Agenda Item 8

LUC

Oxfordshire Plan 2050 (Regulation 18 – Part 2)

Sustainability Appraisal

Prepared by
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Oxfordshire Plan 2050 (Regulation 18 – Part 2)
Sustainability Appraisal

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Chapter 1
Introduction

1.1 This report has been prepared by LUC on behalf of the Oxfordshire Planning Authorities to document the current stage of the integrated Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA) of the Oxfordshire Plan 2050.

1.2 As part of the Oxfordshire Housing and Growth Deal agreement with the Government, the six Oxfordshire authorities (i.e. including Oxfordshire County Council) have committed to producing a joint plan until 2050 for Oxfordshire, to be known as the Oxfordshire Plan 2050. The area to be covered by the Oxfordshire Plan 2050 is shown in **Figure 1.1.**

1.3 This report relates to the Regulation 18 (part 2) version of the Oxfordshire 2050 Plan and should be read in conjunction with that consultation document. A Regulation 18 (part 1) consultation document[1] entitled 'Introducing the Oxfordshire Plan' was published in early 2019 alongside an SA Scoping Report setting out the proposed Sustainability Appraisal process and associated SA Framework for testing the Oxfordshire 2050 Plan as it develops. The Regulation 18 (part 1) consultation document introduce the concept, context and scope for the Oxfordshire 2050 Plan and shared Councils' collective aspirations for the Plan for consideration and feedback from consultees. The Regulation 18 (part 2)[2] version of the Oxfordshire 2050 Plan sets out specific policy options for consultee review and feedback. This accompanying SA Report identifies the significant effects of all reasonable options within the Regulation 18 (part 2) document.

Oxfordshire County

1.4 Oxfordshire is located to the west of London, Milton Keynes and Cambridge (see **Figure 1.1**) and is part of the former south east region of England. The county is divided into five district council areas: Oxford City, Cherwell, South Oxfordshire, Vale of White Horse and West Oxfordshire. Nearly a quarter of the county's residents live in Oxford City with the remainder split fairly evenly over the other four districts. The county is the most rural county in the south east of England, and over 30% of the population live in towns and villages of less than 10,000 people.

1.5 Oxfordshire has a rich and varied natural and historic environment, which makes it an attractive place to live, visit and work. Oxfordshire is home to nearly 30,000 businesses, providing over 380,000 jobs, including a high proportion in research, science and technology, medicine, engineering, and high-tech manufacturing. Oxford's unique character as a leading university city and a historic centre sets it apart from the rest of the county. Tourism, business and academia are vital to the economy and 35% of the county's jobs are in the city. Due to the high number of jobs and the shortage and cost of housing in the city, more people commute to Oxford from outside the city than are working residents. However, Oxfordshire's rural areas are generally prosperous, so although many of its towns are largely commuter towns, they have managed to retain economic vitality as attractive and thriving local centres providing a good range of services.

1.6 Oxfordshire lies on the busy road and rail transport corridor between the south coast ports, the Midlands and the north and has good links to London and the West Midlands via the M40. However, it suffers a lack of connectivity to and from the east, in particular to the high-value growth areas around Milton Keynes and Cambridge. There are currently no direct rail connections to these centres, while travel by road involves cross-country single-carriageway routes or the use of the M25 around London. Therefore, improving the connectivity on this corridor, through the East-West Rail projects is a key ambition for Oxfordshire.

1.7 Current trends in relation to the various social, economic and environmental issues affecting Oxfordshire are described in more detail in **Appendix B**. Without the implementation of the Oxfordshire Plan 2050, such trends are likely to continue. In most cases, the emerging Oxfordshire Plan 2050 offers opportunities to affect existing trends directly and strongly in a positive way, through an up-to-date plan which reflects the requirements of the NPPF.

[1] Introducing the Oxfordshire Plan, Oxfordshire Authorities (2019) Available at: http://oxfordshireplan.org/about/#documents
[2] Oxfordshire Plan – Regulation 18 (part 2) Consultation Document, Oxfordshire Authorities (2021) Available at: Oxfordshire Plan – Regulation 18(part 2) Consultation Document

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CB:KS EB:Chamberlain_K LUC FIG01_01_10573_JSSP_Area_A4P 03/06/2021
Source: OS

Figure 1.1: Oxfordshire Plan 2050 Area

Oxfordshire county
District boundary

Oxfordshire Plan 2050

1.8 The Oxfordshire Plan 2050 will provide an integrated strategic planning framework and evidence base to support sustainable growth across the county to 2050, including the planned delivery of new homes and economic development, and the anticipated supporting infrastructure needed.

1.9 As part of the formation of the plan, the authorities are committed to ensuring there will be early, proportionate and meaningful engagement between plan makers and communities, local organisations, businesses, infrastructure providers and statutory bodies.

Oxfordshire Housing and Growth Deal

1.10 Oxfordshire's local planning authorities in association with Oxfordshire County Council signed the Oxfordshire Housing and Growth Deal[3] with the government in 2018. In return for guaranteed funding for affordable housing, infrastructure and economic growth, the Oxfordshire authorities have committed to submit a Local Plan for each district, to plan for the delivery of 100,000 new homes to 2031 (through those Local Plans) and to produce the Oxfordshire Plan. The scope of the Oxfordshire Plan was developed in a Scoping Document[4] agreed by the partner authorities in October 2018 and endorsed by the Oxfordshire Growth Board.

1.11 The Growth Deal commits to an Oxfordshire Plan that covers the period to 2050. This is a significantly longer period than is typical with a Local Plan and is important in this strategic context. A significant amount of joint work across the Oxfordshire authorities has already taken place which has fed into the current round of Local Plans. These Local Plans cover the period from 2011 to 2031, 2034 or 2036. There is therefore a good deal of detail and certainty around that period. The latter period of the Oxfordshire Plan to 2050 will be based on a new evidence base produced specifically for the Oxfordshire Plan 2050. Future Local Plans will sit within the framework defined by the Oxfordshire Plan.

1.12 The benefits of preparing a strategic plan covering the whole of Oxfordshire are recognised, enabling the long-term holistic planning for the county and alignment of economic and housing growth with infrastructure investment and environmental protection and enhancement. The Oxfordshire Plan will form part of a hierarchy of plans, including the Oxford-Cambridge Arc Spatial Framework, and will set the framework for the preparation of future local plans, which will still be required to guide development within the city and the Oxfordshire districts.

Sustainability Appraisal and Strategic Environmental Assessment

1.13 The Planning and Compulsory Purchase Act 2004 requires Local Plans to be subject to SA. SA is designed to ensure that the plan preparation process maximises the contribution that a plan makes to sustainable development and minimises any potential adverse impacts. The SA process involves appraising the likely social, environmental and economic effects of the policies and proposals within a plan from the outset of its development.

1.14 SEA is also a statutory assessment process, originally required under the European SEA Directive[5], transposed in the UK by the SEA Regulations[6] and amended by the Environmental Assessments and Miscellaneous Planning (Amendment) (EU Exit) Regulations 2018 (SI 2018/1232). As set out in the explanatory Memorandum accompanying the Brexit amendments[7], they are necessary to ensure that the law functions correctly following the UK's exit from the EU. No substantive changes were made by this instrument to the way the SEA regime currently operates. Therefore, the SEA Regulations remain in force and it is a legal requirement for the Oxfordshire Plan 2050 to be subject to SA and SEA throughout its preparation. The SEA Regulations require the formal assessment of plans and programmes which are likely to have significant effects on the environment and which set the framework for future consent of projects requiring Environmental Impact Assessment (EIA)[8]. The purpose of SEA, as originally defined in Article 1 of the SEA Directive, is:

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[3] Oxfordshire Housing and Growth Deal (Nov 2017) MHCLG
[4] Oxfordshire Joint Statutory Spatial Plan Scoping Document (Oct 2018)
[5] Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment.
[6] The Environmental Assessment of Plans and Programmes Regulations 2004 (SI 2004/1633), as amended by The Environmental Assessments and Miscellaneous Planning (Amendment) (EU Exit) Regulations 2018 (SI 2018/1232).
[7] Explanatory Memorandum to the Environmental Assessments and Miscellaneous Planning (Amendment) (EU Exit) Regulations 2018 No. 1232.
[8] Under EU Directives 85/337/EEC and 97/11/EC concerning EIA.

"to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans…with a view to promoting sustainable development".

1.15 SEA and SA are separate processes but have similar aims and objectives. Simply put, SEA focuses on the likely environmental effects of a plan whilst SA includes a wider range of considerations, extending to social and economic impacts. The Government's planning practice guidance[9] shows how it is possible to satisfy both requirements by undertaking a joint SA and SEA process, and to present an SA Report that incorporates the requirements of the SEA Regulations. The SA and SEA of the Oxfordshire Plan 2050 is being undertaken using this integrated approach and throughout this report the abbreviation 'SA' should therefore be taken to refer to 'SA incorporating the requirements of SEA'.

Meeting the requirements of the SEA Regulations

1.16 Table 1.1 signposts the relevant sections of this SA Report that meet the SEA Regulations requirements (the remainder will be met during subsequent stages of the SA of the Oxfordshire Plan 2050). This table will be included in the full SA Report at each stage of the SA to show how the requirements of the SEA Regulations have been met through the SA process.

Table 1.1: Requirements of the SEA Regulations and where these have been met

SEA Regulations requirements	Where covered in this report
Preparation of an environmental report in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and geographical scope of the plan or programme, are identified, described and evaluated (Reg. 12). The information to be given is (Schedule 2):	
a) An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes.	Chapters 1 and 3 and **Appendices B and C** of this SA Report.
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.	
c) The environmental characteristics of areas likely to be significantly affected.	
d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC.	
e) The environmental protection, objectives, established at international, Community or national level, which are relevant to the plan or programme and the way those objectives and any environmental, considerations have been taken into account during its preparation.	
f) The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. (Footnote: These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects).	Chapters 4 and 5 of this SA Report identify the likely significant effects of the options considered to date for the Oxfordshire Plan, including positive and negative effects over the short, medium and long term. Consideration of the secondary, cumulative and synergistic effects of the Oxfordshire Plan will be met at the next stage in the SA process, once preferred

[9] See https://www.gov.uk/government/collections/planning-practice-guidance

SEA Regulations requirements	Where covered in this report
	options have been identified for all constituent parts of the Oxfordshire Plan 2050.
g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.	This requirement will be met at the next stage in the SA process, once preferred options have been identified for all constituent parts of the Oxfordshire Plan 2050.
h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information.	Chapters 4 and 5 and **Appendix D** of this SA Report.
i) a description of measures envisaged concerning monitoring in accordance with Reg. 17.	Appropriate monitoring indicators will be considered once preferred options have been identified for all constituent parts of the Oxfordshire Plan 2050.
j) a non-technical summary of the information provided under the above headings.	A separate non-technical summary document will be prepared to accompany the SA Report for the Proposed Submission version of the Local Plan.
The report shall include the information that may reasonably be required taking into account current knowledge and methods of assessment, the contents and level of detail in the plan or programme, its stage in the decision-making process and the extent to which certain matters are more appropriately assessed at different levels in that process to avoid duplication of the assessment (Reg. 12(3)).	Addressed throughout this SA Report.
Consultation requirements	
Authorities with environmental responsibility, when deciding on the scope and level of detail of the information which must be included in the environmental report (Reg. 12(5)).	Consultation on the scope and level of detail of the SA was carried out with the public as well as Environment Agency, Historic England, and Natural England for 5 weeks in January and February 2019.
Authorities with environmental responsibility and the public, shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme (Reg. 13).	Regulation 18 consultation on the Oxfordshire Plan 2050 is taking placing place between 31st July and 8th October 2021. The consultation documents are accompanied by this SA Report.
Other EU Member States, where the implementation of the plan or programme is likely to have significant effects on the environment of that country (Reg. 14).	The Local Plan is not expected to have significant effects on other EU Member States.
Taking the environmental report and the results of the consultations into account in decision-making (Reg. 16)	
Provision of information on the decision: When the plan or programme is adopted, the public and any countries consulted under Reg. 14 must be informed and the following made available to those so informed:	To be addressed after the Local Plan is adopted.

SEA Regulations requirements	Where covered in this report
■ the plan or programme as adopted; ■ a statement summarising how environmental considerations have been integrated into the plan or programme and how the environmental report, the opinions expressed, and the results of consultations entered into have been taken into account, and the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with; and ■ the measures decided concerning monitoring.	
Monitoring of the significant environmental effects of the plan's or programme's implementation (Reg. 17).	To be addressed after the Local Plan is adopted.
Quality assurance: environmental reports should be of a sufficient standard to meet the requirements of the SEA Regulations.	This report has been produced in line with current guidance and good practice for SEA/SA and this table demonstrates where the requirements of the SEA Regulations have been met.

Structure of this Report

1.17 This chapter has introduced Oxfordshire County, the Oxfordshire Plan 2050 and the SA process. The remainder of the report is structured into the following chapters:

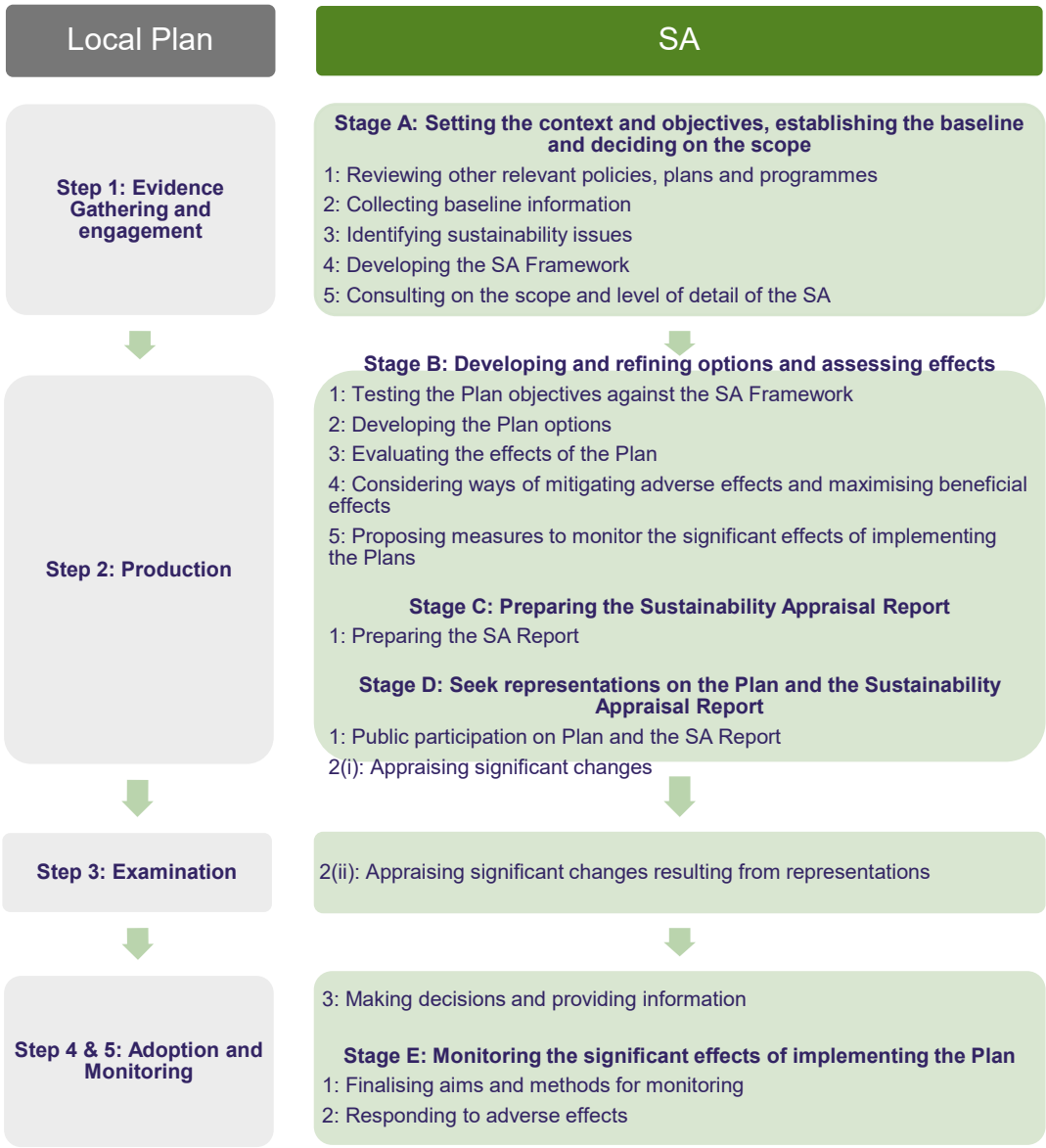
- **Chapter 2** describes the method used to carry out the SA and the difficulties encountered in applying that method.
- **Chapter 3** provides an outline of the Oxfordshire Plan 2050 and describes the relationship between the Oxfordshire Plan 2050 and other relevant plans, policies and programmes; summarises the social, economic and environmental characteristics of the County and identifies the key sustainability issues.
- **Chapter 4** describes the results of the SA of the initial options considered in the drafting of the Oxfordshire Plan 2050 through 2019 and 2020. This chapter also records the reasoning behind the definition of the initial options tested, i.e. what was and was not considered to be a reasonable option for consideration and SA at the time.
- **Chapter 5** describes the results of the SA of the options set out in the Oxfordshire Plan 2050 document published alongside this SA Report for consultation. This chapter also records the evolution of options in the Draft Oxfordshire Plan 2050 consultation document from the initial options considered and appraised in Chapter 4.
- **Chapter 6** sets out conclusions relating to the SA findings presented in the preceding chapters of the SA Report and the next steps in the Plan and SA processes.
- **Appendix A** summarises the representations received during the consultation of the SA Scoping Report in 2019, responds to each comment, referring to associated changes to the SA scope where appropriate.
- **Appendix B** sets out the detailed sustainability context of the Oxfordshire Plan 2050, used to inform the SA Framework.
- **Appendix C** reviews the relevant international and national plans, policies and programmes.
- **Appendix D** sets out the Council's reasons for the selection of preferred policies in the Oxfordshire Plan in light of the reasonable alternatives identified in the Oxfordshire Plan.

Chapter 2
Methodology

2.1 In addition, to complying with legal requirements, the approach being taken to the SA of the Oxfordshire Plan 2050 is based on current good practice and the guidance on SA/SEA set out in the Government's planning practice guidance.

2.2 This calls for the SA to be carried out as an integral part of the plan-making process and **Figure 2.1** sets out the main stages of the plan-making process and shows how these correspond to the SA process.

Figure 2.1: Corresponding stages in plan-making and SA



2.3 The sections below describe the approach that has been taken to the SA of the Oxfordshire Plan 2050 to date and provide information on the subsequent stages of the process.

Stage A: Scoping

2.4 The Scoping stage of SA involves understanding the social, economic and environmental baseline for the plan area as well as the sustainability policy context and key sustainability issues and using these to inform the appraisal framework as follows.

Review other relevant policies, plans and programmes to establish policy context

2.5 The Oxfordshire Plan 2050 is not prepared in isolation; rather it is prepared within the context of other policies, plans and programmes. The SEA Regulations require the Environmental Report to describe the relationship of the plan with other relevant plans and programmes. It should also be consistent with environmental protection legislation and support attainment of sustainability objectives that have been established at the international and national levels. A review was therefore undertaken of other policies, plans, and programmes at the international and national levels that were considered to be relevant to the scope of the Oxfordshire Plan. The review is presented in **Appendix C.**

Collect baseline information to establish sustainability context

2.6 Information on existing environmental, social and economic conditions in the plan area provides the baseline against which the plan's effects can be assessed in the SA and monitored during the plan's implementation.

2.7 Baseline information can also be combined with an understanding of drivers of change that are likely to persist regardless of the local plan being assessed, to understand the likely future sustainability conditions in the absence of the plan.

2.8 The SEA Regulations require the Environmental Report to describe relevant aspects of the current state of the environment and how they are likely to evolve without the plan. An understanding of this likely future, together with the assessed effects of the plan itself, additionally allows the SA to report on cumulative effects, another requirement of the SEA Regulations.

2.9 The SEA Regulations require assessment of effects in relation to the following 'SEA topics': biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage (including architectural and archaeological heritage), landscape, and the inter-relationship between these. Baseline information was therefore collected in relation to the SEA topics and additional sustainability topics were also addressed, covering broader socio-economic issues such as housing, health and wellbeing, access to services, crime and safety, education and employment. This reflects the integrated approach that is being taken to the SA and SEA processes. Baseline information for the County is presented in **Appendix B.**

Identify sustainability issues

2.10 The baseline information also allows the identification of existing sustainability issues, including problems as required by the SEA Regulations.

2.11 Sustainability issues and their likely evolution without the Oxfordshire Plan 2050 are detailed in **Appendix B** and summarised in **Chapter 3.**

Develop the SA framework

2.12 The relevant sustainability objectives identified by the review of other policies, plans, and programmes together with the key sustainability issues facing the District, identified by the collection and review of baseline information, helped to inform the development of a set of sustainability objectives (the 'SA framework') against which the effects of the plan would be assessed. These objectives also take into account the types of issues that are capable of being affected by the land use planning system.

2.13 Development of the SA framework is not a requirement of the SEA Regulations but is a recognised way in which the likely sustainability effects of a plan can be transparently and consistently described, analysed and compared. The SA framework comprises a series of sustainability objectives and supporting criteria that are used to guide the appraisal of the policies and proposals within a plan. The SA framework that has been used in this way throughout the plan-making process is presented in **Chapter 3**.

Consult on the scope and level of detail of the SA

2.14 Public and stakeholder participation is an important element of the SA and wider plan-making processes. It helps to ensure that the SA Report is robust and has due regard for all appropriate information that will support the plan in making a contribution to sustainable development.

2.15 The SEA Regulations require the statutory consultation bodies (the Environment Agency, Historic England, and Natural England) to be consulted "when deciding on the scope and level of detail of the information that must be included" in the SA Report. The scope and level of detail of the SA is described in the Scoping Report and in particular addressed by the SA framework, and the statutory consultees (and the local authority areas which surround Oxfordshire, members of the public and local stakeholders) have therefore been consulted on this when it was developed as part of the scoping process for the SA Report[10]. This consultation on the SA Scoping Report was undertaken for a five-week period in January and February 2019.

2.16 **Appendix A** summarises the representations that were received during the consultation on the SA Scoping Report and responds, highlighting amendments to the review of policies, plans, and programmes, the baseline information, key sustainability issues, the SA framework and the SA assumptions where relevant.

Stage B: Developing and refining options and assessing effects

2.17 Developing options for a plan is an iterative process, usually involving a number of consultations with the public and stakeholders. Consultation responses and the SA can help to identify where there may be other 'reasonable alternatives' to the options being considered for a plan.

2.18 In relation to the SA Report, Regulation 12 (2) of the SEA Regulations requires that:

> "The report must identify, describe and evaluate the likely significant effects on the environment of—
>
> (a) implementing the plan or programme; and
>
> (b) reasonable alternatives, taking into account the objectives and the geographical scope of the plan or programme."

2.19 The SEA Regulations require that the alternative policies and site allocations considered for inclusion in a plan that must be subject to SA are 'reasonable', therefore alternatives that are not reasonable do not need to be subject to appraisal. Examples of unreasonable alternatives could include policy options that do not meet the objectives of the plan or national policy (e.g. the NPPF) or site allocation options that are unavailable or undeliverable.

2.20 SA findings are not the only factors taken into account by plan-makers when determining a preferred option to take forward in a plan. Indeed, there will often be an equal number of positive or negative effects identified by the SA for each option, such that it is not possible to rank them based on sustainability performance in order to select a preferred option. Factors such as public opinion, deliverability and conformity with national policy will also be taken into account by plan-makers when selecting preferred options for their plan.

2.21 The following sections describe the process that was followed in identifying and appraising options for the Oxfordshire Plan 2050. The alternative options were identified by the Council based on the most up-to-date evidence. The stages of option development and accompanying SA to date are outlined below.

Identifying and appraising the options for the Oxfordshire Plan 2050

Initial options

2.22 The initial options for the Oxfordshire Plan 2050 set out in **Chapter 4** of this SA Report were derived from several sources. Firstly, the Oxfordshire authorities prepared and consulted on a range of high-level documents in early 2019, including 'Introducing the Oxfordshire Plan'[11] to ascertain the issues and alternatives for planning for growth up to 2050. A launch event of 18 December 2018 involved more than 100 stakeholders. Statutory consultees, stakeholders, and the general public were

[10] This original scoping process is described in the SA Scoping Report prepared by LUC in January 2019.
[11] Introducing the Oxfordshire Plan, Oxfordshire Authorities (2019) Available at: http://oxfordshireplan.org/about/#documents

invited to comment on the issues that the Oxfordshire Plan should deal with, a vision and series of objectives and aspirations to guide the plan, as well as suggest ideas for the most suitable places for economic growth and residential development up to 2050.

2.23 Secondly, the Oxfordshire authorities met with the SA team for a series of short internal workshops in March and May 2019 to refine the alternatives prior to a sustainability appraisal being carried out of the initial alternatives for the Oxfordshire Plan 2050. To inform this refining process, research was undertaken into policy alternatives and good practice used successfully elsewhere.

2.24 Thirdly, additional public consultation was carried out through drop-in events, a bus roadshow, social media etc. This is documented in the June 2019 report 'Introducing the Oxfordshire Plan: Consultation Report'.

2.25 In addition, a 'call for strategic ideas' from 21st February 2019 to 12th April 2019 invited suggestions on major infrastructure and other types of policy designations, such as new areas for environmental protection, as well as areas for employment and new homes. This resulted in 30 submissions that suggested strategic approaches to the Oxfordshire Plan, as well as many suggestions for specific sites for development. Suggested strategic approaches have helped to shape the reasonable alternatives to be tested through the SA.

2.26 Further alternatives were identified on 24 May 2019 through a second major consultation event through which a broad range of stakeholders engaged in a panel workshop to discuss how good growth could be beneficial for Oxfordshire.

2.27 Responses to all of these consultations were then reviewed alongside the relevant national legislation, policy and guidance to identify an initial set of strategic alternatives for the Oxfordshire Plan 2050 to deliver, distribute and manage growth alongside other social and environmental priorities over the plan period. The plan-making team and SA consultants fine-tuned these alternatives later in 2019 and early 2020 through several rounds of internal review, combining some alternatives that were very similar, and deleting and giving reasons for why others were considered to be not reasonable. Further details on the initial reasonable options considered and appraised, as well as each option's potential significant effects can be found in **Chapter 4**.

Oxfordshire Plan 2050 Regulation 18 Part 2 Consultation Document options

2.28 Following the consultations in 2019 and early 2020, a series of internal meetings were undertaken in October and November 2020 with the Oxfordshire Plan team and district partners, including planning and specialist officers, to refine options to be included in the next Oxfordshire Plan consultation and to be tested through SA. The meetings were thematically based to focus on options relating to climate change and energy, the natural environment, housing, jobs and infrastructure.

2.29 The options discussed through the thematic workshops then informed the options in the Oxfordshire Plan 2050 Regulation 18 Part 2 Consultation Document organised around five themes: climate change, environmental quality, healthy communities, sustainable travel and jobs and homes.

2.30 **Chapter 5** records the evolution of options in the Oxfordshire Plan 2050 consultation document from the initial options considered and appraised in **Chapter 4** and **Appendix D** sets out the reasons for the selection of the preferred options in Oxfordshire Plan 2050 in light of the reasonable alternatives identified and appraised.

Appraisal methodology

2.31 Reasonable alternative options considered in the preparation of the Oxfordshire Plan 2050 have been appraised against the SA objectives in the SA framework set out in **Chapter 3.**

2.32 The likely effects of options and policies need to be determined and their significance assessed, which inevitably requires a series of judgments to be made. The appraisal has attempted to differentiate between the most significant effects and other more minor effects through the use of the symbols. **Figure 2.2** illustrates the full range of potential effects identified through the SA process. The dividing line in making a decision about the significance of an effect is often quite small. Where either (++) or (--) has been used to distinguish significant effects from more minor effects (+ or -) this is because the effect of an option or policy on the SA objective in question is considered to be of such magnitude that it will have a noticeable and measurable effect taking into account other factors that may influence the achievement of that objective. Where a potential positive or negative effect is uncertain, a question mark is added to the relevant effect (e.g. +? or -?) and the effect is colour coded as per the potential positive, negligible or negative effect (e.g. green, yellow, orange, etc.).

Figure 2.2: Key to symbols and colour coding used in the SA of the Oxfordshire Plan 2050

++	Significant positive effect likely
++/-	Mixed significant positive and minor negative effects likely
+	Minor positive effect likely
+/- or ++/--	Mixed minor or significant effects likely
-	Minor negative effect likely
--/+	Mixed significant negative and minor positive effects likely
--	Significant negative effect likely
0	Negligible effect likely
?	Likely effect uncertain

Stage C: Preparing the sustainability appraisal report

2.33 This SA Report describes the process that has been undertaken to date in carrying out the SA of the Oxfordshire Plan 2050. It sets out the findings of the appraisal of the spatial and policy options considered to date, highlighting any likely significant effects, both positive and negative, taking into account the likely short, medium and long-term and permanent and temporary effects.

2.34 These findings are set out in **Chapters 4** and **5** of this SA Report.

Stage D: Consultation on the Oxfordshire Plan 2050 and the SA report

2.35 Information about consultation on the SA that has already taken place at earlier stages of plan-making has been provided above.

2.36 The Oxfordshire Local Planning Authorities are inviting comments on the Oxfordshire Plan 2050 and this accompanying SA Report. These documents are being published on the Council's website for consultation between 31st July and 8th October 2021. Consultation comments received on this SA Report document will be taken into account and reported on in the remaining stages of the SA.

Stage E: Monitoring implementation of the Local Plan

2.37 Recommendations for monitoring the likely significant social, environmental and economic effects of implementing the Oxfordshire Plan 2050 will be considered following the drafting and SA of the Submission Oxfordshire Plan 2050, once preferred options for all constituent parts of the Oxfordshire 2050 Plan have been identified.

Difficulties encountered and Limitations

2.38 The SEA Regulations, Schedule 2(8) require the Environmental Report to include:

> "…a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information."

2.39 The high-level nature of the policy options meant that at times it was difficult to assess in detail the likely effects of the options on each SA objective. Once policies have been worked up in more detail, it should be possible to draw more certain conclusions about their likely effects and make recommendations on how policy options might be worded to improve their sustainability performance.

2.40 Because many effects of development are dependent on the exact location, layout and design of development, it may be possible to mitigate some of the effects highlighted in this SA. However, given the inherent uncertainties about these details at this strategic stage of planning and assessment, the SA focuses on identifying potential significant effects of the options considered, whilst making no assumptions about detailed design or mitigation measures that might be implemented.

2.41 Notable limitations of the SA process to date include:

- The spatial options represent strategic principles for the scale and distribution of growth to be delivered over the Plan period. Consequently, the SA focusses on the likely strategic implications of their implementation. This approach ensured that all options could be appraised consistently.
- The sheer number of strategies, plans, programmes, policy documents, advice and guidance produced by a range of statutory and non-statutory bodies means that it has not been possible within the resources available to consider every potentially relevant document in detail (see **Chapter 3** and **Appendix C**). However, we have drawn out the key generic messages relevant to the preparation of the Oxfordshire Plan 2050 and the SA.
- Similarly, with regard to the evidence base set out in **Chapter 3** and **Appendix B** upon which effects have been identified, every effort has been made to ensure that the SA Report reflects the latest baseline information. The SA of future iterations of the Oxfordshire Plan 2050 and associated new reasonable alternatives will continue to benefit from the more recent, accurate and consistent evidence available.

Chapter 3
Sustainability context for development in Oxfordshire and the SA framework

3.1 The Oxfordshire Plan 2050 is not prepared in isolation and is influenced by other plans, policies and programmes and by broader sustainability objectives. It needs to be consistent with international and national guidance and strategic planning policies and should contribute to the goals of wide range of other programmes and strategies, such as those relating to social policy, culture and the historic environment.

3.2 It must also conform to environmental protection legislation and the sustainability objectives established at international, national and regional level.

3.3 Schedule 2 of the SEA Regulations requires:

> (a) "an outline of the contents, main objectives of the plan and its relationship with other relevant plans or programmes"; and
>
> (e) "the environmental protection objectives established at international, Community or Member State level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation"

3.4 An outline of the contents and main objectives of the Oxfordshire Plan 2050 Regulation 18 Part 2 consultation document can be found in **Chapter 5** and **Appendix D**. The relationship between the Oxfordshire Plan 2050 and other relevant plans, policies and programmes is set out below and in **Appendix C**.

Key International Plans, Policies and Programmes

3.5 Former EU Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (the 'SEA Directive') and Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive') were transposed into the Strategic Environmental Assessment (SEA) Regulations[12] and Habitats Regulations[13]. Following the UK's departure from the EU, these Regulations still apply and require environmental assessment processes to be undertaken in relation to the emerging Oxfordshire Plan. These processes should be undertaken iteratively and integrated into the production of the plan in order to ensure that any potential negative environmental effects (including on European-level nature conservation designations) are identified and can be mitigated.

3.6 There were also a wide range of other EU Directives relating to issues such as water quality, waste and air quality, most of which are transposed into UK law through Acts, Regulations and national-level policy. The UK has now fully left the EU and therefore EU Directives no longer apply to the UK. The relevant associated Regulations are discussed in **Appendix C**.

Key National Plans, Policies and Programmes

3.7 The most significant national policy context for the Oxfordshire Plan is the National Planning Policy Framework (NPPF), which was originally published in 2012 and has periodically been updated (most recently in 2019)[14]. The Oxfordshire Plan must be consistent with the requirements of the NPPF, which states:

[12] The Environmental Assessment of Plans and Programmes Regulations 2004 (SI 2004/1633), as amended by The Environmental Assessments and Miscellaneous Planning (Amendment) (EU Exit) Regulations 2018 (SI 2018/1232).
[13] 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.
[14] Ministry of Housing, Communities and Local Government (2021) National Planning Policy Framework [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf

"Succinct and up-to-date plans should provide a positive vision for the future of each area; a framework for addressing housing needs and other economic, social and environmental priorities; and a platform for local people to shape their surroundings."

3.8 The NPPF sets out information about the purposes of local plan-making, stating that plans should:

- "*Be prepared with the objective of contributing to the achievement of sustainable development;*
- *Be prepared positively, in a way that is aspirational but deliverable;*
- *Be shaped by early, proportionate and effective engagement between plan-makers and communities, local organisations, businesses, infrastructure providers and operators and statutory consultees;*
- *Contain policies that are clearly written and unambiguous, so it is evident how a decision maker should react to development proposals;*
- *Be accessible through the use of digital tools to assist public involvement and policy presentation; and*
- *Serve a clear purpose, avoiding unnecessary duplication of policies that apply to a particular area."*

3.9 The NPPF requires local planning authorities to set out the strategic priorities for the area in the Local Plan. This should include strategic policies to deliver:

- *"Housing (including affordable housing), employment, retail, leisure and other commercial development;*
- *Infrastructure for transport, telecommunications, security, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (including heat);*
- *Community facilities (such as health, education and cultural infrastructure); and.*
- *Conservation and enhancement of the natural, built and historic environment, including landscapes and green infrastructure, and planning measures to address climate change mitigation and adaptation."*

3.10 The NPPF also promotes well-designed places and development, and plans should "*at the most appropriate level, set out a clear design vision and expectations*."

3.11 Non-strategic policies should be used by local planning authorities and communities to set out more detailed policies for specific areas, neighbourhoods or types of development, including qualitative aspects such as design of places, landscapes, and development.

3.12 The NPPF also states that:

"Local Plans and spatial development strategies should be informed throughout their preparation by a sustainability appraisal that meets the relevant legal requirements. This should demonstrate how the plan has addressed relevant economic, social and environmental objectives (including opportunities for net gains). Significant adverse impacts on these objectives should be avoided and, wherever possible, alternative options which reduce or eliminate such impacts should be pursued. Where significant adverse impacts are unavoidable, suitable mitigation measures should be proposed (or, where this is not possible, compensatory measures should be considered)."

