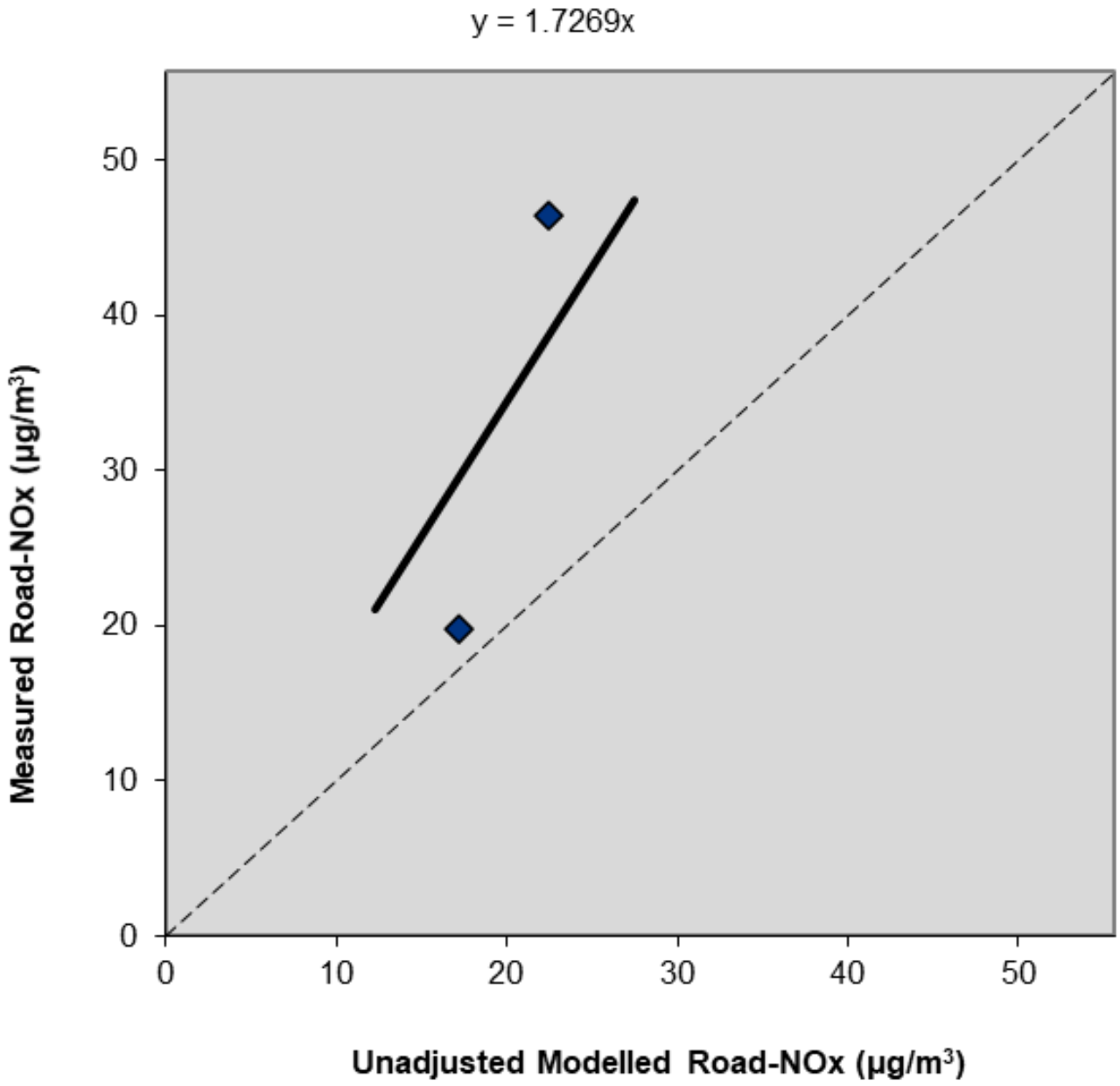


Figure G.5: Comparison of Measured Total NO2 to Primary Adjusted Modelled Total NO2 Concentrations

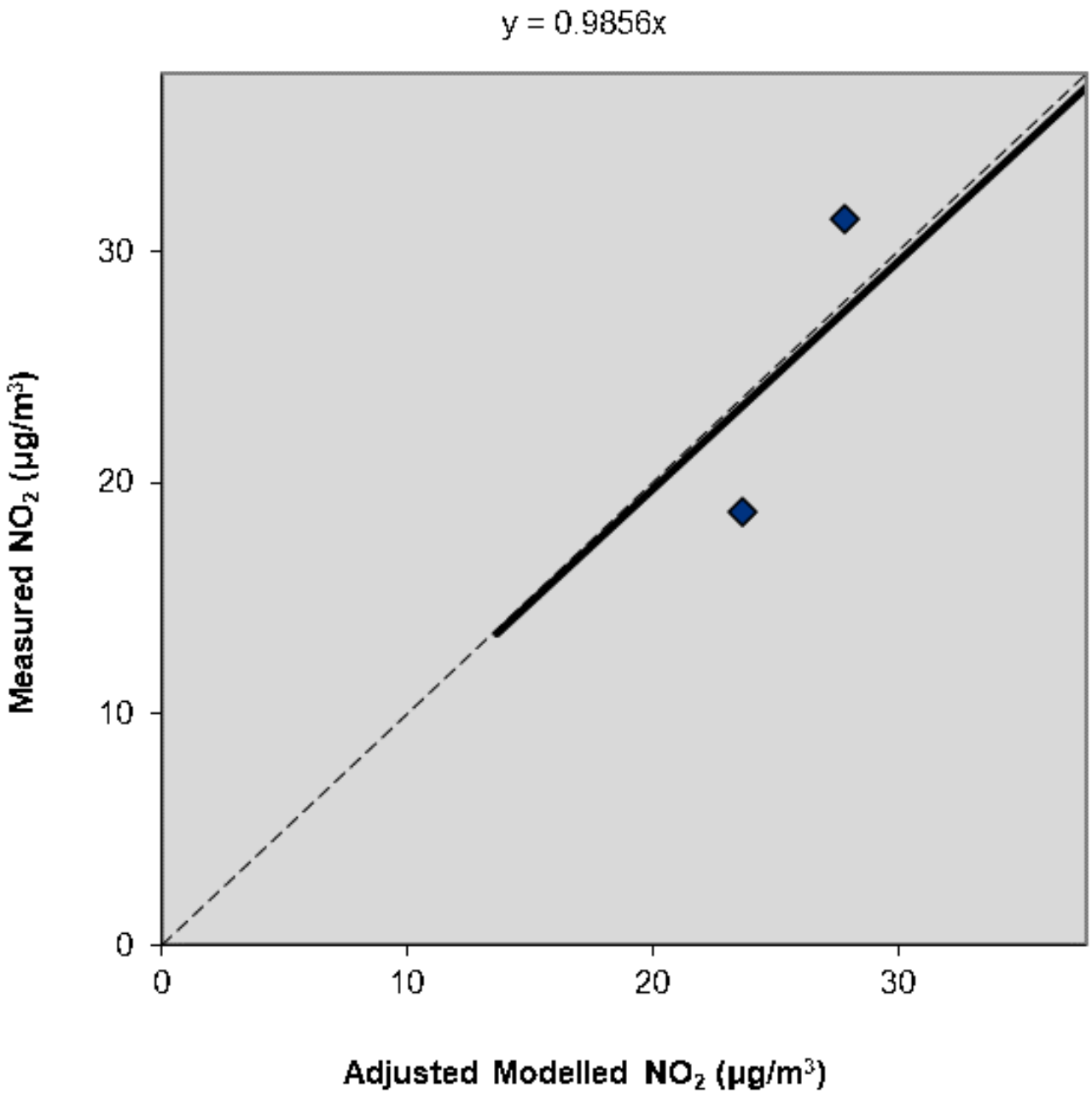


Table G.5: Evaluation of Model Performance

Statistical Parameter	Description	Values		
		Before verification (Figure 4)	After verification (Figure 5)	Ideal
Correlation coefficient	Linear relationship between predicted and observed data. Less useful for small datasets as single high/low values can have a large effect.	1.00	1.00	1
Fractional bias	Identifies systematic tendency to over/under predict (negative = over-predict, positive = under-predict).	0.50	-0.03	0.0
Root mean square error (RMSE)	Average error of the model (µg/m^3). Ideally within 10% of the annual mean NO_2 objective, i.e. 4 µg/m^3; however, within 25% acceptable, i.e. 10 µg/m^3.	17.03	4.31	0.0

Model Post-processing

NOx

1.16 The modelled, verified road-NOx output for each receptor has been added to the background NOx concentrations to determine the total NOx concentration at each receptor.

NO2

1.17 The NOx to NO2 calculator v7.1 published by Defra (Defra, 2020b) has been used to convert the modelled, verified road-NOx output for each receptor to road-NO2. Road-NO2 has then been added to background NO2 to determine the total NO2 concentration at each receptor.

Deposition Fluxes

1.18 Deposition has been calculated from the predicted total NO2 concentration using the deposition velocity for grassland of 0.0015 m/s published by the Environment Agency (Environment Agency, 2011).

1.19 The deposition velocity multiplied by the predicted concentration (µg/m3) gives the deposition flux (µg/m2/s). A factor of 96 was then used to calculate the nutrient nitrogen deposition due to NO2 in units of kg/ha/yr (Environment Agency, 2011).

1.20 The acid nitrogen deposition has been calculated from the nutrient nitrogen deposition using a factor of 0.071428 (Environment Agency, 2011).

1.21 Wet deposition has not been assessed as it is not considered to be significant within the distances covered by the study area (Environment Agency, 2011).

Appendix H

Total Annual Mean NOx On Each Transect

Table A.H1: Predicted Total Annual Mean NOx Concentrations[1][2]