Relationship with Other Relevant Plans and Programmes

3.13 There is also a considerable amount of work being undertaken at the sub-regional level to help inform the future growth of Oxfordshire (and therefore the Oxfordshire Plan 2050) and other related parts of the country. Of particular note is the Government's commitment to developing a Spatial Framework for the Oxford-Cambridge Arc with local partners in Oxfordshire, Northamptonshire, Buckinghamshire, Bedfordshire and Cambridgeshire. Relevant plans and initiatives are summarised below.

Oxfordshire Housing and Growth Deal

3.14 As mentioned above, in February 2018, all of the local authorities in Oxfordshire signed a Housing and Growth Deal, whereby the authorities would receive up to £215 million of central government funding in return for delivering 100,000 homes by 2031. The assumption built into this figure was that 1,400 dwellings per annum were required in Oxford to 2031. This requires achievement of a series of milestones to be achieved by the local authorities, with funding contingent on the achievement of each milestone.

Oxfordshire's Strategic Vision for Long-Term Sustainable Development

3.15 The Oxfordshire Strategic Vision (March 2021)[15] has been prepared by the collective leadership of the Oxfordshire Growth Board. It is designed to facilitate collaborative working on economic development, strategic planning and growth, and oversees the projects agreed in the Oxfordshire Housing and Growth Deal, seeking agreement on local priorities. The Strategic Vision cuts across many sectors and is designed to inform a range of strategies, plans and programmes. It sets out common and shared ambition but is not intended to replace or set the vision for any of our communities or partner organisations.

3.16 The Strategic Vision is part of the existing portfolio approach to plan and strategy development in Oxfordshire. Its role is to establish an overarching ambition that informs the Oxfordshire Plan 2050 amongst other relevant plans, strategies and programmes that reflect wider considerations such as health and wellbeing and infrastructure that impact on place-making in Oxfordshire. Consequently, the following components of the Oxfordshire Strategic Vision are published in the Oxfordshire 2050 Plan:

- Oxfordshire's strategic vision.
- Oxfordshire's definition of good growth.
- 11 guiding principles for sustainable development.

Oxfordshire Local Enterprise Partnership (OxLEP) Strategic Economic Plan

3.17 The OxLEP Strategic Economic Plan[16] helps identify potential opportunities and prospects of Oxfordshire and manages the county's economic growth to ensure sustainability and inclusivity. The Plan is structured around a number of priorities which define four programmes: People, Place, Enterprise and Connectivity. Under these four programmes, the Plan sets out a number of actions. These range from the Westgate Community Employment Plan which aims to provide local residents with sustainable jobs to providing rural broadband in more remote, cut-off areas and the development of science parks across the county (e.g. Science Vale in south Oxfordshire).

Oxfordshire Local Transport Plan (LTP4)

3.18 The Oxfordshire Local Transport Plan of 2015 (LTP4), 'Connecting Oxfordshire'[17], sets out Oxfordshire County Council's policy and strategy for developing the transport system in Oxfordshire to 2031. The LTP4 aims to:

- Support jobs and housing growth and economic vitality;
- Reduce transport emissions and meet our obligations from Government;
- Protect, and where possible enhance Oxfordshire's environment and improve quality of life; and
- Improve public health, air quality, safety and individual wellbeing .

3.19 The LTP4 includes an area strategy for Oxford as well as other strategies, including a bus strategy which sets out how improvements will be made to the county-wide bus network as well as developing rapid transit services along the busiest routes.

3.20 Oxfordshire County is now in the process of updating this Local Transport Plan, entitled the 'Local Transport and Connectivity Plan' (LTCP). The updated document will better reflect the county's strategy both for digital infrastructure and for

[15] Oxfordshire Strategic Vision, Oxfordshire Growth Board (2021). Available at: https://www.oxfordshiregrowthboard.org/projects/oxfordshire-strategic-vision/
[16] OxLEP (2016) *Creating the Environment for Growth: Strategic Economic Plan for Oxfordshire*
[17] Oxfordshire County Council and Connecting Oxfordshire (2015) *Connecting Oxfordshire: Local Transport Plan 2015-2031*

connecting the whole county. A vision document[18] has been prepared and consulted upon. The draft vision is for a net-zero transport system in Oxfordshire that facilitates clean growth while protecting the environment and society. There is also a focus on securing high quality gigabit connectivity and discouraging private vehicle use. Work is now underway on the preparation of a full version of the LTCP due for consultation later in 2021.

Oxfordshire Infrastructure Strategy

3.21 The Oxfordshire Growth Board published the Oxfordshire Infrastructure Strategy in November 2017[19]. This sets out ambitions for new and improved infrastructure to 2031 and beyond. Regionally and county-wide, the strategy supports an East-West rail link between Oxford, Bicester, Milton Keynes and Bedford; rail improvements between Oxford and Didcot; redevelopment of Oxford Station, and upgrades to the A34.

Spatial Framework for the Oxford-Cambridge Arc

3.22 The Government is working with local partners in Oxfordshire, Northamptonshire, Buckinghamshire, Bedfordshire and Cambridgeshire to deliver a Spatial Framework for the Oxford-Cambridge Arc that will:

- support long-run sustainable economic growth across the area;
- help to make the area a brilliant place to live, work and travel in – for existing residents and future communities alike; and
- support lasting improvements to the environment, green infrastructure and biodiversity.[20]

Sustainability Context

3.23 Schedule 2 of the SEA Regulations requires that the Environmental Report includes descriptions of:

> '(3) The environmental characteristics of areas likely to be significantly affected.'

3.24 **Appendix B** of this report sets out the detailed policy context, baseline, and key sustainability issues (including their likely evolution without the Oxfordshire Plan 2050) for each SA subject area, including the topics required to be covered by the SEA Regulations. Separate sections of **Appendix B** cover the following subject areas:

- Population health and wellbeing (including inclusion and deprivation, culture, leisure and recreation and health).
- Housing.
- Economy and employment.
- Transport.
- Air quality.
- Climate change adaptation and mitigation.
- Water resources and water quality.
- Flood risk.
- Soils.
- Minerals.
- Biodiversity and geodiversity.

[18] Oxfordshire County Council, Local Transport and Connectivity Plan – vision consultation (February-March 2021)
[19] AECOM (2017) *Oxfordshire Infrastructure Strategy*
[20] Ministry of Housing, Communities and Local Government, Planning for sustainable growth in the Oxford-Cambridge Arc: an introduction to the spatial framework (2021) Available at: https://www.gov.uk/government/publications/planning-for-sustainable-growth-in-the-oxford-cambridge-arc-spatial-framework/planning-for-sustainable-growth-in-the-oxford-cambridge-arc-an-introduction-to-the-spatial-framework

- Heritage.
- Landscape and townscape.
- Green Belt.

3.25 The description of the likely future evolution of the baseline and key issues without the Oxfordshire Plan considers past trends and current pressures. It is recognised that development in Oxfordshire County will not be delivered in isolation from those areas around it. The effect of delivering new development and supporting infrastructure will often be transmitted across administrative boundaries. As such the SA will also consider the cumulative effect of delivering new development with consideration for growth being proposed in neighbouring authority areas, once the preferred options for the Oxfordshire Plan have been identified.

3.26 SEA guidance recognises that data gaps will exist but suggests that where baseline information is unavailable or unsatisfactory, authorities should consider how it will affect their assessments and determine how to improve it for use in the assessment of future plans. Data gaps are referenced where necessary. The collection and analysis of baseline data is regarded as a continual and evolving process, given that information can change or be updated on a regular basis. Relevant baseline information will be updated during the SA process as and when data is published.

Key Sustainability Issues

3.27 Schedule 2 of the SEA Regulations requires that the Environmental Report includes descriptions of:

> '(2) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.'

3.28 :

- The severe **under-provision of homes** to meet the needs of a growing number of households, and in particular the **delivery of homes that are genuinely affordable** in the county with highest house price to average income ratio in the country.
- The on-going and **persistent pockets of deprivation** in some communities in Oxfordshire, despite deprivation not being a major issue for the majority of the population.
- The under provision of **accessible natural green space** within Oxfordshire.
- The increasing importance of providing for the needs of an **ageing population.**
- The national importance of Oxford and Oxfordshire in providing **high quality jobs** linked to its research, science and knowledge sectors.
- The need to provide for a **flexible and diverse economy** and job opportunities.
- Significant **road congestion**, particularly on strategic roads and routes into the County's main settlements at peak hours, coupled with inadequate public transport services outside the main settlements.
- Linked to congestion, an on-going concern about **air pollution**, particularly from vehicles.
- Increasing **pressure on water resources** to serve the needs of homes, commerce and industry as well as pressure on water quality relating to waste water treatment and the environmental capacity of the water systems.
- The importance of taking into account current and future **flood risk** in deciding where development should be located and managing surface water run-off through the use of sustainable drainage systems.
- The need to safeguard Oxfordshire's **best and most versatile agricultural land and mineral resources** for future generations.
- Improving the contribution that the County makes to reducing its contributions to **climate change**, by being more efficient in energy use and increasing the proportion of energy from renewable and low carbon sources, and by building resilience.

- The need to protect the County's **biodiversity**, in particular its internationally and nationally designated habitats, but also to maintain and strengthen its ecological networks both within the County but also beyond, with a focus on biodiversity and environmental net gain.
- The need to protect and enhance the **historic character** of Oxfordshire, including not only its designated and non-designated assets but also its historic settlements and landscapes.
- The need to protect and enhance the character of Oxfordshire's **landscape**, including the special views into Oxford and the protected landscape of the three AONBs and their settings.

3.29 The likely evolution of these issues without implementation of the Oxfordshire Plan 2050 is set out in detail in **Appendix B.**

The SA Framework

3.30 As described in **Chapter 2,** this SA Report sets out the likely significant effects of the spatial and policy options considered for inclusion in the Oxfordshire Plan 2050, specifically in relation to whether they will help to meet a set of sustainability objectives – the 'SA framework'. The sustainability objectives and supporting appraisal questions were defined by reference to the key sustainability issues facing the County and the international, national, and sub-regional policy objectives that provide the context for the Plan (see **Appendix B**).

3.31 The SA framework is set out in **Table 3.1**. The penultimate column indicates the relationship between the sustainability issues and the SA objectives, through a set of appraisal questions that seek to determine whether the Oxfordshire Plan 2050 will help to address/improve those issues. The final column indicates the relationship between the SA objective and the SEA Regulation environmental topics: biodiversity; population; human health; fauna; flora; soil; water; air; climatic factors; material assets; cultural heritage, including architectural and archaeological heritage; landscape.

Table 3.1: SA Framework for the Oxfordshire Plan 2050

SA objective	Appraisal questions: Will the Oxfordshire Plan 2050…	SEA topic
1. To meet Oxfordshire's housing needs	Provide for objectively assessed housing need? Deliver the range of types, tenures and affordable homes the people of Oxfordshire need over the Plan Period? Provide well-located, well-designed and energy efficient homes? Address the housing needs of an ageing population?	Population Human Health Material Assets
2. To improve the health and wellbeing of Oxfordshire's population	Maintain, connect and create multifunctional and accessible open spaces and green infrastructure commensurate with population growth? Provide for recreation and sports facilities? Provide additional space for local food production? Avoid and mitigate adverse health effects associated with air and noise pollution? Promote healthy lifestyles by encouraging and facilitating walking and cycling? Promote climate change resilience through sustainable siting, design, landscaping and infrastructure? Create and maintain vibrant, multifunctional countryside in and around existing and new communities? Assist in the reduction of health inequalities? Put healthy place making at the core of the plan? Address the needs of an ageing population?	Population Human Health Climatic Factors
3. To sustain and create safe and	Promote developments that benefit Oxfordshire's most deprived areas? Facilitate the integration of new communities with existing communities?	Population Human Health

SA objective	Appraisal questions: Will the Oxfordshire Plan 2050…	SEA topic
vibrant Oxfordshire communities	Provide for a mix of uses including homes, jobs, community facilities, retail, open space? Encourage and support diverse town centre uses, flexible enough to adapt to future needs, including periodic pandemic measures such as social distancing measures and temporary closures? Ensure that new development is fully supported by appropriate green infrastructure, community, transport and utilities infrastructure and services? Address safety, crime and the fear of crime, and disorder? Safeguard existing social and cultural spaces of community cohesion and engagement?	
4. To support the development of Oxfordshire's knowledge economy	Facilitate the availability of land for research and development and commercial premises in the Oxfordshire Knowledge Spine? Allow for knowledge and science based activity linked to the universities and other research institutions to develop and grow? Support the delivery of Science Transit? Provide for the types of homes and cultural attractions that will attract and retain global talent? Allow for sufficient flexibility to respond to uncertainties and changing economic circumstances? Support opportunities for the expansion and diversification of business and inward investment? Provide for the types of homes, cultural attractions and natural environment that will attract and retain global talent? Support the rural, agricultural and tourism-based economies to ensure that a gap does not emerge between the areas of high investment and other parts of the County? Ensure residents across the County have access to high quality digital infrastructure to facilitate home working? Facilitate measures to embed the principles of a circular economy?	Population Human Health Material Assets
5. To maintain high and stable levels of employment across Oxfordshire	Provide for sufficient range, type and location of employment land to meet Oxfordshire's needs? Allow for sufficient flexibility to respond to uncertainties and changing economic circumstances? Support opportunities for the expansion and diversification of business and inward investment? Provide for new and improved education and training facilities leading to a work ready population of school and college leavers? Maintain and enhance the economic vitality and vibrancy of Oxfordshire's city and town centres? Encourage economic investment and regeneration to create jobs in Oxfordshire's more deprived communities? Diversify employment types?	Population Human Health Material Assets
6. To reduce the need to travel by car in Oxfordshire	Promote the delivery of integrated, compact communities made-up of a complementary mix of land uses? Support the maintenance and expansion of high quality public transport networks?	Material Assets Human Health

SA objective	Appraisal questions: Will the Oxfordshire Plan 2050…	SEA topic
	Help to address road congestion on the strategic road network and routes into Oxfordshire's city and town centres? Enhance connectivity of the sustainable transport network and provide new cycling and walking infrastructure, including transition the walking and cycling infrastructure that has been temporarily created during COVID-19 to permanent fixtures within communities?	Climatic Factors Air
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	Promote energy efficient design and sustainable construction? Encourage the provision of renewable energy infrastructure where possible? Encourage the provision of electric vehicle charging points? Minimise greenhouse gas emissions from transport? Build climate resilience? Promote the provision of a coherent and high-quality green infrastructure network?	Climatic Factors Air
8. To minimise air, noise and light pollution in Oxfordshire	Minimise increases in polluting traffic in Oxfordshire's Air Quality Management Areas? Contain measures which will help to reduce congestion, particularly involving Heavy Goods Vehicles? Facilitate the take up of low / zero emission vehicles? Minimise noise pollution during construction, and noise affecting new and existing Oxfordshire residents? Maintain Oxfordshire's tranquil areas and dark skies (particularly with regard to the three Areas of Outstanding Natural Beauty)? Promote natural air quality improvements and noise absorption through strategic planning of green infrastructure? Ensure potential impacts on European sites, such as the Oxford Meadows Special Area of Conservation, are mitigated?	Air Human Health
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	Minimise inappropriate development in Source Protection Zones? Ensure there is sufficient wastewater treatment capacity, both in physical and environmental terms, to accommodate the new development? Ensure there are sufficient water resources to support existing and new development? Support efficient use of water in new development, taking into account climate change? Safeguard the water quality and ecological integrity of waterbodies including the River Thames as it flows through Oxfordshire, and its tributaries? Promote the use of natural wetlands to improve water quality through water filtration?	Water Human Health Climatic Factors
10. To reduce the risk from all sources of flooding in Oxfordshire	Minimise inappropriate development in areas prone to flood risk and areas prone to increasing flood risk elsewhere, taking into account the impacts of climate change? Promote the use of Sustainable Drainage Systems and flood resilient design? Promote the use of Natural Flood Management techniques?	Water Material Assets Human Health Climatic Factors
11. To protect Oxfordshire's	Prioritise the development of brownfield land over greenfield land?	Soil

SA objective	Appraisal questions: Will the Oxfordshire Plan 2050…	SEA topic
soils and ensure efficient use of land	Avoid development of Oxfordshire's best and most versatile agricultural land? Take an appropriate approach to remediating contaminated land?	Human Health
12. To safeguard Oxfordshire's mineral resources	Avoid sterilising mineral resources?	Material Assets
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	Safeguard and enhance Oxfordshire's internationally and nationally designated biodiversity assets, taking into account the impacts of climate change? Safeguard and enhance Oxfordshire's locally designated biodiversity assets, taking into account the impacts of climate change? Safeguard and enhance Oxfordshire's ancient woodlands, meadows, chalk grasslands and other characteristic habitats, taking into account the impacts of climate change? Help to conserve, connect and enhance ecological networks, taking into account the impacts of climate change? Achieve overall net gains in biodiversity and the environment? Provide and manage opportunities for people to come into contact with resilient wildlife places whilst encouraging respect for and raising awareness of the sensitivity of such locations? Protect Oxfordshire's designated geodiversity sites?	Biodiversity Flora and Fauna
14. To protect and enhance the significant of Oxfordshire's historic environment	Conserve and enhance Oxfordshire's internationally (Blenheim Palace) and nationally designated heritage assets, including their setting? Conserve and enhance Oxfordshire's locally designated and non-designated heritage assets, including their setting? Encourage the conservation, management and enhancement of the County's heritage assets, particularly heritage at risk and historic landscapes, taking into account the impacts of climate change? Raise awareness, understanding and appreciation of, and access to, the historic environment? Facilitate regeneration opportunities through tourism and cultural assets to support the local area? Conserve and enhance designated and undesignated archaeology, including their setting (above or below ground)?	Cultural Heritage, Architectural and Archaeological Heritage
15. To protect and enhance Oxfordshire's landscape character and quality	Protect and enhance the character of Oxfordshire's three AONBs (Cotswolds, Chilterns, North Wessex Downs) including their setting? Avoid development in locally sensitive landscapes? Protect the special views into and out of Oxford? Safeguard the character and distinctiveness of Oxfordshire's settlements? Safeguard the social and cultural importance of the landscape?	Landscape Cultural Heritage

Chapter 4
Initial options SA findings

4.1 This chapter records all the options identified during the early phases of the development of the Oxfordshire 2050 Plan in 2019 and 2020. The assessment of these options has not previously been published through any earlier iterations of the Sustainability Appraisal but are recorded here to illustrate evolution of options for the Oxfordshire Plan. The consideration of options (or 'reasonable alternatives') is one of the most important parts of the SA process. The national Planning Practice Guidance states:

> The sustainability appraisal needs to consider and compare all reasonable alternatives as the plan evolves, including the preferred approach, and assess these against the baseline environmental, economic and social characteristics of the area and the likely situation if the plan were not to be adopted. In doing so it is important to:
>
> - outline the reasons the alternatives were selected, and identify, describe and evaluate their likely significant effects on environmental, economic and social factors using the evidence base (employing the same level of detail for each alternative option). Criteria for determining the likely significance of effects on the environment are set out in schedule 1 to the Environmental Assessment of Plans and Programmes Regulations 2004;
> - as part of this, identify any likely significant adverse effects and measures envisaged to prevent, reduce and, as fully as possible, offset them;
> - provide conclusions on the reasons the rejected options are not being taken forward and the reasons for selecting the preferred approach in light of the alternatives.
>
> Any assumptions used in assessing the significance of the effects of the plan will need to be documented. Reasonable alternatives are the different realistic options considered by the plan-maker in developing the policies in the plan. They need to be sufficiently distinct to highlight the different sustainability implications of each so that meaningful comparisons can be made.
>
> The development and appraisal of proposals in plans needs to be an iterative process, with the proposals being revised to take account of the appraisal findings.

4.2 By appraising the reasonable alternative options the SA provides information about how different options perform in environmental, social and economic terms, which in turn can help the Council decide which option to pursue. It should be noted, however, that the SA does not decide which policy options should be adopted. Other factors, such as the views of stakeholders and the public, and other evidence base studies, also help to inform the decision. The SA Report must, however, communicate how these various factors, including the SA, have been taken into account in selecting the preferred policy options, and to demonstrate that the preferred approach is an appropriate strategy when compared to the alternatives.

4.3 To demonstrate that an appropriate range of policy options has been considered, this chapter describes which options have been considered and which options are considered to be reasonable and unreasonable. The chapter then goes on to appraise the initial reasonable options against the SA framework, identifying each option's likely significant effects.

4.4 **Table 4.1** sets out all the initial reasonable policy options considered and appraised at this stage in the plan-making process. Both the options and the appraisal are organised under the following policy themes:

- Climate change mitigation and adaptation.
- Sustainable construction and design principles.
- Historic environment.
- Natural environment.
- Green Belt.

- Addressing inequalities.
- Affordable housing targets.
- Scale of growth.
- Strategic growth locations.
- Spatial distribution of growth.
- Oxfordshire's infrastructure.
- Accessibility and transport.

4.5 **Table 4. 2** sets out the initial policy options not considered to be reasonable at this stage in the plan-making process, and the reasons why.

Table 4.1: Initial Reasonable Policy Options Subjected to Sustainability Appraisal

Policy Theme	Potential alternatives (reasonable alternative approaches)
Oxfordshire's Environment	
Climate Change Mitigation and Adaptation	**Energy efficiency targets:** 1. Require all strategic development to be zero carbon, setting out 'allowable solutions'[21] to offset carbon that cannot be reduced on site. 2. Require all strategic development to meet higher energy efficiency standards than Building Regulations[22], setting out 'allowable solutions' to offset carbon that cannot be reduced on site. 3. Set out criteria encouraging higher energy efficiency standards than Building Regulations. 4. Do not set energy efficiency targets that are higher than Building Regulations.
	Renewable energy targets: 1. 100% of the County's new strategic development sites' energy needs generated from renewable sources by 2050[23]. 2. 50% of the County's new strategic development sites' energy needs generated from renewable sources by 2050. 3. Set out criteria encouraging the siting of renewable energy technologies. 4. Do not set county-wide renewable energy targets.
	Promote local low carbon energy networks: 1. Identify strategic development locations with potential for local energy networks (e.g. heat from power, co-location of homes and heat/energy producing employment sites). 2. Set out criteria encouraging the siting of local energy networks.

[21] This refers to a local financial mechanism designed to allow developers to offset carbon footprints they couldn't achieve on site. By paying into an allowable solution set up by a local authority a developer could meet its mitigation obligations and receive consent. The money is pooled by local authorities and invested into large scale energy efficiency, low carbon and renewable initiatives that maximise carbon reduction. It could potentially be incorporated into a CIL charging schedule too.
[22] The Building (Amendment) Regulations 2017 http://www.legislation.gov.uk/uksi/2017/856/made
[23] As an example, this would involve very roughly 5-10km2 solar arrays co-located with existing infrastructure (closed landfill sites, Abingdon reservoir), plus 15km2 of 'greenfield' solar arrays, plus PVs on homes, plus ground-source heat pumps and biomass/district heating.

Policy Theme	Potential alternatives (reasonable alternative approaches)
30	3. Do not identify locations or set criteria for low carbon energy networks.
	Promote strategic renewable wind and solar developments: 1. Identify strategic development locations with potential for strategic wind and/or solar farms. 2. Set out criteria encouraging the siting of strategic wind and solar farms. 3. Do not identify locations or set criteria for strategic renewable wind/solar development.
	Promote low/zero carbon transport networks: 1. Identify strategic development locations and linkages for investment in strategic zero/low carbon transport networks, such as zero emission/electric vehicle zones, low emission zones, solar roads and electric car hubs. 2. Encourage the development of strategic low/zero carbon transport networks. 3. Do not encourage or identify strategic locations for low/zero carbon transport networks.
	Promote climate change resilience and adaptation*: 1. Identify strategic opportunities for upstream flood mitigation/storage areas (see also 'Promote/enhance biodiversity at the strategic scale). 2. Identify strategic opportunities for urban greening. 3. Identify strategic opportunities for large-scale tree planting. 4. Do not identify strategic opportunities to promote climate change resilience and adaptation in Oxfordshire.
	Water efficiency standards: 1. Require all strategic development to be water neutral[24]. 2. Require all strategic development to meet higher water efficiency standards than Building Regulations. 3. Set out criteria encouraging higher water efficiency standards than Building Regulations.

[24] Water neutrality is: For every new development, total water use in the region after the development must be equal to or less than total water use in the region before the development. Therivel, Riki, Christine Drury, and Ian Hepburn, comps. (Achieving Water Neutrality in the South East Region Discussion Paper. Oct. 2006).

Policy Theme	Potential alternatives (reasonable alternative approaches)
	4. Do not set water efficiency targets that are higher than Building Regulations.
Sustainable construction and design principles	**Promote sustainable construction and design:** 1. Prescribe county-wide principles/standards to encourage the sustainable design and construction of all buildings, including orientation, insulation etc., possibly in line with established Code for Sustainable Homes/Home Quality Mark and BREEAM standards.* 2. Prescribe county-wide principles/standards for the masterplanning of strategic scale developments, including integration with public transport links, healthy place-making principles, community hubs, green infrastructure etc.* 3. Do not identify county-wide principles/standards.
Historic Environment	**Promote the conservation and enhancement of the historic built environment:** 1. Establish a positive strategy for the conservation and enjoyment of Oxfordshire's historic environment at the strategic scale. 2. Do not establish a positive strategy for the conservation and enjoyment of Oxfordshire's historic environment at the strategic scale.
Natural Environment	**Promote the conservation and enhancement of strategic views, landscape and townscape features:** 1. Establish a positive strategy for the conservation and enhancement of important and/or sensitive strategic views, landscape and townscape features at a county-wide landscape scale. 2. Do not establish a positive strategy for the conservation and enhancement of landscape and townscape features at a county-wide landscape scale.
	Protect/enhance biodiversity at the strategic scale: 1. Establish a positive strategy for the protection and enhancement of biodiversity at a county-wide landscape scale. 2. Do not establish a positive strategy for the protection and enhancement of biodiversity at a county-wide landscape scale.
	Promote/create/enhance green infrastructure and access to nature at the strategic scale: 1. Identify location(s) for new strategic green spaces to serve the county. 2. Do not identify strategic scale green spaces.
	Proportions of biodiversity net gain:

Policy Theme	Potential alternatives (reasonable alternative approaches)
	1. 10% biodiversity net gain to be delivered through new development on the basis of achieving at least some net gain. 2. 20% biodiversity net gain to be delivered through new development on the basis of proven viability[25]. 3. 50%-100% biodiversity net gain to be delivered through new development on the basis of starting to account for past losses[26]. 4. Set out criteria encouraging at least some biodiversity net gain. 5. Do not set county-wide biodiversity net gain targets.
Green Belt	**Enhancement of Green Belt Beneficial Uses[27]:** 1. Identify strategic opportunities to enhance the existing Oxford Green Belt (for delivery through Local Plans) (i.e. provide access, opportunities for outdoor sport and recreation, enhance landscapes, visual amenity and biodiversity; or improve damaged or derelict land). 2. Do not identify strategic opportunities to enhance the existing Oxford Green Belt.
Equality in Oxfordshire	
Addressing inequalities	1. Identify strategic development opportunities in areas of socio-economic deprivation to address inequality through regeneration. Identify strategic opportunities for investment in areas of strategic socio-economic deprivation to be delivered through S106 and CIL contributions, e.g. skills development and training, infrastructure investment including green infrastructure. 2. Do not identify strategic opportunities to regenerate areas of socio-economic deprivation.
Affordable housing targets	1. Set different affordable housing targets across the County to reflect different markets. 2. Set consistent affordable housing target across Oxfordshire. 3. Do not set affordable housing targets.

[25] In 2016 Lichfield District Council introduced a policy requiring a 20% biodiversity net gain on developments: https://www.endsreport.com/article/1578483/debrief-inside-councils-pioneering-biodiversity-net-gain-planning-policy
[26] Several species have seen >90% losses over the last century, which would require much more than 100% net gain to reverse.
[27] Consideration will be given to the need to make strategic alterations to Green Belt boundaries once all other reasonable options for meeting the region's strategic growth needs outside the Green Belt have been considered, in line with the requirements of the NPPF.

Policy Theme	Potential alternatives (reasonable alternative approaches)
Oxfordshire's Growth	
Scale of growth	**Housing growth alternatives[28]:** 1. Government standard method using 2014 population projections (100,000 new homes to 2050). 2. Continue rate of growth in Local Plans to 2030, and thereafter population projections[29] (150,000 new homes to 2050). 3. Continue current rate of growth in Local Plans to 2050 (200,000 new homes to 2050). 4. National Infrastructure Commission (NIC) Growth Deal level (300,000 homes to 2050).
	Economic growth alternatives: 1. Local Industrial Strategy Baseline – 35,000 additional jobs by 2040[30]. 2. Meet the region's economic growth needs identified in the Local Industrial Strategy and deliver half of the growth identified in the growth strategy – 71,500 jobs by 2040. 3. Local Industrial Strategy Growth Scenario – 108,000 additional jobs by 2040.
Strategic growth locations	**Locations for strategic growth:** 1. Identify strategic development locations for growth. 2. Set out criteria to locate strategic development flexibly to respond to market demands. 3. Do not identify locations or criteria for strategic development.
Spatial Distribution of Growth	**Spatial alternatives:** (Bold titles to show how the conceptual spatial scenarios from the 'Introducing Oxfordshire Plan 2050' consultation document have been refined by the potential spatial alternatives identified to date)

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[28] Economic growth is expected to be broadly consistent with housing growth, although improvements in productivity could mean that a given level of housing growth could lead to a greater level of economic growth.
[29] This is the approach used by Thames Water in its Draft Water Resource Management Plan.
[30] The Local Industrial Strategy has created growth scenarios to 2040. While the Oxfordshire Plan's remit is until 2050, additional evidence for the additional ten years is not currently available, as such there is uncertainty attached until 2050.

Policy Theme	Potential alternatives (reasonable alternative approaches)
34	1. **Intensification in existing towns and cities** – Increase density of existing and planned settlements, prioritise brownfield sites. 2. **Intensification of housing development around strategic economic assets** – Co-location of uses to meet business and research park needs. 3. **Public transport 'Wheel' (transport led)** – Concentrate development around areas of good public transport connectivity. 4. **Rail 'String' (transport led)** – Locate string of settlements along new/upgraded rail corridors (e.g. Cowley line). 5. **OxCam 'String' (transport led)** – New development along route of OxCam expressway, once the route has been decided, consistent with NIC Growth Deal aspirations. 6. **Strategic road junctions** – Concentrate development around strategic road junctions. 7. **Proportionate dispersed growth between existing settlements (needs led)** – Oxford, towns and villages. 8. **New settlements with new strategic transport connections**. 9. **Protect environmental assets (environment led)** – Identify environmental constraints first (e.g. strategic green and blue infrastructure, historic environment, flooding, AONB and other sensitive landscapes, best and most versatile agricultural land etc., possibly through natural capital mapping), then place housing and employment where they avoid significant impacts and enable enhancements.
Oxfordshire's Infrastructure	
Accessibility and transport	**Improve accessibility and transport*:** 1. Plan for a comprehensive mass transit network linking larger existing and new built-up areas. 2. Plan for a comprehensive cycling network linking larger existing and new built-up areas. 3. Plan for county wide digital connectivity

* In contrast with the other sets of alternatives which are 'mutually exclusive' (i.e. only one alternative can be chosen), these sets of alternatives are 'mix and match' (i.e. any combination of alternatives can be chosen)

Table 4.2: Initial Policy Options considered not to be 'reasonable alternatives'

Policy Theme	Alternatives not considered to be reasonable alternatives	Justification
Strategic Historic/Natural Environment Harm avoidance, mitigation and compensation	1. Require strategic development to avoid, mitigate and/or compensate for significant impacts on all historic/natural assets, and enhance where possible. 2. Require strategic development to avoid, mitigate and/or compensate for all impacts on historic settlements, particularly Oxford, or strategic natural assets, and enhance them.	The NPPF requires all Local Plans to avoid harm to the historic and natural environment in the first instance, then to mitigate and finally compensate if harm cannot be avoided. Furthermore, the appropriateness of specific measures with regards to specific assets are more appropriately managed on a site-level rather than at a strategic scale.
Biodiversity net gain	Do not require biodiversity net gain.	Environment Bill to make biodiversity net gain mandatory.
AONBs to National Park	Support AONBs becoming National Parks.	Not within the remit of Oxfordshire Plan – up to government to determine.
Scale of Growth	Base on natural change in population (using 2016 population projections).	Not consistent with national policy.
Economic Sectors	1. Focus on the high tech / innovation / education economy, consistent with NIC Growth Deal / Local Industrial Strategy aspirations. 2. Focus on self-sufficiency, resilience, green and 'circular' economy (e.g. food production, renewable energy). 3. Focus on the construction and manufacturing economy (e.g. production of off-site homes, next generation vehicles, photovoltaics) 4. Maximise the diversification of the Oxfordshire economy (e.g. including tourism, healthcare, leisure).	Oxfordshire 2050 Plan to help deliver all economic needs across the region alongside the Local Industrial Strategy. Prioritising certain sectors at the expense of others is therefore considered to be unreasonable.
Transport Infrastructure	Oxford-Cambridge Expressway alternative route alignment options.	As this is being assessed via the Highways England technical process, it is not within the remit of the Oxfordshire 2050 Plan.
Planning for infrastructure	1. Minerals and waste management infrastructure. 2. Water resource management. 3. Flood risk management. 4. Airport infrastructure.	These types of infrastructure will be addressed through other regional plans and strategies, such as LTP5, Oxfordshire Minerals & Waste Plans, Thames Water's Water Resource Management Plan, EA flood mitigation strategies, OxLEP Industrial Strategy, plan for these types of infrastructure. Specific alternatives for delivering certain types of infrastructure to support growth in the Oxfordshire Plan may emerge through associated technical studies, e.g. transport evidence, Oxford Infrastructure Strategy.

Policy Theme	Alternatives not considered to be reasonable alternatives	Justification
Delivering infrastructure	**Funding infrastructure** 1. Optimise funding by central government (taking into account that this may have repercussions elsewhere in the plan). 2. Developers to provide infrastructure (taking into account that this may limit the amount of affordable housing etc. that they can provide). 3. New settlements to be at a scale large enough to provide full complement of new infrastructure. 4. County to take out loans / other innovative funding for infrastructure.	Infrastructure will be funded through a variety of means including S106 and the County and partners have been successful in securing central government funding in recent years including HIF and the Growth Deal.
	Capture land value of new development for infrastructure etc. 1. Set county-wide land value capture targets or mechanisms through existing means (e.g. CIL, S106). 2. Set county-wide land value capture targets or mechanisms through new means (e.g. compulsory purchase orders, changes to Land Compensation Act 1961). 3. Do not set county-wide land value capture targets or mechanisms.	Different land value capture mechanisms are considered to be appropriate in different locations at different times; therefore, a regional approach is considered to be unreasonable.

Initial Policy Alternatives

4.6 The findings of the SA of the initial policy alternatives are organised by policy topic under each of the eight policy themes. **Tables 4.3** to **4.24** present the likely effects of each policy alternative under each policy topic. Each table is supported by a commentary of the alternatives under each topic. Likely significant effects are highlighted in **bold.**

Climate change mitigation and adaptation

4.7 There are six policy topics under the climate change policy theme, and these are discussed in turn below:

- Energy efficiency/sustainable design targets.
- Renewable energy targets.
- Promote local low carbon energy networks.
- Promote strategic renewable wind and solar developments.
- Promote low/zero carbon transport networks.
- Promote climate change resilience and adaptation.

4.8 In line with the strategic nature of the plan, these focus on strategic policy alternatives.

Energy efficiency targets

4.9 **Table 4.3** presents the findings of the SA of the four energy efficiency targets policy alternatives:

1. Require all strategic development to be zero carbon, setting out 'allowable solutions'[31] to offset carbon that cannot be reduced on site.
2. Require all strategic development to meet higher energy efficiency standards than Building Regulations[32], setting out 'allowable solutions' to offset carbon that cannot be reduced on site.
3. Set out criteria encouraging higher energy efficiency standards than Building Regulations.
4. Do not set energy efficiency targets that are higher than Building Regulations.