Receptor	Transect 1				Transect 2				Transect 3				Transect 4			
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
0m	27.4	17.3	17.4	18.1	**42.4**	25.4	25.5	26.9	**46.5**	28.1	28.2	29.4	**44.7**	27.2	27.3	28.4
1m	27.1	17.1	17.2	17.9	**41.4**	24.9	25.0	26.3	**45.6**	27.6	27.8	28.9	**43.8**	26.8	26.9	28.0
2m	26.8	17.0	17.1	17.7	**40.4**	24.4	24.5	25.8	**44.8**	27.2	27.4	28.5	**43.1**	26.4	26.5	27.6
3m	26.5	16.8	16.9	17.6	**39.5**	23.9	24.1	25.3	**44.1**	26.9	27.0	28.1	**42.4**	26.1	26.2	27.2
4m	26.2	16.7	16.8	17.4	**38.6**	23.5	23.7	24.8	**43.4**	26.5	26.7	27.7	**41.7**	25.7	25.9	26.8
5m	26.0	16.6	16.6	17.3	**37.9**	23.2	23.3	24.4	**42.7**	26.2	26.3	27.4	**41.1**	25.4	25.5	26.5
6m	25.7	16.4	16.5	17.1	**37.2**	22.8	22.9	24.0	**42.1**	25.9	26.0	27.0	**40.5**	25.2	25.3	26.2
7m	25.5	16.3	16.4	17.0	**36.5**	22.5	22.6	23.7	**41.5**	25.6	25.8	26.7	**40.0**	24.9	25.0	25.9
8m	25.2	16.2	16.3	16.9	**35.9**	22.2	22.3	23.3	**41.0**	25.4	25.5	26.4	**39.5**	24.7	24.7	25.6
9m	25.0	16.1	16.2	16.7	**35.3**	21.9	22.0	23.0	**40.5**	25.1	25.2	26.1	**39.0**	24.4	24.5	25.3
10m	24.8	16.0	16.1	16.6	**34.7**	21.6	21.7	22.7	**40.0**	24.9	25.0	25.9	**38.5**	24.2	24.3	25.1
11m	24.6	15.9	16.0	16.5	**34.2**	21.4	21.5	22.4	**39.6**	24.7	24.8	25.6	**38.1**	24.0	24.1	24.9
12m	24.4	15.8	15.9	16.4	**33.7**	21.1	21.2	22.1	**39.2**	24.5	24.6	25.4	**37.7**	23.8	23.9	24.6
13m	24.2	15.7	15.8	16.3	**33.2**	20.9	21.0	21.9	**38.8**	24.3	24.4	25.2	**37.3**	23.6	23.7	24.4
14m	24.0	15.6	15.7	16.2	**32.8**	20.7	20.8	21.6	**38.4**	24.1	24.2	25.0	**37.0**	23.4	23.5	24.2
15m	23.8	15.5	15.6	16.1	**32.4**	20.5	20.6	21.4	**38.0**	23.9	24.0	24.8	**36.6**	23.3	23.3	24.0
16m	23.6	15.4	15.5	16.0	**32.0**	20.3	20.4	21.2	**37.7**	23.7	23.8	24.6	**36.3**	23.1	23.2	23.9
17m	23.5	15.3	15.4	15.9	**31.6**	20.1	20.2	21.0	**37.3**	23.6	23.7	24.4	**36.0**	23.0	23.0	23.7
18m	23.3	15.3	15.3	15.8	**31.2**	19.9	20.0	20.8	**37.0**	23.4	23.5	24.2	**35.7**	22.8	22.9	23.5
19m	23.1	15.2	15.2	15.7	**30.9**	19.7	19.8	20.6	**36.7**	23.3	23.4	24.1	**35.4**	22.7	22.7	23.4
20m	23.0	15.1	15.2	15.6	**30.6**	19.6	19.7	20.4	**36.4**	23.1	23.2	23.9	**35.1**	22.5	22.6	23.2
21m	22.8	15.0	15.1	15.5	**30.2**	19.4	19.5	20.2	**36.1**	23.0	23.1	23.8	**34.9**	22.4	22.5	23.1
22m	22.7	15.0	15.0	15.5	29.9	19.3	19.4	20.1	**35.9**	22.9	23.0	23.6	**34.6**	22.3	22.4	22.9
23m	22.5	14.9	14.9	15.4	29.7	19.1	19.2	19.9	**35.6**	22.8	22.8	23.5	**34.4**	22.2	22.2	22.8
24m	22.4	14.8	14.9	15.3	29.4	19.0	19.1	19.8	**35.4**	22.7	22.7	23.4	**34.2**	22.1	22.1	22.7
25m	22.3	14.8	14.8	15.2	29.1	18.9	18.9	19.6	**35.2**	22.5	22.6	23.2	**34.0**	22.0	22.0	22.6
26m	22.1	14.7	14.8	15.2	28.9	18.7	18.8	19.5	**34.9**	22.4	22.5	23.1	**33.8**	21.9	21.9	22.5
27m	22.0	14.6	14.7	15.1	28.6	18.6	18.7	19.3	**34.7**	22.3	22.4	23.0	**33.6**	21.8	21.8	22.4
28m	21.9	14.6	14.6	15.0	28.4	18.5	18.6	19.2	**34.5**	22.2	22.3	22.9	**33.4**	21.7	21.7	22.2
29m	21.8	14.5	14.6	15.0	28.2	18.4	18.5	19.1	**34.3**	22.1	22.2	22.8	**33.2**	21.6	21.6	22.1
30m	21.7	14.5	14.5	14.9	28.0	18.3	18.4	19.0	**34.1**	22.0	22.1	22.7	**33.0**	21.5	21.5	22.0
31m	21.6	14.4	14.5	14.8	27.7	18.2	18.3	18.9	**34.0**	21.9	22.0	22.6	**32.8**	21.4	21.5	21.9
32m	21.4	14.4	14.4	14.8	27.5	18.1	18.2	18.7	**33.8**	21.9	21.9	22.5	**32.6**	21.3	21.4	21.9
33m	21.3	14.3	14.4	14.7	27.3	18.0	18.1	18.6	**33.6**	21.8	21.8	22.4	**32.5**	21.2	21.3	21.8
34m	21.2	14.3	14.3	14.7	27.2	17.9	18.0	18.5	**33.4**	21.7	21.7	22.3	**32.3**	21.2	21.2	21.7
35m	21.1	14.2	14.3	14.6	27.0	17.8	17.9	18.4	**33.3**	21.6	21.7	22.2	**32.2**	21.1	21.1	21.6
36m	21.0	14.2	14.2	14.6	26.8	17.7	17.8	18.3	**33.1**	21.5	21.6	22.1	**32.0**	21.0	21.1	21.5
37m	20.9	14.1	14.2	14.5	26.6	17.7	17.7	18.2	**33.0**	21.5	21.5	22.0	**31.9**	20.9	21.0	21.4
38m	20.9	14.1	14.1	14.5	26.5	17.6	17.6	18.2	**32.8**	21.4	21.4	21.9	**31.7**	20.9	20.9	21.4
39m	20.8	14.0	14.1	14.4	26.3	17.5	17.6	18.1	**32.7**	21.3	21.4	21.9	**31.6**	20.8	20.9	21.3
40m	20.7	14.0	14.0	14.4	26.2	17.4	17.5	18.0	**32.5**	21.2	21.3	21.8	**31.5**	20.7	20.8	21.2
41m	20.6	13.9	14.0	14.3	26.0	17.4	17.4	17.9	**32.4**	21.2	21.2	21.7	**31.4**	20.7	20.7	21.1
42m	20.5	13.9	13.9	14.3	25.9	17.3	17.3	17.8	**32.3**	21.1	21.2	21.6	**31.2**	20.6	20.7	21.1
43m	20.4	13.9	13.9	14.2	25.7	17.2	17.3	17.8	**32.1**	21.1	21.1	21.6	**31.1**	20.6	20.6	21.0
44m	20.3	13.8	13.9	14.2	25.6	17.1	17.2	17.7	**32.0**	21.0	21.1	21.5	**31.0**	20.5	20.6	21.0
45m	20.3	13.8	13.8	14.1	25.5	17.1	17.1	17.6	**31.9**	20.9	21.0	21.4	**30.9**	20.5	20.5	20.9
46m	20.2	13.8	13.8	14.1	25.3	17.0	17.1	17.5	**31.8**	20.9	20.9	21.4	**30.8**	20.4	20.5	20.8
47m	20.1	13.7	13.8	14.1	25.2	17.0	17.0	17.5	**31.7**	20.8	20.9	21.3	**30.7**	20.4	20.4	20.8
48m	20.0	13.7	13.7	14.0	25.1	16.9	17.0	17.4	**31.6**	20.8	20.8	21.3	**30.6**	20.3	20.4	20.7
49m	20.0	13.6	13.7	14.0	25.0	16.8	16.9	17.3	**31.5**	20.7	20.8	21.2	**30.5**	20.3	20.3	20.7
50m	19.9	13.6	13.6	13.9	24.8	16.8	16.8	17.3	**31.4**	20.7	20.7	21.1	**30.4**	20.2	20.3	20.6
Criterion	**30**															

[1] A = 2019
B = 2031 without Oxfordshire Cotswolds Garden Village, without West Eynsham SDA
C = 2031 without Oxfordshire Cotswolds Garden Village, with West Eynsham SDA
D = 2031 with Oxfordshire Cotswolds Garden Village, with West Eynsham SDA

[2] Exceedances of the assessment criterion are shown in bold.

Appendix I

Schedule of Proposed Main Modifications (July 2022) and Implications for Previous HRA Screening Conclusions

General			
Main Modification Reference	**Policy/Paragraph Reference**	**Proposed Main Modification**	**Implications for HRA screening conclusions reported previously**
MM1	New paragraph (to be inserted after paragraph 1.6)	Insert new paragraph after existing paragraph 1.6 as follows: **In relation to the land within the identified boundary of the AAP, the AAP is intended to amend the following in the West Oxfordshire Local Plan -** • **Figure 3.2 of the AAP updates Figure 9.5e of the Local Plan to confirm the boundary of the Garden Village Strategic Location for Growth and include land to the north within it.** • **AAP Policy 25 supersedes Local Plan Policy H5 in respect of custom and self build housing.** • **AAP Policy 16 supersedes Local Plan Policy T4 in respect of car parking standards.**	No change to HRA screening findings – this modification is part of the supporting text of the AAP and does not amend any of the policies that have been subject to HRA screening.
Core Objectives			
Main Modification Reference	**Policy/Paragraph Reference**	**Proposed Main Modification**	
MM2	Core objective GV3	Amend core objective GV3 as follows: To design buildings fit for the future, mitigating the impact of Salt Cross on climate change by achieving	No change to HRA screening findings – this modification does not amend the overall meaning of the Core Objective.

		net zero-carbon development through ultra-low energy fabric and ~~100%~~ use of low and zero-carbon energy, with no reliance on fossil fuels **wherever possible**.	

Climate Action			
Main Modification Reference	**Policy/Paragraph Reference**	**Proposed Main Modification**	**Implications for HRA screening conclusions reported previously**
MM3	Policy 1 – Climate Resilience and Adaptation Paragraph 5.25	Amend Policy 1 as follows: Development proposals at Salt Cross will be required to adopt ~~and demonstrate~~ a 'natural capital' based approach which positively exploits the site's environmental characteristics and opportunities to ensure climate resilience and adaptation. Building use, design, siting, orientation and layout will be ~~required to demonstrate resilience~~ **resilient** to the future impacts of climate change including increased temperatures, wind speeds and changes in rainfall patterns and intensity. Key design decisions ~~must~~ **will** be guided by consideration of three core elements: flexibility, durability and adaptability. Amend paragraph 5.25 as follows: **Through compliance with the policies in the AAP taken as a whole**, **development** ~~Development~~ proposals at Salt Cross will be required to demonstrate that these and other opportunities to achieve climate resilience through the protection and enhancement of the site's natural capital have been fully explored and exploited as fully as possible.	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.

MM4	Policy 2 - Net Zero Carbon Development	Replace Policy 2 as follows: ~~Proposals for development at Salt Cross will be required to demonstrate net zero operational carbon on-site through ultra-low energy fabric specification, low carbon technologies and on-site renewable energy generation. An energy strategy will be required with outline and detailed planning submissions, reconfirmed pre-commencement, validated pre-occupation and monitoring post-completion demonstrating alignment with this policy~~. ~~*Building Fabric*~~ ~~Proposals will need to use ultra-low energy fabric to achieve the KPI for space heating demand of <15 kWh/m2.yr, demonstrated through predicted energy modelling. This should be carried out as part of any detailed planning submission, reconfirmed pre-commencement, validated pre-occupation and monitored post-completion.~~ ~~*Overheating*~~ ~~Thermal comfort and the risk of overheating should be given full consideration in the earliest stages of design to ensure passive-design measures are prioritised over the use of more energy-intensive alternatives such as mechanical cooling. At outline planning stage, overheating should be mitigated through appropriate orientation and massing and at the detailed planning stage, a modelling sample proportionate to development density will be~~	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.

		~~required to demonstrate full compliance with CIBSE TM59 for residential and TM52 for non-residential development, addressing overheating in units considered at highest risk. Overheating calculations should be carried out as part of the detailed planning submission and reconfirmed pre-commencement.~~ ~~*Energy Efficiency*~~ ~~Energy budgets (EUI targets) must be demonstrated using predicted energy modelling. The following KPI targets will apply:~~ ~~- Residential <35 kwh/m2.yr~~ ~~- Office <55 kwh/m2.yr~~ ~~- Research labs <55-240 kwh/m2.yr*~~ ~~- Retail <80 kwh/m2.yr~~ ~~- Community space (e.g. health care) <100 kwh/m2.yr~~ ~~- Sports and Leisure <80 kwh/m2.yr~~ ~~- School <65 kwh/m2.yr~~ ~~To ensure best practice, an accurate method of predictive energy modelling, agreed in consultation with the District Council, will be required for a cross-section of building typologies (e.g. using Passive House Planning Package - PHPP or CIBSE TM45 or equivalent). This modelling should be carried out with the intention of meeting the target EUIs as part of the detailed planning submission, be reconfirmed pre-commencement, validated pre-occupation and monitored post-completion.~~ ~~*Fossil Fuels*~~	

		~~The development will be expected to be fossil-fuel free. Fossil fuels, such as oil and natural gas should not be used to provide space heating, hot water or used for cooking.~~ ~~*Zero Operational Carbon Balance*~~ ~~100% of the energy consumption required by buildings on-site should be generated using on-site renewables, for example through Solar PV. The quantum of proposed renewable energy for the whole site (outline planning) and each phase (detailed planning) should be shown in kWh/yr. The amount of renewable energy should equal or exceed the total energy demand for the development in order to achieve net zero operational carbon as a whole.~~ ~~The energy strategy should state the total kWh/yr of energy consumption of the buildings on the site and the total kWh/yr of energy generation by renewables to show that the zero-carbon operational balance is met. An explanation should be given as to how these figures have been calculated.~~ ~~Renewable energy contribution calculations should be carried out as part of the outline and detailed planning submissions, be reconfirmed pre-commencement, validated pre-occupation and monitored post-completion.~~	