Table 4.3: Energy efficiency targets alternatives SA findings

SA objectives	Alternatives			
	1	2	3	4
1. To meet Oxfordshire's housing needs	-?	0	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+	+	+?	0
3. To sustain and create safe and vibrant Oxfordshire communities	0	0	0	0
4. To support the development of Oxfordshire's knowledge economy	+?/-?	+?/-?	+?/-?	0
5. To maintain high and stable levels of employment across Oxfordshire	-?/+?	+?/-?	+?/-?	0
6. To reduce the need to travel by car in Oxfordshire	+?	0	0	0

[31] This refers to a local financial mechanism designed to allow developers to offset carbon footprints they couldn't achieve on site. By paying into an allowable solution set up by a local authority a developer could meet its mitigation obligations and receive consent. The money is pooled by local authorities and invested into large scale energy efficiency, low carbon and renewable initiatives that maximise carbon reduction. It could potentially be incorporated into a CIL charging schedule too.
[32] The Building (Amendment) Regulations 2017 http://www.legislation.gov.uk/uksi/2017/856/made

SA objectives	Alternatives			
	1	2	3	4
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	+	+?	-
8. To minimise air, noise and light pollution in Oxfordshire	+	+	+?	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	+	+	+?	-
10. To reduce the risk from all sources of flooding in Oxfordshire	+?	+?	+?	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0	0	0
12. To safeguard Oxfordshire's mineral resources	0	0	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+/-?	+/-?	+/-?	-
14. To protect and enhance the significance of Oxfordshire's historic environment	-?	-?	-?	0
15. To protect and enhance Oxfordshire's landscape character and quality	-?	-?	-?	-

4.10 Alternative 1 represents the most ambitious of the three energy efficiency target alternatives; Alternative 4 would not set specific energy efficiency targets and effectively rely on the Building Regulations; and Alternatives 2 and 3 represent the middle ground. Both Alternatives 1 and 2 would include an 'allowable solutions' mechanism for offsetting carbon that could not be reduced on site, while Alternative 3 would include criteria encouraging higher energy standards.

4.11 As the most ambitious alternative, Alternative 1 is likely to generate the most significant effects. The future cost of meeting ambitious energy efficiency targets is unknown, although it is becoming more viable to achieve energy efficiency/zero carbon targets as technology evolves and the market becomes more favourable. However, requiring all strategic development to be zero carbon is likely to add cost to the design and construction of new development. Consequently, minor negative effects are recorded against **SA objectives 1 (housing)** and **5 (employment)** for Alternative 1. The minor negative effect recorded against SA objective 5 (employment) is also coupled with the potential for a minor positive effect in acknowledgement of the fact that a significant increase in energy efficiency standards has the potential to create new local jobs in the county associated with more ambitious design, construction and delivery. However, Oxfordshire aims to expand its low carbon economy through its established vehicles of change: world renowned universities, high-tech economic clusters found at Harwell and Culham, the engineering experience of Motorsport Valley, Oxfordshire's skilled labour force, and a countrywide economic plan focused on innovation and enterprise[33]. The uncertain mixed minor positive and minor negative effects recorded against **SA objective 4 (economy)** are recorded for similar reasons as SA 5 (employment), although the effects are due to the other sectors and drivers influencing the growth of the county's economy. Minor positive effects are expected against **SA objective 6 (travel)** as carbon neutral development is likely to emphasise the use of sustainable modes of transport including active and healthy travel and public transport. This would reduce dependency on the private car. Uncertainty is attached as this would be dependent on location of new developments and integration between different modes of travel. A **significant positive effect** is recorded for Alternative 1 against **SA objective 7 (climate change)** in acknowledgement of the contribution of ambitious energy efficiency targets in reducing the County's contribution to the primary cause of climate change: greenhouse gases. This reduction in carbon emissions is also likely to result in positive effects on air quality and potential positive effects on climate related issues such as flooding; however, given the diverse range of other sources of air pollution and climate change effects these positive

[33] Low Carbon Oxford and the Environmental Change Institute at the University of Oxford *Joining the Crowd: Growing a New Economy for Oxfordshire*

effects are considered to be less significant and are therefore recorded as minor against **SA objectives 2 (health), 8 (pollution)** and **10 (flooding)**.

4.12 A minor positive effect is recorded against **SA objective 9 (water)** in acknowledgement that ambitious energy efficiency targets will have some effect on the design of equivalent water efficiency measures, i.e. energy efficiency measures include reducing water consumption in order to reduce the energy required to pump and heat it.

4.13 The more ambitious the energy efficiency targets, the greater the likelihood that low carbon and renewable energy generation technologies will be required on site or off site elsewhere within the county. The greater the scale and density of such technologies across the county, the greater the potential for adverse effects on the county's sensitive historic and natural environments. Consequently, minor negative effects are recorded against **SA objectives 13 (biodiversity), 14 (historic environment) and 15 (landscape)** for Alternatives 1-3. Some uncertainty is attached to the likelihood and significance of these effects until such time as the location, design and scale of such technologies is known. Minor positive effects have also been identified against **SA objective 13 (biodiversity)** as reducing emissions combats climate change and consequently the impact climate change is likely to have on biodiversity in the long term. Alternative 1 is unlikely to affect the remaining SA objectives **3 (communities), 11 (soils) and 12 (minerals)** due to its focus on a specific planning policy issue (energy efficiency).

4.14 The positive and negative effects on the same SA objectives recorded against Alternative 1 are also likely to be felt under Alternatives 2 and 3 for the reasons described above, although their impact is likely to be proportionately less, as they do not require zero carbon development and will depend on how much higher than the Building Regulations standards for energy efficiency they end up going. Alternative 3 is also expected to have uncertainty attached to each effect as the option sets out criteria encouraging higher energy standards but does not require development to achieve higher energy standards like Alternatives 1 and 2.

4.15 Alternative 4 represents a 'no energy efficiency target' alternative. In the absence of an Oxfordshire-wide energy efficiency target for all strategic developments, developers will be required to meet the minimum requirements set out in the national Building Regulations. Consequently, under this scenario, the Oxfordshire Plan 2050 would have a negligible effect on many SA objectives. However, by allowing continued climate change (albeit at a slower rate than at present), it would have a negative effect on **SA objectives 7 (climate change), 8 and 9 (air and water quality),13 (biodiversity)** and **15 (landscape)**.

Renewable energy targets

4.16 **Table 4.4** presents the findings of the SA of the four renewable energy targets policy alternatives:

1. 100% of the County's new strategic development sites' energy needs generated from renewable sources by 2050[34].
2. 50% of the County's new strategic development sites' energy needs generated from renewable sources by 2050.
3. Set out criteria encouraging the siting of renewable energy technologies.
4. Do not set county-wide renewable energy targets.

Table 4.4: Renewable energy targets alternatives SA findings

SA objectives	Alternatives			
	1	2	3	4
1. To meet Oxfordshire's housing needs	-	-	-	-
2. To improve the health and wellbeing of Oxfordshire's population	+	+	+?	-
3. To sustain and create safe and vibrant Oxfordshire communities	0	0	0	0
4. To support the development of Oxfordshire's knowledge economy	++/-?	+?/-?	+?/-?	0

[34] As an example, this would involve very roughly 5-10km2 solar arrays in association with existing infrastructure (closed landfill sites, Abingdon reservoir), plus 15km2 of 'greenfield' solar arrays, plus PVs on homes, plus ground-source heat pumps and biomass/district heating.

SA objectives	Alternatives			
	1	2	3	4
5. To maintain high and stable levels of employment across Oxfordshire	-?/++?	+?/-?	+?/-?	0
6. To reduce the need to travel by car in Oxfordshire	0	0	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	+	+?	-
8. To minimise air, noise and light pollution in Oxfordshire	+	+	+?	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	+?	+?	+?	-
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0	0	0
12. To safeguard Oxfordshire's mineral resources	0	0	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+/-?	+/-?	+?/-?	-
14. To protect and enhance the significance of Oxfordshire's historic environment	-?	-?	-?	0
15. To protect and enhance Oxfordshire's landscape character and quality	-?	-?	-?	0

4.17 Alternative 1 represents the most ambitious of the three renewable energy target alternatives, requiring 100% renewables energy generation (i.e. 'zero carbon') for all new strategic development sites. Alternatives 2 and 3 represent the middle ground in between Alternatives 1 and 4. Alternative 2 aims for 50% renewables for new strategic development sites and Alternative 3 encourages renewable energy through setting out criteria. Alternative 4 would not set specific renewable energy targets in the Oxfordshire Plan; however, the minimum national requirements set out under the Renewable Energy Directive 2018/2001/EU would still need to be met.

4.18 As the most ambitious alternative, requiring the most renewable energy infrastructure and development, Alternative 1 is likely to generate the most significant effects. As aiming to reach 100% renewables, 'zero carbon,' for all new strategic development sites could add costs to the design and construction of new development, but is becoming more viable to achieve as technology evolves and the market becomes more favourable, the potential to effectively deliver new homes and business premises across the County utilising renewable energy is possible. Consequently, the effect of the costs associated with such technologies on the deliverability of homes and employment land are recorded as only minor negative in the short term against **SA objectives 1 (housing)** and **5 (employment)** for Alternative 1. The minor negative effect recorded against **SA objective 4 (economy)** is for similar reasons. Conversely, **significant positive effects** are recorded against SA objectives 4 (economy) and 5 (employment) in acknowledgement of the fact that a significant increase in the construction of renewable energy has the potential to generate significant growth in the local economy associated with more ambitious design, construction and delivery. In addition, there is potential for driving forward innovation in relevant sectors that exist in Oxfordshire, with opportunities to test and scale up technology within new developments. The cost of meeting ambitious renewable energy targets in the future is unknown. However, there is potential for higher renewable energy targets to be expensive in the short term, but successful and sustainable in the medium to long term as technology evolves.

4.19 **A significant positive effect** is recorded against **SA objectives 7 (climate change)** in acknowledgement of the contribution of renewable energy targets in reducing the County's new strategic development sites' contribution to the primary cause of climate change: greenhouse gases. This reduction in carbon emissions is also likely to result in an improvement to air

quality and climate related issues such as flooding in the County; however, given the diverse range of other sources of air pollution and climate change effects these positive effects are considered to be less significant and are therefore recorded as minor against **SA objectives 2 (health), 8 (pollution)** and **10 (flooding)**.

4.20 The more ambitious the renewable energy targets for all new strategic development sites, the greater the likelihood that low carbon and renewable energy generation technologies will be required on site or off site elsewhere within the County. The greater the scale and density of such technologies across the county, the greater the potential for adverse effects on the County's sensitive historic and natural environments. Consequently, minor negative effects are recorded against **SA objectives 13 (biodiversity), 14 (historic environment)** and **15 (landscape)**. Minor positive effects have also been identified against **SA objective 13 (biodiversity)** as reducing emissions from energy combats climate change and consequently provides positive effects for biodiversity as the two are interconnected. Some uncertainty is attached to the likelihood and significance of these effects until such time as the location, design and scale of renewable energy technologies is known.

4.21 Alternative 1 is unlikely to affect the remaining SA objectives **3 (communities), 6 (travel), 9 (water), 11 (soils) and 12 (minerals)** due to its focus on renewable energy.

4.22 The positive and negative effects on the same SA objectives recorded against Alternative 1 are also likely to be felt under Alternatives 2 and 3 for the reasons described above, although they are only likely to be minor, given Alternative 2 would result in a 50% renewable energy target rather than 100% for all new strategic development sites. Alternative 3 would also result in minor effects, but these would be uncertain as the option sets out criteria encouraging renewable energy instead of a specific target like Alternatives 1 and 2.

4.23 Alternative 4 represents a 'no county-wide renewable energy target' alternative. In the absence of an Oxfordshire-wide renewable energy target, new development will be encouraged to contribute to national renewable energy targets. Consequently, under this scenario, the Oxfordshire Plan 2050 has the potential to generate minor negative effects on **SA objectives 2 (health), 7 (climate change), 8 (pollution), 10 (flooding)** and **13 (biodiversity)**. These negative effects are recorded in acknowledgement that a lack of county-wide action would result in the need for more energy to be generated from the burning of fossil fuels resulting in more pollution and a greater likelihood for health impacts associated with air pollution and adverse effects associated with climate change. These effects are recorded as minor in acknowledgement of the fact that other mitigation and adaptation measures are likely to be delivered.

Promote local low carbon energy networks

4.24 **Table 4.5** presents the findings of the SA of the three alternatives for promotion of local low carbon energy networks:

1. Identify strategic development locations with potential for local low carbon energy networks (e.g. heat from power, co-location of homes and heat/energy producing employment sites).
2. Set out criteria encouraging the siting of local low carbon energy networks.
3. Do not identify locations or set criteria for local low carbon energy networks.

Table 4.5: Promote local low carbon energy networks alternatives SA findings

SA objectives	Alternatives		
	1	2	3
1. To meet Oxfordshire's housing needs	-?	-?	0
2. To improve the health and wellbeing of Oxfordshire's population	+	+?	0
3. To sustain and create safe and vibrant Oxfordshire communities	+	0	0
4. To support the development of Oxfordshire's knowledge economy	++/-?	+?/-?	0
5. To maintain high and stable levels of employment across Oxfordshire	++?/-?	+?/-?	0
6. To reduce the need to travel by car in Oxfordshire	0	0	0

SA objectives	Alternatives		
	1	2	3
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	+?	-
8. To minimise air, noise and light pollution in Oxfordshire	+	+	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	+?	+?	0
10. To reduce the risk from all sources of flooding in Oxfordshire	+?	+?	-
11. To protect Oxfordshire's soils and ensure efficient use of land	+?	+?	0
12. To safeguard Oxfordshire's mineral resources	+?	+?	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+?	+?	0
14. To protect and enhance the significance of Oxfordshire's historic environment	+/-?	+/-?	0
15. To protect and enhance Oxfordshire's landscape character and quality	+?	+?	0

4.25 Alternative 1 represents the most ambitious of the three alternatives as it aims to identify strategic development locations with potential for local energy networks (e.g. heat from power, co-location of homes and heat/energy producing employment sites) and identify mechanisms for implementing them. Alternative 2 represents the middle ground between Alternatives 1 and 3, setting out criteria encouraging the siting of local energy networks and identifying mechanisms for implementing them. Under Alternative 3, the Oxfordshire Plan would not contribute to delivering local low carbon energy networks.

4.26 Alternative 1 is likely to have **significant positive effects** in relation to **SA objective 7 (climate change)** as the identification of specific locations for investment and delivery of low carbon energy networks is most likely to result in delivery of significant reductions in carbon emissions.

4.27 Transitioning to a low carbon energy network could add costs to the design and construction of new development, but is becoming more viable to achieve as technology evolves and the market becomes more favourable. Therefore, the potential to effectively deliver new homes and business premises across the County utilising renewable energy is possible. Consequently, the effect of the costs associated with such technologies on the deliverability of homes and employment land are recorded as only minor negative in the short term against **SA objectives 1 (housing), 4 (economy)** and **5 (employment)** for Alternative 1. A **significant positive effect** is also recorded against SA objectives 4 (economy) and 5 (employment) for Alternative 1 in acknowledgement of the fact that a significant increase in the construction of low carbon energy networks has the potential to generate significant growth in the local economy associated with more ambitious design, construction and delivery. The future cost of meeting ambitious low carbon targets in the future is unknown, therefore there is some uncertainty associated with their effect on deliverability. However, a low carbon energy transition has the potential to be expensive in the short term, but successful and sustainable in the medium to long term as technology evolves.

4.28 A reduction in carbon emissions associated with the creation of local low carbon energy networks under Alternative 1 is also likely to result in a marked improvement to air quality and climate related issues such as flooding in the County; however, given the diverse range of other sources of air pollution and climate change effects these positive effects are considered to be less significant and are therefore recorded as minor against **SA objectives 2 (health), 8 (pollution)** and **10 (flooding)**. In addition, when identifying and implementing mechanisms there is opportunity for encouraging and facilitating community based low carbon energy projects which have the potential to promote climate change resilience and build community cohesion and engagement thereby having a minor positive effect on **SA objective 3 (communities)**.

4.29 The more ambitious the local low carbon energy network target the greater the likelihood that low carbon energy generation technologies will be required on site or off site elsewhere within the County. The greater the scale and density of

such technologies across the county the greater the potential for adverse effects on the County's sensitive historic and natural environments. Consequently, minor negative effects are recorded against **SA objective 14 (historic environment).** Some uncertainty is attached to the likelihood and significance of these effects until such time as the location, design and scale of such technologies is known, which is also true for **SA objectives 13 (biodiversity)** and **15 (landscape)**. Minor positive effects have also been identified against **SA objective 13 (biodiversity)** as reducing emissions from energy combats climate change and consequently provides positive effects for biodiversity as the two are interconnected. In addition, identification of location and criteria for new low carbon energy sites is likely to steer development away from sensitive locations including the nature recovery network. These effects are also expected against **SA objectives 9 (water), 11 (soils), 12 (minerals), 14 (historic environment)** and **15 (landscape)** as criteria have the potential to steer development away from sensitive receptors such as mineral safeguarding areas and sensitive areas such as chalk streams and other watercourses. It is also likely that mitigation and enhancements measures associated with these environmental issues will be required, but this is uncertain at this stage.

4.30 Alternative 1 is unlikely to affect the **SA objective 6 (travel)** by virtue of its focus on promoting the delivery of sites for local energy networks.

4.31 The positive and negative effects recorded against the same SA objectives for Alternative 1 are also likely to be felt under Alternative 2 for the reasons described above, although their significance is likely to be proportionately less, depending on the stringency of the criteria for delivering the local low carbon energy network . Effects are also uncertain due to Alternative 2 relying on criteria to help delivery rather than identifying specific locations for local low carbon energy networks.

4.32 Alternative 3 represents a 'no low carbon energy network' alternative. In the absence of an Oxfordshire-wide approach to identifying locations or setting criteria for the development of local low carbon energy networks, it will be left for the Local Plans to determine individual approaches which may differ across the County. Under this alternative, the Oxfordshire Plan 2050 would have a negligible effect on the majority of SA objectives, with the exception of **SA objectives 7 (climate change)** and **10 (flooding)** where a lack of local action is likely to result in more adverse effects in the longer term. The NPPF states that plans should 'identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems'[35]. Therefore, adherence to national policy would contribute to climate change adaptation, and under this alternative, the Oxfordshire Plan would have negligible or no effect.

Promote strategic renewable wind and solar developments

4.33 **Table 4.6** presents the findings of the SA of the three alternatives for promotion of strategic renewable wind and solar development:

1. Identify strategic development locations with potential for strategic wind and/or solar farms.
2. Set out criteria encouraging the siting of strategic wind and solar farms.
3. Do not identify locations or set criteria for strategic renewable wind/solar development.

Table 4.6: Promote strategic renewable wind and solar developments alternatives SA findings

SA objectives	Alternatives		
	1	2	3
1. To meet Oxfordshire's housing needs	0	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+	+?	-
3. To sustain and create safe and vibrant Oxfordshire communities	+?	+?	0
4. To support the development of Oxfordshire's knowledge economy	++	+?	0
5. To maintain high and stable levels of employment across Oxfordshire	++	+?	0

[35] MHCLG (2019) *National Planning Policy Framework* *https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf*

SA objectives	Alternatives		
	1	2	3
6. To reduce the need to travel by car in Oxfordshire	0	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++?	+?	-
8. To minimise air, noise and light pollution in Oxfordshire	+	+?	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	+?	+?	0
10. To reduce the risk from all sources of flooding in Oxfordshire	+?	+?	-
11. To protect Oxfordshire's soils and ensure efficient use of land	+?	+?	0
12. To safeguard Oxfordshire's mineral resources	+?	+?	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	-/+	-?/+?	0
14. To protect and enhance the significance of Oxfordshire's historic environment	+/-?	+/-?	0
15. To protect and enhance Oxfordshire's landscape character and quality	+/--?	+/--?	0

4.34 Alternative 1 represents the most ambitious of the three alternatives regarding promotion of strategic renewable wind and solar development, by identifying strategic development locations in the County with potential for strategic wind and solar farms and identifying mechanisms for implementing them. Alternative 2 represents the middle ground in between Alternatives 1 and 3, by setting out criteria encouraging the siting of strategic wind and solar farms and to identify mechanisms for implementing them. Under Alternative 3, the Oxfordshire Plan would not contribute to delivering strategic renewable wind and solar energy developments.

4.35 As the most ambitious alternative, Alternative 1 is likely to generate the most significant effects. Identifying strategic development locations with potential for strategic wind and solar farms could have a **significant positive effect** in relation to **SA objectives 4 (economy)** and **5 (employment)** in acknowledgement of the fact that a significant increase in the construction of and maintenance of wind and solar energy has the potential to create new jobs in the county associated with more construction, delivery and maintenance. In addition, as Oxfordshire aims to expand its low carbon economy,[36] there is potential for additional investment and development into the solar and wind energy industry to attract and retain global talent and develop skills locally.

4.36 A significant positive effect is recorded against **SA objective 7 (climate change)** for Alternative 1 in acknowledgement of the contribution of solar and wind farm developments in reducing the County's contribution to the primary cause of climate change – greenhouse gases. This reduction in carbon emissions is also likely to result in a marked improvement to air quality and climate related issues such as flooding in the County; however, given the diverse range of other sources of air pollution and climate change effects these positive effects are considered to be less significant and are therefore recorded as minor against **SA objectives 2 (health)**, **8 (pollution)** and **10 (flooding)**. Alternative 1 could also have a minor positive effect on **SA objective 3 (communities)** as it has the potential to lead to community energy schemes, however there is some uncertainty attached to the likelihood and significance of these effects until such time as the location, design and scale of such initiatives is known.

4.37 By identifying locations for strategic solar and wind developments, Alternative 1 could result in a greater scale and density of such technologies across the County in particular the open countryside e.g. the Cotswolds and higher areas, and therefore more potential for adverse effects on the County's sensitive historic and natural environments. Consequently, potential

[36] Low Carbon Oxford and the Environmental Change Institute at the University of Oxford *Joining the Crowd: Growing a New Economy for Oxfordshire*

significant negative effects are recorded against **SA objective 15 (landscape)**, and minor negative impacts are recorded against **SA objective 14 (historic environment).** Some uncertainty is attached to the likelihood and significance of these effects until such time as the location, design and scale of such technologies is known. Minor positive effects are also identified as identification of location and criteria also has the potential to steer development away from sensitive locations including heritage assets and locally important landscape features. Minor positive effects are also expected against SA objectives **9 (water), 11 (soils)** and **12 (mineral)** for similar reasons. Uncertainty is attached to these effects as criteria has yet to be established.

4.38 Alternative 1's impacts on **SA objective 13 (biodiversity)** are likely to be mixed minor positive and negative. By helping to prevent climate change, the alternative would indirectly benefit biodiversity. In addition, as solar parks use a large amount of land the remainder of the land can be utilised for plant growth, wildlife enhancement and conservation grazing. However, wind farms could have potential negative effects in terms of bird and bat strike, and large solar arrays, although compatible with some biodiverse habitats take up land that could be used for more effective nature conservation measures. Alternative 1 is unlikely to affect the remaining SA objectives **SA objectives 1 (housing)** and **6 (travel)** by virtue of its focus on promoting strategic renewable wind and solar development.

4.39 The positive and negative effects recorded against Alternative 1 are also likely to be felt under Alternative 2 for the same reasons, although their significance is likely to be proportionately less, due to Alternative 2 promoting a criteria-based approach. Effects are also uncertain due to Alternative 2 relying on criteria to help delivery rather than identifying specific locations for strategic renewable wind and solar development.

4.40 Alternative 3 represents a 'no identification of strategic renewable development' alternative. In the absence of an Oxfordshire-wide approach to identifying locations or setting criteria for the development of strategic renewable energy development, it will be left for the Local Plans to determine individual approaches which may differ across the County. Under this alternative, the Oxfordshire Plan 2050 has the potential to generate minor negative effects on **SA objectives 2 (health), 7 (climate change)** and **8 (pollution)**. These negative effects are recorded in acknowledgement that a lack of county-wide action would result in the need for more energy to be generated from the burning of fossil fuels resulting in more pollution and a greater likelihood for health impacts associated with air pollution and adverse effects associated with climate change. These effects are recorded as minor in acknowledgement of the fact that other mitigation and adaptation measures are likely to be delivered.

Promote low/zero carbon transport networks

4.41 **Table 4.7** presents the findings of the SA of the three alternatives for the promotion of low/zero carbon transport networks:

1. Identify strategic development locations and linkages for investment in strategic zero/low carbon transport networks, such as zero emission/electric vehicle zones, low emission zones, solar roads and electric car hubs.
2. Encourage the development of strategic low/zero carbon transport networks.
3. Do not encourage or identify strategic locations for low/zero carbon transport networks.

Table 4.7: Promote low/zero carbon transport networks alternatives SA findings

SA objectives	Alternatives		
	1	2	3
1. To meet Oxfordshire's housing needs	0	0	0
2. To improve the health and wellbeing of Oxfordshire's population	++	+?	-
3. To sustain and create safe and vibrant Oxfordshire communities	+	+?	-
4. To support the development of Oxfordshire's knowledge economy	++	+?	0
5. To maintain high and stable levels of employment across Oxfordshire	++	+?	0
6. To reduce the need to travel by car in Oxfordshire	++	+?	-

SA objectives	Alternatives		
	1	2	3
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	+?	-
8. To minimise air, noise and light pollution in Oxfordshire	++	+?	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	+	+?	-
10. To reduce the risk from all sources of flooding in Oxfordshire	+?	+?	0
11. To protect Oxfordshire's soils and ensure efficient use of land	+?	+?	0
12. To safeguard Oxfordshire's mineral resources	+?	+?	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+	+?	-
14. To protect and enhance the significance of Oxfordshire's historic environment	+?	+?	0
15. To protect and enhance Oxfordshire's landscape character and quality	+?	+?	0

4.42 Alternative 1 represents the most ambitious of the alternatives for promotion of low/zero carbon transport networks. Alternative 2 represents the middle ground between Alternatives 1 and 3, by setting out criteria encouraging the siting of strategic low/zero carbon transport networks respectively. Under Alternative 3, the Oxfordshire Plan would not contribute to delivering zero or low carbon transport networks.

4.43 Alternative 1 is likely to have a **significant positive effect** in relation to **SA objectives 2 (health), 6 (travel), 7 (climate change)** and **8 (pollution)** as the promotion of zero carbon transport networks through identification of strategic locations and linkages is likely to deliver more sustainable transport by providing new cycling and walking infrastructure, which has positive implications for health and wellbeing. In addition, a zero carbon transport network has the potential to significantly reduce greenhouse gas emissions from transport which will help to minimise Oxfordshire's contribution to climate change and reduce the amount of air pollution within the County.

4.44 **Significant positive effects** are also likely under Alternative 1 in relation to **SA objectives 4 (economy)** and **5 (employment)** in acknowledgement of the fact that an increase in the construction and maintenance of new zero carbon transport infrastructure has the potential to create new jobs in the county. In addition, as Oxfordshire aims to expand its low carbon economy,[37] there is potential for additional investment and development into the zero carbon transport industry to attract and retain global talent.

4.45 Minor positive effects are likely in relation to **SA objective 3 (communities)** as Alternative 1 has the potential to provide a zero-carbon transport network in strategic development locations and linkages which could fully support new development within communities through providing additional opportunities for social interaction and supporting healthy place shaping principles.

4.46 Minor positive effects are also likely in relation to **SA objectives 9 (water)**, **10 (flooding)** and **13 (biodiversity)** as the reduction in greenhouse gas emitting vehicles has the potential to significantly reduce pollution in general and climate change effects, such as flooding. Alternative 1 is unlikely to affect the remaining SA objectives by virtue of its focus on promoting zero carbon transport networks.

4.47 Minor positive effects are also identified against **SA objectives 11 (soils), 12 (minerals), 14 (heritage)** and **15 (landscape)** as identification of location and criteria is likely to steer development away from sensitive locations including

[37] Low Carbon Oxford and the Environmental Change Institute at the University of Oxford *Joining the Crowd: Growing a New Economy for Oxfordshire*

mineral safeguarding areas, heritage assets and locally important landscape features. However, uncertainty is attached until the criteria are developed and more is understood about what they seek to achieve.

4.48 The positive effects recorded against Alternative 1 are also likely to be felt for the same SA objectives under Alternative 2. However, these are likely to be at a smaller scale and with greater uncertainty, due to Alternative 2's reliance on criteria to help delivery rather than identifying specific locations and linkages for low carbon transport infrastructure.

4.49 Alternative 3 represents a 'no identification of locations or criteria for either low or zero carbon transport networks' alternative. In the absence of an Oxfordshire-wide approach to identifying locations or setting criteria for low/zero carbon transport networks, it will be left for the local authorities and national government to determine approaches, which may differ across the County. Under this alternative, the Oxfordshire Plan 2050 has the potential to generate minor negative effects on **SA objectives 2 (health), 3 (communities), 6 (travel), 7 (climate change), 8 (pollution), 9 (water)** and **13 (biodiversity)**. These negative effects are recorded in acknowledgement that a lack of county-wide action would result in either 'business as usual' or an increase in petrol/diesel vehicles resulting in more pollution, and a greater likelihood of health impacts associated with air pollution and climate change. These effects are recorded as minor in acknowledgement of the fact that other mitigation and adaptation measures are likely to be delivered.

Promote climate change resilience and adaptation

4.50 **Table 4.8** presents the findings of the SA of the four alternatives for strategic scale promotion of climate change resilience and adaptation alternatives:

1. Identify strategic opportunities for upstream flood mitigation/storage areas (see also 'Promote/enhance biodiversity at the strategic scale').
2. Identify strategic opportunities for urban greening.
3. Identify strategic opportunities for large-scale tree planting.
4. Do not identify strategic opportunities to promote climate change resilience and adaptation in Oxfordshire.

Table 4.8: Promote climate change resilience and adaptation alternatives SA findings

SA objectives	Alternatives			
	1	2	3	4
1. To meet Oxfordshire's housing needs	0	0	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+	++	++	-
3. To sustain and create safe and vibrant Oxfordshire communities	+	++	++	-
4. To support the development of Oxfordshire's knowledge economy	0	+	0	0
5. To maintain high and stable levels of employment across Oxfordshire	+	+	+	0
6. To reduce the need to travel by car in Oxfordshire	0	0	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	++	++	-
8. To minimise air, noise and light pollution in Oxfordshire	+?	++	++	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	++?	+	+	-
10. To reduce the risk from all sources of flooding in Oxfordshire	++	0	++	-

SA objectives	Alternatives			
	1	2	3	4
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0	+	0
12. To safeguard Oxfordshire's mineral resources	0	0	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	++?	++	++	-
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	+?	+	+/-?	0

4.51 Alternative 1 aims to identify strategic opportunities for upstream flood mitigation/storage areas and identify mechanisms for implementing them. Alternative 2 aims to do the same but for trees, green walls, green roofs etc. in urban settings ('urban greening'), to promote urban cooling. Alternative 3 aims to identify strategic opportunities for large scale tree planting to promote flood mitigation, biodiversity resilience and cooling and identify mechanisms for implementing them. Under Alternative 4, the Oxfordshire Plan would not contribute to delivering strategic opportunities to adapt Oxfordshire to the effects of climate change.

4.52 Alternative 1 is likely to have **significant positive effects** on **SA objectives 7 (climate change), 9 (water)**, **10 (flooding)** and **13 (biodiversity)**. This is due to the alternative's aim of identifying strategic opportunities for upstream flood mitigation/storage areas and to identify mechanisms for implementing them. The implementation of upstream flood mitigation promotes the use of natural flood management techniques. In addition, by implementing natural flood management techniques, it will ensure that the ecological integrity of waterbodies and local biodiversity is preserved. The use of upstream flood mitigation will also build climate resilience and promote more sustainable flood mitigation solutions. However, there is some uncertainty in relation to SA objectives 9 (water) and 13 (biodiversity), as some mitigation measures present the possibility of adverse effects.

4.53 Minor positive effects are likely for Alternative 1 in relation to **SA objectives 2 (health), 3 (communities)** and **5 (employment)** as building resilience to flooding has the potential to benefit the health and safety of local communities. In addition, the implementation of upstream flood mitigation could provide additional jobs and could protect business premises and operations from being negatively affected by flooding.

4.54 Alternative 2 is likely to have **significant positive effects** on **SA objectives 2 (health), 3 (communities)** and **7 (climate change)**. This is due to the alternative's aim of identifying strategic opportunities for urban greening and to identify mechanisms for implementing them. The implementation of urban greening promotes urban cooling which is necessary to combat the urban heat island effect. This occurs due to absorption and storage of heat within the land surfaces in towns and cities made of materials like tarmac and stone, that coupled with concentrated energy use and less ventilation than in rural areas, creates a heating effect[38]. With an estimated increase in population in Oxfordshire, the urban heat island effect becomes an increasing stressor on the towns and cities, especially the health of the local communities and its impacts on climate change by offsetting some of the County's carbon emissions. Urban greening helps to reduce this by providing shade. If the new greenspace was publicly accessible, it could then provide much needed green space; an assessment of available green spaces within Oxfordshire against Natural England's Accessible Natural Greenspace Standards (ANGSt) concluded that most households in the County did not meet accessibility levels for strategic sites[39]. Additionally, reports have shown that apartment buildings with high levels of greenery had 52% fewer crimes than those without any trees. Residents living in greener surroundings report lower levels of fear, fewer incivilities, and less violent behaviour, because greenery promotes a greater sense of community and alleviates mental fatigue, a precursor to violent behaviour[40].

[38] Met Office (2012) *Urban Heat Islands* https://www.metoffice.gov.uk/binaries/content/assets/mohippo/pdf/8/m/mo_pup_insert_health.web.pdf
[39] AECOM (2017) *Oxfordshire Infrastructure Strategy* https://www.oxfordshiregrowthboard.org/wp-content/uploads/2018/04/oxis_stage2.pdf
[40] Friends of the Urban Forest (2019) *Benefits of Urban Greening*

4.55 Significant positive effects are also likely for Alternative 2 in relation to **SA objectives 8 (pollution)** and **13 (biodiversity)**. Urban greening has the potential to help absorb air pollution caused by vehicles and provide a buffer for noise pollution. Additionally, urban greening has the potential to provide additional habitats enhancing biodiversity.

4.56 Minor positive effects are likely for Alternative 2 in relation to **SA objectives 4 (economy)** and **5 (employment)** as urban greening has the potential to increase the liveability and aesthetic of commercial areas, encouraging commerce, as well as improving productivity through the cooling of an area. Urban greening has the potential to provide additional jobs in the implementation and maintenance stages. Minor positive effects can also be expected for **SA objectives 9 (water)** and **15 (landscape)** as urban greening can help to retain water and reduce runoff, and help to make urban areas more attractive to those living, working and visiting the area.

4.57 Alternative 3 is likely to have **significant positive effects** on **SA objectives 2 (health), 3 (communities)** and **7 (climate change)**. This is due to the alternative's aim to identify strategic opportunities for large scale tree planting to promote flood mitigation, biodiversity resilience and cooling and identify mechanism for implementing them. Large scale tree planting promotes cooling and significant reductions in carbon dioxide, which is essential to improve the health of the local communities and climate change impacts by offsetting some of the County's carbon emissions. Tree planting has the potential to provide much needed green space and help to reduce urban crime.

4.58 Significant positive effects are also likely in relation to **SA objectives 8 (pollution), 10 (flooding)** and **13 (biodiversity)** as tree planting has the potential to help absorb air pollution caused by vehicles and provide a buffer for noise pollution. Additionally, strategic tree planting has significant potential to promote flood mitigation and provide additional habitats for the local biodiversity, thereby building resilience.

4.59 Alternative 3 is likely to have minor positive effects in relation to **SA objectives 5 (employment)** and **9 (water)** as tree planting consists of landscaping and forestry projects which have the potential to provide additional jobs in the implementation and maintenance stages and strategic tree planting has the ability to recycle significant amounts of water thereby improving water quality. In addition, the strategic planting of trees has the potential to maintain soil stability and could enhance Oxfordshire's landscape character and quality and create additional special views into and out of Oxford which could have minor positive effects on **SA objectives 11 (soils)** and **15 (landscape)**. However, there is also some uncertainty and minor negative effects for SA objective 15 (landscape) as large tree planting schemes could harm the local landscape if not properly planned.

4.60 Alternatives 1, 2 and 3 are likely to generate negligible effects against the remaining SA objectives **1 (housing), 6 (travel), 12 (minerals)** and **14 (historic environment)** by virtue of their focus on building resilience to climate change.