		~~A detailed low- and zero-carbon viability assessment should be carried out in support of the energy strategy detailing the selection of on-site low- and zero-carbon energy technologies.~~ ~~*Embodied carbon*~~ ~~Development proposals will need to demonstrate attempts to reduce embodied carbon to meet the following KPI:~~ ~~< 500 kg CO2/m² Upfront embodied carbon emissions (Building Life Cycle Stages A1-A5). Includes Substructure, Superstructure, MEP, Facade & Internal Finishes.~~ ~~As part of the submission of any planning application, a report should be prepared which demonstrates the calculation of the expected upfront embodied carbon of buildings. Full lifecycle modelling is encouraged.~~ ~~Embodied carbon calculations should be carried out as part of the outline and detailed planning submission, be reconfirmed pre-commencement, and validated pre-occupation.~~ ~~*Measurement and verification*~~ ~~Applicants should confirm the metering, monitoring and reporting strategy as part of the detailed planning application. Post-occupancy energy monitoring should be carried out every year for the first five years of use of each building to understand the energy consumption of the development in-use.~~	

		~~The results should be stored centrally and shared between developers, design teams and contractors on site.~~ **Proposals for development at Salt Cross will be required to demonstrate an ambitious approach to the use of renewable energy, sustainable design and construction methods, with a high level of energy efficiency in new buildings. An energy statement will be required for all major development, which should include the consideration of the feasibility of incorporating the following principles.** • **Alignment with the District Council's ambition for achieving net zero carbon at Salt Cross;** • **Low energy use – minimising the amount of energy consumed including in relation to building fabric performance. The use of ultra-low energy building fabric, appropriate targets for space-heating demand and energy use intensity (EUI) targets for different land-uses;** • **Thermal comfort – thermal comfort and the risk of overheating in the earliest stages of design, including the use of passive design measures and the use of overheating modelling as appropriate;** • **Low and zero carbon energy supply – maximising the use of on-site renewable**	

		energy and minimising the use of fossil fuels to zero wherever possible; • **Embodied carbon – reducing the impact of construction by minimising the amount of upfront embodied carbon emissions including appropriate embodied carbon targets. A calculation of the expected upfront embodied carbon of buildings and full lifecycle modelling is encouraged;** • **Measurement and verification – appropriate arrangements for measuring and publicly reporting on the 'in-use' energy consumption of the different land-uses at Salt Cross post-construction (e.g. for a period of 5-years).**	
MM5	Policy 3 – Towards 'Zero Waste' Through the Circular Economy	Amend the first paragraph of Policy 3 as follows: **So far as practicable, proposals** ~~Proposals~~ for development at Salt Cross will be required to embed the concept of the 'circular economy' and demonstrate a commitment towards reducing waste, increasing material re-use and recycling and minimising the amount of waste sent for disposal.	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.
MM6	Policy 3 – Towards 'Zero Waste' Through the Circular Economy	Amend the second paragraph of Policy 3 as follows: '~~In support of any outline planning application for the whole garden village site and any major* reserved matters or other detailed applications, a~~ **A** waste strategy will be required ~~demonstrating~~ **to demonstrate** how the core components of the	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.

		circular economy have been taken into account through appropriate design and construction solutions and opportunities to effectively manage waste on or near site. This will include consideration of the potential use of advanced waste collection systems such as URS. ~~**Defined as 10 or more residential units or 1,000m^2 or more for non-residential development*~~.'	

Healthy Place Shaping			
Main Modification Reference	**Policy/Paragraph Reference**	**Proposed Main Modification**	**Implications for HRA screening conclusions reported previously**
MM7	Policy 4 – Adopting Healthy Place Shaping Principles	Amend the final paragraph of Policy 4 as follows: A ~~Rapid~~ Health Impact Assessment (HIA) will be required to accompany ~~the outline planning application and~~ any planning application for major development at the garden village, aligned with the ~~emerging~~ Oxfordshire HIA methodology **and toolkit**, to fully identify the needs of everyone (including vulnerable and excluded groups) in how they will live and work, access and use all types of infrastructure, services and networks. The HIA should include details of implementation and monitoring.	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.
MM8	Policy 5 – Social Integration, Interaction and Inclusion	Amend the final paragraph of Policy 5 as follows: The appointment of a Community Development Officer will be needed early in the development stage of Salt Cross to empower and support the emerging community through an asset based community development (ABCD) approach** and, if required, to help in the co-production of local strategies, such as a community development strategy, cultural wellbeing strategy and public arts strategy. This role will be secured and funded as appropriate ~~through a planning condition or legal agreement~~ **proportionate to the needs of the development as they evolve over time**.	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.

MM9	Policy 6 – Providing Opportunities for Healthy Active Play, Leisure and Lifestyles	Amend the second paragraph of Policy 6 as follows: Opportunities for healthy active play, leisure and lifestyles will need to be provided ~~in accordance with~~ **paying appropriate regard to** Sport England's Active Design Principles and Play England's 'Design Principles for Successful Play', and, in particular: a) Meet the needs generated by the development, complementing existing nearby provision b) Be based on up to date assessments of local need, and c) Deliver good quality multi-purpose provision that is flexible, adaptable, safe, social and inclusive	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.
MM10	Policy 7 – Green Infrastructure	Amend the first paragraph of Policy 7 as follows: The planning, design and delivery of Salt Cross will be underpinned by a comprehensive approach to the provision, maintenance and long term management of a high quality network of green and blue infrastructure, through the submission, for approval, of a Green Infrastructure Strategy ~~with the outline planning application for the garden settlement~~. The strategy will also be expected to set out the governance and funding mechanisms and the maintenance plans for each element of the green infrastructure.	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.
MM11	Policy 7 – Green Infrastructure	Insert new second paragraph into Policy 7 as follows:	No change to HRA screening findings – this policy was screened out as it does not

		The Green Infrastructure Strategy should be prepared in the context of the overall site-specific Infrastructure Delivery Plan (IDP) required under Policy 30 – Provision of Supporting Infrastructure.	directly result in development, and this remains the case.
MM12	Policy 7 – Green Infrastructure	Amend the third paragraph of Policy 7 as follows: An ambitious approach to green and blue infrastructure provision is expected for Salt Cross, with the requirement for **around** 50% **(including private gardens and green roofs)** of the area to form the overall green infrastructure network**.** ~~and for the accessibility~~ **Accessibility** and quality standards and minimum quantitative standards for specific green infrastructure types ~~to be met at the outline planning application stage, as set out in~~ **will be agreed as part of applications for major development, having regard to** Tables 6.1 and 6.2. Achievement of high quality will need to be demonstrated**.** ~~through the use of the Building with Nature standards. As an exemplary development is proposed, 'Full Award Accreditation– Excellent' will need to be achieved.~~	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.
MM13	Policy 7 – Green Infrastructure	Delete the fifth paragraph and amend the sixth paragraph of Policy 7 as follows: ~~Given the significance of the green infrastructure network, its long term management and maintenance (at least 30 yeas), to national standards of excellence, needs to be secured. A comprehensive management plan is especially~~	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.

		~~important for the strategic scale green infrastructure, particularly the Biodiverse Country Park.~~ Stewardship and maintenance arrangements for the GI network will ~~therefore~~ need to be addressed as part of any Community Management and Maintenance Plan (CMMP) or equivalent, submitted in accordance with Policy 31 – Long-Term Maintenance and Stewardship.	
MM14	Policy 8 – Enabling Healthy Food Choices	Amend the second paragraph of Policy 8 as follows: A food strategy should ~~accompany the outline planning application, setting~~ **set** out the overall approach to food growing and consumption at the garden village making use of current good practice[33], including: an assessment of suitable areas for food growing; consideration of approaches to achieve a diversity of food outlets; and the approach to incorporating edible plants within the public realm.	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.

Protecting and Enhancing Environmental Assets			
Main Modification Reference	**Policy/Paragraph Reference**	**Proposed Main Modification**	**Implications for HRA screening conclusions reported previously**
MM15	Policy 9 – Biodiversity Net Gain	Amend the second paragraph of Policy 9 as follows: Development at Salt Cross will be required to demonstrate an overall biodiversity net gain of 25%. This will be measured using the DEFRA Biodiversity Metric ~~Version 2.0 (or subsequent updated versions)~~ **(as may be amended and in force at the time of the application)**.	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.
MM16	Policy 9 – Biodiversity Net Gain	Amend the third paragraph of Policy 9 as follows: The main focus of this biodiversity net gain approach will be the garden village site itself through **maximising opportunities for** on-site mitigation and enhancement ~~and then off-site enhancements will be sought to make up the total number of biodiversity units required to deliver the full 25%~~. The remaining part of the third paragraph which relates to off-site net gain, to be moved to the end of the policy along with the existing fifth paragraph and amended to read as follows: … ~~and then off-site enhancements will be sought~~ **Whilst the presumption is that net gain will be delivered on-site, where required** to make up the total number of biodiversity units ~~required to deliver~~ **to** the full 25%, **off-site enhancements will be sought**.	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.

		~~An~~ **In particular, an** appropriate financial payment will be sought by the District Council for the delivery of off-site biodiversity net gain (via an off-site delivery provider) and this will be used to meet the aims and objectives of nearby Conservation Target Areas (CTAs), the restoration and enhancement of designated sites, the delivery of a Nature Recovery Network, the restoration of priority habitats and species, and/or the creation of new Green Infrastructure within the local area.	
MM17	Policy 9 – Biodiversity Net Gain	Amend paragraphs 6 – 9 of Policy 9 as follows: ~~Any application should be supported by a Biodiversity Net Gain Strategy or equivalent with a Biodiversity Impact Map, Biodiversity Proposals Map, a full copy of any net gain metric calculations (not a summary), a justification that all the principles within the Good Practice Principles and associated Practical Guide have been met and an indication of how the delivery of on-site net gain will be implemented, managed and monitored. All assumptions applied within the metric must be explicit (e.g. how proposed habitats might look, use of green roofs) within the strategy.~~ ~~The complete details of all off-site delivery of biodiversity net gain, where the developer takes responsibility for this rather than making a financial contribution to a recognised delivery provider, shall be incorporated into the strategy, including implementation, management and monitoring for a minimum period of 30 years, and details of how this will be audited.~~	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.

		~~An 'As Built' final biodiversity net gain report will be required to provide a complete audit of the delivery of on-site habitats included in the net gain calculations.~~ ~~A Biodiversity Mitigation, Compensation, Monitoring and Management Framework, detailing all the mitigation requirements for the development and incorporating details of compensation, including strategies for farmland birds and rare arable wildflowers, the basic details of a monitoring strategy and indications of habitat and species management requirements, is also required as part of any outline application to provide details that can be used by subsequent reserved matters applications to ensure that they are fully compliant with all the necessary mitigation and compensation measures for biodiversity.~~ **A Biodiversity Net Gain Strategy shall be submitted with applications for major development that includes:** **i. A full copy of any net gain metric calculations (not a summary);** **ii. Assumptions made within the metric and explicit reasons for these (e.g. how proposed habitats might look, use of green roofs);** **iii. Consideration of the principles within the Good Practice Principles and associated Practical Guide;** **iv. Outline of the design process, including aims and objectives, justifications for the types of**	

		habitats that have been incorporated, site context, ecological networks, and species conservation; **v. Biodiversity Impact Map and Biodiversity Proposals Plan (drawings and GIS map layers of where the habitats are located before and after development so that they can be easily recognised when compared to the habitats recorded in the metric, i.e. clearly labelled, numbered and categorised);** **vi. An indication of how the delivery of on-site net gain will be implemented, including of habitat protection, creation, restoration, enhancement (e.g. based on phasing plans);** **vii. Complete details of all off-site delivery of biodiversity net gain, where the developer takes responsibility for this rather than making a financial contribution to a recognised delivery provider, including implementation, management and monitoring for a minimum period of 30 years, and details of how this will be audited;** **viii. Proposals for management and monitoring of biodiversity net gain outcomes over at least the 30-year period; and** **ix. A commitment to the production and submission of an 'As Built' final biodiversity net gain report to provide a complete audit of the delivery of on-site habitats included in the net gain calculations.**	

MM18	Policy 10 – Water Environment Paragraph 7.78	Amend the first and second paragraphs of Policy 10 as follows: An ambitious approach to the water environment is expected for the Garden Village and its surrounding catchment, adopting a sustainable integrated management of water that fully incorporates high quality green and blue infrastructure. ~~Achievement of this high quality will need to be demonstrated through the use of the Building with Nature standards; at the design stage of development, a Design Award accreditation will be required, and in the following stages the delivery of exemplary Green and Blue Infrastructure will be required through the Full Award – Excellent accreditation~~. In terms of flood risk, ~~the OCGV~~ **development at Salt Cross** will be required to be sequentially designed to avoid areas at high flood risk from all potential sources of flooding and reduce surrounding flood risk, particularly through the use of natural flood management techniques. The potential impact of climate change will need to be fully assessed, in accordance with Environment Agency's guidance on flood risk and climate change allowances. Built development will need to be located outside the 70% climate change fluvial flood extent. All major planning applications should be accompanied by: Delete paragraph 7.78 as follows: ~~Building with Nature (see Section 6 – Healthy Place Shaping) recognises the relationship between the~~	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.

		~~water environment and development and includes water as a key theme, with a commitment to: improve water quality on site and in the wider area; reduce the risk of flooding; and manage water naturally for maximum benefit.~~	

MM19	Policy 10 – Water Environment	Amend criterion a) of Policy 10 as follows: a) a detailed Flood Risk Assessment, including **appropriate consideration of cumulative impact and**, where required by the Lead Local Flood Authority and the Environment Agency, detailed modelling of any ordinary watercourses on the site using the most up to date model data to define the Flood Zones and model the effect of climate change;	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.
MM20	Policy 10 – Water Environment	Amend criterion d) of Policy 10 as follows: d) an exemplar sustainable drainage system (SuDS), as part of a comprehensive SuDS strategy, making extensive use of diverse SuDS features to provide multifunctional benefits, in particular achieving net biodiversity gain, and giving details of delivery, future management and maintenance. ~~Using a methodology first agreed in writing by the local planning authority, the~~ **The** SuDS features will need to be informed by up to date information obtained through: i) Infiltration testing; ii) Groundwater monitoring; iii) Contaminated land surveys; iv) Local data and watercourse survey to calculate greenfield run-off rates for sub-catchment areas; and v) An outline drainage strategy to include an assessment of storage volumes.	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.

MM21	Policy 10 – Water Environment	Amend the final paragraph of Policy 10 as follows: For wastewater and water quality, a focused local strategy ~~is required to be undertaken and submitted with the outline planning application,~~ **will be required** based on an assessment of the wastewater network capacity, highway drainage systems, water quality conditions and flood risk, including impact on the receiving River Thames. The strategy should **be prepared in the context of the site-wide Infrastructure Delivery Plan (IDP) required by Policy 30 and** ~~set out details of a comprehensive waste water conveyance and treatment solution~~ **consider appropriate waste water conveyance and treatment solutions including** ~~for the Garden Village,~~ the phasing of new waste water and highway drainage infrastructure and measures to ensure there will not be an adverse impact ~~in~~ **on** water quality or an increase in the risk of sewer flooding as a result of waste water flows from the development. Opportunities should be taken to improve water quality, including through the use of SuDS, to ensure the discharge of clean water into watercourses.	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.
MM22	Policy 11 – Environmental Assets	Amend the second paragraph of Policy 11 as follows: The following reports are particularly important and will be required ~~to accompany the outline planning application:~~ **for major development:**	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.
MM23	Policy 12 – Conserving and Enhancing the Historic Environment of Salt Cross	Add a new penultimate bullet point to Policy 12 as follows:	No change to HRA screening findings – this policy was screened out as it does not

	Paragraph 7.134 Paragraph 7.145 Paragraph 7.147 GV16	• **<u>Retention of Tilgarsley, its spatial relationship along with other key elements of its setting that contribute to its heritage significance;</u>** Amend paragraph 7.134 as follows: There are sixteen non-designated assets identified in the LUC Study, including a number of historic pathways/ tracks/ roads and hedgerows that are historically important and the ~~suggested~~ remains of a deserted medieval village known as Tilgarsley which was purportedly depopulated during the Black Death and abandoned by 1349. Amend paragraph 7.145 as follows: A total of 16 non-designated assets have been identified within the garden village site including a number of historic pathways/ tracks/ roads and hedgerows, the site of a Bronze Age Barrow Complex recorded at New Wintles Farm, an area of cropmarks to the west of New Wintles Farm and in the north-west area of the site, a substantial hollow way leads to an area of earthworks (banks and hollows) and soilmarks, ~~suggested to form~~ **<u>forming</u>** the remains of the deserted medieval village at Tilgarsley, which was purportedly depopulated during the Black Death and abandoned by 1349. The remains identified here are thought to comprise a village green surrounded on all sides by houses, accessed via a hollow way. Amend paragraph 7.147 as follows:	directly result in development, and this remains the case.

		The gravel deposits recorded within the eastern half of the site are a known focus for settlement, as indicated by the recorded prehistoric and early medieval activity. In the west of the site, many of the fields have been reorganised and amalgamated and as such, there is a good potential for former field boundaries and other low value medieval and post-medieval agricultural features. Opportunities: It will be critical for a programme of archaeological work to evaluate the significance of these assets and to inform a mitigation strategy. The ~~possible~~ Tilgarsley medieval deserted village and its hollow way and earthwork remains could potentially be of high value, although not currently designated, and may require preservation in-situ. Assuming that preservation in-situ is required, then the area including this asset could be demarcated as strategic open land, in which no ground intrusive work, vehicular movement, etc. is permitted. Remains of lesser value may be 'preserved by record'. Depending on their value this could entail full excavation and recording or an archaeological watching brief. Any programme of work would also be designed to clarify the potential for any hitherto unknown heritage assets and the evidence of the past environments of the site which may be high given the recorded presence of alluvial deposits and river terrace gravels. Amend GV16 as follows:	

		To fully address and capitalise on the constraints and opportunities presented by heritage assets including the listed buildings at City Farm and the ~~suspected~~ site of the former medieval village of Tilgarsley.	
Movement and Connectivity			
Main Modification Reference	**Policy/Paragraph Reference**	**Proposed Main Modification**	**Implications for HRA screening conclusions reported previously**
MM24	Policy 14 – Active and Healthy Travel	Replace Policy 14 as follows: ~~Walking and cycling routes must be coherent, direct, safe and attractive, whilst being inclusive and wide enough to accommodate people with disabilities and young children. Routes must be multi-purpose, providing access to services and facilities including schools and public transport, as well as serving leisure needs.~~ ~~There must be multiple suitable access points for walking and cycling into the site, which connect to a coherent internal (and external) pedestrian and cycle network including to the proposed improvements to walking and cycling routes along the A40.~~ ~~Existing public rights of way and cycle routes must be retained and enhanced to improve accessibility for all, both within and in the vicinity of the Garden Village. New roads crossing existing rights of way shall be minimised but where this is necessary, appropriate crossings must be provided.~~	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case. It was also noted that the focus of the policy on the provision of walking and cycle links may help to reduce the level of vehicular traffic and reduce nitrogen deposition within the site (mitigation is considered during the Appropriate Assessment).

		~~New routes must be created both within and in the vicinity of the site to provide safe and convenient connections to key services and facilities including schools.~~ ~~A grade-separated crossing (underpass) shall be provided between the Garden Village and Eynsham. The Salt Cross and West Eynsham Strategic Development Area developers will need to cover the design and construction costs of the underpass, with costs reasonably apportioned.~~ ~~Segregated cycle and pedestrian provision via Lower Road to Hanborough Station shall be provided, with segregated facilities for cyclists and pedestrians also the preference within the Garden Village.~~ ~~The concept of 'school streets' will be promoted, including along Cuckoo Lane and on other roads linking to the schools. Cuckoo Lane will be closed to through traffic whilst ensuring properties at the southern end are accessible.~~ ~~Specific cycle and pedestrian zones will be included within the masterplan such that access for motor vehicles will be restricted at certain times (or at all times) to specific streets, or networks of streets.~~ ~~The spine road through the Garden Village must be designed with a strong sense of place, where pedestrians and cyclists have a safe presence. Traffic calming measures and a 20mph speed limit across the whole Garden Village site should be introduced. It is~~	

		~~important to ensure that the spine road does not lead to severance and divide the Garden Village, and adequate crossing points for pedestrians and cyclists must be provided.~~ ~~Improvements of existing routes into Eynsham e.g. to ensure safe connections from the new underpass must be provided.~~ ~~Evidence of safe routes to school must be provided and shall include crossing points on routes to school; school signage; barriers; zig zag 'keep clear' markings at crucial crossing points outside the school; appropriate roads/pavement/verge design; and appropriate highway parking provision which must be inline and not head-on parking. Where a site is provided for e.g. a 2FE school but initially only a 1FE school is to be built, the pupil drop requirements will be for the maximum potential size of the site i.e. 2FE or 3FE.~~ ~~Planning permission will not be granted for development that compromises the delivery of these pedestrian and cycle improvements.~~ ~~Planning permission will only be granted for new roads within or serving Salt Cross if they are based on low vehicle speeds and are designed to prioritise pedestrian and cycle movements, and easy access to public transport.~~ ~~**Cycle parking**~~	

		~~Ample cycle parking must be provided at appropriate points around the development, including provision for electric bikes and bike/ electric bike hire. Cycle parking must be provided in accordance with the minimum standards below:~~ ~~• Residential cycle parking:~~ ~~1 bed – at least 2 spaces per dwelling~~ ~~2 bed – at least 3 spaces per dwelling~~ ~~3+ bed – at least 4 spaces per dwelling~~ ~~• Employment cycle parking (covered): 1 space per 50m^2~~ ~~• Retail cycle parking: 1 space per 75m^2 (gross internal area)~~ ~~Residential: If a garage is suitably sized then it can be considered as secure cycle storage. Where no garage is available then secure, enclosed cycle parking must be provided. This is likely to be in a rear garden in the form of a specific cycle store or garden shed. Convenient access will be required to the cycle storage area without the need to go through the house. Alternatively, cycle storage could be provided to the front of the house, designed as part of the house facade design. Residential areas should include provision of at least a 13A power supply for charging electric bikes although consideration will be needed for the provision of a higher power supply where necessary e.g. for charging cargo bikes.~~ ~~Apartments: Communal cycle storage must be in close proximity to the entrance of the apartment block for convenience and security. This could comprise:~~	

		~~• Communal ground floor storage within the building, with secure external access and positioned in a well-overlooked area.~~ ~~• Communal separate secure covered cycle store which should be suitably lit.~~ ~~Employment sites: Facilities must be provided to support sustainable travel including appropriate provision of lockers, showers and changing facilities.~~ ~~Financial contributions towards off-site cycle parking provision will be required including at Hanborough Station, Eynsham Park & Ride, Eynsham Village Centre and Oxford City Centre.~~ ~~Schools: Covered cycle parking must be provided, which is future proofed for expansion. For the Primary School: 1 space per 5 pupils plus 1 space per 3 staff. For the Secondary School: 1 space per pupil plus 1 space per 3 staff. Entrances must be provided at various points around the school sites with excellent and safe access for all users including deliveries and school buses. Access for vehicles must be possible via a continuous circular route. The design of the school site shall accord with OCC requirements and standards for schools.~~ ~~**A40 infrastructure improvements for pedestrians and cyclists**~~ ~~S106 planning obligations will be required to secure financial contributions towards cycle and walking infrastructure including the B4044 cycle route and~~	

		~~improvements to be delivered as part of the A40 Corridor improvements. Specifically, the following will be provided along the A40 to support walking and cycling to/from the Garden Village, and the internal network of routes within Salt Cross must link into these:~~ ~~Pedestrian and cycle crossings on A40~~ ~~• A40/ Witney Road signalised junction: Upgraded pedestrian and cycle crossing. • Crossing near Spareacre Lane: A new signalised crossing.~~ ~~• Crossing near Hanborough Road: A new signalised crossing~~ ~~**Improved pedestrian/cycle provision at A40 junctions**~~ ~~To improve provision for pedestrians and cyclists at junctions along the A40 in the vicinity of Eynsham, junction reconfiguration and improvements will be provided at the following locations:~~ ~~• A40/Cuckoo Lane • A40/Witney Road~~ ~~• Esso petrol station entry/egress~~ ~~• Eynsham Roundabout~~ ~~• A40/Cassington Signals~~ ~~• Horsemere Lane: closure to traffic with access maintained for equestrians, pedestrians and cyclists~~ ~~**Upgraded A40 footway/cycleway**~~ ~~Upgraded shared-use footways and cycleways will be provided along the A40 as part of the A40 Corridor improvements ensuring that a continuous route is~~	