4.61 Alternative 4 represents a 'no promotion of climate change resilience and adaptation' alternative. In the absence of Oxfordshire-wide promotion of flood mitigation/storage, urban greening, large-scale tree planting or water efficiency the County's communities and environment are likely to feel the adverse effects of climate change more often and intensely. Consequently, negative effects have been recorded against **SA objectives 2 (health), 3, (communities), 7 (climate change), 8 (pollution), 9 (water), 10 (flooding)** and **13 (biodiversity)**. These effects are recorded as minor in acknowledgement of the fact that other mitigation and adaptation measures are likely to be delivered.

Water Efficiency Standards

4.62 Table 4.9 presents the findings of the SA of the four alternatives for water efficiency standards:

1. Require all strategic development to be water neutral[41].
2. Require all strategic development to meet higher water efficiency standards than Building Regulations.
3. Set out criteria encouraging higher water efficiency standards than Building Regulations.
4. Do not set water efficiency targets that are higher than Building Regulations

[41] Water neutrality is: "For every new development, total water use in the region after the development must be equal to or less than total water use in the region before the development." Therivel, Riki, Christine Drury, and Ian Hepburn, comps. (Achieving Water Neutrality in the South East Region Discussion Paper. Oct. 2006).

Table 4.9: Water efficiency standards SA findings

SA objectives	Alternatives			
	1	2	3	4
1. To meet Oxfordshire's housing needs	-?	0	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+	+	+?	0
3. To sustain and create safe and vibrant Oxfordshire communities	0	0	0	0
4. To support the development of Oxfordshire's knowledge economy	+?/-?	+?/-?	+?/-?	0
5. To maintain high and stable levels of employment across Oxfordshire	+?/-?	+?/-?	+?/-?	0
6. To reduce the need to travel by car in Oxfordshire	0	0	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	+	+?	-
8. To minimise air, noise and light pollution in Oxfordshire	+	+	+?	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	++	+	+?	-
10. To reduce the risk from all sources of flooding in Oxfordshire	+?	+?	+?	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0	0	0
12. To safeguard Oxfordshire's mineral resources	0	0	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	++	+	+	-
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	+	+	+	-

4.63 Alternative 1 represents the most ambitious of the four water efficiency target alternatives as it requires all new strategic development to be 'water neutral'. Alternative 4 would not set specific water efficiency targets and effectively rely on the Building Regulations. Alternatives 2 and 3 represent the middle ground, as they both seek to achieve higher water standards than Building Regulations, but Alternative 2 would require this, while Alternative 3 would only include criteria encouraging higher water standards.

4.64 As the most ambitious alternative, Alternative 1 is likely to generate the most significant effects. A **significant positive effect** is recorded for Alternative 1 against **SA objective 7 (climate change)** in acknowledgement of the contribution of ambitious water efficiency targets in reducing the County's risk of drought which is exacerbated by climate change. A **significant positive effect** is recorded against **SA objective 9 (water)** in acknowledgement of the fact that ambitious water efficiency targets will help to achieve sustainable water resource management, reduce the risk of drought and combat climate change. A significant positive effect is also recorded for **SA objective 13 (biodiversity)** in acknowledgement of how a significant reduction in water abstraction will minimise the County's impact on protected habitats and species dependent on good quality wetland and littoral areas which can be sensitive to local changes in water availability. The introduction of water efficiency targets is also likely to result in a marked reduction in carbon emissions, as it takes energy to pump and heat water, and improvement to climate related issues such as flooding; however, given the diverse range of other sources of air pollution

and climate change effects these positive effects are considered to be less significant and are therefore recorded as minor against **SA objectives 2 (health)**, **8 (pollution)** and **10 (flooding)**.

4.65 Minor positive effects are also expected against **SA objectives 13 (biodiversity)** and **15 (landscape)** as ambitious water efficiency targets can help to conserve biodiversity especially aquatic wildlife and becoming water neutral combats climate change and consequently the impact climate change is likely to have on biodiversity and local landscape in the long term.

4.66 The future cost of meeting ambitious water efficiency targets is unknown, although it is becoming more viable to achieve water efficiency/water neutral targets as technology evolves and the market becomes more favourable. However, requiring all strategic development to be water neutral is likely to add cost to the design and construction of new development. Consequently, minor negative effects are recorded against **SA objectives 1 (housing)** and **5 (employment)** for Alternative 1. The minor negative effect recorded against **SA objective 5 (employment)** is also coupled with the potential for a minor positive effect in acknowledgement of the fact that a significant increase in water efficiency standards has the potential to create new local jobs in the county associated with more ambitious design, construction and delivery. The uncertain mixed minor positive and minor negative effects recorded against **SA objective 4 (economy)** are recorded for similar reasons as **SA 5 (employment)**, although these effects are due to the fact other sectors and drivers influencing the growth of the county's economy.

4.67 Alternative 1 is unlikely to affect the remaining **SA objectives 3 (communities)**, **11 (soils)**, **12 (minerals)** and **14 (historic environment)** due to its focus on a specific planning policy issue (water efficiency).

4.68 The positive and negative effects on the same SA objectives recorded against Alternative 1 are also likely to be felt under Alternatives 2 and 3 for the reasons described above, although their significance is likely to be proportionately less, as they do not require water neutral development and will depend on how much higher than the Building Regulations standards for water efficiency they end up going. Alternative 3 is also expected to have uncertainty attached to each effect as the option sets out criteria encouraging higher water standards but does not require development to achieve higher water standards like Alternatives 1 and 2.

4.69 Alternative 4 represents a 'no water efficiency target' alternative. In the absence of an Oxfordshire-wide water efficiency target for all strategic developments, developers will be required to meet the minimum requirements set out in the national Building Regulations. Consequently, under this scenario, the Oxfordshire Plan 2050 would have a negligible effect on many SA objectives. However, by allowing continued climate change (albeit at a slower rate than at present), it would have a negative effect on **SA objectives 7 (climate change)**, **8** and **9 (air and water quality)**,**13 (biodiversity)** and **15 (landscape)**.

Sustainable construction and design

4.70 **Table 4.10** presents the findings of the SA of the three alternatives for promotion of sustainable construction and design:

1. Prescribe county-wide principles/standards to encourage the sustainable design and construction of all buildings, including orientation, insulation etc., possibly in line with established Code for Sustainable Homes/Home Quality Mark and BREEAM standards.
2. Prescribe county-wide principles/standards for masterplanning of strategic scale developments, including availability and timing of public transport links, healthy place-making principles, community services, green infrastructure etc.
3. Do not identify county-wide principles/standards.

   Note that Alternatives 1 and 2 could both be chosen, since the former relates to individual buildings and the latter relates to strategic scale developments. Alternative 3 could relate to buildings and/or strategic scale developments

Table 4.10: Promote sustainable construction and design alternatives SA findings

SA objectives	Alternatives		
	1	2	3
1. To meet Oxfordshire's housing needs	-?	-?	-?
2. To improve the health and wellbeing of Oxfordshire's population	+	++	+?

SA objectives	Alternatives		
	1	2	3
3. To sustain and create safe and vibrant Oxfordshire communities	+?	++	+?
4. To support the development of Oxfordshire's knowledge economy	+/-?	+/-?	+?
5. To maintain high and stable levels of employment across Oxfordshire	+/-?	+/-?	+?
6. To reduce the need to travel by car in Oxfordshire	+	++	+?
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	+	+?
8. To minimise air, noise and light pollution in Oxfordshire	+	+	+?
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	+	+	+?
10. To reduce the risk from all sources of flooding in Oxfordshire	+	+	+?
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0	+?
12. To safeguard Oxfordshire's mineral resources	+?	0	0?
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+?	++	+?
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	+	+	+?

4.71 Alternative 1 is likely to have **significant positive effects** on **SA objective 7 (climate change)** as it would set criteria on building orientation, insulation etc., which affect energy consumption. Alternative 1 could also help to build resilience for adaptation to climate change. It is likely to have minor positive effects on most of the other SA objectives: reduced energy consumption would contribute to improved air quality **(SA objective 8)**; the criteria could include requirements for greywater recycling, SuDS, and other ways of improving water quality and reducing flooding **(SA objectives 9 and 10)**; requirements for cycling parking, e-bike charging which could help to reduce the need to travel by car **(SA objective 6)** and minimise waste; and requirements for landscaping would help to protect and enhance the landscape **(SA objective 15)**.

4.72 Together, these measures would support people's health and wellbeing **(SA objective 2)** and sustain vibrant communities **(SA objective 3)** through reducing energy costs, designing buildings to be environmentally and potentially more community focused and reducing air pollution. The need for improved eco-friendly measures, including high-tech construction, could help to support Oxfordshire's knowledge economy and create/maintain jobs **(SA objectives 4 and 5)**. Minor positive effects are also expected in relation to **SA objectives 12** and **13** as prescribing county-wide design and construction principles in line with BREEAM and Code for Sustainable Homes could safeguard minerals and ensure development does not harm biodiversity assets or includes appropriate mitigation if necessary. However, many SA objectives have some uncertainty attached to the likelihood and significance of these effects until such time as the location, design and scale of such developments is known.

4.73 The sustainable construction requirements could add costs to new development, but it is becoming more viable to achieve as technology evolves and the market becomes more favourable. Consequently, the effect of the costs associated with sustainable construction requirements on the deliverability of homes and employment land are recorded as only minor negative in the short term, thereby having a minor negative effect with uncertainty on the delivery of homes **(SA objective 1)** and on the economy and jobs **(SA objectives 4 and 5)**.

4.74 Alternative 2, with its focus on strategic-scale sustainability, is likely to have **significant positive effects** on reducing the need to travel by car **(SA objective 6)**, through support for walking, cycling and public transport. It is likely to have **significant**

positive effects on health and wellbeing **(SA objective 2)** and safe and vibrant communities **(SA objective 3)** through its focus on good layout, healthy place-making principles, and provision of community services. It would strongly support biodiversity **(SA objective 13)** through the promotion of green infrastructure and landscaping.

4.75 Alternative 2 is also likely to have minor positive impacts on most of the other SA objectives. It would support health and wellbeing **(SA objective 2)** through good design for walking and cycling, provision of adequate community and health facilities, and provision of green infrastructure. It would support improvements to air, noise and light quality, water quality and flood risk, reduction in climate change and landscape **(SA objectives 7, 8, 9, 10,** and **15)** through support for green infrastructure, sensitive planning, strategic scale sustainable drainage systems (SuDS), strategic scale landscaping, and by reducing the need to travel by car through good site layout and promotion of walking, cycling and public transport. Minor positive effects are also expected in relation to **SA objectives 4** and **5** as the masterplanning of strategic scale developments has the potential to create new jobs in the county associated with more ambitious design, construction and delivery. The cost of meeting healthy place-making, community services, public transport, green infrastructure etc. in the future is unknown, and therefore there is some uncertainty associated with their effect on deliverability.

4.76 Again, these requirements are likely to add a small additional cost to home and employment premises construction, but it is becoming more viable to achieve as technology evolves and the market becomes more favourable. Consequently, the effect of the costs associated with sustainable construction requirements on the deliverability of homes and employment land are recorded as only minor negative in the short term, so having a negative impact with uncertainty on the delivery of homes **(SA objective 1)** and on the economy and jobs **(SA objectives 4 and 5)**.

4.77 Alternative 3 is less clear than Alternatives 1 and 2 since districts could set very strong but also very weak (or no) standards. As such, the impacts of Alternative 3 have been assessed as being like those of the previous alternatives, but with possibly fewer and more uncertain benefits.

Historic environment

4.78 **Table 4.11** presents the findings of the SA of the two alternatives for managing effects on the historic environment:

1. Establish a positive strategy for the conservation and enjoyment of Oxfordshire's historic environment at the strategic scale.
2. Do not establish a positive strategy for the conservation and enjoyment of Oxfordshire's historic environment at the strategic scale.

Table 4.11: Managing effects on the Historic Environment alternatives SA findings

SA objectives	Alternatives	
	1	2
1. To meet Oxfordshire's housing needs	-	0
2. To improve the health and wellbeing of Oxfordshire's population	+	-
3. To sustain and create safe and vibrant Oxfordshire communities	+	-
4. To support the development of Oxfordshire's knowledge economy	+/-	-
5. To maintain high and stable levels of employment across Oxfordshire	+	-
6. To reduce the need to travel by car in Oxfordshire	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	0	0
8. To minimise air, noise and light pollution in Oxfordshire	0	0

SA objectives	Alternatives	
	1	2
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	0	0
14. To protect and enhance the significance of Oxfordshire's historic environment	++	--
15. To protect and enhance Oxfordshire's landscape character and quality	++	--

4.79 Alternative 1 would have **significant positive effects** on **SA objectives 14 (historic environment)** and **15 (landscape)** as it is likely that a positive strategy will steer new development away from Oxfordshire's heritage assets and their settings or otherwise help to enhance them, and this in turn would have a positive impact on Oxfordshire's landscape character and quality. Alternative 2 does not establish a positive strategy for the conservation and enjoyment of Oxfordshire's historic environment therefore, **significant negative effects** are expected against **SA objectives 14 (historic environment)** and **15 (landscape)** as the absence of a strategy could allow development to harm heritage assets.

4.80 Minor positive effects are likely in relation to **SA objectives 2 (health)**, and **3 (communities)** for Alternative 1. Alternative 1 has the potential to safeguard and improve enjoyment of heritage assets which can have positive effects on health and wellbeing and community vitality through their cultural, educational, and recreational/leisure values. Minor positive effects are also likely in relation to **SA objective 4 (economy)** as maintaining heritage assets and avoiding adverse effects on them will help to protect local character and culture, which is part of what helps to attract and retain global talent thereby supporting the local knowledge economy[42]. It will also help to support tourism, which is a major economic sector in Oxfordshire, thereby having a minor positive effect on **SA objective 5 (employment)** as well.

4.81 Alternative 1 could also have minor negative effects on **SA objective 4 (economy)**, as Alternative 1 could restrict where and/or how development can be delivered in the context of the historic environment, which may contribute to restricting growth within sensitive areas of the county, particularly the county's historic settlements and landscapes, reducing the opportunities for and viability and affordability of new development. Minor negative effects are also recorded against **SA objective 1 (housing)** for the same reason.

4.82 Alternative 2 represents a 'no positive strategy for the historic environment.' In the absence of an Oxfordshire wide heritage strategy, developers could adversely affect the historic environment of the county. Therefore, it would have minor negative effects against the SA objectives that Alternative 1 has positive effects against.

4.83 Neither of the alternatives are likely to generate more than negligible effects against the remaining SA objectives due to their specific focus on managing the historic environment.

Natural environment

4.84 There are four policy topics under the natural environment policy theme, and each of these are covered in turn below:

- Promote the conservation and enhancement of strategic views, landscape and townscape features
- Protect/enhance biodiversity at the strategic scale.

[42] OxLEP (undated) Creating the Environment for Growth: A Strategic Investment Plan for Oxfordshire https://www.oxfordshirelep.com/sites/default/files/uploads/Creative%2C%20Cultural%2C%20Heritage%20and%20Tourism%20Sectors_0.pdf

- Promote access to nature at the strategic scale.
- Proportions of biodiversity net gain.
- Locations for natural capital/ecosystem services net gain, including biodiversity net gain.

Promote the conservation and enhancement of strategic views, landscape and townscape features

4.85 Table 4.12 presents the findings of the SA of the two alternatives for promoting the conservation and enhancement of strategic views, landscape and townscape features:

1. Establish a positive strategy for the conservation and enhancement of important and/or sensitive strategic views, landscape and townscape features at a county-wide landscape scale.
2. Do not establish a positive strategy for the conservation and enhancement of landscape and townscape features at a county-wide landscape scale.

Table 4.12: Promote the conservation and enhancement of strategic views, landscape and townscape features alternatives SA findings

SA objectives	Alternatives	
	1	2
1. To meet Oxfordshire's housing needs	-	0
2. To improve the health and wellbeing of Oxfordshire's population	+	0
3. To sustain and create safe and vibrant Oxfordshire communities	+	0
4. To support the development of Oxfordshire's knowledge economy	+/-	0
5. To maintain high and stable levels of employment across Oxfordshire	+/-	0
6. To reduce the need to travel by car in Oxfordshire	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	0	0
8. To minimise air, noise and light pollution in Oxfordshire	+	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+	0
14. To protect and enhance the significance of Oxfordshire's historic environment	++	-?
15. To protect and enhance Oxfordshire's landscape character and quality	++	-?

4.86 Alternative 1 is likely to generate **significant positive effects** in relation to **SA objectives 14 (historic environment)** and **15 (landscape)**. As this alternative establishes a positive strategy for the conservation and enhancement of the setting and special character of the area, it is likely that the landscape and townscape, both of which could encompass the setting of heritage assets, will be protected with sensitive and well-designed development. Since an attractive environment and good

heritage links can influence health and wellbeing, Alternative 1 is also likely to have minor positive effects for **SA objective 2 (health)**.

4.87 Alternative 1 is likely to have indirect benefits for Oxfordshire's ecological habitats and locally designated biodiversity assets thereby minor positive effects on **SA objective 13 (biodiversity)** are expected associated with landscape and townscape enhancements and mitigation. Similarly, conservation of landscape and views includes prevention of light pollution, hence a minor positive effect for **SA objective 8 (pollution)**.

4.88 Other minor positive effects are likely in relation to **SA objective 3 (communities)** as the enhancement of important and/or sensitive strategic views, landscape or townscape features has the potential to have positive implications in creating vibrant communities by safeguarding the cultural importance of the landscape for communities to enjoy. In addition, Oxfordshire's attractive landscape and townscape support the tourism industry, so Alternative 1 will have minor positive effects for **SA objective 5 (employment)**. There is also potential for employment opportunities in the maintenance and enhancement of landscape and townscape features. A minor positive effect is also recorded against **SA objective 4 (economy)** in acknowledgement that the conserving and enhancement of the county's key landscape and townscape features will help to maintain and improve the character of the county, making it a better place to live and work and attracting talent to grow the local economy. This minor positive effect is coupled with a minor negative effect in acknowledgement of the fact that the greater the area of the county protected from development the more difficult it will be to accommodate growth in the county. A minor negative effect is also recorded against **SA objective 1 (housing)** for the same reason.

4.89 Alternative 1 is likely to generate negligible effects against the remaining SA objectives due to its specific focus on conserving and enhancing landscape and townscape features.

4.90 Alternative 2 represents a 'no positive strategy' alternative. By not establishing a positive strategy for the landscape and townscape features in the county there is greater potential for development to compromise these strategic assets with adverse effects against **SA objectives 14 (historic environment)** and **15 (landscape)**. These adverse effects are recorded as minor in acknowledgement of the safeguards on such features provided by other policies and legislation, including Local Plans. In addition, the effect is recorded as uncertain until such time as the location, design and scale of new development is known.

Protect/enhance biodiversity at the strategic scale

4.91 **Table 4.13** presents the findings of the SA of the two alternatives for promoting and enhancing biodiversity at the strategic scale:

1. Establish a positive strategy for the protection and enhancement of biodiversity at a county-wide landscape scale.
2. Do not establish a positive strategy for the protection and enhancement of biodiversity at a county-wide landscape scale.

Table 4.13: Promote/enhance biodiversity alternatives SA findings

SA objectives	Alternatives	
	1	2
1. To meet Oxfordshire's housing needs	-	0
2. To improve the health and wellbeing of Oxfordshire's population	++	0
3. To sustain and create safe and vibrant Oxfordshire communities	+	0
4. To support the development of Oxfordshire's knowledge economy	+/-	0
5. To maintain high and stable levels of employment across Oxfordshire	+/-	0
6. To reduce the need to travel by car in Oxfordshire	+?	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	0

SA objectives	Alternatives	
	1	2
8. To minimise air, noise and light pollution in Oxfordshire	+	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	++	0
10. To reduce the risk from all sources of flooding in Oxfordshire	++	-
11. To protect Oxfordshire's soils and ensure efficient use of land	++	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	++	-
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	+	0

4.92 Alternative 1 would have **significant positive effects** for many of the SA objectives. Establishing a positive strategy for the protection and enhancement of biodiversity at a county-wide landscape scale would help to significantly improve biodiversity in the county **(SA objective 13)** through habitat connection and thereby making habitats and species more resilient to climate change. It is likely that the strategy will protect all types of habitats including floodplains and wetlands, notably those to the north of Oxford, and so could significantly help to reduce the risk of flooding downstream **(SA objective 10)**. Protecting the floodplains and river corridors would indirectly help to improve the quality of the county's watercourses **(SA objective 9)**. Protecting and enhancing biodiversity at a county-wide landscape scale could include an element of returning intensively farmed agricultural land to a more natural state, thus helping to protect Oxfordshire's soils **(SA objective 11)**. All of these factors, and the greater opportunity that Alternative 1 would provide for improved access to nature, would have a **significant positive effect** on people's health and wellbeing **(SA objective 2)**. The positive strategy is likely to incorporate planting more trees, helping to sequester greenhouse gases **(SA objective 7)**, build climate resilience and to help to adapt to climate change through less flooding, more shade and cooler areas.

4.93 Minor positive effects are also expected in relation to **SA objectives 3 (communities), 6 (travel), 8 (pollution)** and **15 (landscape)**. A positive strategy would also protect the natural landscape and enhance it through more green/wooded areas. This would provide benefits in terms of a more attractive and natural looking landscape **(SA objective 15)** and associated benefits for local communities **(SA objective 3)**. It could reduce the need to travel if walking and cycling trails were provided throughout the county. However, improving access to green spaces is not always compatible with improving biodiversity, so there is some uncertainty attached to **SA objective 6 (travel)**. This appraisal assumes that biodiversity is given priority over public access where there is a conflict between them. In addition, a greater quantity of trees and green areas would improve air quality **(SA objective 8)**.

4.94 However, a positive strategy for protecting and enhancing biodiversity at a county-wide scale could restrict the delivery of homes. The current Conservation Target Areas are extensive, and if these were protected in full, then housing delivery **(SA objective 1)** could be negatively affected; however, it is likely that some development could be accommodated within them without compromising the network, so a minor negative effect is recorded. **SA objectives 4 (economy)** and **5 (employment)** could also be affected, as the positive strategy could restrict the location of employment sites. On the other hand, Oxfordshire's natural environment is one of the factors underlying the county's attractiveness for employers, so further improving the county's biodiverse areas could be positive for employers and jobs. Creation and maintenance of the local ecological network could also lead to new jobs being created. Therefore, **SA objectives 4** and **5** will have a mixed minor positive and minor negative effect on Alternative 1.

4.95 Alternative 2 has mostly negligible effects because it is essentially a continuation of business as usual. However, in the absence of a positive strategy supporting biodiversity, there could continue to be a decline in biodiversity in the county **(SA objective 13)**. Ongoing development on the floodplain, cumulatively with changes resulting from climate change, would also

lead to worse flood problems over time **(SA objective 10)**. Therefore, minor negative effects are expected in relation to **SA objectives 10** and **13**.

Promote/create/enhance green infrastructure and access to nature at the strategic scale

4.96 Table 4.14 presents the findings of the SA of the alternatives for promoting access to nature at the strategic scale, of which there are two:

1. Identify location(s) for new strategic green spaces to serve the county.
2. Do not identify strategic scale green spaces.

Table 4.14: Promote/enhance access to nature alternatives SA findings

SA objectives	Alternatives	
	1	2
1. To meet Oxfordshire's housing needs	-	0
2. To improve the health and wellbeing of Oxfordshire's population	++	-
3. To sustain and create safe and vibrant Oxfordshire communities	++	0
4. To support the development of Oxfordshire's knowledge economy	+	0
5. To maintain high and stable levels of employment across Oxfordshire	+	0
6. To reduce the need to travel by car in Oxfordshire	+	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	-
8. To minimise air, noise and light pollution in Oxfordshire	+	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	+?	0
11. To protect Oxfordshire's soils and ensure efficient use of land	+?	0
12. To safeguard Oxfordshire's mineral resources	+?	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	++?	0
14. To protect and enhance the significance of Oxfordshire's historic environment	++?	0
15. To protect and enhance Oxfordshire's landscape character and quality	++?	0

4.97 Whereas the previous set of alternatives related to promoting biodiversity, this set of alternatives relates to promoting access to nature. Where there is a conflict between promotion of biodiversity and access to nature, this assessment assumes that access would be prioritised, i.e., people are the main beneficiaries. Alternative 1 involves identifying locations for strategic green spaces to serve the county. Under Alternative 2, the Oxfordshire Plan would not contribute to identification and delivery of strategic scale green spaces.

4.98 The identification, creation and management of strategic scale green spaces would increase access to open and public space, improving the health and wellbeing of Oxfordshire's population. Consequently, **significant positive effects** are recorded against **SA objectives 2 (health)** and **3 (communities)** for Alternative 1.

4.99 Significant positive effects are also likely in relation to **SA objectives 13 (biodiversity), 14 (historic environment)** and **15 (landscape)** for Alternative 1 due to the potential of strategic scale green spaces to safeguard and enhance the environment within them. Alternative 1 has the potential to protect and enhance a larger single habitat area in Oxfordshire or provide greater flexibility to connect multiple habitats across multiple Districts within the County. New strategic scale green spaces may also reduce pressure on existing open spaces with high biodiversity value, for instance Port Meadow. Recreational pressures are one of the main impacts on the Oxford Meadows SAC.

4.100 Minor positive effects are likely against **SA objectives 4 (economy)** and **5 (employment)** for Alternative 1 as providing strategic scale green spaces will provide some employment in their establishment and longer term management. They would help to maintain a healthy workforce by providing accessible opportunities for recreation, which is indirectly likely to be good for productivity and employment. Additionally, strategic scale green spaces help to make Oxfordshire attractive to employers and employees, so they are indirectly likely to attract and retain global talent to the area, which will benefit the local economy in the long term.

4.101 Depending on how the strategic scale green spaces are established, for instance whether they simply make existing land more publicly accessible or whether they involve turning agricultural land into woodland and meadows, minor positive effects with uncertainty could be expected against **SA objectives 10 (flooding), 11 (soils)** and **12 (minerals)** as strategic scale green spaces can naturally help to reduce the risk of flooding, and safeguard soils and minerals.

4.102 Alternative 1 will likely generate minor positive effects in relation to **SA objectives 6 (travel), 7 (climate change)** and **8 (pollution)** as it could locate strategic scale green space in accessible locations thereby serving multiple communities, especially those with the greatest need within each District, requiring people to travel less distance to enjoy them. Alternative 1 could also provide greater opportunity for the larger green spaces to be located in close proximity to the County's urban areas, providing greater opportunity for the green space to build in climate change resilience through urban greening and cooling. Oxfordshire has a high reliance on private vehicles, so this alternative will reduce Oxfordshire's contribution to climate change since transport is the largest emitter of carbon dioxide emissions in all of the Districts other than Oxford City and will further reduce air pollution[43].

4.103 Alternative 1 is likely to constrain housing delivery to an extent, by requiring land to be development-free therefore **SA objective 1 (housing)** is expected to have minor negative effects. Alternative 1 would generate negligible effects against the remaining SA objectives due to its specific focus on creating strategic scale green spaces.

4.104 Alternative 2 would result in the creation of no strategic scale green spaces in the county. In the absence of policy designed to identify locations for new strategic scale green spaces the Oxfordshire Plan 2050 would have a negligible effect on the majority of SA objectives. However, the absence of such spaces could result in the effects of climate change and poor air quality to be more acutely felt in and around the county's urban centres resulting in adverse effects against the **SA objectives 2 (health), 7 (climate change)** and **8 (pollution)**. These effects are considered to be minor in acknowledgement of the other policy and legislative mechanisms designed to mitigate and adapt to the adverse effects of climate change and air pollution.

Proportions of biodiversity net gain

4.105 Table 4.15 presents the findings of the SA of the five alternatives for proportions of biodiversity net gain:

1. 10% biodiversity net gain to be delivered through new development on the basis of achieving at least some net gain.
2. 20% biodiversity net gain to be delivered through new development on the basis of proven viability[44].
3. 50%-100% biodiversity net gain to be delivered through new development on the basis of starting to account for past losses[45].
4. Set out criteria encouraging at least some biodiversity net gain.

[43] Department of Business, Energy & Industrial Strategy (June 2018) UK local authority and regional carbon dioxide emissions national statistics: 2005-2016 Retrieved December 2018: https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-2016
[44] In 2016 Lichfield District Council introduced a policy requiring a 20% biodiversity net gain on developments: https://www.endsreport.com/article/1578483/debrief-inside-councils-pioneering-biodiversity-net-gain-planning-policy
[45] Several species have seen >90% losses over the last century, which would require much more than 100% net gain to reverse.

5. Do not set county-wide biodiversity net gain targets.

Table 4.15: Proportions of biodiversity net gain alternatives SA findings

SA objectives	Alternatives				
	1	2	3	4	5
1. To meet Oxfordshire's housing needs	-?	-?	--?	-?	0
2. To improve the health and wellbeing of Oxfordshire's population	+	+	+	+?	-
3. To sustain and create safe and vibrant Oxfordshire communities	+	+	+	?	-
4. To support the development of Oxfordshire's knowledge economy	0	0	+/-	0	0
5. To maintain high and stable levels of employment across Oxfordshire	0	0	+/-	0	0
6. To reduce the need to travel by car in Oxfordshire	0	0	0	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	+	++	+?	-
8. To minimise air, noise and light pollution in Oxfordshire	+	+	++	+?	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	+	+	++	+	-
10. To reduce the risk from all sources of flooding in Oxfordshire	+	+	++	+?	-
11. To protect Oxfordshire's soils and ensure efficient use of land	+	+	+	+?	0
12. To safeguard Oxfordshire's mineral resources	0	0	0	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+	++	++	+?	-
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0	0	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	+	+	+	+?	0

4.106 Alternative 5 would result in no requirement or criteria for net gain within the county and therefore the most negative effects. Alternatives 1 and 4 are likely to have very similar effects, as they would deliver the least biodiversity net gain after Alternative 5: Alternative 1 because it includes the smallest target; and Alternative 4 because it does not identify a target, relying instead on criteria encouraging some biodiversity net gain, and developers are unlikely to voluntarily aim for high targets. Alternative 3 would deliver the largest amount of net gain. Alternative 2 represents the middle ground between Alternatives 1, 4 and 5, and Alternative 3.

4.107 Significant positive effects are likely in relation to **SA objectives 7 (climate change)** and **13 (biodiversity)** for Alternative 3, and more minor effects are likely for Alternatives 1 and 2. This is due to the potential for biodiversity net gain to build local resilience to the changing climate as well as increasing the amount of biodiversity within the area, providing opportunities for people to come into contact with resilient wild places whilst encouraging respect and raising awareness of the sensitivity of such locations. The higher the biodiversity net gain target the greater the potential and the more significant the positive effects are likely to be. Alternatives 1 and 4 are likely to have a minor positive effect on **SA objective 13** as Alternative 1 does not require a substantial target, only 10%, and Alternative 4 encourages net gain through setting out criteria but does not

identify a specific target or require net gain. With 20% net gain, Alternative 2 would significantly improve biodiversity, but it is not certain whether there would be a similarly significant benefit for climate change.

4.108 Alternative 3 (requiring 50-100% biodiversity net gain) is also likely to have **significant positive effects** on **SA objectives 8 (pollution), 9 (water)** and **10 (flood risk)**. Providing net gain, often in the form of tree planting, will help to slow down infiltration and absorb air pollutants. More modest benefits for pollution, water and flood risk can be expected from requiring a 20% increase in biodiversity net gain under Alternative 2, thereby providing minor positive effects. Alternatives 2 and 3 can be expected to have minor positive effects on **SA objective 11 (soils)** by protecting biodiverse land from development and converting existing less biodiverse (with lower soil quality) land into more biodiverse land.

4.109 By requiring a percentage of biodiversity net gain, or encouraging it through criteria, Alternatives 1 to 4 could all have a negative effect on **SA objective 1 (housing)** due to the costs involved with achieving biodiversity net gain as part of new development (either on or off-site), although uncertainty is attached to all four alternatives. Alternative 3 would have **significant negative effects** due to its requirement to achieve 50-100% net gain, which may make developments less viable.

4.110 Minor positive effects are also expected in relation to **SA objectives 2 (health)** and **3 (communities)**. Achieving 20% or more net gains in biodiversity over the plan period, or significantly increasing wildlife habitat – Alternatives 2 and 3 – would lead to indirect benefits to resident and worker health and wellbeing , by mitigating the adverse effects of air pollution and reducing flood risk. Furthermore, net gains on this scale will provide numerous opportunities for residents and communities to come into contact with resilient wild places whilst encouraging respect and raising awareness of the sensitivity of such locations. This is also likely to support vibrant communities, which also translate into economic benefits with reduced NHS bill, healthier workforce etc. These benefits are less likely to occur under lower net biodiversity gain scenarios (Alternatives 1, 2 and 4).

4.111 For Alternative 3, the minor positive effects recorded against **SA objectives 4 (economy)** and **5 (employment)** are also coupled with equivalent negative effects. Requiring more net gains at employment sites could make it more difficult to bring these sites forward. On the other hand, a more attractive environment for Oxfordshire would help to retain and attract a high-quality workforce; biodiversity net gains are themselves an emerging economic sector (i.e., calculating them, implementing them); and delivering and managing the areas of net gain will provide some new jobs. Again, these benefits are likely to be more negligible for Alternatives 1, 2 and 4.

4.112 Alternatives 1 and 4 are expected to have minor positive effects against the majority of the SA objectives as Alternative 1 aims to achieve 10% net gain and Alternative 4 sets out criteria encouraging significant net gain. However, uncertainty is also attached to effects associated to Alternative 4 as there is no requirement for net gain compared to Alternatives 1, 2 and 3.

4.113 Alternative 5 would result in no requirement or criteria for net gain within the county. In the absence of policy designed to achieve biodiversity net gain, the Oxfordshire Plan 2050 would have a minor negative effect on the majority of SA objectives. The absence of biodiversity net gain could result in the effects of climate change and poor conservation of local biodiversity resulting in adverse effects against the **SA objectives 2 (health), 3 (community, 7 (climate change), 8 (pollution), 9 (water), 10 (flood risk)** and **13 (biodiversity)**. These effects are considered to be minor in acknowledgement of the other policy and legislative mechanisms designed to mitigate and adapt to the adverse effects of climate change and protect biodiversity.

Locations for natural capital/ecosystem services net gain, including biodiversity net gain

4.114 Table 4.16 presents the findings of the SA of the three alternatives for the locations for natural capital/ecosystem services net gain, including biodiversity net gain alternatives:

1. Identify strategic locations for net gain in Nature Recovery Networks.
2. Identify strategic locations for net gain in existing and new country parks/open space.
3. Encourage net gain, but do not identify locations or how it should be achieved/delivered.

Table 4.16: Locations for natural capital/ecosystem services net gain, including biodiversity net gain alternatives SA findings

SA objectives	Alternatives		
	1	2	3
1. To meet Oxfordshire's housing needs	-?	-?	0
2. To improve the health and wellbeing of Oxfordshire's population	++?	++	+?
3. To sustain and create safe and vibrant Oxfordshire communities	+?	+	+?
4. To support the development of Oxfordshire's knowledge economy	0	0	0
5. To maintain high and stable levels of employment across Oxfordshire	++/-?	++/-?	0
6. To reduce the need to travel by car in Oxfordshire	0	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	++	+?
8. To minimise air, noise and light pollution in Oxfordshire	+	+	+?
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	++	++?	+?
10. To reduce the risk from all sources of flooding in Oxfordshire	++	++?	+?
11. To protect Oxfordshire's soils and ensure efficient use of land	+	+	+?
12. To safeguard Oxfordshire's mineral resources	0	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	++	++?	+?
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	+	+	+?

4.115 The main differences between the alternatives are the likelihood of net benefits arising, and the location where they would accrue. Alternatives 1 and 2 require identification of strategic locations for natural capital/ecosystem services net gains. These are likely to be large scale locations which developers would help to set up and maintain through contributions. Alternative 3 represents a less focussed alternative for the more general encouragement of natural capital/ecosystem services net gain.

4.116 This appraisal assumes that 'net gain' would definitely be for biodiversity and climate change, with other natural capital / ecosystem services benefits (e.g., nutrient cycling, food production, spiritual, educational) being less certain. With these assumptions, gain will be more likely to be achieved through strategic scale measures (Alternatives 1 and 2), as this will allow development sites for which it is difficult to provide net gain on-site to more easily come forward. Net gains within these areas have the potential to increase resilience to the changing climate, create new habitats and enhance and connect ecosystem networks. Developers with more flexible sites could still provide net benefits on-site, but most benefits would accrue in, respectively, the Nature Recovery Networks managed for biodiversity (Alternative 1) or strategic scale green areas managed for public access to nature (Alternative 2).