		~~provided between Witney, Eynsham Park & Ride and Oxford.~~ ~~**A40 Duke's Cut Bridge works**~~ ~~The A40 Corridor improvements will involve widening and/or strengthening these structures to enable the delivery of improved footway/cycleway provision. A new foot/cycle path connection from the A40 to the National Cycle Network (Route 5) along the canal towpath will also be delivered in the vicinity of the structures.~~ ~~**Speed limit**~~ ~~The speed limit along the A40 in the vicinity of Eynsham will be reduced from the National Speed Limit to a maximum of 50 mph.~~ ~~Smart Technology: Provision of infrastructure to enable the smart, real-time monitoring of the take up of sustainable transport modes and car use must be provided within the Garden Village and on roads in the vicinity of the site.~~ ~~Precise mapping of utilities' infrastructure to support long term maintenance must be provided within the Garden Village and as part of the A40 Corridor improvements.~~ **The development of Salt Cross should make walking and cycling the most attractive forms of local transport, supported by an extensive network of high**	

		quality walking and cycling routes both on and off-site. These shall include: **- The southern section of the Lower Road cycle route in the eastern part of the development.** **- Improved crossing facilities of the A40. This shall include a grade separated crossing (underpass) unless it is clearly demonstrated that the crossing is not necessary to meet placemaking objectives or cannot be delivered due to technical feasibility.** **- A spine road design that ensures a safe and attractive environment for walking and cycling and minimises severance of the site.** **- Subject to a successful stopping up order, Cuckoo Lane closed to through traffic and incorporated into the walking and cycling network of the site.** **- Improvements to existing connections including to Freeland, Long Hanborough and Eynsham for walking and cycling.** **Any masterplan for the Garden Village site must include specific cycle and pedestrian zones such that access for motor vehicles will be restricted at certain times (or at all times) to specific streets, or networks of streets. Evidence of safe routes to school will also be required.** **Ample cycle parking must be provided at suitably accessible locations around the site (including provision for electric bikes and bike/electric bike hire) in accordance with the following minimum standards:** **• Residential cycle parking:**	

		1 bed – at least 2 spaces per dwelling **2 bed – at least 3 spaces per dwelling** **3+ bed – at least 4 spaces per dwelling** **• Employment cycle parking (covered): 1 space per 50m^2** **• Retail cycle parking: 1 space per 75m^2 (gross internal area)** **Financial contributions towards off-site cycle parking provision will be required including at Hanborough Station, Eynsham Park & Ride, Eynsham Village Centre and Oxford City Centre.** **Financial contributions will also be required in respect of the B4044 cycle route and the cycle route connection from the northern boundary of the Garden Village to Hanborough Station.** **Development of the Garden Village must demonstrate effective integration with the walking and cycling elements of the A40 corridor improvements. As these will be forward funded through HIF, S106 planning obligations will be required to secure financial contributions towards repayment of HIF which has enabled their early delivery.** **Provision of infrastructure to enable the smart, real-time monitoring of the take up of sustainable transport modes and car use must be provided within**	

		the Garden Village and on roads in the vicinity of the site.	
MM25	Policy 15 – Public Transport	Replace Policy 15 as follows: ~~An integrated and innovative approach must be taken to public transport to facilitate high bus and rail patronage.~~ ~~The Sustainable Transport Hub (centred on a new Park & Ride site) and supporting A40 infrastructure developments must be integrated in the Garden Village design, with a focus on pedestrian and cycle connectivity, whilst restricting private vehicular access to the Park & Ride site from the Garden Village.~~ ~~Connections to Hanborough Station must be significantly improved and take account of the Masterplan being developed for the station. Consideration must be given to a new entrance from Lower Road south of the railway, with a focus on bus, pedestrian and cycling accessibility.~~ ~~Development must ensure provision of high quality, comfortable and fully accessible bus stops. If bus stops are located further than 400 metres from dwellings due to a higher frequency service being provided, appropriate provisions must in place that enable the elderly and less mobile to still reach a bus stop easily.~~ ~~Financial contributions will be required for the improvement of A40 corridor bus services between Carterton, Witney, Oxford and the Eastern Arc,~~	No change to HRA screening findings – this policy was screened out as it will not result in any development that will lead to an increase in vehicle movements along the A40 (the only type of effect screened into the HRA, see Chapter 4) and this remains the case.

		~~including a bus service (3 buses per hour) through the Garden Village itself.~~ ~~The planning application for the Park & Ride includes an 850 space car park, whilst the Local Plan Policy allows for 1,000 spaces. Consideration should therefore be given to accommodating means for future expansion of the site.~~ ~~**A40 corridor**~~ ~~S106 planning obligations will be required to secure financial contributions towards the A40 Corridor infrastructure schemes and the required repayment of the HIF funding secured to facilitate the delivery of these schemes ahead of the receipt of S106 funding. S106 contributions will be required from developers at Salt Cross and other development sites proposed along the A40 corridor.~~ ~~Specifically, the following will be provided by S106 funding:~~ ~~• A40 Eastbound bus lanes: Between Eynsham Park & Ride and Wolvercote roundabout (including widening and/ or strengthening works to the bridge structures at Duke's Cut).~~ ~~• A40 Westbound bus lanes: Between Eynsham Park & Ride and Duke's Cut Bridges.~~ ~~• Adjustments to A40 junctions and the provision of bus gates to give priority to buses joining the general traffic lane where continuous bus lanes cannot be provided.~~	

		~~• Improved bus stop provision.~~ ~~Land will be safeguarded along the southern boundary of the Garden Village to support widening of the A40 to accommodate the bus lanes and shared foot/ cycle paths.~~ ~~**Rail improvements**~~ ~~Financial contributions towards the North Cotswold Line Transformation will be required from developers at Salt Cross and other strategic development sites proposed along the A40 corridor that will benefit from improved rail accessibility in West Oxfordshire.~~ ~~Specifically, there will be a focus on the development of Hanborough as a transport hub (as part of the wider infrastructure and service upgrade proposed for the North Cotswold Line). Details regarding the enhancement of Hanborough Station will be set out in a Station Masterplan Supplementary Planning Document, but is likely to include: a station building; provision of a second platform; an accessible footbridge with lifts; new seating and waiting facilities; a secure cycle hub; new bus stops and waiting shelters; high quality real-time bus and train service information; and additional car parking.~~ **An integrated and innovative approach must be taken in relation to public transport to facilitate high levels of bus and rail use.**	

		The Garden Village design must be integrated with the Sustainable Transport Hub (centred on a new Park & Ride site) and supporting A40 infrastructure developments, with consideration given to accommodating means for future expansion of the Park and Ride site. There will be a focus on pedestrian and cycle connectivity, with private vehicular access to the Park & Ride site from the Garden Village to be restricted, wherever possible. **Development must ensure the provision of high quality, fully accessible bus stops in suitable locations across the site and financial contributions will be required for the improvement of A40 corridor bus services between Carterton, Witney, Oxford and the Eastern Arc, including a bus service through the Garden Village itself.** **Development of the Garden Village must demonstrate effective integration with the public transport elements of the A40 corridor improvements. As these will be forward funded through HIF, S106 planning obligations will be required to secure financial contributions towards repayment of HIF which has enabled their early delivery.** **To facilitate the widening of the A40 in order to accommodate bus lanes and shared foot/cycle paths, any comprehensive masterplan prepared in accordance with AAP Policy 28, must make provision for land along the southern boundary of the Garden Village as necessary**.	

		Connections to Hanborough Station must be significantly improved, with consideration to be given to a new entrance from Lower Road south of the railway, with a focus on bus, pedestrian and cycling accessibility. **Financial contributions will be required towards improvements at Hanborough Station which will be set out in a masterplan for the station, reflecting its increasing importance as a key transport hub forming part of the wider infrastructure and service upgrade proposed for the North Cotswold Line.**	
MM26	Policy 16 - Reducing the Overall Need to Travel Including by Car	Replace Policy 16 as follows: ~~Robust evidence must be provided to demonstrate that all reasonable efforts have been made to reduce the overall need to travel to include as a minimum:~~ ~~• the overall mix of different land uses which are appropriately phased;~~ ~~• the provision of 'clusters' of complimentary mixed-use development;~~ ~~• shared use facilities; and~~ ~~• the provision of flexible working spaces within residential and employment areas, including within individual houses.~~ ~~Full fibre broadband and considerations for 5G provision must be implemented early in the development; the site, including every property within Salt Cross, must be fitted with the necessary~~	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.

		~~infrastructure to enable the provision of Ultrafast Fibre to premises' broadband and to assets such as street lights and traffic lights which will provide important connectivity in public spaces. There should also be flexibility in the ducting to future proof additional connectivity.~~ ~~Car Parking~~ ~~The physical provision of car parking is a key tool in influencing travel behaviour and reducing dependency on the private car, alongside other demand management measures and the provision of more sustainable travel options. Applications for development must therefore be supported by:~~ ~~A Spatial Car Parking Management Plan setting out:~~ ~~• The areas of the site that will be car free development (minimum 15% of total dwellings).~~ ~~• Site-wide demand management measures including Car Free Zones.~~ ~~• Details of how future technological development will be included and provided for e.g. parking sensors in business areas to monitor car parking occupancy/ usage; digital mapping of all parking spaces to facilitate repurposing.~~ ~~• An indication as to how land used for car parking could cost effectively be converted to other uses (such as open space) as demand reduces.~~ ~~• Parking restrictions – including any Controlled Parking Zones (CPZs) required within Salt Cross and the wider Eynsham area. This will include any restrictions~~	

		~~that may be required to discourage displaced parking to the Park & Ride.~~ ~~• On and off site principles of car parking for local centre land uses and schools including kerbside management and provision of drop-off zones.~~ ~~• Measures for discouraging driving to the Park & Ride from Salt Cross.~~ ~~Each subsequent Phase/Parcel of the development shall provide a Detailed Car Parking Management Plan which will:~~ ~~• Take all reasonable opportunities to provide private car parking at the lowest reasonable levels~~ ~~• Make use of current, and where appropriate anticipated, technological developments.~~ ~~• Account for both current and anticipated travel behaviours in the design proposals, as well as enabling adaptation for emergency planning.~~ ~~• So far as is possible, integrate car parking into the street design and allow for cost effective conversion, particularly for private areas.~~ ~~• Provide for appropriate levels of EV charging within each parking area; EV charging points must be provided at the following locations within the Garden Village:~~ ~~– All residential properties with a parking space~~ ~~– 50% of non-allocated parking spaces~~ ~~– 25% of non-residential development parking spaces~~ ~~Charging points in non-allocated spaces must be located conveniently for residents with no longer than a 5-minute walk (approximately 500 metres) from any~~	

		~~property with non-allocated parking and their nearest EV charging point. To future proof developments and reduce longer term costs, all non-allocated parking areas should include appropriate cable provision to prepare for increased demand in the future.~~ ~~The absolute maximum car parking provision shall be 1 space per 60 m^2 of employment space with residential provision as below:~~ ~~1 bed units – 0.75 non-allocated per property~~ ~~2 & 3 bed units – 1 off-street bay per property~~ ~~4+ bed units – 1 off-street bay per property plus the equivalent of 1 non-allocated bay per property~~ ~~Electric Vehicle charging~~ ~~Future increases in energy demand must be anticipated and measures delivered to ensure sufficient electrical capacity within Salt Cross for the long term, including potential implications for street lighting and Alternative Fuels Infrastructure Regulations 2017 and the Open Charge Point Protocol (OCPP) or agreed alternative standard. EV charger units for non-allocated parking should be managed by a professional contractor with demonstrable experience and appropriate maintenance to ensure that EV chargers remain functional.~~ ~~Travel Demand Management~~ ~~Car clubs and a bike hire scheme should be established at accessible locations throughout the Garden Village,~~	