4.117 Alternatives 1 and 2 are likely to have **significant positive effects** in relation to **SA objectives 7 (climate change)** and **13 (biodiversity)**, with associated improvements in health and wellbeing **(SA objective 2)**. Alternative 1 would focus on Nature Recovery Networks (which may include floodplains and Conservation Target Areas), so the benefits for climate change and biodiversity would be strong and unambiguous; but the benefits to health have more uncertainties as the affected areas would

not necessarily be publicly accessible. Alternative 2 is the opposite, with benefits to health coming from provision of net gain in publicly accessible strategic green spaces, but benefits to biodiversity and climate change possibly uncertain by the need for these spaces to be publicly accessible.

4.118 Alternatives 1 and 2 would also have **significant positive effects** for water quality **(SA objective 9)** and flood reduction **(SA objective 10)**, with these effects being more certain for Alternative 1 since the Oxfordshire Nature Recovery Network is likely to include a large proportion of the River Thames floodplain.

4.119 All of the alternatives would have benefits in terms of more vibrant communities **(SA objective 3)**, better air quality **(SA objective 8)**, better soil quality **(SA objective 11)** and the landscape **(SA objective 15)**. This is due to the broad range of possible net gains in natural capital/ ecosystem services, such as improving the quality of landscape and water quality, improving the productivity and growth of the local economy through the creation of more resilient and attractive places to work, reducing the risk of flooding, mitigating the effects of air pollution, maximising the beneficial use of the best and most versatile agricultural land and creating a healthy living and working environment. However, there is some uncertainty against these SA objectives depending on the alternative.

4.120 The main negative effects of all of the alternatives are in the delivery of housing and employment sites, and encouragement of job creation **(SA objectives 1** and **5)**. Providing net gain/ ecosystem services could restrict opportunities for development and increase the cost of development, possibly affecting its viability, however, uncertainty is attached. Alternatives 1 and 2 could reduce these costs by allowing developers to pay for off-site services rather than having to provide them themselves (on or off-site). Nature Recovery Networks and strategic scale green areas are unlikely to permit new developments, so reducing the opportunity costs of providing net gain. Provision of ecosystem services in larger areas also provides the opportunity for businesses to form based on these services, for instance biofuel, coppice, small scale renewable energy or bio-farming, thereby creating **significant positive effects** as well for Alternatives 1 and 2. Alternative 3 would have the fewest costs, as developers could decide whether to provide net gains at all but would also generate the fewest economic benefits.

4.121 All of the alternatives are likely to generate negligible effects against the remaining SA objectives due to their specific focus on locations for natural capital/ecosystem services net gain. Generally, Alternative 3 would provide the fewest benefits (with many benefits being uncertain at best) but would also have the fewest costs to developers.

Green Belt

4.122 Table 4.17 presents the findings of the SA for the two alternatives to enhance the beneficial uses of Green Belt[46]:

1. Identify strategic opportunities to enhance the existing Oxford Green Belt (for delivery through Local Plans) (i.e. provide access, opportunities for outdoor sport and recreation, enhance landscapes, visual amenity and biodiversity; or improve damaged or derelict land).
2. Do not identify strategic opportunities to enhance the existing Oxford Green Belt.

Table 4.17: Enhancement of Green Belt beneficial uses alternatives SA findings

SA objectives	Alternatives	
	1	2
1. To meet Oxfordshire's housing needs	0	0
2. To improve the health and wellbeing of Oxfordshire's population	++	-
3. To sustain and create safe and vibrant Oxfordshire communities	++	-
4. To support the development of Oxfordshire's knowledge economy	0	0
5. To maintain high and stable levels of employment across Oxfordshire	0	0

[46] Consideration will be given to the need to make strategic alterations to Green Belt boundaries once all other reasonable options for meeting the region's strategic growth needs outside the Green Belt have been considered, in line with the requirements of the NPPF.

SA objectives	Alternatives	
	1	2
6. To reduce the need to travel by car in Oxfordshire	+?	-
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	-
8. To minimise air, noise and light pollution in Oxfordshire	+?	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	+	-
11. To protect Oxfordshire's soils and ensure efficient use of land	++	-
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	++	-
14. To protect and enhance the significance of Oxfordshire's historic environment	++?	-
15. To protect and enhance Oxfordshire's landscape character and quality	++	-

4.123 Alternative 1 would identify opportunities to enhance the existing Oxford Green Belt, for delivery through Local Plans (i.e., provide access, opportunities for outdoor sport and recreation, enhance landscapes, visual amenity, and biodiversity, or improve damaged or derelict land). Under Alternative 2, the Oxfordshire Plan would not promote strategic opportunities to enhance the existing Oxford Green Belt.

4.124 Alternative 1 has the potential to have **significant positive effects** in relation to **SA objectives 2 (health), 3 (communities), 11 (soils), 13 (biodiversity), 14 (historic environment)** and **15 (landscape)**. This is due to the broad range of opportunities available for enhancing the beneficial uses of the Green Belt, such as improving access and opportunities for outdoor sport and recreation, enhancing landscapes (which could include historic assets and their historic setting), visual amenity and biodiversity, or improving damaged or derelict land. Enhancing the Green Belt also has the potential to build local climate resilience through the enhancement of the natural environment.

4.125 Minor positive effects are also likely in relation to **SA objectives 6 (travel), 7 (climate change), 8 (pollution)** and **10 (water)** for Alternative 1. Enhancing the Green Belt through improvements in access and recreational opportunities within the Green Belt in close proximity to existing settlements and communities presents an opportunity to provide new opportunities for local sport and recreation, reducing the need for local people to travel and the related air pollution and traffic congestion. The Thames flood alleviation scheme will also likely improve the ecosystem services of flood mitigation within the Green Belt. The reduced need to travel, jointly with possible tree planting and other carbon fixing measures, is likely to reduce greenhouse gas emissions. However, some uncertainty is attached to these effects until such time as the locations of strategic Green Belt enhancements are known.

4.126 Alternative 2 is broadly a 'business as usual' alternative. It is likely to have a negligible effect on a number of the SA objectives due to the fact that local planning authorities are required under the NPPF to enhance the beneficial uses of the Green Belt at the local scale. Consequently, the lack of a countywide policy in the Oxfordshire Plan would remove the opportunity to capitalise on the benefits of identifying strategic cross-boundary opportunities for enhancement. This is likely to result in a missed opportunity to capture the full socio-economic and environmental value potential of the County's open Green Belt land. Consequently, minor negative effects are acknowledged for those SA objectives for which positive effects are recorded under Alternative 1.

Addressing Inequalities

4.127 Table 4.18 presents the findings of the SA of the three alternatives to reduce deprivation:

1. Identify strategic development opportunities in areas of socio-economic deprivation to address inequality through regeneration.
2. Identify strategic opportunities for investment in areas of socio-economic deprivation to be delivered through S106 and CIL contributions, e.g. skills development and training, infrastructure investment including green infrastructure.
3. Do not identify strategic opportunities to regenerate areas of socio-economic deprivation.

4.128 Oxfordshire is overall a prosperous county. Most of Oxfordshire's areas of multiple deprivation are in urban areas, and relate to employment, education and living environments. The cost of living in Oxfordshire – and especially Oxford – is high compared to wages. However, in rural areas the main cause of deprivation is with regard to access to services. This appraisal focuses on the more urban areas of deprivation.

Table 4.18: Addressing inequalities alternatives SA findings

SA objectives	Alternatives		
	1	2	3
1. To meet Oxfordshire's housing needs	++	+	--
2. To improve the health and wellbeing of Oxfordshire's population	++/-	++	-
3. To sustain and create safe and vibrant Oxfordshire communities	++/-	++	-
4. To support the development of Oxfordshire's knowledge economy	++	++	-
5. To maintain high and stable levels of employment across Oxfordshire	++	++	-
6. To reduce the need to travel by car in Oxfordshire	+/-	+	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	0	+	0
8. To minimise air, noise and light pollution in Oxfordshire	+/-	+	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	-	+/-	0?
10. To reduce the risk from all sources of flooding in Oxfordshire	-	+/-	0?
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0	0
12. To safeguard Oxfordshire's mineral resources	0	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+/-?	+/-?	0?
14. To protect and enhance the significance of Oxfordshire's historic environment	+/-?	+/-?	0?
15. To protect and enhance Oxfordshire's landscape character and quality	+/-?	+/-?	0?

4.129 Alternative 1 identifies strategic development opportunities in areas of socio-economic deprivation, such as south Oxford, Banbury, Bicester and Didcot, addressing the areas' specific needs. Alternative 2 identifies strategic opportunities for investment in areas of socio-economic deprivation to be delivered through S106 and CIL contributions, e.g. skills and training and

infrastructure investment, including green infrastructure. Alternative 3 would not identify any strategic opportunities for development or investment in areas of socio-economic deprivation.

4.130 It is likely that investment and development within these deprived communities under Alternatives 1 and 2 will result in improvements to the health and wellbeing and vibrancy of these local communities with **significant positive effects** on **SA objectives 2 (health)** and **3 (communities)**. However significant construction and change in these areas could also pose a short-term disruption to these communities, so minor negative effects may also be felt for Alternative 1.

4.131 Under Alternative 1, identifying housing and economic development in these locations is likely to facilitate access to jobs and services where there may currently be a barrier to access, with **significant positive effects** against **SA objectives 5 (employment)** and **1 (housing)**. Such investment is also likely to have related positive effects on the growth of the local economy **(SA objective 4)**. Alternative 2 is also likely to have **significant positive effects** on **SA objectives 4 (economy)** and **5 (employment)** as it aims to provide additional investment in skills and training and infrastructure, which could include economic development. Housing could also be provided through additional investment in deprived areas; however, this is likely to be on a smaller scale than Alternative 1. In the longer term, beyond the plan period, the significance of the benefits of this investment to the county's economy is likely to be greater.

4.132 Prioritising economic development in areas of deprivation is likely to significantly benefit the knowledge economy **(SA objective 4)**, however depending on the location of additional development, it could lead to increases in the amount of travel by car **(SA objective 6)** or increased use of active modes of transport. Therefore, for Alternative 1, mixed minor positive and minor negative effects are expected. Similar effects are expected for **SA objective 8 (pollution)**. For Alternative 2, it is likely that public transport and active modes of travel infrastructure will be invested in thereby facilitating travel by more sustainable modes of transport. Therefore, minor positive effects are expected for this alternative in relation to **SA objectives 6 (travel)** and **8 (pollution)**.

4.133 For Alternatives 1 and 2 focusing development on the areas of the County that are particularly deprived could have minor negative effects on **SA objectives 9 (water), 10 (flooding), 13 (biodiversity), 14 (heritage)** and **15 (landscape)** if improving deprivation was prioritised over these other environmental factors. Therefore, minor negative effects are expected against each of these. However, for both alternatives, ensuring that new development is located near existing settlements would help to protect environmental sensitivities elsewhere in the county. As such, minor positive effects are also recorded for **SA objectives 13 (biodiversity, 14 (heritage)** and **15 (landscape)**. In addition, as Alternative 2 aims to invest in necessary infrastructure such as green infrastructure, minor positive effects are also expected against **SA objectives 7 (climate change), 9 (water)** and **10 (flooding)**. This is due to the fact that green infrastructure builds resilience to climate change and its impacts through carbon sequestration, restoration of floodplains and wetlands.

4.134 Alternatives 1 and 2 are likely to generate negligible effects against the remaining SA objectives due to their specific focus on tackling the issue of deprivation.

4.135 Under Alternative 3, the Oxfordshire Plan would not identify strategic opportunities in areas of socio-economic deprivation. Not identifying strategic development and investment in the County's areas of deprivation could worsen access to services, training, employment opportunities, education and community facilities for areas that are already deprived. Therefore, minor negative effects are expected against **SA objectives 2 (health), 3 (communities)** and **4 (economy)**. While this option could provide greater flexibility in the siting of growth and investment, it would not provide homes and jobs in areas that would benefit the greatest, and therefore minor negative effects are recorded in relation to **SA objective 5 (employment)**. While overall levels of deprivation are low in Oxfordshire, there are higher levels of deprivation associated with the barriers to housing domain, therefore, **significant negative effects** are expected against **SA objective 1 (housing)** as housing affordability in the county is low and homelessness is particularly acute. The likely adverse environmental effects on **SA objectives 9 (water), 10 (flooding), 13 (biodiversity), 14 (heritage)** and **15 (landscape)** of concentrating development in the specific deprived locations of the County, for example, south Oxford, Bicester, and Banbury are less likely. However, economic and housing growth will still need to be located within the County and may still affect such environmental assets. Consequently, these negligible effects are recorded as uncertain.

Affordable housing targets

4.136 Table 4.19 presents the findings of the SA of the three alternatives for affordable housing:

1. Set different affordable housing targets across the County to reflect different markets.

2. Set consistent affordable housing target across Oxfordshire.
3. Do not set affordable housing targets.

Table 4.19: Affordable growth targets alternatives SA findings

SA objectives	Alternatives		
	1	2	3
1. To meet Oxfordshire's housing needs	++?	+?	?
2. To improve the health and wellbeing of Oxfordshire's population	+	+	?
3. To sustain and create safe and vibrant Oxfordshire communities	+	+	?
4. To support the development of Oxfordshire's knowledge economy	0	0	0
5. To maintain high and stable levels of employment across Oxfordshire	0	0	0
6. To reduce the need to travel by car in Oxfordshire	0	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	0	0	0
8. To minimise air, noise and light pollution in Oxfordshire	0	0	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0	0
12. To safeguard Oxfordshire's mineral resources	0	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	0	0	0
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	0	0	0

4.137 The three alternatives are difficult to appraise because they involve many assumptions, not least because of the methodological difficulties in forecasting affordable housing need over such a long timescale. In practice, Alternatives 1 and 3 could have very similar impacts because they both reflect the fact that Oxfordshire has different housing markets. Alternative 2 could lead to more affordable housing because developers would not be able to choose development sites based on lower affordable housing requirements; but it could lead to less affordable housing if viability needs to be shown for all areas of the county. This appraisal assumes that different targets based on market conditions (Alternative 1) would allow, on average, for higher affordable housing targets; consistent targets across the county (Alternative 2) would lead to fewer affordable homes being built; and it makes no assumptions about district-led affordable housing targets (Alternative 3). Therefore, **significant positive effects** are expected against **SA objective 1 (housing)** for Alternative 1 and minor positive effects for Alternative 2.

4.138 None of the alternatives would have significant effects on most dimensions of the environment **(SA objectives 8, 9, 10, 12, 13, 14** and **15)**. Although they would lead to different numbers of affordable homes, they would not change the overall number of homes built.

4.139 Alternative 1, which is assumed to lead to more affordable homes than Alternative 2, would have more benefits in terms of housing needs **(SA objective 1)**, and thus indirectly on health **(SA objective 2)** and vibrant communities **(SA objective 3)**.

Alternative 3, the 'business as usual' alternative, is more likely to have impacts resembling Alternative 1 (different targets) than Alternative 2 (same target). However, the uncertainties associated with these three alternatives – the lack of clarity over how much affordable housing each alternative would deliver – makes any further appraisal difficult.

Oxfordshire's Growth

4.140 There are three policy topics under the growth policy theme, and each of these are covered in turn below:

- Scale of growth (which includes housing and economic growth alternatives)
- Locations for strategic growth
- Spatial distribution of growth

Scale of Growth – Housing Growth

4.141 Table 4.20 presents the findings of the SA for the four alternatives for housing growth targets:

1. Government standard methodology using 2014 population projections (100,000 new homes to 2050)[47].
2. Continue rate of growth in Local Plans to 2030, and thereafter population projections[48] (150,000 new homes to 2050).
3. Continue current rate of growth in Local Plans to 2050 (200,000 new homes to 2050).
4. National Infrastructure Commission (NIC) Growth Deal level (300,000 homes to 2050).

Table 4.20: Housing growth alternatives SA findings

SA objectives	Alternatives			
	1	2	3	4
1. To meet Oxfordshire's housing needs	-?	++	++/-?	++/-?
2. To improve the health and wellbeing of Oxfordshire's population	-	+/-	+/-	+/--
3. To sustain and create safe and vibrant Oxfordshire communities	+/-	+/-	+/-	+/--
4. To support the development of Oxfordshire's knowledge economy	-	+	++?	++/-?
5. To maintain high and stable levels of employment across Oxfordshire	-	+	++?	++/-?
6. To reduce the need to travel by car in Oxfordshire	-	-/--	--	--
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	-	-/--	--	--
8. To minimise air, noise and light pollution in Oxfordshire	-	-	-/--	--
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	-	-/--	--	--
10. To reduce the risk from all sources of flooding in Oxfordshire	-	-/--	--	--
11. To protect Oxfordshire's soils and ensure efficient use of land	-	-/--	--	--
12. To safeguard Oxfordshire's mineral resources	0	0	-?	-?

[47] The housing numbers noted here are very broad-brush, and will be fine-tuned as further evidence is made available
[48] This is the approach used by Thames Water in its Draft Water Resource Management Plan

SA objectives	Alternatives			
	1	2	3	4
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	-	-/--	--	--
14. To protect and enhance the significance of Oxfordshire's historic environment	-	-/--	--	--
15. To protect and enhance Oxfordshire's landscape character and quality	-	-/--	--	--

4.142 All four of the above growth options cover the plan period 2020-2050, however it should be noted the first 10-15 years of housing growth and its associated infrastructure requirements have already been allocated within the County's District Local Plans. Consequently, the effects associated with each of these options would not be felt until the next set of Local Plan periods.

4.143 In order for Oxfordshire to deliver on the vision to be a world-leading innovation ecosystem, the Local Industrial Strategy outlines that the county must continue to work to develop resilient infrastructure that can respond to future demands and is sustainable for the environment. This can be achieved through the delivery of new housing communities in the right areas, with advanced transport links to ensure residents can make the most of the economic opportunities the region offers and improve the quality of life for residents. In addition, the increase of affordable and good quality housing will attract foreign talent and business investment.

4.144 Alternative 1 proposes growth at a lower annual average rate than is currently proposed in the Local Plans, just enough to provide for indigenous growth and limited in-migration. Some of this growth is already planned for through local plans, for instance in Bicester.

4.145 This appraisal assumes that Alternative 1 would restrict growth to within and near larger settlements, but that this low level of growth would not be enough to provide for the infrastructure needed beyond that already planned for in local plans. To 2030, Alternatives 2 and 3 are equivalent in scale to the districts' existing and emerging Local Plans[49], but after that Alternative 3 would continue growth at the same rapid pace, whereas Alternative 2 would slow it down significantly. This appraisal assumes that the existing and proposed Local Plan allocations would be implemented to 2030, and similar locations (with different scales of growth) would be developed after 2030.

4.146 Alternative 4, reflects the National Infrastructure Commission aspirations for economic growth benefits and would more than double the population of Oxfordshire. For such large numbers of new homes, it is likely to involve very large amounts of new construction on greenfield land. For instance, Highways England's Oxford-Cambridge corridor assessment report of 2018[50] suggests that major development could occur not only at existing towns but at more rural locations too. This appraisal assumes that infrastructure and employment would match housing delivery under Alternative 4.

4.147 Alternative 1 would be least likely to provide sufficient additional housing **(SA objective 1)**: enough for indigenous demographic growth, but not for the increase in population needed to support economic growth. The lack of adequate housing would constrain economic growth and the knowledge economy **(SA objectives 4 and 5)**. It would minimise impacts on existing communities and would cater for local needs for housing, jobs and services **(SA objective 3)**, but overall could curb economic growth and it could negatively impact on socially vibrant communities. The delivery of about 100,000 new homes is unlikely to be possible solely on brownfield land within existing urban areas: some greenfield land allocations are still likely to be required. In addition, 100,000 new homes will put increased pressure on existing infrastructures (water, energy, transport etc.) as such negative effects are expected on all environmental factors: water, flooding, soils, biodiversity, landscape and heritage **(SA**

[49] At the time of writing, the South Oxfordshire Local Plan's allocations could still change significantly, with county-wide ramifications. The Oxford Local Plan has also not yet been adopted, in part because of concerns about housing numbers.

[50] https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiX7YjPoJPkAhUUXRUIHdNCAw8QFjAAegQIAxAC&url=http%3A%2F%2Fassets.highwaysengland.co.uk%2Froads%2Froad-projects%2FOxford%2Bto%2BCambridge%2Bexpressway%2FCorridor%2BAssessment%2BReport.pdf&usg=AOvVaw2XTjKEFJV4RRDvfKjQX5XD

objectives 9, 10, 11, 13, 14 and **15)**. Car traffic is also likely to increase **(SA objective 6)**, with associated climate change and air pollution impacts **(SA objectives 6, 7** and **8)**.

4.148 On the other end of the scale, Alternative 4 would provide so much housing that it would support significant levels of in-migration, as well as providing for all indigenous need. It may well be difficult to attract so many new workers, particularly under Brexit. This could lead to homes being started but not completed; or homes not being built because house prices would be so low that developers do not find it worthwhile to build them; or homes not being built because of a shortage of appropriate skills or building materials. This alternative would also pose the greatest uncertainty for the economy and job creation, again because of the lack of certainty over delivery, particularly under Brexit. For this reason, the **significant positive effects** on **SA objectives 1, 4** and **5** are tempered by a possible negative.

4.149 Alternative 4 would have **significant negative effects** on environmental factors **(SA objectives 9, 10, 11, 13, 14** and **15)** because of the very large scale of housing and associated employment land that would be required for the envisaged scale of growth and due to the exponential increase in pressure on existing types of infrastructure (water, energy, transport etc.). **Significant negative effects** are also expected against **SA objectives 6, 7** and **8** because the greater amount of homes equates to a greater amount of cars and residents on the roads, consuming resources and enjoying the county's natural environment. The vibrancy of local communities **(SA objective 3)** would also have mixed positive and negative effects as they would contend with a more than doubling of the county's population, however an increase in housing and employment land increases social interaction, easier access to healthcare facilities and more community facilities. People's health and wellbeing **(SA objective 2)** is likely to be affected by a more urban environment and the short-term impacts of construction, although better housing provision, increased social interaction and easier access to healthcare and community facilities will help to counter-balance this.

4.150 Most of the impacts of Alternatives 2 and 3 are likely to fall between those of Alternatives 1 and 4, particularly in terms of environmental effects **(SA objectives 6 – 15)**. Effects on housing, the economy and jobs **(SA objectives 1, 4** and **5)** are likely to be **significant positive** for Alternatives 2 and 3, as housing and jobs growth is both more aspirational than Alternative 1 and more realistic than Alternative 4. However, the provision of infrastructure to meet the needs of housing growth beyond the lifetime of the current Growth Deal (2011 to 2031), which funds infrastructure delivery within the Districts' current Local Plan periods, is less certain. Although the greater the rate of housing delivery between 2030 and 2050 the greater uncertainty that infrastructure provision would be able to keep pace, it is assumed that all infrastructure requirements associated with the level of housing delivery would be met. People's health **(SA objective 2)** is likely to be negatively affected in the short term by construction and in the longer term by a more busy, urban environment – more negatively for Alternative 3 than Alternative 2. However, the additional housing would bring with it improved health and social infrastructure and increased social interaction resulting in minor positive effects as well. Similarly, the vibrancy of communities **(SA objective 3)** would be negatively affected by the scale of growth required, but positively impacted by increased social interaction and social infrastructure – again more for Alternative 3 than Alternative 2.

Scale of Growth – Economic Growth

4.151 Table 4.21 presents the findings of the SA of the three alternatives for economic growth:

1. Local Industrial Strategy Baseline – 35,000 additional jobs by 2040[51].
2. Meet the region's economic growth needs identified in the Local Industrial Strategy and deliver half of the growth identified in the growth strategy – 71,500 jobs by 2040.
3. Local Industrial Strategy Growth Scenario – 108,000 additional jobs by 2040.

[51] The Local Industrial Strategy has created growth scenarios to 2040. While the Oxfordshire Plan's remit is until 2050, additional evidence for the additional ten years is not currently available, as such there is uncertainty attached until 2050.

Table 4.21: Economic growth target alternatives SA findings

SA objectives	Alternatives		
	1	2	3
1. To meet Oxfordshire's housing needs	-?	+	++/-
2. To improve the health and wellbeing of Oxfordshire's population	+/-	+/-	+/-
3. To sustain and create safe and vibrant Oxfordshire communities	+/-	+/-	+/-
4. To support the development of Oxfordshire's knowledge economy	+	++	++/-
5. To maintain high and stable levels of employment across Oxfordshire	+	++	++/-
6. To reduce the need to travel by car in Oxfordshire	-	-/--	--
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	-	-/--	--
8. To minimise air, noise and light pollution in Oxfordshire	-	-	-/--
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	-	-/--	--
10. To reduce the risk from all sources of flooding in Oxfordshire	-	-/--	--
11. To protect Oxfordshire's soils and ensure efficient use of land	-	-/--	--
12. To safeguard Oxfordshire's mineral resources	0	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	-	-/--	--
14. To protect and enhance the significance of Oxfordshire's historic environment	-	-/--	--
15. To protect and enhance Oxfordshire's landscape character and quality	-	-/--	--

4.152 All three of the above growth options cover the plan period 2020-2050, however it should be noted the first 10-15 years of employment land growth and its associated infrastructure requirements have already been allocated within the County's District Local Plans. Consequently, the effects associated with each of these options would not be felt until the next set of Local Plan periods.

4.153 In order for Oxfordshire to deliver on the vision to be 'a world-leading innovation ecosystem', the Local Industrial Strategy outlines that the county must continue to work to develop resilient infrastructure that can respond to future demands and is sustainable for the environment.

4.154 Alternative 1 provides for significantly less growth than is currently proposed in the Local Plans, just enough to provide for indigenous growth and limited in-migration. This appraisal assumes that Alternative 1 would restrict growth to within and near larger settlements, but that this low level of growth would not be enough to provide for the infrastructure needed in the future.

4.155 Alternative 3, which is outlined within the Local Industrial Strategy notes that it must also involve the improvement of infrastructure to relieve existing pressure and to accommodate future growth, while responding to increasing concerns around climate change. This appraisal assumes that infrastructure and housing would match economic development under Alternative 3. Alternative 2 represents a middle ground approach between Alternatives 1 and 3.

4.156 Alternative 1 would be least likely to provide sufficient additional economic growth **(SA objectives 4 and 5)**: enough for indigenous growth, but not for the increase in population expected in the Oxford-Cambridge Arc which will translate to increased

housing stock. By providing additional jobs a positive effect on housing **(SA objective 1)** is likely to be felt. Alternative 1 would minimise impacts on existing communities and would cater for local needs for jobs and services **(SA objective 3)**, but overall could curb economic growth and not deliver socially vibrant communities. Additionally, an increased urban environment could have adverse impacts on health and wellbeing **(SA objective 2)**, as it is likely that some greenfield land and open space, will be utilised to provide additional employment land to deliver the necessary 35,000 additional jobs. In addition, 35,000 new jobs will put increased pressure on existing infrastructures (water, energy, transport etc.) as such negative effects are expected on all environmental factors: **water, flooding, soils, biodiversity, landscape and heritage (SA objectives 9, 10, 11, 13, 14** and **15)**. Car traffic is also likely to increase **(SA objective 6)**, with associated climate change and air pollution impacts **(SA objectives 6, 7** and **8)**.

4.157 On the other end of the scale, Alternative 3 would pose the greatest uncertainty for the economy and job creation, because of the lack of certainty over delivery, particularly under Brexit. This reasoning is also applied to housing as the additional number of residents will be uncertain. For this reason, the **significant positive effects** on **SA objectives 1, 4** and **5** are tempered by a possible negative.

4.158 Alternative 3 would have **significant negative effects** on environmental factors **(SA objectives 9, 10, 11, 13, 14** and **15)** because of the large amount of employment land and associated housing that would be required for the envisaged scale of growth and due to the exponential increase in pressure on existing types of infrastructure (water, energy, transport etc.). The vibrancy of local communities **(SA objective 3)** and resident's health and wellbeing **(SA objective 2)** would also be both positively and negatively affected as there would be additional employment opportunities within close proximity to communities, however delivering 108,000 jobs would need a lot of employment land thereby reducing greenfield land and potential open space.

4.159 Most of the impacts of Alternative 2 are likely to fall between those of Alternatives 1 and 3, particularly in terms of environmental effects **(SA objectives 6** to **15)**. Effects on housing, the economy and jobs **(SA objectives 1, 4** and **5)** are likely to be the most positive for this alternative, as housing and jobs growth are both more aspirational than Alternative 1 and more realistic than Alternative 3. People's health **(SA objective 2)** is likely to be negatively affected in the longer term by a more busy, urban environment as it is likely that the majority of jobs will be provided within existing urban centres. However, the additional jobs would bring with it improved housing and social infrastructure. Similarly, the vibrancy of communities **(SA objective 3)** would be negatively affected by the scale of growth required.

Locations for strategic growth

4.160 Table 4.22 presents the findings of the SA of the three alternatives for the location growth:

1. Identify strategic development locations for growth.
2. Set out criteria to locate strategic development flexibly to respond to market demands.
3. Do not identify locations or criteria for strategic development

Table 4.22: Locations for strategic growth alternatives SA findings

SA objectives	Alternatives		
	1	2	3
1. To meet Oxfordshire's housing needs	++	++	-
2. To improve the health and wellbeing of Oxfordshire's population	+?	+?	0
3. To sustain and create safe and vibrant Oxfordshire communities	+?	+?	0
4. To support the development of Oxfordshire's knowledge economy	++?	++?	-
5. To maintain high and stable levels of employment across Oxfordshire	++?	++?	-
6. To reduce the need to travel by car in Oxfordshire	+?	+	0

SA objectives	Alternatives		
	1	2	3
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+?	+	0
8. To minimise air, noise and light pollution in Oxfordshire	0?	-?	-?
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0?	-?	-?
10. To reduce the risk from all sources of flooding in Oxfordshire	0?	-?	-?
11. To protect Oxfordshire's soils and ensure efficient use of land	+	+	0
12. To safeguard Oxfordshire's mineral resources	0	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	0?	-?	-?
14. To protect and enhance the significance of Oxfordshire's historic environment	0?	-?	-?
15. To protect and enhance Oxfordshire's landscape character and quality	0?	-?	-?

4.161 This appraisal assumes that Alternative 1 would result in strategic housing and employment sites being located in sustainable locations that have few environmental constraints and are accessible by walking, cycling and public transport. For instance, they could be integrated in larger mixed-use developments. It assumes that Alternative 2 would result in employment and housing sites being located in locations with relatively few environmental constraints and relatively good public transport access, but not necessarily linked to other strategic development that would allow more efficient provision of infrastructure etc. Alternative 3 would rely on Local and Neighbourhood Plans to allocate housing and economic growth, which may be well located at a District level, but may not take advantage of strategic employment or infrastructure opportunities at the County level.

4.162 Alternatives 1 and 2 would both have **significant positive effects** in relation to **housing**, **(SA objective 1)**, **employment (SA objective 5)** and the **knowledge economy (SA objective 4)** because they would help to provide a coordinated approach of delivering housing, infrastructure and employment, which in turn would be more attractive to businesses and employees. There is uncertainty for Alternative 1 due to the fact that viable locations for economic growth and education and training may change over the plan period. The uncertainty attached to Alternative 2 acknowledges its less focussed criteria-based nature, putting greater requirements on developers to identify and deliver viable and sustainable locations.

4.163 Alternative 1, would help to reduce the need to travel by car **(SA objective 6)**, by helping to plan for integrated communities including housing, employment sites and sustainable transport. This would indirectly help to minimise Oxfordshire's contribution to climate change **(SA objective 7)**. There is some uncertainty about both of these, as they depend on the strategic growth sites put forward. Alternative 1 would also be more likely to direct housing and employment sites initially to previously developed land, helping to ensure efficient use of land **(SA objective 11)**. Alternative 2 is likely to expect minor positive effects as well as this option would set out criteria that would help councils and developers to develop in sustainable locations. Alternative 1 is likely to have minimal impacts on the other SA objectives **(SA objectives 8, 9, 10, 13, 14** and **15)** since the sites would be chosen to avoid these impacts where possible. However, uncertainty is attached to the likelihood and significance of these effects until such time as the location, design and scale of such developments is known. Alternative 2 would have some negative impacts on these SA objectives because the sites put forward by developers may not meet all of the sustainability criteria.

4.164 Alternative 1 would help to support health and vibrant communities **(SA objectives 2** and **3)** because the sites could be selected to help address those objectives, for example close to regeneration areas to address inequalities in accessing jobs in Oxfordshire's key sectors. Also, the planning, construction and ongoing running of housing and employment sites would be

integrated with planning for the wider community through phasing of infrastructure. Alternatives 1 and 2 support the provision of local employment, education and training opportunities, which could in turn improve the quality of life for Oxfordshire residents and workers, with associated health benefits and investment in existing and new communities.

4.165 Alternative 3 would result in no identification of locations or criteria for strategic development, thereby relying on Local and Neighbourhood Plans. In the absence of policy designed to identify locations for strategic growth, the Oxfordshire Plan 2050 would have a negligible effect on a number of the majority of SA objectives. However, the absence of the identification of strategic growth locations at a county wide level could result in piecemeal housing and economic development, not located in strategic areas resulting in adverse effects against the **SA objectives 1 (housing), 4 (economy)** and **5 (employment)**. In addition, Alternative 3 may have some minor negative effects on the environmental **SA objectives (SA objectives 8, 9, 10, 11, 13, 14** and **15)** because the sites put forward by developers may not be in sustainable/strategically well-connected locations. However, uncertainty is attached to the likelihood and significance of these effects until such time as the location, design and scale of such developments is known. These effects are considered to be minor in acknowledgement of the other policy and legislative mechanisms designed to plan for sustainable development.

Spatial Distribution of growth

4.166 Table 4.23 presents the findings of the SA of the eight spatial alternatives for the Oxfordshire Plan. They are based on the conceptual spatial scenarios from the 'Introducing Oxfordshire Plan 2050' consultation document, but further refined for this appraisal:

1. Intensification in existing towns and cities – Increase density of existing and planned settlements, prioritise brownfield sites.
2. Intensification of housing development around strategic economic assets – co-location of uses to meet business and research park needs.
3. Public transport 'Wheel' – Concentrate development around areas of good public transport connectivity.
4. Rail 'String' – Locate string of settlements along new/upgraded rail corridors (e.g. Cowley line).
5. OxCam 'String' – New development along route of OxCam expressway, once the route has been decided, consistent with NIC Growth Deal aspirations.
6. Strategic road junctions – Concentrate development around strategic road junctions.
7. Proportionate dispersed growth between existing settlements – Oxford, towns and villages.
8. New settlements with new strategic transport connections – in relatively unconstrained areas of the County's countryside.
9. Protect environmental assets – Identify environmental constraints first (e.g. strategic green and blue infrastructure, historic environment, flooding, AONB and other sensitive landscapes, best and most versatile agricultural land etc., possibly through natural capital mapping), then place housing and employment where they avoid significant impacts and enable enhancements.

Table 4.23: Spatial Distribution alternatives SA findings

SA Objectives	Alternatives								
	1	2	3	4	5	6	7	8	9
1. To meet Oxfordshire's housing needs	0	+	0	0	0	0	0	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+/-	?	+/-	+/-?	--	--	+/-?	+?	+?
3. To sustain and create safe and vibrant Oxfordshire communities	+/-	?	+/-	+/-?	+/--?	+/--?	+/-?	+?	+?
4. To support the development of Oxfordshire's knowledge economy	++	+	++	+/-?	+/-	-	+/-?	+/-	+/-
5. To maintain high and stable levels of employment across Oxfordshire	++	+	++	+/-?	+/-	-	++/-	+/-	+/-
6. To reduce the need to travel by car in Oxfordshire	++	?	++	++/-?	--	--	++/-	+/-	-
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	?	++	+?	--	--	+/-	+/-	++/-
8. To minimise air, noise and light pollution in Oxfordshire	0	?	0	0	--	--	-	+/-	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	-	?	-	-?	-	-	-	--?	++
10. To reduce the risk from all sources of flooding in Oxfordshire	-	?	-	-?	-	-	-	--?	++
11. To protect Oxfordshire's soils and ensure efficient use of land	++	?	++	-?	--	--	+/-	--?	++
12. To safeguard Oxfordshire's mineral resources	0	?	0	0	-?	-?	0	--?	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	-	?	-	-?	--	--	-	--?	++
14. To protect and enhance the significance of Oxfordshire's historic environment	-	?	-	-?	-/--	-/--	-	--?	++
15. To protect and enhance Oxfordshire's landscape character and quality	-	?	-	-	--	--	-	--?	++

4.167 This appraisal assumes that the same number of homes will be provided by each alternative and therefore no effect on SA objective 1, with the differences in effects arising from the location of the development (except for Alternative 2 which would provide bespoke accommodation for local workers, see below). It also assumes that, for each alternative, the amount of employment land made available would be roughly the same, and that the location of employment sites would roughly mirror the location of homes, e.g., employment sites in and around settlements for Alternative 1, or strung out along the Oxford-Cambridge expressway for Alternative 5.