		~~with robust arrangements in place for long-term management.~~ ~~Proposals will be required to demonstrate the use of innovation to enable residents and employees to plan their journeys by means other than the car.~~ ~~TDM measures should be implemented to encourage sustainable travel, including car sharing. This should include residents of Eynsham Village and the West Eynsham Strategic Development Area where their wider involvement improves the viability of initiatives.~~ ~~Incentivised travel initiatives including public transport discounts and bike vouchers should be provided.~~ ~~A Framework (site-wide) Travel Plan and subsidiary Travel plans will be required to cover all residential areas, schools, employment sites and mixed use areas. The Travel Plans must include robust monitoring programmes and be linked to the Transport Assessment. Achieving trip generation and mode split targets will be incentivised and secured through planning conditions.~~ ~~School Travel Plans will be required that will include the provision of pupil drop-off parking spaces. The number required will need to be agreed with OCC, based on the developers' evidence-based assessment of the school's requirements.~~ ~~An effective monitoring approach will be required, utilising smart technologies which should be set out in an Innovation Plan and linked into the Framework~~	

		~~Travel Plan. Monitoring data will need to be provided to the Council directly via an Application Programming Interface (API) to enable live, integrated monitoring of travel patterns and Travel Plan targets. This will include specific monitoring of the School Travel Plan.~~ ~~Proposals will be required to demonstrate versatility in the Garden Village strategy/ design to allow for the implementation of other demand management measures beyond those that have been explored in the AAP, where they are deemed effective in reducing private use and improving inclusivity.~~ **The design of the Garden Village must seek to reduce the overall need to travel, particularly by car, with robust evidence required that all reasonable efforts have been made.** **Development at Salt Cross must be supported by innovative travel demand measures including, but not limited to, the establishment of car clubs and bike hire schemes at accessible locations, car sharing and incentivised travel initiatives including public transport discounts and bike vouchers.** **A Framework (site-wide) Travel Plan and subsidiary Travel plans linked to a Transport Assessment (TA) will be required to cover all residential areas, schools, employment sites and mixed use areas, with trip generation and mode split targets incentivised and secured through planning conditions. Proposals for effective monitoring utilising smart technologies should be set out in an Innovation Plan.**	

		A Spatial Car Parking Management Plan will be required to address site-wide considerations including the use of parking restrictions and car-free zones, areas of car-free development (minimum 15% of total dwellings) kerbside management and provision of drop-off zones, use of technologies (e.g. to monitor and map usage) and the potential to re-purpose parking to other uses as demand reduces. **A Detailed Car Parking Management Plan will be required for each subsequent phase. This must take all reasonable opportunities to reduce the amount of private car parking, make use of and account for, current and anticipated technological changes and travel behaviours as well as enabling adaptation for emergency planning. So far as is possible, car parking should be integrated into the street design and allow for cost effective conversion, particularly for private areas.** **The following maximum car parking standards will apply:** **Residential** **• 1 bed units – 0.75 non-allocated per property** **• 2 & 3 bed units – 1 off-street bay per property** **• 4+ bed units – 1 off-street bay per property plus the equivalent of 1 non-allocated bay per property** **Office and Research and Development Space (Use Classes E(g) (i) and E(g) (ii)**	

		• 1 space per 60 m^2 of employment space **Other Commercial, Business and Service Uses** **• Parking for other supporting land uses will be determined through transport evidence supporting the relevant application and should represent the lowest level capable of efficiently serving those uses.** **Electric Vehicle (EV) charging points must be provided as follows (or as determined in any subsequent government guidance or legislation):** **• All residential properties with a parking space** **• 50% of non-allocated parking spaces** **• 25% of non-residential development parking spaces** **Charging points in non-allocated spaces must be located conveniently for residents with no longer than a 5 minute walk (approximately 500 metres) from any property with non-allocated parking and their nearest EV charging point. To future proof developments and reduce longer term costs, all non-allocated parking areas should include appropriate cable provision to prepare for increased future demand.**	
MM27	Policy 17 - Road Connectivity and Access	Replace Policy 17 as follows: ~~The principal vehicular access points for Salt Cross will comprise:~~	No change to HRA screening findings – this policy was screened in as it could lead to the development of new/improved highways infrastructure, and this remains the case.

		~~• A new roundabout (the 'Western Development Roundabout') located on the A40 to the west of the proposed Park & Ride access junction. Additional junctions on the A40 will not be permitted as this would impact on traffic flow and congestion, and would undermine the benefits of the A40 corridor improvements.~~ ~~• A new junction with Lower Road which will form the eastern access point for the spine road through the Garden Village.~~ ~~Additional highway infrastructure to be provided will include:~~ ~~• A spine road through the site, accessed from the 'Western Development Roundabout' on the A40, west of the Park & Ride access junction. This should be a through road in at least the early phases of development although the route should be future-proofed to enable it to be bisected (allowing for walk, cycle and bus access only) in future years if traffic conditions on the external road network enable this. The mechanism (triggers and a long stop) for the contribution beyond build-out of the site will be needed, as will innovative infrastructure to enable monitoring of those triggers. An Innovation Plan will be needed for the site, which will include details of how monitoring will be undertaken using smarter technologies, how innovations within the development site will be future-proofed and what innovations will be integrated into the design and build, to be funded by the development.~~ ~~• Signalisation of the A4095/ Lower Road junction.~~	

		~~• Measures to deter through traffic travelling between the A40 and A4095 via Cuckoo Lane and Freeland village. A change in priority on Cuckoo Lane to discourage traffic routing through Freeland village must be provided and technologies to support monitoring of the effectiveness of this will be required.~~ ~~All new infrastructure should be connected in real-time to traffic management.~~ ~~Section 106 planning obligations will be required to secure financial contributions towards the A40 Corridor infrastructure schemes and the required repayment of the HIF funding secured to facilitate the delivery of these schemes ahead of the receipt of S106 funding. S106 contributions for these schemes will be required from developers at Salt Cross and other sites proposed along the A40 corridor. Specifically, Section 106 contributions will be required towards the following highway schemes:~~ ~~• Extension of the existing A40 dualling (between Witney and the new Park & Ride access junction).~~ ~~• Improvements to the Lower Road/ A40 roundabout.~~ ~~• Highway and junction capacity improvements along the A40 as part of the A40 Corridor improvements.~~ ~~• Provision of enhanced facilities at the proposed Eynsham Park & Ride.~~ ~~Development proposals must be aligned and integrated with the A40 Corridor Strategy and proposed A40 Corridor improvements along the A40, in addition to other infrastructure improvements in~~	

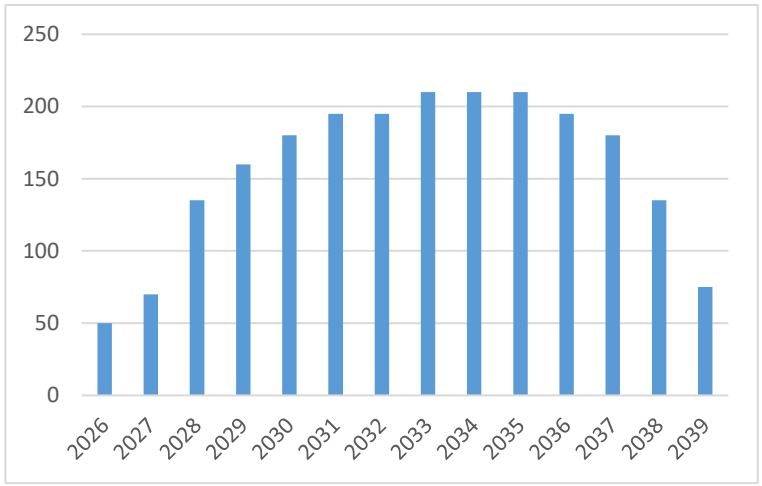
		~~the wider area. Construction and phasing of the development must be co-ordinated with other works on the A40. The number of houses that can be accessed via a single road link should comply with OCC's 'Residential Road Design Guide (2003) – Second Edition (2015)'~~ ~~All planning applications submitted for the Garden Village must include a Construction & Logistics Plan in order to minimise and mitigate the impact of construction traffic.~~ ~~All commercial uses at the Garden Village must be supported by a Delivery and Servicing Plan to reduce and mitigate the impact of deliveries on the local road network e.g. through freight consolidation. This must be submitted and agreed as part of the full planning application. For residential areas, deliveries and servicing must be covered within the Travel Plan, with appropriate targets set.~~ ~~Planning conditions/ planning obligations will be used to secure the measures identified through the Construction & Logistics Plan and Delivery and Servicing Plan, and the targets included within them.~~ ~~Any laybys impacted by proposed access arrangements must be mitigated/ relocated with any associated costs of doing this funded by the Salt Cross/ West Eynsham SDA developments as appropriate.~~ ~~Permission for development will only be granted where the Council is satisfied that the impact on the~~	

		~~local and strategic road network and density of the development would be acceptable and does not compromise the delivery and benefits of the A40 Corridor improvements.~~ ~~Planning applications for built development must be accompanied by details of how proposed development will help facilitate the delivery of transport improvements and mitigation measures.~~ ~~First occupation of Salt Cross (unless car-free) will not be permitted until completion of the A40 bus lanes, and completion of the junction improvements at Pear Tree roundabout. Car-free development close to the A40/ Park & Ride would however be considered in advance.~~ ~~Mitigation measures must be implemented in accordance with an agreed phasing of development, with full implementation prior to occupation of the final development phase.~~ **The principal vehicular access points for Salt Cross to be funded by the development will comprise:** **• A new roundabout (the 'Western Development Roundabout') located on the A40 to the west of the proposed Park & Ride access junction; and** **• A new junction with Lower Road which will form the eastern access point for the spine road through the Garden Village.**	

		Additional junctions onto the A40 to those above will not be permitted. **Any laybys impacted by proposed access arrangements must be mitigated/ relocated, with any associated costs to be funded on a proportionate basis as necessary.** **Additional highway infrastructure to be provided will include:** **• A spine road through the site, accessed from the 'Western Development Roundabout' and connecting to Lower Road, enabling direct and indirect access to all areas of built development within the garden village. The spine road will need to be completed at an early phase of development as access via Cuckoo Lane to the Garden Village will be limited in later phases;** **• Signalisation of the A4095/ Lower Road junction; and** **• Measures to deter through traffic travelling between the A40 and A4095 via Cuckoo Lane and Freeland village.** **Planning applications must be accompanied by details of how proposed development will help facilitate the delivery of transport improvements and mitigation measures and permission will only be granted where the Council is satisfied that the impact on the local and strategic road network, including the A34, would**	

		be acceptable and does not compromise the delivery and benefits of the A40 Corridor improvements. **Mitigation measures must be implemented in accordance with an agreed phasing of development, with full implementation prior to occupation of the final development phase.** **All new infrastructure should be connected in real-time to traffic management and the number of houses that can be accessed via a single road link should comply with OCC's 'Street Design Guide'.** **Development of the Garden Village must demonstrate effective integration with the A40 corridor improvements including increased highway capacity and additional junctions/reconfiguration. As these will be forward funded through HIF, S106 planning obligations will be required to secure financial contributions towards repayment of HIF which has enabled their early delivery.** **All planning applications submitted for the Garden Village must include a Construction & Logistics Plan with commercial uses to be supported by a Delivery and Servicing Plan. Planning conditions/planning obligations will be used to secure any agreed measures/targets.**	
Enterprise, Innovation and Productivity			
Main Modification Reference	**Policy/Paragraph Reference**	**Proposed Main Modification**	**Implications for HRA screening conclusions reported previously**

MM28	Policy 18 – Salt Cross Science and Technology Park	Amend the third paragraph of Policy 18 as follows: The campus will include a range of integrated and accessible complementary uses such as shops, coffee shops / restaurants, gym and crèche. **The potential impacts of any larger complementary uses in excess of 500m^2 (either individually or cumulatively) on the viability of nearby local centres including Eynsham, should be assessed accordingly.**	No change to HRA screening findings – this policy was screened in as it could lead to the development of a campus of business floorspace approximately 40ha in size, and this remains the case.
MM29	Policy 20 – Homeworking	Amend the third paragraph of Policy 20 as follows: **Unless justified on the grounds of technical feasibility,** ~~Every~~ **every** household and shared space will be supported by all necessary infrastructure to enable the provision of Ultrafast Fibre to the Premises (FttP) broadband.	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.
MM30	Policy 21 – Employment Skills and Training	Amend the first paragraph of Policy 21 as follows: ~~Any outline planning application or subsequent application for major development~~ **Applications for major development** at Salt Cross will be required to be supported by a Community Employment Plan (CEP) to ensure that local people are able to benefit from training and job opportunities arising from the development.	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.

Meeting current and future housing needs			
Main Modification Reference	**Policy/Paragraph Reference**	**Proposed Main Modification**	**Implications for HRA screening conclusions reported previously**
MM31	Figure 10.1	Replace Figure 10.1 with the following indicative trajectory:  	No change to HRA screening findings – this figure is part of the supporting text and does not comprise part of a policy which has been subject to HRA screening.
MM32	Policy 22 - Housing Delivery	Amend the first paragraph of Policy 22 as follows: The total number of new homes expected to be delivered within the boundary of Salt Cross as defined in the AAP is 2,200 ~~units~~ **homes** in line with the working assumption contained in the West Oxfordshire Local Plan 2031.	No change to HRA screening findings – this policy was screened in as it could lead to the development of 2,200 homes, and this remains the case.
MM33	Policy 22 - Housing Delivery	Amend the second paragraph of Policy 22 as follows: This is not however a maximum 'ceiling' to development and may be exceeded~~. Any increase over and above this indicative quantum will need to be robustly justified having regard to'~~ **if it is**	No change to HRA screening findings – this policy was screened in as it could lead to the development of 2,200 homes, and this remains the case.

		demonstrated to accord with the overall vision, core objectives and relevant policies set out in the AAP and relevant policies of the West Oxfordshire Local Plan 2031 and Eynsham Neighbourhood Plan.	
MM34	Policy 22 - Housing Delivery	Amend the third paragraph of Policy 22 as follows: The delivery of new homes will be phased in accordance with the provision of supporting infrastructure, drawing from the Eynsham Area Infrastructure Delivery Plan (IDP) and ~~any~~ **the** site-specific IDP ~~as appropriate~~ (see also Policy 30 – Provision of Supporting Infrastructure)	No change to HRA screening findings – this policy was screened in as it could lead to the development of 2,200 homes, and this remains the case.
MM35	Policy 22 - Housing Delivery	Delete the fourth paragraph of Policy 22 as follows: ~~Residential development proposals at Salt Cross will be expected to demonstrate exemplary design standards alongside a commitment to the acceleration of housing delivery. This should be in the form of a housing delivery statement (or equivalent) which includes consideration of the following measures:~~ ~~– Timely provision of supporting infrastructure, in particular social and community infrastructure such as schools, meeting spaces and transport;~~ ~~– A diversity of housing including a range of different housing products, types, tenures and styles within each phase of development;~~ ~~– The use of Modern Methods of Construction (MMC);~~ ~~– 'Non-traditional' housing delivery mechanisms including community-led housing and custom/self-build;~~ ~~– The potential to support multiple sales outlets at different locations within the development scheme, as part of each phase;~~	No change to HRA screening findings – this policy was screened in as it could lead to the development of 2,200 homes, and this remains the case.

		~~– Integration of affordable housing within development phases;~~ – ~~Catering for different specialist market segments, such as build-to-rent; elderly persons accommodation, student/ graduate and employer-linked housing.~~	

MM36	Policy 23 - Housing Mix	Amend the seventh paragraph of Policy 23 as follows: This indicative mix provides a guide only and in determining proposals, the Council will take into account other relevant factors including the profile of need revealed by ~~the~~ **West Oxfordshire District** Council's Housing Register **and Oxford City Council's Housing Register**, taking account of not just the overall needs profile but relative priority needs.	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.
MM37	Policy 23 - Housing Mix	Amend the penultimate paragraph of Policy 23 as follows: ~~Affordable homes proposed as part of the overall mix of development should demonstrate 'genuine affordability'.~~ Affordable rent should be ~~set having regard to the living rents identified in Table 10.2 and~~ capped at no higher than the Local Housing Allowance (LHA) limits set out in Table 10.2 (and any subsequent updates).	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.
MM38	Policy 24 - Build to Rent	Amend the fifth paragraph of Policy 24 as follows: It is anticipated that the proportion of affordable housing provided as part of any Build to Rent scheme will accord with the ~~default requirement~~ **benchmark** set out in national policy/guidance – currently 20%.	No change to HRA screening findings – this policy was screened out as it relates to the type of housing being provided, while the quantum of housing to be provided is within the overall housing figure assessed separately, and this remains the case.
MM39	Policy 25 - Custom and Self-Build Housing	Amend the first paragraph of Policy 25 as follows: To ensure that Salt Cross provides opportunities for community-led housing and individuals to build or commission their own homes, ~~at least~~ 5% of the total	No change to HRA screening findings – this policy was screened out as it relates to the type of housing being provided, while the quantum of housing to be provided is within the overall

		number of homes will be set aside as serviced plots for the purposes of custom and self-build housing. Serviced plots must be provided in line with the definitions in the Self-build and Custom Housebuilding Act 2015 (as amended by the Housing and Planning Act 2016) Section 1(A1) and (A2).	housing figure assessed separately, and this remains the case.

MM40	Policy 25 - Custom and Self-Build Housing Paragraph 10.71	Amend the third paragraph of Policy 25 as follows: ~~Serviced plots will be expected to be provided~~ **As an indicative guide serviced plots will be encouraged** in clusters of 10 or more homes, included as part of each phase of development across the garden village as a whole and set out in a Phasing Plan. Paragraph 10.71 to be amended as follows: The Council ~~expects that~~ **will encourage** custom and self-build plots ~~will~~ **to** be delivered as an element of each phase of Salt Cross to ensure a phased supply of serviced plots comes forward to address both current and future demands. ~~The proportion and mix of such plots and the broad locations for each phase will be agreed at the outset having regard to demand.~~	No change to HRA screening findings – this policy was screened out as it relates to the type of housing being provided, while the quantum of housing to be provided is within the overall housing figure assessed separately, and this remains the case.
MM41	Policy 25 - Custom and Self-Build Housing	Amend the fifth paragraph of Policy 25 as follows: A range of Custom and Self Build housing delivery models ~~to be supported~~, **shall be considered** including those which can deliver affordable homes and require some form of discount, subsidy or equity/land ownership being held by a third party such as a Registered Provider or a Community Land Trust. Where such serviced plots are provided as affordable homes they will be required to remain affordable in perpetuity and will count towards the overall affordable housing requirement for the Garden Village.	No change to HRA screening findings – this policy was screened out as it relates to the type of housing being provided, while the quantum of housing to be provided is within the overall housing figure assessed separately, and this remains the case.

MM42	Policy 25 - Custom and Self-Build Housing	Amend the seventh paragraph of Policy 25 as follows: Serviced plots must be marketed at a fair market price which reflects the form and type of custom and self-build housing to be provided, for a period of 12 months, in line with a marketing strategy **agreed as part of any planning permission** ~~which must to be agreed with the Council prior to the commencement of the development~~. If suitable purchasers have not come forward at the end of this 12 month period then plots may remain on the market or be built out by the developer for market housing.	No change to HRA screening findings – this policy was screened out as it relates to the type of housing being provided, while the quantum of housing to be provided is within the overall housing figure assessed separately, and this remains the case.
MM43	Policy 25 - Custom and Self-Build Housing	Delete the final paragraph of Policy 25 as follows: ~~The Council will seek to secure the implementation of this policy through a Section 106 legal agreement or, where appropriate, planning conditions.~~	No change to HRA screening findings – this policy was screened out as it relates to the type of housing being provided, while the quantum of housing to be provided is within the overall housing figure assessed separately, and this remains the case.
MM44	Policy 26 - Specialist Housing Needs Paragraph 10.90	Amend the first paragraph of Policy 26 as follows: As part of the overall type and mix of housing opportunities at Salt Cross, **the District Council will encourage** provision ~~should~~ **to** be made for specialist housing to meet identified needs including, but not limited to, the needs of older people and persons with disabilities as well as opportunities for communal housing and housing linked to key employers and educational institutions. Amend paragraph 10.90 as follows:	No change to HRA screening findings – this policy was screened out as it relates to the type of housing being provided, while the quantum of housing to be provided is within the overall housing figure assessed separately, and this remains the case.

		The West Oxfordshire Local Plan 2031 suggests that in order to achieve the current Oxfordshire average of 133 units of older persons housing per 1,000 population, an additional 1,891 new properties would need to be provided in West Oxfordshire in the period 2011 – 2031 (95 per year) rising to 2,588 new properties (129 per year) to achieve the current national average of 170 units per 1,000 population. The AAP housing strategy suggests that given the projected changes in the number of older people living in Eynsham, there is likely to be a requirement for specialist housing options moving forward, including 147 units of 'housing with support' development (i.e. retirement/ sheltered housing) up to 42 housing with care units (extra-care housing/enhanced sheltered housing) and 70 care home bedspaces. **This is however a point in time assessment and should not be construed as a 'cap' or 'ceiling' to the number of specialist housing units that may come forward in the Eynsham area.**	

MM45	Policy 26 - Specialist Housing Needs	Delete the second paragraph of Policy 26 as follows: ~~All new homes at Salt Cross will be designed to meet Building Regulations Requirement M4 (2) – accessible and adaptable dwellings unless it be robustly demonstrated that achieving the standard is not practical (e.g. where level site access cannot be achieved) or viable. 5% of new homes will be designed to meet Building Regulations Requirement M4 (3) – wheelchair adaptability.~~	No change to HRA screening findings – this policy was screened out as it relates to the type of housing being provided, while the quantum of housing to be provided is within the overall housing figure assessed separately, and this remains the case.
MM46	Policy 26 - Specialist Housing Needs	Further amend the first paragraph of Policy 26 in line with MM57 above as follows: As part of the overall type and mix of housing opportunities at Salt Cross, **the District Council will encourage** provision ~~should~~ **to** be made for specialist housing to meet identified needs including, but not limited to, the needs of older people and persons with disabilities as well as opportunities for communal housing**, travelling communities** and housing linked to key employers and educational institutions. Also amend the penultimate paragraph of Policy 26 as follows: Proposals for education and employment-linked housing **as well as accommodation for travelling communities** will be supported as part of the overall mix of housing at Salt Cross. Any such proposals should be located in an accessible location in terms of available services and facilities including public transport.	No change to HRA screening findings – this policy was screened out as it relates to the type of housing being provided, while the quantum of housing to be provided is within the overall housing figure assessed separately, and this remains the case.

Building a Strong, Vibrant and Sustainable Community			
Main Modification Reference	**Policy/Paragraph Reference**	**Proposed Main Modification**	**Implications for HRA screening conclusions reported previously**
MM47	Policy 27 - Key Development Principles	Delete Policy 27 as follows: ~~All development proposals at Salt Cross must:~~ ~~– Be consistent with the vision and core objectives of the AAP together with the TCPA garden city principles set out in Figure 2.3;~~ ~~– Accord with and not prejudice the delivery of, any agreed overall masterplan for the garden village site;~~ ~~– Demonstrate a high quality standard of design that contributes to a distinct sense of place in accordance with Policy 29;~~ ~~– Be designed to be resilient to, and mitigate against climate change in accordance with Policies 1 and 2 in particular;~~ ~~– Encourage behavioural change away from the private car, towards active travel and public transport in accordance with Policies 13, 14 and 15 in particular;~~ ~~– Be designed to embed the principles of community safety, cohesion and inclusivity in accordance with Policies 4 and 5 in particular;~~ ~~– Demonstrate high levels of digital connectivity in accordance with Policy 20;~~ ~~– Be supported by appropriate and timely investment in infrastructure to facilitate inclusive place-making, in accordance with Policy 30;~~	The deletion of the policy does not affect the overall HRA screening conclusions as the policy was previously screened out and so did not contribute to the conclusion that Appropriate Assessment needed to be undertaken.