4.168 Alternatives 1 and 3 are considered likely to have the same effects across all the SA objectives, because concentrating development around areas of good public transport connectivity is assumed to mean that development would be located mostly within Oxfordshire's existing towns and cities. These two alternatives would have **significant positive effects** in terms of employment and the knowledge economy **(SA objectives 4 and 5)** because development would take place in areas where there are already employment and educational facilities, allowing economic clusters to form. The employment could be easily accessed by walking, cycling and transport, in part because development would be dense also resulting in **significant positive effects** on **SA objectives 6** and **11**. The denser development would make district heating easier, and flats – the form of housing that is most likely under these alternatives – use less energy than other forms of dwellings. This, combined with the reduced need to travel, would also have **significant positive effects** on minimising contributions to climate change **(SA objective 7)**.

4.169 Alternatives 1 and 3 would have both positive and negative effects on health and communities **(SA objectives 2** and **3)**. Existing towns and cities have existing health facilities which could support new residents but could also be placed under a lot of pressure. Existing residents are likely to feel negative impacts from a large increase in population, although new residents are likely to benefit from the existing services (e.g., leisure and retail facilities).

4.170 Alternatives 1 and 3 would limit negative effects on biodiversity due to their efficient land use, however denser development could result in fewer green spaces in urban settings **(SA objective 13)**. Negative impacts on flooding, heritage and the landscape are also likely **(SA objectives 10, 14** and **15)** because existing urban areas are mostly in/near the floodplain, with significant heritage assets and attractive and distinctive townscapes and landscape character, which would be affected by significant quantities of new development.

4.171 Most of the impacts of Alternative 2 are unknown and depend on where and how the employer-linked housing is built. Theoretically, this alternative would reduce the need to travel **(SA objective 6)** to work by car as housing would be near the employment site. However, the current large employment sites are not near services – they are on the edge of towns or outside towns – so other journeys than those to work might be made more easily by car.

4.172 Similarly, the large employment sites are currently in areas with relatively limited environmental constraints, so adding homes in those locations could also limit impacts on water quality, flooding, biodiversity, soil quality, the heritage and landscape **(SA objectives 9, 10, 11, 13, 14** and **15)**. However, other sites linked to business/research parks may be more environmentally sensitive. The new housing sites could support health and vibrant communities **(SA objectives 2 and 3)** if they are large enough and have good access to services but could be quite remote from services and become like commuter suburbs if they simply act as dormitories for local workers.

4.173 Alternative 2 would help to meet Oxfordshire's housing needs **(SA objective 1)** by providing bespoke accommodation for local workers. This could include temporary accommodation for visiting scientists/scholars, accommodation for shift workers, and other employer-specific housing, which might be harder to provide through standard housing developments. By providing housing that is bespoke to the large employers, including being located near them, Alternative 2 also supports the knowledge economy and employment **(SA objectives 4 and 5)**. Therefore, minor positive effects are expected.

4.174 Alternative 4 would place new development along new and upgraded railway lines. With the exception of Oxford, Didcot, Banbury and Bicester, the Oxfordshire settlements that have existing rail stations are comparatively small and service is poor. This appraisal assumes that these settlements, along with Oxford and the market towns, would all grow significantly under this alternative, with other parts of Oxfordshire being relatively unaffected. Uncertainty is attached to each SA objective as this option would be subject to investment in improvements to rail facilities and frequency.

4.175 Alternative 4's main positive effects would be in reducing the need to travel by car and associated climate change effects **(SA objectives 6 and 7)**. Siting new development along rail corridors would encourage people to travel by rail rather than car, and the scale of development is likely to mean that adequate services and facilities would be provided in even the smaller towns. It is uncertain whether other public transport would be improved as a result of this alternative, and some commuting by

car might be needed to access the train stations. Uncertainty is attached as not all of the main employment hubs are accessible by rail, so there would be limitations on the positive effects.

4.176 Like Alternatives 1 and 3, Alternative 4 would negatively affect existing residents but help to provide adequate/improved services and would be positive for new residents in terms of health and communities **(SA objectives 2 and 3)**.

4.177 Alternative 4 is likely to have minor negative effects on most environmental criteria, since the existing settlements along railway lines are sometimes located in the floodplain, with significant biodiversity, attractive landscape and heritage assets **(SA objectives 9, 10 11, 13, 14** and **15)**. Most development is likely to be greenfield, with a negative impact on **SA objective 11**. The impact on jobs and the knowledge economy **(SA objectives 4 and 5)** would be both positive and negative: positive because employment sites in Oxford and the larger towns could benefit from clustering and from existing higher education institutions; negative because those in the smaller towns could be constrained by their relatively remote location and reliance on rail transport.

4.178 Alternatives 5 and 6, which would focus development on roads (the Oxford-Cambridge expressway for Alternative 5, existing road junctions for Alternative 6) are the least sustainable alternatives of the nine considered. Alternative 5 aims to improve sub-regional/regional connections through the Expressway by locating growth along the junctions thereby encouraging long distance commuting. Development is likely to be greenfield (including the expressway being built on greenfield land) and is unlikely to be high density such as that in Alternative 1. This would have **significant negative effects** on efficient use of land **(SA objective 11)**. Development would be by definition road-based, with consequent **significant negative effects** on reducing the need to travel by car **(SA objective 6)** and reducing the causes of climate change **(SA objective 7)**.

4.179 The additional traffic (and, for Alternative 5, new expressway) would have a **significant negative effect** on biodiversity through fragmentation of habitats, noise, and air pollution **(SA objective 13)**. It would increase noise and light pollution **(SA objective 8)** on the roads and road junctions (and, for Alternative 5, in areas of the county that are currently tranquil). The additional development and associated traffic (and, for Alternative 5, the new expressway) would have a **significant negative effect** on the landscape, and at least some impact on the historic environment, notably on the settings of buildings **(SA objectives 14** and **15)**.

4.180 Alternatives 5 and 6 are also likely to have **significant negative effects** on health and communities **(SA objectives 2** and **3)**. As the Expressway proposed in Alternative 5 aims to improve regional connections thereby locating growth along junctions, it is less likely to connect development to local places of work and residence. Existing and new residents will also be negatively affected by the additional noise and air pollution caused by large car-dependent developments; the indirect effects on the landscape and biodiversity; and the stress of increasing traffic on existing roads. It may be more difficult for new residents to form communities in large, car-dependent developments.

4.181 The effects of Alternative 5 on jobs and the knowledge economy **(SA objectives 4** and **5)** are likely to be mixed. Investment in the expressway will result in some positive effects, for example, providing for access to a route to additional housing and employment opportunities. However, the expressway may not necessarily make commuting within Oxfordshire easier as it is likely to have fewer junctions. Therefore, it is likely that residents will be forced to use local roads thereby creating traffic congestion and increasing commuting times. For both Alternatives 5 and 6 it is likely that traffic movements[52] would increase and, in time, congestion. Suppliers will need to rely on increasingly congested roads for deliveries. Businesses will be vulnerable to problems on the roads and increases in petrol prices. Businesses located on road junctions will find it more difficult to form clusters with existing businesses and educational institutions, affecting the knowledge economy. Businesses on an Oxford-Cambridge Arc could profit from linking with other institutions along an expressway, but in practice they could simply be strung along a large road with relatively few links between them.

4.182 Alternative 7 is for proportionate growth, i.e., each settlement would get an equal proportion of additional growth. The effects of this alternative are likely to be a combination of those of Alternative 1 (growth in existing towns) for development in Oxford, Didcot, Banbury and Bicester; and Alternatives 4 and 6 (growth outside of towns, near a railway station or road junction) for smaller settlements.

4.183 For very small villages, a very small addition of development could be beneficial in keeping or enhancing local services (including health services) and supporting a vibrant local community **(SA objectives 2** and **3)**; however, this is uncertain because in some settlements the scale of growth may be insufficient to deliver new and improved services and facilities in

[52] https://bettertransport.org.uk/roads-nowhere/induced-traffic

certain locations. For larger settlements, impacts on communities are likely to be mixed, with new development bringing significant changes and new and improved services and facilities, as well as possibly overwhelming other local services.

4.184 Alternative 7 would support Oxfordshire's knowledge economy (SA objective 4) in the larger settlements, which already have high-tech employment and educational facilities. It is less likely to do so in the smaller, more dispersed settlements. On the other hand, a wider variety of locations – rural as well as urban – could support a wider range of types of employment (SA objective 5), including light industrial and agricultural. This could also support a more balanced, resilient form of economic growth in the county.

4.185 Alternative 7 would lead to more transport movements **(SA objective 6)** than Alternatives 1 or 3, but less than Alternatives 5 or 6. The new residents and employees of the urban areas are more likely to walk, cycle or take public transport, whilst those in the villages are more likely to drive their cars. However, the wider range of housing and employment opportunities offered by this 'mixed' option could allow people to live near where they work in the countryside and could allow more services to be provided in rural areas, thus allowing rural dwellers to more easily access them by non-car means. Impacts on greenhouse gas emissions **(SA objective 7)** are also likely to be mixed, with urban dwellers living in higher density developments and driving less, and rural dwellers more likely to live in larger detached houses that use more fuel and driving more.

4.186 Like the other alternatives, Alternative 7 is likely to negatively affect air quality, water quality, flooding, biodiversity **(SA objectives 8, 9, 10** and **13)** by requiring more land take **(SA objective 11)**, although this would be minimised by the fact that most new development would be in/near existing settlements, focused on brownfield land and of higher density. Impacts on heritage and landscape would also be negative **(SA objectives 14** and **15)**.

4.187 Alternative 8 will have positive effects on jobs, the knowledge economy, communities and health and wellbeing **(SA objectives 2, 3, 4** and **5)** as new settlements are likely to be self-sufficient and sustainable providing additional jobs and social and health infrastructure. Although, depending on the type of strategic transport connections, additional noise and air pollution caused by private vehicle travel could negatively affect communities. Negative effects are also expected on jobs and the knowledge economy as the new settlements could be placed in isolated or constrained areas.

4.188 Depending on the location of these new settlements and what type of new strategic transport connections are created, mixed positive and negative effects are expected on reducing the need of the car, climate change and pollution **(SA objective 6, 7** and **8)**. This is because new settlements could be located just outside of existing urban and town centres where transport links are concentrated thereby reducing the need for private vehicles, or new settlements could be situated in more rural areas with no transport links to connect with creating a settlement dependent on private vehicles thereby increasing greenhouse gas emissions and air and noise pollution.

4.189 Significant negative effects are expected against water, flooding, soil, minerals, biodiversity, historic environment and landscape **(SA objectives 9** to **15)** as new settlements and new transport connections could lead to water overuse, be developed on greenfield lands, flood zones or mineral safeguarding areas, be located within close proximity to European Sites or heritage assets and could create fragmentation within habitats. Therefore, negative effects are expected as locations for the new settlements and the type of transport connections are uncertain.

4.190 Alternative 9 would focus development in areas that are environmentally robust: avoiding floodplains, sensitive biodiversity areas, landscape designations etc and as such would have **significant positive effects** for most dimensions of the environment. It would help to protect areas of floodplain, high biodiversity, high agricultural quality, high landscape quality, and heritage value **(SA objectives 10, 11, 13, 14** and **15)**. In doing so, it would also help to protect water quality **(SA objective 9)**.

4.191 On the other hand, Alternative 9 would lead to development that is car-based or that would require excellent public transport services to prevent heavy car use **(SA objective 6)**. The most environmentally unconstrained areas are not necessarily the most accessible via sustainable modes of transport and may require considerable travel if residents wanted to access jobs and services in the larger settlements. The emissions from the additional travel, is likely to add significantly to greenhouse gas emissions **(SA objective 7)**.

4.192 The effect of Alternative 9 on communities and health **(SA objectives 2** and **3)** is likely to be minor positive. The alternative would help to protect the environmental assets that underlie good health. This alternative is also likely to support a knowledge economy and high employment **(SA objectives 4** and **5)**, through the retention of environment assets that attract people to live and work and businesses to invest in Oxfordshire. However, minor negative effects are also expected as

development would likely be located in areas that are not well served by public transport, with no clear links to existing employment clusters or educational institutions. They are also areas where broadband is likely to be absent or slow.

Improving accessibility and transport

4.193 Table 4.24 presents the findings of the SA of the three alternatives for improving accessibility and transport. Most policies regarding transport are set through the Local Transport Plan, but the three alternatives below are within the remit of the Oxfordshire Plan[53]:

1. Plan for, for a comprehensive mass transit network linking larger existing and new built-up areas.
2. Plan for, a comprehensive cycling network linking larger existing and new built-up areas.
3. Plan for county wide digital connectivity.

Table 4.24: Improve accessibility and transport alternatives SA findings

SA objectives	Alternatives		
	1	2	3
1. To meet Oxfordshire's housing needs	+	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+?	++	0
3. To sustain and create safe and vibrant Oxfordshire communities	+?	++	0
4. To support the development of Oxfordshire's knowledge economy	0	+	++
5. To maintain high and stable levels of employment across Oxfordshire	+	+	+
6. To reduce the need to travel by car in Oxfordshire	++	++	+
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	+	+
8. To minimise air, noise and light pollution in Oxfordshire	+	0	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0?	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0?	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	++/-	0	0
12. To safeguard Oxfordshire's mineral resources	++/-	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	++/-	+/-	0
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	++/-	+/-	-

4.194 Alternative 1 would have **significant positive effects** on reducing the need to travel by car **(SA objective 6)** and, associated with that, on minimising greenhouse gases **(SA objective 7)**. Mass transit is likely to be electric, helping to improve air quality. Residents would probably walk or cycle to public transport stops, helping to improve their health, and stops/stations

[53] Unlike most of the other alternatives discussed in this report which are mutually exclusive (only one can be chosen), any or all of these alternatives could be included in the plan.

would act as forms of community meeting spaces **(SA objectives 2** and **3)**. Additionally, fast, effective, and reliable public transit could also help to reduce journey times thereby reducing time caught in traffic and would improve work life balance and quality of life. However, these positive effects are uncertain until the location of the network hubs are known. A robust public transport network could also make new housing and employment development more attractive, since they could be accessed by a range of transport modes **(SA objectives 1** and **5)**.

4.195 The development of a comprehensive mass transit network would have some negative implications in terms of land take for the new infrastructure **(SA objective 11)**. However, it avoids much more land take in the form of new roads, parking areas and garages, so that the overall impact is positive. It would also affect the landscape (e.g., through tracks, bus lanes, overhead gantries), resource use (e.g., ballast for bus lanes or light rail tracks) and biodiversity (e.g., habitat fragmentation) but again would avoid worse impacts arising from roads and vehicles **(SA objectives 12, 13** and **15)**. Therefore, these SA objectives are also expected to have **significant positive effects** as the mass transit system is likely to be electric and include public transport and active modes of travel. This approach would have a positive effect on the County's landscape, soils, biodiversity, and mineral resources compared to the creation of additional roads which would worsen air quality, use more land and it is less likely that private vehicle related infrastructure would include green infrastructure compared to more sustainable modes of travel.

4.196 A comprehensive cycling network – Alternative 2 – would have **significant positive effects** on health from encouraging people to cycle **(SA objective 2)**; on communities by providing spaces where people can meet **(SA objective 3)**; and on reducing the need to travel by car by allowing more journeys to be made by bicycle **(SA objective 6)**. The growth in the use of e-bikes could synergistically (more than just adding the impacts of the two separately) work with a better cycle network to significantly change people's future travel behaviour.

4.197 A cycling network would support employment growth and the knowledge economy **(SA objectives 4** and **5)** by allowing employees to take a healthy form of transport to work. Reducing the need for car parking at the employment site would also be more cost-effective for the employer.

4.198 Development of a cycle network – the assumption here is that this would be through currently undeveloped areas – is likely to have some minor negative effects on the landscape and biodiversity. However, the network is likely to be accompanied by planting and possibly (as with the Sustrans network) artwork, so it could instead have minor positive effects by becoming a biodiversity corridor, part of the multifunctional green infrastructure network and a visual asset **(SA objectives 13** and **15)**.

4.199 Comprehensive broadband access – Alternative 3 – is likely to have very few negative effects, apart from the visual impacts of any necessary masts **(SA objective 15)**, and the short-term effects of digging in the cables. It would have **significant positive effects** for Oxfordshire's knowledge economy **(SA objective 4)** by allowing for faster communication. It would also allow people to work from home, increasing their efficiency and reducing the need for office space[54]. It would have a less clear effect in supporting employment generally **(SA objective 5)**, although the ability to work more flexibly would still have benefits. Reducing the need to travel to work **(SA objective 6)** would also have benefits in terms of climate change **(SA objective 7)**.

[54] https://www.inc.com/scott-mautz/a-2-year-stanford-study-shows-astonishing-productivity-boost-of-working-from-home.html

Chapter 5
Oxfordshire Plan 2050 Regulation 18 Part 2 options SA findings

5.1 This chapter sets out and appraises the options being consulted upon in the Oxfordshire Plan 2050 Regulation 18 Part 2 consultation document, including preferred options and reasonable alternatives. **Appendix D** lists the contents of the Oxfordshire Plan 2050 Regulation 18 Part 2 consultation document policy by policy and provides justification for the selection of the preferred policies. The appraisal of the policy options in this chapter follows the same order as the Oxfordshire Plan consultation document.

5.2 The Oxfordshire Plan makes reference to the contents of the 'Strategic Vision for Long-Term Sustainable Development 2050' document. The Oxfordshire Plan lists this strategic document's definition of 'good growth', strategic vision and associated guiding principles for context only; they do not represent components of the Oxfordshire Plan, so they have not been subject to appraisal in this SA Report. The following elements of the Oxfordshire Plan 2050 Regulation 18 Part 2 consultation document have been subject to appraisal:

- Oxfordshire Plan Vision for 2050 and Strategic Objectives:
  - One vision.
  - 11 strategic objectives.
- Theme One – Addressing climate change:
  - Four preferred policies.
  - Nine reasonable alternatives.
- Theme Two – Improving environmental quality:
  - Eight preferred policies.
  - Seven reasonable alternatives.
- Theme Three – Creating strong and healthy communities:
  - Four preferred policies.
  - Four reasonable alternatives.
- Theme Four – Planning for sustainable travel and connectivity:
  - Five preferred policies.
  - Five reasonable alternatives.
- Theme Five – Creating jobs and providing homes:
  - 11 preferred policies.
  - 12 reasonable alternatives.[21]
- Strategic spatial options:
  - Five reasonable alternatives.

[21] Note: the preferred scale of growth (jobs and homes) to be planned for within the Oxfordshire 2050 Plan has yet to be determined. No new reasonable alternatives to the growth options appraised in Chapter 4 were identified at this stage, so no growth options are appraised in Chapter 5.

5.3 Table 5.1 below reports the evolution of the reasonable options from those initially considered and appraised in **Chapter 4**, explaining their relationship with the options included in the latest iteration of the Oxfordshire Plan 2050 and providing the plan-makers' justification for the exclusion of previously appraised options where relevant.

Table 5.1: Evolution of initial options appraised Chapter 4 into Oxfordshire Plan 2050 Consultation Document

Initial Options Appraised in Chapter 4			Evolution of Options in Oxfordshire Plan 2050 Consultation Document	Plan-makers' Justification for Change
Theme	**Topic**	**Option**		
Climate Change Mitigation and Adaptation	Energy efficiency targets	Require all strategic development to be zero carbon, setting out 'allowable solutions' to offset carbon that cannot be reduced on site.	Policy 01: Sustainable Design and Construction effectively covers this option.	
		Require all strategic development to meet higher energy efficiency standards than Building Regulations, setting out 'allowable solutions' to offset carbon that cannot be reduced on site.	Policy 01: Sustainable Design and Construction and Policy 02: Energy effectively cover this option.	
		Set out criteria encouraging higher energy efficiency standards than Building Regulations.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	A decision has been made not to include criteria-based policies in the Oxfordshire Plan consultation document at this stage. Further consideration will be given to such options after this stage.
		Do not set energy efficiency targets that are higher than Building Regulations.	Considered as an alternative to Policy 02: Energy.	
	Renewable energy targets	100% of the County's new strategic development sites' energy needs generated from renewable sources by 2050.	Policy 02: Energy effectively covers this option.	
		50% of the County's new strategic development sites' energy needs generated from renewable sources by 2050.	Considered as an alternative to Policy 02: Energy – but more generally through consideration of the principle of any policy-based energy target.	
		Set out criteria encouraging the siting of renewable energy technologies.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	A decision has been made not to include criteria-based policies in the Oxfordshire Plan consultation document at this stage. Further consideration will be given to such options after this stage.
		Do not set county-wide renewable energy targets.	Considered as an alternative to Policy 02: Energy.	

Initial Options Appraised in Chapter 4			Evolution of Options in Oxfordshire Plan 2050 Consultation Document	Plan-makers' Justification for Change
Theme	Topic	Option		
	Promote local low carbon energy networks	Identify strategic development locations with potential for local energy networks (e.g. heat from power, co-location of homes and heat/energy producing employment sites).	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	A decision has been made not to include site-based policies in the Oxfordshire Plan consultation document at this stage. Further consideration will be given to such options after this stage.
		Set out criteria encouraging the siting of local energy networks.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	A decision has been made not to include criteria-based policies in the Oxfordshire Plan consultation document at this stage. Further consideration will be given to such options after this stage.
		Do not identify locations or set criteria for low carbon energy networks.	Policy 02: Energy does not identify locations or set criteria for low carbon energy networks.	
	Promote strategic renewable wind and solar developments	Identify strategic development locations with potential for strategic wind and/or solar farms.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	A decision has been made not to include site-based policies in the Oxfordshire Plan consultation document at this stage. Further consideration will be given to such options after this stage.
		Set out criteria encouraging the siting of strategic wind and solar farms.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	A decision has been made not to include criteria-based policies in the Oxfordshire Plan consultation document at this stage. Further consideration will be given to such options after this stage.
		Do not identify locations or set criteria for strategic renewable wind/solar development.	Policy 02: Energy does not identify locations or set criteria for strategic renewable wind/solar development.	
	Promote low/zero carbon transport networks	Identify strategic development locations and linkages for investment in strategic zero/low carbon transport networks, such as zero emission/electric vehicle zones, low emission zones, solar roads and electric car hubs.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	A decision has been made not to include site-based policies in the Oxfordshire Plan consultation document at this stage. Further consideration will be given to such options after this stage.
		Encourage the development of strategic low/zero carbon transport networks.	Policy 17: Towards a Net Zero Transport Network effectively covers this option.	

Initial Options Appraised in Chapter 4			Evolution of Options in Oxfordshire Plan 2050 Consultation Document	Plan-makers' Justification for Change
Theme	Topic	Option		
		Do not encourage or identify strategic locations for low/zero carbon transport networks.	Considered as an alternative to Policy 17: Towards a Net Zero Transport Network.	
	Promote climate change resilience and adaptation	Identify strategic opportunities for upstream flood mitigation/storage areas (see also 'Promote/enhance biodiversity at the strategic scale).	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	No strategic opportunities have been identified at this time. Such opportunities would however be linked to Policy 04: Flood Risk and Policy 07: Natural Capital as well as future spatial strategy-related policies.
		Identify strategic opportunities for urban greening.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	No strategic opportunities have been identified at this time. Such opportunities would however be linked to Policy 07: Natural Capital.
		Identify strategic opportunities for large-scale tree planting.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	No strategic opportunities have been identified at this time. Such opportunities would however be linked to Policy 05: Nature Recovery and Policy 07: Natural Capital.
		Do not identify strategic opportunities to promote climate change resilience and adaptation in Oxfordshire.	Policy 04: Flood Risk does not identify strategic opportunities to promote climate change resilience and adaptation in Oxfordshire.	
	Water efficiency targets	Require all strategic development to be water neutral.	Policy 03: Water Efficiency effectively covers this option.	
		Require all strategic development to meet higher water efficiency standards than Building Regulations.	Policy 03: Water Efficiency effectively covers this option.	
		Set out criteria encouraging higher water efficiency standards than Building Regulations.	Policy 03: Water Efficiency effectively covers this option.	
		Do not set water efficiency targets that are higher than Building Regulations.	Considered as an alternative to Policy 03: Water Efficiency.	

Initial Options Appraised in Chapter 4			Evolution of Options in Oxfordshire Plan 2050 Consultation Document	Plan-makers' Justification for Change
Theme	**Topic**	**Option**		
Sustainable onstruction and esign rinciples	Promote sustainable construction and design	Prescribe county-wide principles/standards to encourage the sustainable design and construction of all buildings, including orientation, insulation etc., possibly in line with established Code for Sustainable Homes/Home Quality Mark and BREEAM standards.	Policy 01: Sustainable Design and Construction effectively covers this option.	
		Prescribe county-wide principles/standards for the masterplanning of strategic scale developments, including integration with public transport links, healthy place-making principles, community hubs, green infrastructure etc.	Policy 15: High Quality Design for New Development and Garden Town Standards for New Settlements effectively covers this option.	
		Do not identify county-wide principles/standards.	Considered as an alternative to Policy 01: Sustainable Design and Construction.	
Historic Environment	Promote the conservation and enhancement of the historic built environment	Establish a positive strategy for the conservation and enjoyment of Oxfordshire's historic environment at the strategic scale.	Policy 06: Protection and Enhancement of Historic Environment covers this option.	
		Do not establish a positive strategy for the conservation and enjoyment of Oxfordshire's historic environment at the strategic scale.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	It is no longer considered appropriate to be silent on this strategic issue in the Oxfordshire Plan.
Natural Environment	Promote the conservation and enhancement of strategic views, landscape and townscape features	Establish a positive strategy for the conservation and enhancement of important and/or sensitive strategic views, landscape and townscape features at a county-wide landscape scale.	Policy 05: Protection and Enhancement of Landscape Characters covers this option.	
		Do not establish a positive strategy for the conservation and enhancement of landscape and townscape features at a county-wide landscape scale.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	It is no longer considered appropriate to be silent on this strategic issue in the Oxfordshire Plan.

Initial Options Appraised in Chapter 4			Evolution of Options in Oxfordshire Plan 2050 Consultation Document	Plan-makers' Justification for Change
Theme	**Topic**	**Option**		
	Protect/enhance biodiversity at the strategic scale	Establish a positive strategy for the protection and enhancement of biodiversity at a county-wide landscape scale.	Policy 07: Nature Recovery effectively covers this option.	
		Do not establish a positive strategy for the protection and enhancement of biodiversity at a county-wide landscape scale.	Considered through alternative to Policy 07: Nature Recovery.	
	Promote/create/enhance green infrastructure and access to nature at the strategic scale	Identify location(s) for new strategic green spaces to serve the county.	Policy 07: Nature Recovery effectively covers this option.	
		Do not identify strategic scale green spaces.	Considered through alternative to Policy 07: Nature Recovery.	
	Proportions of biodiversity net gain:	10% biodiversity net gain to be delivered through new development on the basis of achieving at least some net gain.	Considered through alternative to Policy 08: Biodiversity Gain given national legislation mandates 10% biodiversity net gain.	
		20% biodiversity net gain to be delivered through new development on the basis of proven viability.	Policy 08: Biodiversity Gain effectively covers this option.	
		50%-100% biodiversity net gain to be delivered through new development on the basis of starting to account for past losses.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	It is considered that such high biodiversity net gain would present viability and deliverability challenges for the Plan.
		Set out criteria encouraging at least some biodiversity net gain.	Considered through alternative to Policy 08: Biodiversity Gain given national legislation mandates 10% biodiversity net gain.	
		Do not set county-wide biodiversity net gain targets.	Considered through alternative to Policy 08: Biodiversity Gain.	
Green Belt		Identify strategic opportunities to enhance the existing Oxford Green Belt (for delivery through	Policy 10: Green Belt effectively covers this option.	

Initial Options Appraised in Chapter 4			Evolution of Options in Oxfordshire Plan 2050 Consultation Document	Plan-makers' Justification for Change
Theme	**Topic**	**Option**		
	Enhancement of Green Belt Beneficial Uses:	Local Plans) (i.e. provide access, opportunities for outdoor sport and recreation, enhance landscapes, visual amenity and biodiversity; or improve damaged or derelict land).		
		Do not identify strategic opportunities to enhance the existing Oxford Green Belt.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	It is considered that the Oxfordshire Plan represents an important opportunity to provide strategic direction on this important cross-boundary issue.
Equality in Oxfordshire	Addressing inequalities	Identify strategic development opportunities in areas of socio-economic deprivation to address inequality through regeneration. Identify strategic opportunities for investment in areas of strategic socio-economic deprivation to be delivered through S106 and CIL contributions, e.g. skills development and training, infrastructure investment including green infrastructure.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	Opportunities for addressing socio-economic deprivation will be explored through further spatial options assessment following this stage.
		Do not identify strategic opportunities to regenerate areas of socio-economic deprivation.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	Opportunities for addressing socio-economic deprivation will be explored through further spatial options assessment following this stage.
	Affordable Housing Targets	Set different affordable housing targets across the County to reflect different markets.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	Such a policy would require detailed viability assessment of housing sub-markets which has not been undertaken at this stage.
		Set consistent affordable housing target across Oxfordshire.	Considered through alternative to Policy 30: Affordable Housing.	
		Do not set affordable housing targets.	Policy 30: Affordable Housing does not set affordable housing targets.	
Scale of rowth	Housing growth	Government standard method using 2014 population projections (100,000 new homes to 2050).	Considered through alternative to Policy 28: How many Homes?	

Initial Options Appraised in Chapter 4			Evolution of Options in Oxfordshire Plan 2050 Consultation Document	Plan-makers' Justification for Change
Theme	Topic	Option		
		Continue rate of growth in Local Plans to 2030, and thereafter population projections[56] (150,000 new homes to 2050).		
		Continue current rate of growth in Local Plans to 2050 (200,000 new homes to 2050).		
		National Infrastructure Commission (NIC) Growth Deal level (300,000 homes to 2050).		
	Economic growth	Local Industrial Strategy Baseline – 35,000 additional jobs by 2040.	Considered through alternative to Policy 22: Supporting the Creation of Jobs.	
		Meet the region's economic growth needs identified in the Local Industrial Strategy and deliver half of the growth identified in the growth strategy – 71,500 jobs by 2040.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	A decision has been made not to specific an economic growth target in the Oxfordshire Plan consultation document at this stage. Further consideration will be given to such options after this stage, guided by the Oxfordshire Growth Needs Assessment and subsequently covered by Policy 25: How many jobs.
		Local Industrial Strategy Growth Scenario – 108,000 additional jobs by 2040.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	A decision has been made not to specific an economic growth target in the Oxfordshire Plan consultation document at this stage. Further consideration will be given to such options after this stage, guided by the Oxfordshire Growth Needs Assessment and subsequently covered by Policy 25: How many jobs.
	Locations for strategic growth	Identify strategic development locations for growth.	Policy 28: Homes: How many? Commitments and Locations effectively covers this option.	

[56] This is the approach used by Thames Water in its Draft Water Resource Management Plan.

Initial Options Appraised in Chapter 4			Evolution of Options in Oxfordshire Plan 2050 Consultation Document	Plan-makers' Justification for Change
Theme	**Topic**	**Option**		
Strategic rowth ocations		Set out criteria to locate strategic development flexibly to respond to market demands.	Policy 28: Homes: How many? Commitments and Locations effectively covers this option.	
		Do not identify locations or criteria for strategic development.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	The alternative of leaving this to local plans is not considered to be reasonable given the strategic importance of delivering a sustainable and deliverable pattern of growth across the county..
Spatial Distribution of Growth	Spatial Alternatives	Intensification in existing towns and cities – Increase density of existing and planned settlements, prioritise brownfield sites.	Spatial Option 1 – Focus on opportunities at larger settlements and planned growth locations effectively covers this option.	
		Intensification of housing development around strategic economic assets – Co-location of uses to meet business and research park needs.	Spatial Option 4 – Focus on strengthening business locations effectively covers this option.	
		Public transport 'Wheel' (transport led) – Concentrate development around areas of good public transport connectivity.	Spatial Option 3 – Focus on opportunities in sustainable transport corridors & at strategic transport hubs effectively covers this option.	
		Rail 'String' (transport led) – Locate string of settlements along new/upgraded rail corridors (e.g., Cowley line).	Spatial Option 3 – Focus on opportunities in sustainable transport corridors & at strategic transport hubs effectively covers this option.	
		OxCam 'String' (transport led) – New development along route of OxCam expressway, once the route has been decided, consistent with NIC Growth Deal aspirations.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	The expressway was formally cancelled by Government on 18 March 2021 after analysis showed that the proposed project would not be cost-effective, with any benefits outweighed by the costs.
		Strategic road junctions – Concentrate development around strategic road junctions.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	The option was appraised in Chapter 4 to have significant negative effects across a range of SA objectives, including health, reliance on the car, climate change, pollution, soils and efficient use of land, biodiversity and geodiversity and landscape.

Initial Options Appraised in Chapter 4			Evolution of Options in Oxfordshire Plan 2050 Consultation Document	Plan-makers' Justification for Change
Theme	Topic	Option		
		Proportionate dispersed growth between existing settlements (needs led) – Oxford, towns, and villages.	Spatial Option 5 – Focus on supporting rural communities effectively covers this option.	
		New settlements with new strategic transport connections.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	New settlements have not been taken forward as a separate strategic spatial option in the Plan; rather a new settlement (or settlements) is considered as a spatial typology that could potentially help deliver several of the strategic options set out in this document.
		Protect environmental assets (environment led) – Identify environmental constraints first (e.g., strategic green and blue infrastructure, historic environment, flooding, AONB and other sensitive landscapes, best and most versatile agricultural land etc., possibly through natural capital mapping), then place housing and employment where they avoid significant impacts and enable enhancements.	Option not taken forward into Oxfordshire Plan 2050 Consultation Document.	All options in the Plan prioritise the environment as a common thread that flows from the Oxfordshire Strategic Vision.
Accessibility and ransport	Improve accessibility and transport	Plan for a comprehensive mass transit network linking larger existing and new built-up areas.	Policy 18: Sustainable transport in New Development effectively covers this option.	
		Plan for a comprehensive cycling network linking larger existing and new built-up areas.	Policy 18: Sustainable transport in New Development effectively covers this option.	
		Plan for county wide digital connectivity	Policy 20: Digital Infrastructure effectively covers this option.	

Oxfordshire Plan Vision and Objectives

5.4 The Oxfordshire Plan Vision for 2050 represents the overarching goal for the County. The Vision focuses on sustainable communities enjoying a high quality of life enriched by the county's historic and natural character. Connectivity and productivity will be higher and more resilient to change, contributing to the health and wellbeing of residents and workers. The Oxfordshire Plan Vision is supported by 11 objectives:

1. To demonstrate leadership in addressing the climate emergency by significantly reducing greenhouse gas emissions.
2. To conserve and enhance Oxfordshire's historic, built and natural environments, recognising the benefits these assets contribute to quality of life, local identity and economic success.
3. To protect and enhance Oxfordshire's distinctive landscape character, recreational and biodiversity value by identifying strategic green and blue infrastructure, improving connectivity between environmental assets and securing a net gain for biodiversity.
4. To improve health and wellbeing by enabling independence, encouraging active and healthy lifestyles, facilitating social interaction and creating inclusive and safe communities.
5. To sustain and strengthen Oxfordshire's economic role and reputation by building on our key strengths and relationships.
6. To ensure that the benefits and opportunities arising from Oxfordshire's economic success are felt by all of Oxfordshire's communities.
7. To meet Oxfordshire's housing needs, including affordable housing, and to ensure that housing delivery is phased appropriately to support the needs of our communities.
8. To ensure that new housing is flexible to meet the varied needs of people through all stages of life.
9. To deliver high quality, innovatively designed development that ensures efficient use of land and resources.
10. To reduce the need to travel and to support people in making sustainable transport choices by providing inclusive, integrated, safe and convenient pedestrian, cycle and public transport infrastructure linking communities.
11. To ensure that communities are digitally connected and that innovative technologies are supported.