		~~– Make efficient use of land and resources including the use of higher-density development in suitable, accessible locations;~~ ~~– Be durable and sustainable over the whole lifetime of the development, not just in the short-term in accordance with Policies 1 and 29 in particular; and~~ ~~– Contribute to the health and well-being of all in accordance with Policies 4–8 in particular.~~	

MM48	Paragraph 11.12 Table 11.1	Replace paragraph 11.12 as follows: ~~Where applicable, the table includes reference to different uses by 'Class,' in line with the national Use Classes Order[1] which splits land and buildings into various categories known as 'Use Classes'. There are four main 'parts' to the use classes order:~~ ~~• Part A (A1 – A5) which includes commercial uses such as shops, financial services, restaurants, cafes, bars and takeaways;~~ ~~• Part B (B1(a), B1(b), B1 (c), B2 and B8) which includes business uses such as offices, research and development, industrial, storage and warehousing;~~ ~~• Part C (C1–C4) which includes hotels, care homes, training centres, dwellinghouses and houses in multiple occupation; and~~ ~~• Part D (D1, D2) which includes community and leisure uses such as health centres, nurseries, day centres, schools, halls places of worship and indoor sports.~~ **Where applicable, the table includes reference to different uses by 'Class,' in line with the national Use Classes Order[1] which splits land and buildings into various categories known as 'Use Classes'. There are four main 'parts' to the use classes order:** • **Part B (B2, B8) including industrial, storage and distribution;** • **Part C (C1, C2, C3, C4) including hotels, residential institutions, dwellinghouses and houses in multiple occupation;** • **Part E – commercial, business and service such as offices, research and development, shops, cafes/restaurants, financial services and indoor sport and recreation; and** • **Part F (F1, F2) including learning and non-residential institutions such as schools and local community uses such as community halls, meeting spaces and small-scale shops.**	No change to HRA screening findings – this modification is part of the supporting text of the AAP and does not amend any of the policies that have been subject to HRA screening.

Amend Table 11.1 as follows:

Land Use	Quantum/size	Commentary
Residential (C3, C2)	About 2,200 units of varying densities.	As outlined earlier, Salt Cross is expected to accommodate around 2,200 new homes although this is not an exact, fixed figure and should not be treated as such. The majority of new homes are expected to be in the form of 'mainstream' housing (C3a) but it is likely that a proportion of other forms of housing including 'supported living' (e.g. C3(b) and C2 uses) will come forward, in line with Policy 26 – Meeting Specialist Housing Needs.
Employment ~~(B1(a) B1 (b))~~ **(E)**	About 40 hectares including around 80,000m^2 of floorspace	As outlined earlier, a core element of Salt Cross is the

				within Salt Cross Science and Technology Park and other opportunities across the site including within village/ neighbourhood centres.	creation of a large-scale Science and Technology Park to the west of Cuckoo Lane. This is expected to be accommodated on around 40 hectares of land and include around 80,000m^2 of floorspace – thereby allowing for extensive green and blue infrastructure to create a highly attractive place to work. Other, smaller-scale employment space is expected to come forward as part of any village or neighbourhood centre which will include a mixture of different uses including potentially some flexible ~~B-class~~ **E-class** floorspace.	
			Sustainable Transport hub	8ha	A sustainable transport hub to	

				the west of Cuckoo Lane including park and ride comprising 850 car parking spaces for Park & Ride users, cycle parking spaces and electric vehicle charging points.	
		Education ~~(D1)~~ **(F1)**	A primary school site of 3.01 ha to accommodate either a new 2-form or 3-form entry primary school (depending on arrangements made in respect of the West Eynsham SDA). A secondary school site of 4.88 ha intended as a 'satellite' for Bartholomew school in Eynsham.	Development at Salt Cross will increase the number of families and school age children within Eynsham Parish. To accommodate this, a 3.01 ha site will be provided which is large enough to cater for a 2-form entry or 3-form entry primary school. The size of the school will be determined by decisions made in respect of the West Eynsham SDA. In addition, the cumulative impact of planned growth	

					in the Eynsham area including the West Eynsham SDA means that additional provision needs to be made for secondary school pupils and as such, a 4.88 ha site will be provided within Salt Cross to accommodate a secondary school facility. This is likely to form a satellite facility to Bartholomew School which would then operate on a split-site basis. There are a number of options as to how this could be provided (e.g. separate sixth form, separate upper school, or separate lower school). The decision will be taken by the academy trust, based on educational	

					grounds, alongside ensuring sufficiency of school places, and may evolve over time.	
			Other community uses	A mixture of different community uses, the size and mix of which will be determined at a later date through detailed/reserved matters planning applications.	In addition to two new schools, Salt Cross is expected to provide a range of other community buildings/spaces including for example crèches, day nurseries, day centres, halls and potentially a place or places of worship. The Eynsham Area IDP identifies a potential need for around 385 m^2 of floorspace for culture and the arts and around 1,056 m^2 for community meeting space. There is also the potential to create space for primary health care – depending on	

				future decisions regarding any expansion/ re-location of the Eynsham medical practice. In this respect, the Eynsham Area IDP identifies that Salt Cross generates a need for an additional 460m^2 of primary care floorspace.	
		Green and Blue Infrastructure (GI)	Extensive green and blue infrastructure including, but not limited to, at least 40 hectares of formal parks and gardens, amenity green space, natural and semi-natural green space, outdoor sports, allotments, community orchards, play areas and other outdoor provision (e.g. multi-use games areas, extreme sports, events, festivals and activities spaces etc.)	The Eynsham Area IDP identifies the need for a minimum of 40 hectares of certain green infrastructure components including formal parks and gardens, amenity green space, natural and semi-natural green space, outdoor sports, allotments, community orchards, play areas and other outdoor provision (e.g.	

					multi-use games areas, extreme sport sports, pop up events and festivals) This excludes a range of other potential forms of GI within the garden village which will come forward additionally including, but not limited to, nature reserves, private gardens, drainage infrastructure, verges and incidental open space; stand-off corridors and on-plot landscaping. There is also the opportunity to provide additional burial space for which there is an identified need in the Eynsham area.	
			Commercial uses ~~(A1 – A5)~~ **(E, F2, Sui Generis)**	A mixture of different commercial uses, the size and mix of which will be determined at a	Development at Salt Cross is expected to include a range of small-	

				later date through detailed/ reserved matters planning applications.	scale commercial uses falling within the ~~A1-A5~~ **E, F2 and Sui Generis** use classes including for example shops, cafes, professional services and public houses. These are expected to be located within the main village centre and within individual neighbourhood centres as part of a mix of different uses to create interest and activity throughout the day. At this stage, we do not consider it appropriate for the AAP to stipulate the amount of land or floorspace expected to come forward for commercial uses as this will evolve in response to a number of factors including market demand and	

				changing trends e.g. retail habits and online shopping.	
MM49	Policy 28 - Land uses and layout – the spatial framework New paragraph (to be inserted after Paragraph 11.9) Paragraph 11.14 Paragraph 11.15 Paragraph 11.16	Amend the tenth paragraph of Policy 28 as follows: A comprehensive~~, detailed~~ masterplan will be required ~~at the outline planning application stage, reflecting the key elements~~ **that takes account** of the illustrative Spatial Framework Plan at Figure 11.6 ~~including~~ **and includes consideration of**: Add new paragraph after existing paragraph 11.9 as follows: **It is expected that the detailed layout of Salt Cross will follow a comprehensive masterplan agreed as part of the planning application process. The following pages of the AAP set out detail on layout that should be regarded as illustrative but should also be taken into account as part of drawing up the masterplan (in accordance with Policy 28).** Amend paragraph 11.14 as follows: As well as guiding the amount and mix of different uses at Salt Cross, the AAP has a key role to play in terms of ~~determining~~ **guiding** how those uses are distributed across the site. ~~Whilst the AAP does not get down to the detailed level of a masterplan, it does provide a clear indication of what is expected at Salt Cross, in the form of an 'Illustrative Spatial Framework.'~~ Amend paragraph 11.15 as follows: This includes key connections and points of access, the main areas of 'built development' (housing, jobs, schools etc.) and the main areas		No change to HRA screening findings – this policy was screened out as it does not directly result in development (rather it will determine the distribution and layout of development within the garden village site), and this remains the case.

		of 'undeveloped' green and blue spaces. The advantage of such an approach is that it ~~provides certainty~~ **provides an appropriate level of certainty** to the local community and other stakeholders but is sufficiently flexible so as to not inhibit the more detailed masterplanning process undertaken by the site promoter. Delete paragraph 11.16 as follows: ~~Essentially the two processes are complementary, with the AAP illustrative Spatial Framework setting the overall parameters within which any more detailed masterplan needs to come forward~~.	
MM50	Policy 29 – Design Requirements Paragraph 11.50 Paragraph 11.60 Figure 11.12	Amend the first paragraph of Policy 29 as follows: Development at Salt Cross will be expected to achieve a high quality, innovative and inclusive approach to design which is consistent with garden village principles**.** ~~and draws on key references as appropriate including the National Design Guide, the West Oxfordshire Local Plan and Design Guide, the AAP, the Eynsham Neighbourhood Plan and best practice.~~ Amend the eleventh paragraph of Policy 29 as follows: The design rationale for development at Salt Cross should be set out in a comprehensive masterplan supported by a site-wide design code and design and access statement. This must be consistent with the key design principles above and other relevant considerations including the National Design Guide **and National Model Design Code**. Amend paragraph 11.50 as follows:	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.

		At the national level, the importance of achieving well-designed **and beautiful** places is embedded in the NPPF which in itself is illustrated through the National Design Guide **and National Model Design Code** which sets out the characteristics of well-designed places and demonstrates what good design means in practice. The guide is based around 10 characteristics which work together to create physical character, nurture and sustain a sense of community and address environmental issues affecting climate. The ten characteristics are: Amend paragraph 11.60 as follows: Any masterplan and design code will need to be consistent with these key principles as well as the National Design Guide **and National Model Design Code**, the West Oxfordshire Local Plan, the West Oxfordshire Design Guide and the Eynsham Neighbourhood Plan. Amend the first box of Figure 11.12 as follows: NPPF and National Design Guide **and National Model Design Code - design guides or codes should be consistent with the principles in the National Guide and Code** ~~– establishes high-level design principles including the 10 characteristics of well-designed places~~	

MM51	Policy 29 – Design Requirements	Delete the tenth paragraph of Policy 29 as follows: ~~Building for a Healthy Life (BHL)~~ ~~In accordance with the Eynsham Neighbourhood Plan, residential development proposals will be expected to comply with Building for a Healthy Life – the latest edition of Building for Life 12 (BfL12) or equivalent principles unless it can be demonstrated that these cannot be achieved or are being met in an alternative way.~~	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.
MM52	Policy 30 – Provision of Supporting Infrastructure	Amend the third paragraph of Policy 30 as follows: The site-specific IDP should ~~be based on~~ **include consideration of** the identified requirements set out in the Eynsham Area Infrastructure Delivery Plan (IDP). **A phasing plan must also be included covering the lifetime of the development.**	No change to HRA screening findings – this policy was screened in as it is expected to result in the development of transport infrastructure, schools, green and blue infrastructure, flood management and sewerage infrastructure to support delivery of the 2,200 homes, and this remains the case.
MM53	Policy 30 – Provision of Supporting Infrastructure	Delete fourth paragraph of Policy 30 as follows: ~~Appropriate mechanisms including the use of planning obligations and planning conditions will be used to secure an appropriate package of improvements for the long-term benefit of the local community.~~	No change to HRA screening findings – this policy was screened in as it is expected to result in the development of transport infrastructure, schools, green and blue infrastructure, flood management and sewerage infrastructure to support delivery of the 2,200 homes, and this remains the case.
MM54	Policy 30 – Provision of Supporting Infrastructure	Add new fourth paragraph into Policy 30 as follows: **The phasing plan may include triggers and particular circumstances that would justify the need for a viability assessment of the cumulative effects of all**	No change to HRA screening findings – this policy was screened in as it is expected to result in the development of transport infrastructure, schools, green and blue infrastructure, flood management and

		policies in the AAP. This must be subject to robust evidence being presented by an applicant. Consideration of such evidence will balance the need to not compromise sustainable development with ensuring that all policies are realistic and will not undermine deliverability of the development.	sewerage infrastructure to support delivery of the 2,200 homes, and this remains the case.

MM55	Policy 31 – Long Term Maintenance and Stewardship	Delete the second paragraph and amend the third paragraph of policy 31 as follows: Development proposals at Salt Cross must be supported by robust, cost-effective and transparent maintenance and stewardship arrangements including appropriate financing arrangements and management responsibilities in perpetuity. ~~This is anticipated to take the form of a new, independent body – the Salt Cross Garden Village Trust – with interim measures to be put in place as appropriate to support the early phases of development.~~ ~~This and other suitable~~ **Suitable** options should be explored through the submission of a Community Management and Maintenance Plan (CMMP) or equivalent which will be required in support of any outline and where appropriate, detailed planning applications. This must include consideration of appropriate governance arrangements and demonstrate flexibility to adapt to changing circumstances throughout the life of the development phase and beyond.	No change to HRA screening findings – this policy was screened out as it does not directly result in development, and this remains the case.