5.5 Table 5.2 summarises the SA findings for the Oxfordshire Plan Vision and 11 Objectives, which are explained below the table.

Table 5.2: Oxfordshire Plan Vision and Objectives SA findings

SA objectives	Strategic Vision	Strategic objectives										
		1	2	3	4	5	6	7	8	9	10	11
1. To meet Oxfordshire's housing needs	+	0	0	0	0	0	+	++	+	+	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+	+	+	+	+	0	0	0	+	0	+	0
3. To sustain and create safe and vibrant Oxfordshire communities	+	0	+	+	+	0	+	+	+	0	+	+
4. To support the development of Oxfordshire's knowledge economy	+	0	+	0	+	+	+	0	0	0	+	+
5. To maintain high and stable levels of employment across Oxfordshire	+	0	0	0	0	+	+	+	+	0	+	+

SA objectives	Strategic Vision	Strategic objectives										
		1	2	3	4	5	6	7	8	9	10	11
6. To reduce the need to travel by car in Oxfordshire	+	+	0	0	+	0	0	0	0	0	+	+
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	+	0	+	0	0	0	0	0	+	+	0
8. To minimise air, noise and light pollution in Oxfordshire	+	+	0	+	0	0	0	0	0	0	+	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	+	0	+	+	0	0	0	0	0	0	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	+	0	+	0	0	0	0	0	0	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0	+	0	0	0	0	0	0	++	0	0
12. To safeguard Oxfordshire's mineral resources	0	0	+	0	0	0	0	0	0	+	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+	0	+	++	0	0	0	--?	0	+	0	0
14. To protect and enhance the significance of Oxfordshire's historic environment	+	0	+	+	0	0	0	--?	0	+	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	+	0	+	+	0	0	0	--?	0	+	0	0

5.6 The Oxfordshire Plan's Vision for 2050 aims for a wide range of secure and good quality housing options for all. Minor positive effects are therefore identified for the Vision in relation to **SA objective 1 (housing)**. **Significant positive** effects are recorded for Objective 7 due to it explicitly mentioning that it will meet Oxfordshire's housing needs, which will include affordable housing. To ensure that a range of people have access to appropriate housing, Objective 8 sets out to deliver flexibility in housing types, which should include meeting the needs of people through all stages of life. Similarly, Objective 6 aims to ensure that the benefits and opportunities arising from economic growth are felt by all Oxfordshire communities; which is likely to extend to home ownership. Finally, Objective 9 champions innovatively designed development that could include modular building or offsite construction techniques that deliver affordable homes quicker. Therefore, minor positive effects are recorded for Objectives 6, 8 and 9 in relation to SA objective 1.

5.7 Minor positive effects are recorded for the Vision and Objectives 1, 2, 3, 4, 6, 7, 8 and 10 in relation to **SA objective 2 (health and wellbeing)**. By 2050, the Vision suggests that the people of Oxfordshire will have a high quality of life, enhanced through being part of a special place. Improved health and wellbeing is the main focus of Objective 4, which seeks to encourage healthy living and social interaction. There is potential for the physical aspect of the population's health to be supported through Objective 10 which sets out to provide pedestrian and cycling infrastructure. Objectives 1, 2 and 3 have the potential to improve quality of life in the County by combating the effects of climate change, enhancing the historic environment

and delivering green and blue infrastructure. Delivering housing that is tailored to tpeople's specific needs through Objective 8 is likely to pay an important role in maintaining general health and wellbeing. Objectives 6 and 7 aim to deliver the benefits of sustained economic growth and the provision of affordable homes in Oxfordshire, respectively. The delivery of economic success and affordable homes are both likely to help improve the health and well being of local residents and workers.

5.8 Minor positive effects are recorded for the Vision and Objectives 2, 3, 4, 6, 7, 8, 10 and 11 in relation to **SA objective 3 (communities)** because they aspire to deliver a strong sense of community and vibrant communities in Oxfordshire.

5.9 The Vision suggests that Oxfordshire will be productive and well-skilled with access to a range of high-value job opportunities generated by thriving public and private sectors. Therefore, minor positive effects are recorded for the Vision in relation to **SA objective 4 (economy)** and **SA objective 5 (employment)**. Minor positive effects are also recorded for Objectives 5, 6, 10 and 11 in relation to SA objective 4 (economy) and SA objective 5 (employment). In the case of Objectives 5 and 6, they are directly concerned with delivering economic growth in Oxfordshire that is equitable through provision of opportunities to all of the County's communities. For Objective 10, the positive effects are identified as a result of the provision of a sustainable and efficient transport system, which is likely to support the population's access to employment opportunities. In the case of Objective 11 improved digital connectivity within the County is likely to be valuable to businesses and remote working, which has become prevalent as a result of the COVID-19 pandemic. Minor positive effects are also recorded against Objective 2 and 4 in relation to SA objective 4 (economy). Objective 2 includes economic success as part of the contribution of protection and enhancement of the historic environment. Objective 4's focus on health and well being is likely to improve productivity of the county's population with associated economic benefits. Similarly, Objectives 7 and 8 focus on the delivery of suitable and affordable homes will help to support the retention of key workers in accessible locations, contributing to maintaining high and stable levels of employment across the county. This is likely to generate minor positive effects against SA objective 5 (employment).

5.10 The Vision embraces technological, demographic and lifestyle changes for the future with a view to fostering climate change resilience. A minor positive effect is therefore recorded for the Vision in relation to **SA objective 7 (climate change)**. Objective 1 proposes that the plan will demonstrate climate leadership by significantly reducing greenhouse gas emissions. Objective 3 sets out to deliver green infrastructure, which has the potential to contribute to carbon sequestration, Objective 9 focusses on the efficient use of resources and Objective 10 will provide sustainable transport options that reduce the need for people to travel by private car. Minor positive effects are therefore also recorded against Objectives 1, 3, 9 and 10 in relation to SA objective 7 (climate change).

5.11 It is set out in the Vision that Oxfordshire will be well connected with sustainable travel options. Minor positive effects are therefore recorded against the Vision in relation to **SA objective 6 (transport)**. Objective 4 encourages active and healthy lifestyles, which is likely to help increase the uptake of active travel modes. Objectives 10 and 11 commit to significantly reducing carbon emissions and the provision of cycling and walking infrastructure, providing residents with sustainable transport options. Improved digital connectivity is also proposed in Objective 11, which has the potential to reduce the need for transport altogether for people who work in roles where working from home is viable, particularly in light of the COVID-19 pandemic. Minor positive effects are therefore recorded against these Objectives in relation to SA objective 6 (transport).

5.12 The Vision may also yield positive impacts on mitigating sources of poor air quality by increasing active travel and reducing the proportion of people who travel by private car. Consequently, minor positive effects are recorded for the vision in relation to **SA objective 8 (pollution).** Objectives 1, 3 and 10 also have the potential to improve air quality in Oxfordshire as a result of the aspirations described in the two paragraphs above. Therefore, minor positive effects are identified for these Objectives in relation to SA objective 8 (pollution).

5.13 In terms of the efficient use of resources, including mineral and water resources, Objective 3 suggests that consideration of blue infrastructure will form part of the plan, which may contribute to improved water quality within the County's water bodies and Objective 9 requires development that ensures efficient use of resources. As a result, minor positive effects are identified for Objective 2, 3 and Objective 9 in relation to **SA objectives 9 (water)** and **12 (minerals)**. The commitment on demonstrating leadership in addressing the climate change emergency through Objective 1 and the delivery of green infrastructure through Objective 3 may also be valuable in reducing flood risk in some areas, so minor positive effects are recorded for Objectives 1 and 3 against **SA objective 10 (flooding)**. Objectives 2 makes reference to the conservation of the natural environment, which includes natural resources and Objective 9 makes direct reference to the efficient use of land, which will directly protect the county's best and most versatile agricultural land. Therefore, a minor positive effect and a **significant** positive effect are recorded against **SA objective 11 (soils)** for Objectives 2 and 9, respectively.

5.14 Objective 7 sets out to meet Oxfordshire's housing need, which is likely to require significant land take in the period up to 2050. There is potential for the housing delivery to cause disturbance to wildlife and habitats and adverse impacts to heritage assets and their landscape setting. As a result, the potential for significant negative effects is identified for Objective 7 in relation to **SA objective 13 (biodiversity and geodiversity)**, **14 (historic environment)** and **15 (landscape)**. The effects recorded are uncertain as they will depend on the specific locations, scale and design of development.

5.15 The Vision states that the integrity and richness of the county's historic character and natural environment will be valued and conserved. Minor positive effects are therefore identified for the Vision in relation to **SA objective 9 (water), 13 (biodiversity and geodiversity)**, **14 (historic environment)** and **15 (landscape)**. Positive effects are identified for Objective 2 and 3 in relation to SA objectives 13, 14 and 15 as they promote the protection and enhancement of Oxfordshire's natural environment, landscape character and historic environment because of the focus of these objectives on conserving the County's historic and natural environments. The positive effects identified are **significant** for Objective 3 in relation to SA objective 13, as this objective makes explicit reference to securing net gains for biodiversity. Minor positive effects are also recorded for Objective 9 against SA objectives 13, 14 and 15 as the efficient use of land and the provision of high quality designed developments has the potential to result in the loss of less ecologically sensitive greenfield land and enhance the historic environment and the landscape setting.

Theme One: Addressing Climate Change

Sustainable Design and Construction

5.16 Table 5.3 summarises the findings of the SA of the preferred option and two alternative policy options for the sustainable design and construction policy. The findings are described below the table.

1. Preferred policy option: Policy 1 – Sustainable Design and Construction
2. Alternative policy option 1: Defer standards for the design and construction of new buildings to district Local Plans. National policy does not prevent local authorities from setting higher ambitions, particularly in relation to energy efficiency standards that exceed Building Regulations.
3. Alternative policy option 2: Defer guidance on sustainable design and construction to building regulations and the Future Homes and Future Buildings Standards.

Table 5.3: SA findings for Policy 1 and its alternative

SA objectives	Policy Options		
	Policy 1	Alternative 1	Alternative 2
1. To meet Oxfordshire's housing needs	-?	-	-
2. To improve the health and wellbeing of Oxfordshire's population	+	-	-
3. To sustain and create safe and vibrant Oxfordshire communities	+?	0	0
4. To support the development of Oxfordshire's knowledge economy	+/-?	0	0
5. To maintain high and stable levels of employment across Oxfordshire	+/-?	0	0
6. To reduce the need to travel by car in Oxfordshire	+	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	-	-

SA objectives	Policy Options		
	Policy 1	Alternative 1	Alternative 2
8. To minimise air, noise and light pollution in Oxfordshire	+	-	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	+	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	+	-	-
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0	0
12. To safeguard Oxfordshire's mineral resources	+	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+/-?	-	-
14. To protect and enhance the significance of Oxfordshire's historic environment	-	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	-	0	0

5.17 The preferred policy option is likely to have **significant positive effects** on **SA objective 7 (climate change)** as it would set construction requirements such as developments should be fossil fuel free, utilise the principles of circular economy and designed to be resilient to climate change. This option also aims to achieve a net-zero life span through on-site renewable energy generation which would reduce energy generation from fossil fuels. It is likely to have minor positive effects on a number of the other SA objectives: reduced energy consumption and renewable energy generation would contribute to improved air quality **(SA objective 8 (pollution))**; net-zero carbon will have some indirect effect on the design of equivalent water efficiency measures (**SA objective 9 (water)**), i.e. energy efficiency measures include reducing water consumption in order to reduce the energy required to pump and heat it, which will contribute to improving climate related issues such as reducing flood risk (**SA objective 10 (flooding))**; requirements for cycling parking, e-bike charging which could help to reduce the need to travel by car **(SA objective 6 (travel))** and minimise waste through the use of natural or recycled materials in construction **(SA objective 12 (minerals))**.

5.18 Together, these measures also would support people's health and wellbeing **(SA objective 2 (health))** and sustain vibrant communities **(SA objective 3 (communities))** through reducing energy costs, designing buildings to be environmentally and potentially more community focused and reducing air pollution. The need for improved eco-friendly measures, including high-tech construction and design, could help to support Oxfordshire's knowledge economy and create/maintain jobs **(SA objectives 4 (economy) and 5 (employment))**. Minor positive effects are also expected in relation to **SA objective 13 (biodiversity)** as the policy option will include a financial contribution to offsetting projects such as offsite carbon sequestration schemes that align with natural capital and nature recovery approaches which are likely to create additional habitats. However, as low carbon and renewable energy generation technologies will be required on site or off site elsewhere within the county, there is potential for adverse effects on the county's sensitive historic and natural environments. Consequently, minor negative effects are recorded against **SA objectives 13 (biodiversity), 14 (historic environment) and 15 (landscape).** Many SA objectives have some uncertainty attached to the likelihood and significance of these effects until such time as the location, design and scale of such developments is known.

5.19 The sustainable construction requirements could add costs to new development, but it is becoming more viable to achieve as technology evolves and the market becomes more favourable. Consequently, the effect of the costs associated with sustainable construction requirements on the deliverability of homes and employment land are recorded as only minor negative

in the short term, thereby having a minor negative effect with uncertainty on the delivery of homes **(SA objective 1 (housing))** and on the economy and jobs **(SA objectives 4 (economy) and 5 (employment))**.

5.20 The alternative policy options represent a no policy alternative. In the absence of an Oxfordshire-wide sustainable design and construction policy focussing on delivering zero carbon growth for all strategic developments, developers will be required to meet the minimum requirements set out in the national Building Regulations, Future Homes and Future Building Standards. Consequently, under this scenario, the Oxfordshire Plan 2050 has the potential to generate minor negative effects on **SA objectives 2 (health), 7 (climate change), 8 (pollution), 10 (flooding)** and **13 (biodiversity)**. These negative effects are recorded in acknowledgement that a lack of county-wide action would result in the need for more energy to be generated from the burning of fossil fuels resulting in more pollution and a greater likelihood for health impacts associated with air pollution and adverse effects associated with climate change, which is also likely to have an adverse effect on biodiversity and flood risk in the county. These effects are recorded as minor in acknowledgement of the fact that other mitigation and adaptation measures are likely to be delivered.

Energy

5.21 Table 5.4 presents the findings of the SA of the energy preferred policy option and two alternative policy options. The findings are described below the table.

1. Preferred policy option: Policy 2 – Energy.
2. Alternative policy option 1: Do not set county wide targets for renewable energy in new developments and to defer to Local Plans and individual developments.
3. Alternative policy option 2: Set a percentage target for renewable energy generation in new developments e.g. minimum 10%.

Table 5.4: SA findings for Policy 2 and its alternatives

SA objectives	Policy Options		
	Policy 2	Alternative 1	Alternative 2
1. To meet Oxfordshire's housing needs	-	-	-
2. To improve the health and wellbeing of Oxfordshire's population	+	-	+?
3. To sustain and create safe and vibrant Oxfordshire communities	+	0	0
4. To support the development of Oxfordshire's knowledge economy	++/-?	0	+?/-?
5. To maintain high and stable levels of employment across Oxfordshire	++/-?	0	+?/-?
6. To reduce the need to travel by car in Oxfordshire	0	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	-	+?
8. To minimise air, noise and light pollution in Oxfordshire	+	-	+?
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	+?	-	+?
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0	0
12. To safeguard Oxfordshire's mineral resources	0	0	0

SA objectives	Policy Options		
	Policy 2	Alternative 1	Alternative 2
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+/-?	-	+?/-?
14. To protect and enhance the significance of Oxfordshire's historic environment	-?	0	-?
15. To protect and enhance Oxfordshire's landscape character and quality	-?	0	-?

5.22 As the preferred policy option aims to reach 100% of energy needs met from renewables for major developments, this could add costs to the design and construction of new development, but is becoming more viable to achieve as technology evolves and the market becomes more favourable, the potential to effectively deliver new homes and business premises across the County utilising renewable energy is possible. Consequently, the effect of the costs associated with such technologies on the deliverability of homes and employment land are recorded as only minor negative in the short term against **SA objectives 1 (housing)** and **5 (employment)** for the preferred policy option. The minor negative effect recorded against **SA objective 4 (economy)** is for similar reasons. Conversely, **significant positive effects** are recorded against SA objectives 4 (economy) and 5 (employment) in acknowledgement of the fact that a significant increase in the construction of renewable energy has the potential to generate significant growth in the local economy associated with more ambitious design, construction and delivery. In addition, there is potential for driving forward innovation in relevant sectors that exist in Oxfordshire, with opportunities to test and scale up technology within new developments. The cost of meeting an ambitious renewable energy target in the future is unknown. However, there is potential for higher renewable energy targets to be expensive in the short term, but successful and sustainable in the medium to long term as technology evolves.

5.23 A **significant positive effect** is recorded against **SA objectives 7 (climate change)** in acknowledgement of the contribution of a 100% renewable energy target in reducing the County's major developments contribution to the primary cause of climate change: greenhouse gases. This reduction in carbon emissions is also likely to result in an improvement to air quality and climate related issues such as flooding in the County; however, given the diverse range of other sources of air pollution and climate change effects these positive effects are considered to be less significant and are therefore recorded as minor against **SA objectives 2 (health), 8 (pollution)** and **10 (flooding)**. Minor positive effects are also expected in relation to **SA objective 3 (communities)** as the preferred policy option supports the delivery of community scale renewable energy projects which could lead to community ownership of a scheme adding vitality to the area.

5.24 As the target is 100% of energy needs to be met from renewable energy sources it is likely that low carbon and renewable energy generation technologies will be required on site or off site elsewhere within the County. The greater the scale and density of such technologies across the county, the greater the potential for adverse effects on the County's sensitive historic and natural environments. Consequently, minor negative effects are recorded against **SA objectives 13 (biodiversity), 14 (historic environment)** and **15 (landscape)**. Minor positive effects have also been identified against **SA objective 13 (biodiversity)** as reducing emissions from energy combats climate change and consequently provides positive effects for biodiversity as the two are interconnected. Some uncertainty is attached to the likelihood and significance of these effects until such time as the location, design and scale of renewable energy technologies is known.

5.25 The preferred policy option is unlikely to affect the remaining **SA objectives 6 (travel), 9 (water), 11 (soils) and 12 (minerals)** due to its focus on renewable energy.

5.26 Alternative policy option 1 represents a 'no county-wide renewable energy target' alternative. In the absence of an Oxfordshire-wide renewable energy target, new development will be encouraged to contribute to national renewable energy targets. Consequently, under this scenario, the Oxfordshire Plan 2050 has the potential to generate minor negative effects on **SA objectives 2 (health), 7 (climate change), 8 (pollution), 10 (flooding)** and **13 (biodiversity)**. These negative effects are recorded in acknowledgement that a lack of county-wide action would result in the need for more energy to be generated from the burning of fossil fuels resulting in more pollution and a greater likelihood for health impacts associated with air pollution and adverse effects associated with climate change, which is also likely to have an adverse effect on biodiversity and flood risk in

the county. These effects are recorded as minor in acknowledgement of the fact that other mitigation and adaptation measures are likely to be delivered.

5.27 The positive and negative effects recorded for the preferred policy are also likely to be felt under Alternative policy option 2 for the reasons described above, although they are only likely to be minor, given Alternative policy option 2 would result in a more modest renewable energy target (minimum 10%) rather than 100% for new development sites.

Water Efficiency

5.28 Table 5.5 presents the findings of the SA of the water efficiency preferred policy option and three alternatives. The findings are described below the table.

1. Preferred policy option: Policy 3 – Water Efficiency.
2. Alternative policy option 1: Require water neutrality in Oxfordshire.
3. Alternative policy option 2: Set less ambitious water efficiency standards in the Oxfordshire Plan 2050. For example: i. align with the current optional requirement of 110 litres per person per day for new homes; ii. do not set water efficiency standards for non-residential development; and iii. encourage (rather than require) development at strategic growth locations identified in the Oxfordshire Plan 2050 to maximise water efficiency through the delivery of community-scale rainwater harvesting and grey water recycling schemes.
4. Alternative policy option 3: Do not have a strategic policy on water efficiency in the Oxfordshire Plan 2050. Leave it to Local Plans to set policies in relation to water efficiency.

Table 5.5: SA findings for Policy 2 and its alternatives

SA objectives	Policy Options			
	Policy 3	Alt 1	Alt 2	Alt 3
1. To meet Oxfordshire's housing needs	-?	-?	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+	+	+	0
3. To sustain and create safe and vibrant Oxfordshire communities	0	0	0	0
4. To support the development of Oxfordshire's knowledge economy	+?/-?	+?/-?	+?/-?	0
5. To maintain high and stable levels of employment across Oxfordshire	+?/-?	+?/-?	+?/-?	0
6. To reduce the need to travel by car in Oxfordshire	0	0	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	++	+	-
8. To minimise air, noise and light pollution in Oxfordshire	+	+	+	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	+	++	+	-
10. To reduce the risk from all sources of flooding in Oxfordshire	+?	+?	+?	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0	0	0
12. To safeguard Oxfordshire's mineral resources	0	0	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+	++	+	-

SA objectives	Policy Options			
	Policy 3	Alt 1	Alt 2	Alt 3
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	+	+	+	-

5.29 A minor positive effect is recorded for the preferred policy option against **SA objective 7 (climate change)** in acknowledgement of the contribution of ambitious minimum water efficiency standards in reducing the County's risk of drought which is exacerbated by climate change. A minor positive effect is recorded against **SA objective 9 (water)** in acknowledgement of the fact that ambitious minimum water efficiency standards will help to achieve sustainable water resource management, reduce the risk of drought and combat climate change. The introduction of water efficiency standards is also likely to result in a marked reduction in carbon emissions, as it takes energy to pump and heat water, and improvement to climate related issues such as flooding; however, given the diverse range of other sources of air pollution and climate change effects these positive effects are considered to be less significant and are therefore recorded as minor against **SA objectives 2 (health)**, **8 (pollution)** and **10 (flooding)**.

5.30 Minor positive effects are also expected against **SA objectives 13 (biodiversity)** and **15 (landscape)** as ambitious minimum water efficiency standards can help to conserve biodiversity especially aquatic wildlife and by requiring development to deliver community-scale rainwater harvesting and grey water recycling schemes will help adapt to the impact climate change and therefore reduce the impact on biodiversity and local landscape in the long term.

5.31 The future cost of meeting ambitious minimum water efficiency standards is unknown, although it is becoming more viable to achieve water efficiency targets as technology evolves and the market becomes more favourable. However, requiring residential and non-residential development to be adhere to ambitious minimum water efficiency standards is likely to add cost to the design and construction of new development. Consequently, minor negative effects are recorded against **SA objectives 1 (housing)** and **5 (employment)** for the preferred policy option. The minor negative effect recorded against **SA objective 5 (employment)** is also coupled with the potential for a minor positive effect in acknowledgement of the fact that a significant increase in water efficiency standards has the potential to create new local jobs in the county associated with more ambitious design, construction and delivery. The uncertain mixed minor positive and minor negative effects recorded against **SA objective 4 (economy)** are recorded for similar reasons as **SA 5 (employment)**, although these effects are due to the fact other sectors and drivers influencing the growth of the county's economy.

5.32 The preferred policy option is unlikely to affect the remaining **SA objectives 3 (communities)**, **11 (soils)**, **12 (minerals)** and **14 (historic environment)** due to its focus on a specific planning policy issue (water efficiency).

5.33 The positive and negative effects recorded for the preferred policy are also likely to be felt under Alternative policy option 2 for the reasons described above, although their significance is likely to be proportionately less, as it would set less ambitious water efficiency standards for new homes and no standards for non-residential development.

5.34 Alternative policy option 3 represents a 'no water efficiency standard' alternative. In the absence of an Oxfordshire-wide water efficiency standard for all strategic developments, developers will be required to meet the minimum requirements set out in the national Building Regulations. Consequently, under this scenario, the Oxfordshire Plan 2050 would have a negligible effect on many SA objectives. However, by allowing continued climate change (albeit at a slower rate than at present), it would have a negative effect on **SA objectives 7 (climate change)**, **8** and **9 (air and water quality)**,**13 (biodiversity)** and **15 (landscape)**.

5.35 Alternative policy option 1 is likely to generate the most significant effects as requiring water neutrality is the most ambitious of the policy options identified. The effects set out against the preferred policy option would also be felt against alternative policy option 1 for the same reasons, but with intensified effects. **Significant positive effects** would be felt in relation to **SA objectives 7 (climate change), 9 (water)** and **13 (biodiversity)** as achieving water neutrality would reduce water stress, achieve sustainable water resource management and conserve sensitive protected wetland and littoral habitats in the face of ongoing climate change.

Flood Risk

5.36 Table 5.6 presents the findings of the SA of the flood risk preferred policy option and two alternative policy options. The findings are described below the table.

1. Preferred policy option: Policy 4 – Flood Risk.
2. Alternative policy option 1: Include a strategic flood risk policy in the Oxfordshire Plan but reduce the scope of this policy.
3. Alternative policy option 2: Do not have a strategic policy on flood risk in the Oxfordshire Plan 2050. Leave it to Local Plans to set policies in relation to flood risk.

Table 5.6: SA findings for Policy 4 and its alternatives

SA objectives	Policy Options		
	Policy 4	Alternative 1	Alternative 2
1. To meet Oxfordshire's housing needs	0	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+	+	0
3. To sustain and create safe and vibrant Oxfordshire communities	0	0	0
4. To support the development of Oxfordshire's knowledge economy	0	0	0
5. To maintain high and stable levels of employment across Oxfordshire	0	0	0
6. To reduce the need to travel by car in Oxfordshire	0	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	+	-
8. To minimise air, noise and light pollution in Oxfordshire	+	+	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	+	+	-
10. To reduce the risk from all sources of flooding in Oxfordshire	++	+	-
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0	0
12. To safeguard Oxfordshire's mineral resources	0	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+	+	-
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	+	+	-

5.37 The preferred policy option is likely to have **significant positive effects** in relation to **SA objective 10 (flooding)** in acknowledgment of the fact that development will have to take into account its impact on flood risk and utilise natural flood management methods. These methods could include green infrastructure, sustainable drainage systems (SuDS) and various design measures all of which can help adapt to the effects of climate change (**SA objective 7 (climate change))**, resulting in **significant positive effects**. Green infrastructure is multifunctional and can also act as a barrier to various pollutants (**SA objective 8 (pollution))**, can act as a natural filtration system for local watercourses (**SA objective 9 (water))**, provide additional habitats for wildlife (**SA objective 13 (biodiversity))** and improve the local landscape (**SA objective 15 (landscape))**.

5.38 The positive and negative effects recorded for the preferred policy are also likely to be felt under Alternative policy option 1 for the reasons described above, although their significance is likely to be proportionately less, as it would include a strategic flood risk policy but would reduce the scope.

5.39 Alternative policy option 2 represents a 'no strategic policy on flood risk' alternative. In the absence of an Oxfordshire-wide flood risk policy for all strategic developments, developers will be required to meet the minimum requirements set out in national policy. Consequently, under this scenario, the Oxfordshire Plan 2050 would have a negligible effect on many SA objectives. However, by not putting in place measures to adapt to ongoing climate change, it would have a negative effect on **SA objectives 7 (climate change)**, **9 (water quality)**, **10 (flooding)**, **13 (biodiversity)** and **15 (landscape)**.

Theme Two: Improving Environmental Quality

Protection and Enhancement of Landscape Characters

5.40 Table 5.7 presents the findings of the SA of the Protection and Enhancement of Landscape Characters preferred policy option. No reasonable alternatives have been appraised, as explained in **Table 5.1**. The findings are described below the table.

1. Preferred policy option: Policy 5 – Protection and enhancement of Landscape Characters.

Table 5.7: SA findings for Policy 5

SA objectives	Policy 5
1. To meet Oxfordshire's housing needs	-
2. To improve the health and wellbeing of Oxfordshire's population	+
3. To sustain and create safe and vibrant Oxfordshire communities	+
4. To support the development of Oxfordshire's knowledge economy	+/-
5. To maintain high and stable levels of employment across Oxfordshire	+/-
6. To reduce the need to travel by car in Oxfordshire	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	0
8. To minimise air, noise and light pollution in Oxfordshire	+
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0
12. To safeguard Oxfordshire's mineral resources	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+
14. To protect and enhance the significance of Oxfordshire's historic environment	++
15. To protect and enhance Oxfordshire's landscape character and quality	++

5.41 The preferred policy option is likely to generate **significant positive effects** in relation to **SA objectives 14 (historic environment)** and **15 (landscape)**. As this policy option establishes a positive strategy for the conservation and enhancement of the landscape and townscape at a county-wide scale, it is likely that the landscape and townscape, encompassing the setting

of heritage assets, will be protected by this policy. In addition, landscape character assessments are required to support major new developments and urban extensions this will help ensure that development is sensitive and well-designed. Since an attractive environment and good heritage links can influence health and wellbeing, minor positive effects are expected for **SA objective 2 (health)**.

5.42 This policy option is likely to have indirect benefits for Oxfordshire's ecological habitats and locally designated biodiversity assets thereby minor positive effects are expected on **SA objective 13 (biodiversity)** as associated landscape and townscape enhancements and mitigation are likely. Similarly, conservation of landscape will include taking account of tranquillity and dark skies thereby preventing light pollution, hence a minor positive effect for **SA objective 8 (pollution)**.

5.43 Other minor positive effects are likely in relation to **SA objective 3 (communities)** as the enhancement landscape and townscape features has the potential to have positive implications in creating vibrant communities by safeguarding the cultural importance of the landscape for communities to enjoy. In addition, Oxfordshire's attractive landscape and townscape support the tourism industry, so the policy option will have minor positive effects on **SA objective 5 (employment)**. There is also potential for employment opportunities in the maintenance and enhancement of landscape and townscape features. A minor positive effect is also recorded against **SA objective 4 (economy)** in acknowledgement of the fact that the conserving and enhancement of the county's key landscape and townscape features will help to maintain and improve the character of the county, making it a better place to live and work and attracting talent to grow the local economy. This minor positive effect is coupled with a minor negative effect in acknowledgement of the fact that the greater the area of the county protected from development the more difficult it will be to accommodate growth in the county. The same mixed effect is also recorded against **SA objective 1 (housing)** for the same reasons.

5.44 This policy option is likely to generate negligible effects against the remaining SA objectives due to its specific focus on conserving and enhancing landscape and townscape features.

Protection and Enhancement of Historic Environment

5.45 Table 5.8 presents the findings of the SA of the protection and enhancement of historic environment preferred policy option. No reasonable alternatives have been appraised, as explained in **Table 5.1**. The findings are described below the table.

1. Preferred policy option: Policy 6 – Protection and Enhancement of Historic Environment.

Table 5.8: SA findings for Policy 6

SA objectives	Policy 6
1. To meet Oxfordshire's housing needs	-
2. To improve the health and wellbeing of Oxfordshire's population	+
3. To sustain and create safe and vibrant Oxfordshire communities	+
4. To support the development of Oxfordshire's knowledge economy	+/-
5. To maintain high and stable levels of employment across Oxfordshire	+/-
6. To reduce the need to travel by car in Oxfordshire	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	0
8. To minimise air, noise and light pollution in Oxfordshire	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0

SA objectives	Policy 6
11. To protect Oxfordshire's soils and ensure efficient use of land	0
12. To safeguard Oxfordshire's mineral resources	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	0
14. To protect and enhance the significance of Oxfordshire's historic environment	++
15. To protect and enhance Oxfordshire's landscape character and quality	++

5.46 This preferred policy option would have **significant positive effects** on **SA objectives 14 (historic environment)** and **15 (landscape)** as it is likely that a positive strategy will steer new development away from Oxfordshire's heritage assets, including locally listed buildings, and their settings or otherwise help to enhance them, and this in turn would have a positive impact on Oxfordshire's landscape character and quality. Furthermore, development proposals that improve and enhance the natural and historic environment will be favoured.

5.47 Minor positive effects are likely in relation to **SA objectives 2 (health)**, and **3 (communities)** for the preferred policy option. As it has the potential to safeguard and improve enjoyment of heritage assets which can have positive effects on health and wellbeing and community vitality through their cultural, educational and recreational/leisure values. Minor positive effects are also likely in relation to **SA objective 4 (economy)** as maintaining heritage assets and avoiding adverse effects on them will help to protect local character and culture, which is part of what helps to attract and retain global talent thereby supporting the local knowledge economy. It will also help to support tourism, which is a major economic sector in Oxfordshire, thereby having a minor positive effect on **SA objective 5 (employment)** as well.

5.48 However, this preferred policy option could also have minor negative effects on **SA objective 4 (economy)**, as it could restrict where and/or how development can be delivered in the context of the historic environment as development proposals will be required to assess the impact of the potential development on the historic environment, which may contribute to restricting growth within sensitive areas of the county, particularly the county's historic settlements and landscapes, reducing the opportunities for and viability and affordability of new development. The same mixed effect is also recorded against **SA objective 1 (housing)** for the same reasons.

5.49 The preferred policy option is not likely to generate more than negligible effects against the remaining SA objectives due to their specific focus on managing the historic environment.

Nature Recovery

5.50 Table 5.9 presents the findings of the SA of the nature recovery preferred policy option and one alternative policy option. The findings are described below the table.

1. Preferred policy option: Policy 7 – Nature Recovery.
2. Alternative policy option 1: Do not progress Nature Recovery Network map in Oxfordshire Plan and leave to subsequent Nature Recovery Strategy for Oxfordshire to define. Defer to established approach of site, species and habitat protection, Conservation Target Areas and application of mitigation hierarchy for biodiversity to be applied through Local Plans.

Table 5.9: SA findings for Policy 7 and its alternative

SA objectives	Policy Options	
	Policy 7	Alternative 1
1.To meet Oxfordshire's housing needs	-	0
2.To improve the health and wellbeing of Oxfordshire's population	++	-

SA objectives	Policy Options	
	Policy 7	Alternative 1
3.To sustain and create safe and vibrant Oxfordshire communities	+	-
4. To support the development of Oxfordshire's knowledge economy	+/-	0
5. To maintain high and stable levels of employment across Oxfordshire	+/-	0
6. To reduce the need to travel by car in Oxfordshire	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	-
8. To minimise air, noise and light pollution in Oxfordshire	+	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	++	-
10.To reduce the risk from all sources of flooding in Oxfordshire	++	-
11.To protect Oxfordshire's soils and ensure efficient use of land	++	0
12.To safeguard Oxfordshire's mineral resources	+	0
13.To conserve and enhance Oxfordshire's biodiversity and geodiversity	++	-
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0
15.To protect and enhance Oxfordshire's landscape character and quality	+	0

5.51 The preferred policy option would have **significant positive effects** for many of the SA objectives. Establishing a Nature Recovery Network for Oxfordshire would help to significantly improve biodiversity and strengthen the ecological networks in the county **(SA objective 13 (biodiversity))** through habitat connection, biodiversity net gain and by making habitats and species more resilient to climate change. The Nature Recovery Network will protect all types of habitats including floodplains and wetlands, notably those to the north of Oxford, and so could significantly help to reduce the risk of flooding downstream **(SA objective 10 (flooding))**. Protecting the floodplains and river corridors would indirectly help to improve the quality of the county's watercourses **(SA objective 9 (water))**. The Nature Recovery Network could protect and enhance biodiversity at a county-wide landscape scale which could include an element of returning intensively farmed agricultural land to a more natural state, thus helping to protect Oxfordshire's soils **(SA objective 11 (soils))** and could recognise the importance of the agricultural and urban landscapes. The Network also aims to protect the County's natural resources which could safeguard mineral resources from sterilisation resulting in minor positive effects in relation to **SA objective 12 (minerals).** All of these factors would have a **significant positive effect** on people's health and wellbeing **(SA objective 2 (health))**. Methods to establish a Nature Recovery Network are likely to incorporate planting more trees and rewilding, helping to sequester greenhouse gases **(SA objective 7 (climate change))**, build climate resilience and help to adapt to climate change through less flooding, more shade and cooler areas.

5.52 Minor positive effects are also expected in relation to **SA objectives 3 (communities), 8 (pollution)** and **15 (landscape)**. A Nature Recovery Network would also protect the natural landscape and enhance it through more green/wooded areas. This would provide benefits in terms of a more attractive and natural looking landscape (SA objective 15 (landscape)) and associated benefits for local communities (SA objective 3 (communities)). In addition, a greater quantity of trees and green areas would improve air quality (SA objective 8 (pollution)).

5.53 However, a Nature Recovery Network at a county-wide scale could restrict the delivery of homes. The proposed Nature Recovery Network (Core Zone, Recovery Zone and Wider Landscape Zone) is extensive, and if all of these areas were protected in full, then housing delivery **(SA objective 1 (housing))** could be negatively affected; however, it is likely that some

development could be accommodated within them without compromising the network so a minor negative effect is recorded. **SA objectives 4 (economy)** and **5 (employment)** could also be affected, as the Nature Recovery Network could restrict the location of employment sites. On the other hand, Oxfordshire's natural environment is one of the factors underlying the county's attractiveness for employers, so further improving the county's biodiverse areas could be positive for employers and jobs. Creation and maintenance of the local ecological network could also lead to new jobs being created. Therefore, SA objectives 4 (economy) and 5 (employment) will have a mixed minor positive and minor negative effect resulting from the preferred policy option.

5.54 The alternative policy option is essentially a continuation of business as usual and the effects are either negligible or minor negative. In the absence of a county-wide Nature Recovery Network supporting biodiversity, there could continue to be a decline in biodiversity in the county **(SA objective 13)**. Ongoing development on the floodplain, cumulatively with changes resulting from climate change, would also lead to worse flood problems over time **(SA objective 10)**. The absence of a Nature Recovery Network could result in the worsening effects of climate change resulting in adverse effects against the **SA objectives 2 (health), 3 (community), 7 (climate change), 8 (pollution)** and **9 (water).**

Biodiversity Gain

5.55 Table 5.10 presents the findings of the SA of the biodiversity gain preferred policy option and two alternative policy options. The findings are described below the table.

1. Preferred policy option: Policy 8 – Biodiversity Gain.
2. Alternative policy option 1: Establish differential biodiversity net gain targets for different parts of the county with a higher target (e.g. 25%) in high value parts of the county including in the Green Belt, AONBs, Conservation Target Areas, as well as Broad Areas for Growth identified in the Oxfordshire Plan, and a lower target (10% national minimum) for the rest of the county.
3. Alternative policy option 2: Leave to national standards and do not set minimum biodiversity net gain targets in Oxfordshire Plan 2050.

Table 5.10: SA findings for Policy 8 and its alternative

SA objectives	Policy Options		
	Policy 8	Alternative 1	Alternative 2
1. To meet Oxfordshire's housing needs	-?	-?	0
2. To improve the health and wellbeing of Oxfordshire's population	+	+	-
3. To sustain and create safe and vibrant Oxfordshire communities	+	+	-
4. To support the development of Oxfordshire's knowledge economy	+/-	+/-	0
5. To maintain high and stable levels of employment across Oxfordshire	+/-	+/-	0
6. To reduce the need to travel by car in Oxfordshire	0	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	+	-
8. To minimise air, noise and light pollution in Oxfordshire	+	+	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	+	+	-
10. To reduce the risk from all sources of flooding in Oxfordshire	+	+	-

SA objectives	Policy Options		
	Policy 8	Alternative 1	Alternative 2
11. To protect Oxfordshire's soils and ensure efficient use of land	+	+	0
12. To safeguard Oxfordshire's mineral resources	0	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	++	++	-
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	+	+	0

5.56 Significant positive effects are likely in relation to **SA objective 13 (biodiversity)** for the preferred policy option. This is due to the potential for a benchmark of 20% biodiversity net gain to increase the amount of biodiversity within the area, providing opportunities for people to come into contact with resilient wild places whilst encouraging respect and raising awareness of the sensitivity of such locations.

5.57 Positive effects are also likely in relation to **SA objectives 7 (climate change), 8 (pollution), 9 (water)** and **10 (flood risk)**. Providing net gain, often in the form of tree planting, will help to build local resilience to the changing climate, such as slowing down run-off and absorption of air pollutants and reducing flood risk. The preferred policy option can be expected to have minor positive effects on **SA objective 11 (soils)** by protecting biodiverse land from development, and converting existing less biodiverse (with lower soil quality) land into more biodiverse land.

5.58 By requiring 20% biodiversity net gain, the preferred policy option could have a negative effect on **SA objective 1 (housing)** due to the costs involved with achieving biodiversity net gain as part of new development, especially as it should be delivered on site, although uncertainty is attached.

5.59 Minor positive effects are also expected in relation to **SA objectives 2 (health)** and **3 (communities)**. Achieving 20% or more net gains in biodiversity over the plan period, or significantly increasing wildlife habitat would lead to indirect benefits to resident and worker health and wellbeing, by mitigating the adverse effects of air pollution and reducing flood risk. Furthermore, net gains on this scale will provide numerous opportunities for residents and communities to come into contact with resilient wild places whilst encouraging respect and raising awareness of the sensitivity of such locations. This is also likely to support vibrant communities, which also translate into economic benefits with reduced NHS bill, healthier workforce etc.

5.60 The minor positive effects recorded against **SA objectives 4 (economy)** and **5 (employment)** are also coupled with equivalent negative effects. Requiring 20% biodiversity net gain at employment sites could make it more difficult to bring these sites forward. On the other hand, a more attractive environment for Oxfordshire would help to retain and attract a high-quality workforce; biodiversity net gains are themselves an emerging economic sector (i.e. calculating them, implementing them); and delivering and managing the areas of net gain will provide some new jobs.

5.61 The positive and negative effects recorded for the preferred policy are also likely to be felt under Alternative policy option 1 as this alternative would achieve a higher biodiversity net gain target (25%)_Nin targeted areas of the County and a lower target (10%) in the rest of the county.

5.62 Alternative policy option 2 would result in no requirement for net gain within the county. In the absence of policy designed to achieve biodiversity net gain, the Oxfordshire Plan 2050 would have a minor negative effect on the majority of SA objectives. The absence of biodiversity net gain could result in the effects of climate change and poor conservation of local biodiversity resulting in adverse effects against the **SA objectives 2 (health), 3 (community), 7 (climate change), 8 (pollution), 9 (water), 10 (flood risk)** and **13 (biodiversity)**. These effects are considered to be minor in acknowledgement of the other policy and legislative mechanisms designed to mitigate and adapt to the adverse effects of climate change and protect biodiversity.

Natural Capital and Ecosystem Services

5.63 Table 5.11 presents the findings of the SA of the natural capital and ecosystem services preferred policy option and one alternative policy option. The findings are described below the table.

1. Preferred policy option: Policy 9 – Natural Capital and Ecosystem Services.
2. Alternative policy option 1: Include natural capital considerations within place shaping principles rather than defining Oxfordshire wide approach to the assessment of supply and demand for ecosystem services.

Table 5.11: SA findings for Policy 9 and its alternative

SA objectives	Policy Options	
	Policy 9	Alternative 1
1. To meet Oxfordshire's housing needs	+/-	0
2. To improve the health and wellbeing of Oxfordshire's population	+	-
3. To sustain and create safe and vibrant Oxfordshire communities	+	-
4. To support the development of Oxfordshire's knowledge economy	+/-	0
5. To maintain high and stable levels of employment across Oxfordshire	+/-	0
6. To reduce the need to travel by car in Oxfordshire	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	-
8. To minimise air, noise and light pollution in Oxfordshire	+	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	+	-
10. To reduce the risk from all sources of flooding in Oxfordshire	+	-
11. To protect Oxfordshire's soils and ensure efficient use of land	+	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	++	-
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	+	0

5.64 The preferred policy option would have positive effects for many of the SA objectives. Establishing Natural Capital baseline mapping for Oxfordshire will help guide strategic planning for development and green infrastructure investment at both landscape and site scales. A Natural Capital approach to planning would help to **significantly improve** biodiversity **(SA objective 13 (biodiversity))**, with associated at least minor positive effects for the health and wellbeing of communities **(SA objectives 2 (health))** and building resilience to climate change **(SA objective 7 (climate change))** through carbon sequestration and provide and strengthen the ecosystem services within the county. In addition, green infrastructure investment in areas that are in specific need will likely protect all types of habitats including floodplains and wetlands, notably those to the north of Oxford, thereby strengthening ecosystem services such as controlling flooding which could significantly help to reduce the risk of flooding downstream **(SA objective 10 (flooding))**. Protecting the floodplains and river corridors would indirectly help to improve the quality of the county's watercourses **(SA objective 9 (water))**. A Natural Capital approach to planning could

protect and enhance ecosystem services at a county-wide landscape scale, which could help to protect Oxfordshire's soils **(SA objective 11 (soils)).**

5.65 Minor positive effects are also expected in relation to **SA objectives 3 (communities), 8 (pollution)** and **15 (landscape)**. A Natural Capital Approach to planning would also protect the natural landscape through strategic placement of green infrastructure and it would likely enhance the various types of habitats through rewilding methods throughout the local landscape. This would provide benefits in terms of a more attractive and natural looking landscape (SA objective 15 (landscape)) and associated benefits for local communities (SA objective 3). In addition, an enhanced natural environment through natural capital planning provides various ecosystem services such as improving air quality and minimising air and noise pollution (SA objective (pollution)) through well-placed native trees and green areas.

5.66 However, a Natural Capital approach to planning could restrict the delivery of homes as major developments will be required to provide an assessment of how natural capital and ecosystem services will be impacted as well as deliver environmental enhancement on site. The mapping of Natural Capital is likely to be extensive, and if all of these areas were highly protected, then housing delivery **(SA objective 1 (housing))** could be negatively affected; however, it is likely that some development could be accommodated within the network and environmental enhancements are likely to increase desirability of an area, therefore a mixed minor positive and minor negative effect is recorded. **SA objectives 4 (economy)** and **5 (employment)** could also be affected, as a Natural Capital approach to planning could restrict the location of employment sites. On the other hand, Oxfordshire's natural environment is one of the factors underlying the county's attractiveness for employers, so further improving the county's biodiverse areas could be positive for employers and jobs. Creation and maintenance of the local ecological network could also lead to new jobs being created. Therefore, SA objectives 4 (economy) and 5 (employment) will have a mixed minor positive and minor negative effect resulting from the preferred policy option.

5.67 The alternative policy option would include natural capital considerations within place making principles, therefore quite similar to a continuation of business as usual. Therefore, in the absence of a Natural Capital approach to planning for the county which would support biodiversity, there could continue to be a decline in biodiversity in the county **SA objective 13 (biodiversity)**. The absence of a Natural Capital approach to planning could result in the worsening effects of climate change resulting in adverse effects against the **SA objectives 2 (health), 3 (community), 7 (climate change), 8 (pollution), 9 (water) and 10 (flooding).**

Green Belt

5.68 Table 5.12 presents the findings of the green belt preferred policy option. The findings are described below the table.

1. Preferred policy option: Policy 10 – Green Belt

Table 5.12: SA findings for Policy 10

SA objectives	Policy 10
1. To meet Oxfordshire's housing needs	0
2. To improve the health and wellbeing of Oxfordshire's population	++
3. To sustain and create safe and vibrant Oxfordshire communities	++
4. To support the development of Oxfordshire's knowledge economy	0
5. To maintain high and stable levels of employment across Oxfordshire	0
6. To reduce the need to travel by car in Oxfordshire	+?
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+
8. To minimise air, noise and light pollution in Oxfordshire	+?

SA objectives	Policy 10
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0
10. To reduce the risk from all sources of flooding in Oxfordshire	+
11. To protect Oxfordshire's soils and ensure efficient use of land	++
12. To safeguard Oxfordshire's mineral resources	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	++
14. To protect and enhance the significance of Oxfordshire's historic environment	++?
15. To protect and enhance Oxfordshire's landscape character and quality	++

5.69 Policy 10 has the potential to have **significant positive effects** in relation to **SA objectives 2 (health), 3 (communities), 11 (soils), 13 (biodiversity)**, **14 (historic environment)** and **15 (landscape)**. This is due to the broad range of opportunities available for enhancing the beneficial uses of the Green Belt, such as improving access and opportunities for outdoor sport and recreation, enhancing landscapes (which could include historic assets and their historic setting), visual amenity and biodiversity, or improving damaged or derelict land.

5.70 Enhancing the Green Belt also has the potential to build local climate resilience through the enhancement of the natural environment. Therefore, minor positive effects are also likely in relation to **SA objectives 6 (travel)**, **7 (climate change), 8 (pollution)** and **10 (water)** for Policy 10. Enhancing the Green Belt through improvements in access and recreational opportunities within the Green Belt in close proximity to existing settlements and communities presents an opportunity to provide new opportunities for local sport and recreation, reducing the need for people to travel and the related air pollution and traffic congestion. The Thames flood alleviation scheme will also likely improve the ecosystem services of flood mitigation within the Green Belt. The reduced need to travel, jointly with possible tree planting and other carbon fixing measures, is likely to reduce greenhouse gas emissions. However, some uncertainty is attached to these effects until such time as the locations of strategic Green Belt enhancements are known.

Water Quality

5.71 Table 5.13 presents the findings of the water quality preferred policy option and one alternative policy option. The findings are described below the table.

1. Preferred policy option: Policy 11 – Water Quality.
2. Alternative policy option 1: Do not have a strategic policy on water quality in the Oxfordshire Plan 2050. Leave it to Local Plans to set policies in relation to water quality.

Table 5.13: SA findings for Policy 11 and its alternative

SA objectives	Policy Options	
	Policy 11	Alternative 1
1. To meet Oxfordshire's housing needs	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+	-
3. To sustain and create safe and vibrant Oxfordshire communities	0	0
4. To support the development of Oxfordshire's knowledge economy	0	0

SA objectives	Policy Options	
	Policy 11	Alternative 1
5. To maintain high and stable levels of employment across Oxfordshire	0	0
6. To reduce the need to travel by car in Oxfordshire	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	-
8. To minimise air, noise and light pollution in Oxfordshire	0	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	++	-
10. To reduce the risk from all sources of flooding in Oxfordshire	+	0
11. To protect Oxfordshire's soils and ensure efficient use of land	+	-
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	++	-
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	+	0

5.72 The preferred policy option would protect and enhance water quality and ensure development improves water quality through the restoration of contaminated land and incorporation of green infrastructure, natural flood management and sustainable drainage systems (SuDS) which is also likely to help reduce flood risk and enhance aquatic habitats along river corridors. Therefore, **significant positive effects** are expected in relation to **SA objective 9 (water)** and **13 (biodiversity).** Improving water quality through those methods is also likely to have minor positive effects **on SA objectives 2 (health), 7 (climate change), 10 (flooding), 11 (soils) and 13 (biodiversity)** and **15 (landscape)** as green infrastructure and natural flood management provide health and wellbeing, climate change resilience, and nature and landscape benefits.

5.73 The alternative policy option represents a 'no strategic policy on water quality' alternative. In the absence of an Oxfordshire-wide water quality policy for all strategic developments, developers will be required to meet the minimum requirements set out in local and national policy. Consequently, under this scenario, the Oxfordshire Plan 2050 would have a negligible effect on many SA objectives. However, the absence of a regional policy increases the likelihood of ongoing water quality deterioration, which could have a negative effect on **SA objectives 2 (health), 7 (climate change)**, **9 (water quality)**, **11 (soils)** and **13 (biodiversity)**.

Air Quality

5.74 Table 5.14 presents the findings of the air quality preferred policy option and two alternative policy options. The findings are described below the table.

1. Preferred policy option: Policy 12 – Air Quality.
2. Alternative policy option 1: Include a strategic air quality policy in the Oxfordshire Plan but reduce the scope of this policy. For example: do not require air quality assessments for major development proposals.
3. Alternative policy option 2: Do not have a strategic policy on air quality in the Oxfordshire Plan 2050. Leave it to Local Plans to set policies in relation to air quality.

Table 5.14: SA findings for Policy 12 and its alternatives

SA objectives	Policy Options		
	Policy 12	Alternative 1	Alternative 2
1. To meet Oxfordshire's housing needs	0	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+	+	-
3. To sustain and create safe and vibrant Oxfordshire communities	0	0	0
4. To support the development of Oxfordshire's knowledge economy	0	0	0
5.To maintain high and stable levels of employment across Oxfordshire	0	0	0
6. To reduce the need to travel by car in Oxfordshire	++	+	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	+	-
8. To minimise air, noise and light pollution in Oxfordshire	++	+	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0	0
12. To safeguard Oxfordshire's mineral resources	0	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+	+	-
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	+	+	0

5.75 Oxfordshire has 13 areas of poor air quality designated as Air Quality Management Areas (AQMAs), these areas are within the main towns of the County and Oxford City. This preferred policy option would ensure that development takes account of its impact on air quality and where development is proposed within an AQMA it will have to be consistent with the relevant local Air Quality Action Plan. Therefore, **significant positive effects** are expected in relation to **SA objective 8 (pollution).** Development will also need to provide walking, cycling and public transport options and support zero and low emissions vehicles, therefore **significant positive effects** are also expected in relation to **SA objective 6 (travel**) as better access to sustainable modes of transport is likely to reduce the need to travel by private car. Development will also need to deliver green infrastructure and implement careful design principles to minimise human and sensitive species exposure to traffic pollution, leading to minor positive effects in relation to **SA objectives 2 (health), 7 (climate change), 13 (biodiversity)** and **15 (landscape)** as these measures are likely to improve health and wellbeing of local residents and mitigate the effects of climate change, provide additional habitats and improve the appearance of townscapes**.**

5.76 The positive and negative effects recorded for the preferred policy are also likely to be felt under the alternative policy option 1 for the reasons described above, although their significance is likely to be proportionately less, as it would include a strategic air quality policy but would reduce the scope.

5.77 Alternative policy option 2 represents a 'no strategic policy on air quality' alternative. In the absence of an Oxfordshire-wide air quality policy for all strategic developments, developers will be required to meet the minimum requirements set out in local

and national policy. Consequently, under this scenario, the Oxfordshire Plan 2050 would have a negligible effect on many SA objectives. However, the absence of a strategic direction on air quality could see deterioration of air quality in specific locations and fewer strategic green infrastructure and transport initiatives to mitigate their adverse effects, which could have a negative effect on **SA objectives 2 (health), 7 (climate change)**, **8 (pollution)** and **13 (biodiversity)**.

Theme Three: Creating Strong and Healthy Communities

Healthy Place Shaping and Health Impact Assessments

5.78 Table 5.15 presents the findings of the SA for the preferred policy option and alternative relating to healthy place shaping and health impact assessments. The findings are described below the table.

1. Preferred policy option: Policy 13 – Healthy Place Shaping and Health Impact Assessments.
2. Alternative policy option 1: Do not include a standalone policy, and instead weave healthy place shaping principles through the Oxfordshire Plan, allowing individual Local Plans to implement their own healthy place shaping principles as appropriate.

Table 5.15: SA findings for Policy 13 and its alternative

SA objectives	Policy Options	
	Policy 13	Alternative 1
1. To meet Oxfordshire's housing needs	+	+?
2. To improve the health and wellbeing of Oxfordshire's population	++	+?
3. To sustain and create safe and vibrant Oxfordshire communities	++	+?
4. To support the development of Oxfordshire's knowledge economy	+	+?
5. To maintain high and stable levels of employment across Oxfordshire	0	0
6. To reduce the need to travel by car in Oxfordshire	+	+?
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	+?
8. To minimise air, noise and light pollution in Oxfordshire	+	+?
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+	+?
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	0	0

5.79 Minor positive effects are identified for the preferred policy option in relation to **SA objective 1 (housing)** as it encourages a diverse mix of housing, with improvements to accessibility and affordability. Significant positive effects are identified for the preferred policy option in relation to **SA objective 2 (health and wellbeing) and SA objective 3 (communities)** due to the

principles for development in Oxfordshire that are set out. They include targeted improvements to specific health and wellbeing needs in an area, provision of a range of sports facilities, provision of social community infrastructure and strategies to improve community cohesion and the creation of safe environments for residents. In addition, this policy sets out a requirement for all major development proposals in Oxfordshire to carry out a Health Impact Assessment (HIA). This is likely to maximise the potential health and wellbeing benefits arising from development, as well as identifying potential negative impacts on health and mitigation options.

5.80 The provision of better health and wellbeing through the delivery of Policy 13 is likely to have indirect minor positive effects on the local **economy (SA objective 4)** as the local population is likely to be more productive and active in the local areas.

5.81 Policy 13 encourages development layouts that prioritise walking and cycling and states that sustainable transport networks should be provided, including links to public transport, which is likely to be beneficial to life after the COVID-19 pandemic. Minor positive effects are therefore recorded for the preferred policy option in relation to **SA objective 6 (travel)**, **SA objective 7 (climate change)** and **SA objective 8 (pollution).** Additionally, it is set out that proposals should aim to improve air quality and reduce noise pollution, with consideration of locating development to avoid impacts on sensitive land uses. HIA is also likely to identify potential negative air quality, noise and light impacts arising from development and may potentially help develop mitigation strategies to protect vulnerable groups. This may contribute to minimising disturbance of habitats within and adjacent to new developments. The preferred policy also sets out that community gardens, orchards, roof gardens and edible landscaping could be delivered as part of developments, which are small contributions to local biodiversity. As such, minor positive effects are identified for the preferred policy option in relation to **SA objective 13 (biodiversity)**.

5.82 As such, the contents of Policy 13 would be expressed more generally throughout the Oxfordshire Plan, with the expectation that future Local Plans would draw healthy place shaping principles from this. Minor positive effects are identified for the same SA objectives as Preferred Policy 13. However, in this instance the effects identified are uncertain as it is not clear to what extent future Local Plans would adopt such principles.

Health Infrastructure

5.83 Table 5.16 presents the findings of the SA for the preferred policy option and alternative relating to health infrastructure. The findings are described below the table.

1. Preferred policy option: Policy 14 – Health Infrastructure.
2. Alternative policy option 1: Leave these considerations to future Local Plans.

Table 5.16: SA findings for Policy 14

SA objectives	Policy Options	
	Policy 14	Alternative 1
1. To meet Oxfordshire's housing needs	0	0
2. To improve the health and wellbeing of Oxfordshire's population	++	-?
3. To sustain and create safe and vibrant Oxfordshire communities	+	-?
4. To support the development of Oxfordshire's knowledge economy	0	0
5. To maintain high and stable levels of employment across Oxfordshire	+	0?
6. To reduce the need to travel by car in Oxfordshire	+	0?
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	0?
8. To minimise air, noise and light pollution in Oxfordshire	+	0?

SA objectives	Policy Options	
	Policy 14	Alternative 1
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	0	0
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	0	0

5.84 Policy 14 is likely to play a crucial role in ensuring that health infrastructure is located in the right locations and can provide sufficient levels of capacity in the period up to 2050, which will contribute to maintaining and improving the health of residents in the County. It is required through the policy that comprehensive masterplans are produced for any changes to the health estate, which will set out the need for such action and the timetable for development. As such, significant positive effects are expected for the preferred policy option in relation to **SA objective 2 (health and wellbeing)**. Health supporting infrastructure can provide valuable support to communities through targeted services for different groups of people and therefore minor positive effects are recorded for the preferred policy option against **SA objective 3 (communities)**. Furthermore, health infrastructure has become even more essential during the COVID-19 pandemic highlighting the need for health infrastructure in the right locations. Future Local Plans may put in place similar policies to manage their respective health estates, but measures may be less stringent and therefore uncertain negligible effects are identified for the alternative policy option in relation to SA objectives 2 and 3.

5.85 The preferred policy option suggests that good connectivity should be considered in changes to health infrastructure, with ease of access using sustainable travel options for both the public and the workforce. As a result, minor positive effects are identified for the preferred policy option in relation to **SA objective 5 (employment)**, **SA objective 6 (travel)** and **SA objective 8 (pollution)**. Additionally, the preferred policy option also suggests that new healthcare related buildings should introduce stringent energy efficiency measures and should prioritise the use of renewable energy. Minor positive effects are therefore recorded for the preferred policy option in relation to **SA objective 7 (climate change)**. As above, uncertain negligible effects are identified for the alternative policy option in relation to these SA objectives as it is not clear whether future Local Plans will include such measures. Indeed, an absence of a strategic direction on health infrastructure may result in missed opportunities to tackle some of the County's known health inequalities with uncertain minor negative effects on at least **SA objective 2 (health)** and **3 (communities)**.

High Quality Design for New Development and Garden Town Standards for New Settlements

5.86 Table 5.17 presents the findings of the SA of the high quality design preferred policy option and one alternative option. The findings are described below the table.

1. Preferred policy option: Policy 15 – High Quality Design for New Development.
2. Alternative policy option 1: Leave design matters for local plans and neighbourhood plans based on national guidance.

Table 5.17: SA findings for Policy 15 and its alternative

SA objectives	Policy Options	
	Policy 15	Alternative 1
1.To meet Oxfordshire's housing needs	+/-?	0
2. To improve the health and wellbeing of Oxfordshire's population	+?	0
3. To sustain and create safe and vibrant Oxfordshire communities	+?	0
4. To support the development of Oxfordshire's knowledge economy	+/-?	0
5. To maintain high and stable levels of employment across Oxfordshire	+?	0
6. To reduce the need to travel by car in Oxfordshire	+?	-?
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++?	-?
8. To minimise air, noise and light pollution in Oxfordshire	+?	-?
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	+?	0
10. To reduce the risk from all sources of flooding in Oxfordshire	+?	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+?	0
14. To protect and enhance the significance of Oxfordshire's historic environment	++?	0
15. To protect and enhance Oxfordshire's landscape character and quality	++?	0

5.87 The preferred policy option sets ambitions for how Local Plans and Neighbourhood Plans should prioritise high quality design through the provision of detailed, locally specific design guides. Requiring developments to respect and enhance the County's distinctiveness and historic environment is likely to have **significant positive effects** on **SA objectives 14 (historic environment)** and **15 (landscape)** as it will steer new development away from Oxfordshire's heritage assets, including locally listed buildings and their settings or otherwise help to enhance them, and this in turn would have a positive impact on Oxfordshire's character, including Oxfordshire's distinctive landscapes and townscapes.

5.88 As well as creating nucleated patterns of travel (i.e., relating to neighbourhood centres), Policy 15 supports attainment of garden town standards through delivery of high levels of green space, sustainable water systems and sustainable drainage systems. The expectation for new settlements to account for these considerations is likely to benefit local biodiversity, improve water resource management and reduce flood risk. Therefore, minor positive effects are identified for Policy 15 in relation to **SA objective 9 (water), SA objective 10 (flood risk)** and **SA objective 13 (biodiversity)**. The delivery of green infrastructure within new settlements will also provide residents with opportunities to access nature and recreation. Minor positive effects are therefore expected for the preferred policy option in relation to **SA objective 2 (health and wellbeing)**.

5.89 Minor positive effects are likely in relation to **SA objectives 2 (health)**, and **3 (communities)** for the preferred policy option. Policy 15 also has the potential to create creative and innovative building designs, making homes and offices more adaptable, higher quality and will incorporate social and green spaces. This is likely to have minor positive effects on health and wellbeing (SA Objective 2) and **community vitality (SA objective 3),** and will be particularly valuable in helping to address the lasting impacts of the COVID-19 pandemic. Furthermore, the provision of community facilities supported through the preferred

policy may provide increased opportunities for residents to come into contact with each other, reducing the potential for social isolation.

5.90 The preferred policy option sets out how proposals for new settlements should achieve 'Garden Town' standards. A reduced need to travel is supported through various aspects of the policy, with the creation of '20 minute neighbourhoods' being encouraged through provision of active travel links and neighbourhood centres, which will contain community facilities, schools and essential services. Furthermore, the policy suggests that housing in new settlements should contain sufficient digital infrastructure to facilitate home working, as well as electric vehicle charging points. Development proposals are also expected to be resilient to future change, which is likely to make the built environment more resilient to climate change. Therefore, positive effects are expected in relation to **SA objectives 6 (travel), 7 (climate change)** and **8 (pollution)**. For **SA objective 7 (climate change)**, the positive effects identified are **significant** as the policy also includes requirements that new settlements will be designed with sustainable materials to achieve significant carbon reductions through energy efficiency and renewable energy generation measures. Minor positive effects are also likely in relation to **SA objective 4 (economy)** as respecting the County's heritage avoiding adverse effects on them will help to protect local character and culture, which is part of what helps to attract and retain global talent thereby supporting the local knowledge economy[57]. It will also help to support tourism, which is a major economic sector in Oxfordshire, thereby having a minor positive effect on **SA Objective 5 (employment)** as well. In addition, provision of housing alongside employment provision will provide future residents with job opportunities in close proximity. As a result, minor positive effects are also identified for the preferred policy option in relation to **SA objective 1 (housing)**.

5.91 The preferred policy option could also have minor negative effects on **SA objective 4 (economy)**, as it could restrict where and/or how development can be delivered in the context of the historic environment, which may contribute to restricting growth within sensitive areas of the county, particularly the county's historic settlements and landscapes, reducing the opportunities for and viability and affordability of new development. Furthermore, comprehensive masterplanning requirements and higher design standards for allocations over 300 units might compromise the viability of developments in certain parts of the county. The garden town standards are likely to add a small additional cost to homes construction, but it is becoming more viable to achieve higher design and construction standards as technology evolves and the market becomes more favourable. Therefore, minor negative effects are also recorded against **SA objective 1 (housing)**.

5.92 As this preferred policy option is an ambition for Local Plans and Neighbourhood Plans rather than a county-wide requirement, uncertainty is attached to all of these effects. The alternative policy option does not set out any requirements, instead opting to leave design guidance to future Local and Neighbourhood Plans, and therefore negligible effects are recorded for this option in relation to the majority of SA objectives. The notable potential exceptions relate to **SA objective 6 (travel), 7 (climate change)** and **8 (pollution)** for which an absence of strategic direction of design principles may result in a lost opportunity to manage some of the most significant impacts of new strategic settlement development: traffic congestion, climate change and other disturbance issues. Any adverse effects remaining in the absence of such a strategic policy are likely to be managed by other policies in the Oxfordshire Plan and Local Plans, so these adverse effects are recorded minor and uncertain.

5.93 The preferred policy option and alternative policy option are not likely to generate more than negligible effects against the remaining SA objectives due to their specific focus on high quality design and protecting the historic environment.

Leisure, recreation, community and open space facilities

5.94 Table 5.18 presents the findings of the SA for the preferred policy option and one alternative relating to leisure, recreation, community and open space facilities. The findings are described below the table.

1. Preferred policy option: Policy 16 – Leisure, recreation, community and open space facilities.
2. Alternative policy option 1: Include a policy that seeks to protect the existing indoor and outdoor sports facilities and open spaces within the County. Access to any new private facilities would also be encouraged.

[57] OxLEP (undated) Creating the Environment for Growth: A Strategic Investment Plan for Oxfordshire https://www.oxfordshirelep.com/sites/default/files/uploads/Creative%2C%20Cultural%2C%20Heritage%20and%20Tourism%20Sectors_0.pdf

Table 5.18: SA findings for Policy 16 and its alternative

SA objectives	Policy Options	
	Policy 16	Alternative 1
1. To meet Oxfordshire's housing needs	0	0
2. To improve the health and wellbeing of Oxfordshire's population	++	+
3. To sustain and create safe and vibrant Oxfordshire communities	++	+
4. To support the development of Oxfordshire's knowledge economy	+	+
5. To maintain high and stable levels of employment across Oxfordshire	+	+
6. To reduce the need to travel by car in Oxfordshire	+	+
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	+
8. To minimise air, noise and light pollution in Oxfordshire	+	+
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+/-?	0
14. To protect and enhance the significance of Oxfordshire's historic environment	+/-?	0
15. To protect and enhance Oxfordshire's landscape character and quality	+/-?	0

5.95 The delivery of strategic scale leisure, recreation, community and open space facilities within Oxfordshire is likely to provide opportunities for community cohesion and improvement of health and wellbeing amongst communities, whilst also offering potential to attract visitors from the wider region and nationally. Community facilities would be a matter for Local Plans, expect in instances where facilities are intended to meet the needs of a wider district or neighbouring districts. As a result, minor positive effects are identified for the preferred policy option in relation to **SA objective 2 (health and wellbeing)** and **SA objective 3 (communities)**. The preferred policy option includes support for a wide range of facilities, including strategic indoor sports facilities such as leisure centres, aquatic centres and stadiums. These types of large-scale developments are likely to draw high levels of visitors as well as providing employment opportunities for Local People. Therefore, minor positive effects are identified for the preferred policy option in relation to **SA objective 4 (economy)** and **SA objective 5 (employment)**.

5.96 The preferred policy also includes support for strategic areas of open space, including country parks and associated facilities. The creation of a country park may provide opportunities to support biodiversity on a strategic scale within Oxfordshire, protecting other more sensitive ecological areas in the county and far afield as a consequence. As a result, minor positive effects are identified for the preferred policy option in relation to **SA objective 13 (biodiversity)**. However, whilst the policy requires that such new leisure and recreation facilities, except in exceptional cases, should be located within the built-up area of settlements, there is potential for such developments to have adverse impacts on local biodiversity through disturbance of habitats. Additionally, the setting of heritage assets and landscape character may be adversely impacted by the delivery of such facilities. Therefore, minor negative effects are identified for the preferred policy option in relation to **SA objective 13 (biodiversity)**, **SA objective 14 (historic environment)** and **SA objective 15 (landscape)**. The negative effects identified are

uncertain as they will be dependent on the location and scale of development. The policy does require that any development should be proportionally scaled and in keeping with the character of a settlement and that it should minimise visual and landscape impacts, which may mitigate and potentially even enhance some impacts on the historic environment and landscape character. As a result, minor positive effects are also identified for the preferred policy option in relation to SA objective 14 (historic environment) and SA objective 15 (landscape).

5.97 It is required through the preferred policy option that any new recreation, leisure or open space facilities should be in locations with good sustainable transport links, with a sustainable transport plan setting out the details of bus and rail connectivity that would be secured. Additionally, it is also required that developments create minimal traffic and are designed with renewable energy provision. Therefore, minor positive effects are recorded for the preferred policy option in relation to **SA objective 6 (travel), SA objective 7 (climate change)** and **SA objective 8 (pollution).**

5.98 The alternative policy option seeks to protect existing indoor and outdoor sports facilities and open spaces within the County. It is therefore likely to have positive effects against the same SA objectives as the preferred policy option; however, the effects are likely to have less significan in acknowledgement of their being less emphasis on the strategic coordination and enhancement of facilities. Less emphasis on the delivery of new strategic facilities also reduces the scope for .

Theme Four: Planning for Sustainable Travel and Connectivity

Towards a Net Zero Transport Network

5.99 Table 5.19 presents the findings of the SA for the preferred policy option and alternative relating to a net zero carbon transport network. The findings are described below the table.

1. Preferred policy option: Policy 17 – Towards a Net Zero Transport Network.
2. Alternative policy option 1: Leave these considerations to future Local Plans.

Table 5.19: SA findings for Policy 17 and its alternative

SA objectives	Policy Options	
	Policy 17	Alternative 1
1. To meet Oxfordshire's housing needs	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+	0
3. To sustain and create safe and vibrant Oxfordshire communities	+	0
4. To support the development of Oxfordshire's knowledge economy	+	0
5. To maintain high and stable levels of employment across Oxfordshire	+	0
6. To reduce the need to travel by car in Oxfordshire	++	-?
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	-?
8. To minimise air, noise and light pollution in Oxfordshire	++	-?
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0
12. To safeguard Oxfordshire's mineral resources	0	0

SA objectives	Policy Options	
	Policy 17	Alternative 1
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+	0
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	0	0

5.100 The preferred policy option sets out an ambitious approach in relation to the transport network in order to achieve net-zero carbon, which includes enhancements to the rail and bus network, enhanced walking any cycling routes with strategic links between settlements, improvements to transport interchange at key employment areas and transport hubs, improved efficiency in the freight network and road improvements that align with net-zero carbon targets. As a result of these requirements for development proposals that are likely to encourage modal shifts in transport choices in the long term, **significant positive effects** are identified for the preferred policy option in relation to **SA objective 6 (travel)**, **SA objective 7 (climate change)** and **SA objective 8 (pollution)**. These kind of strategic interventions will be necessary to achieve net-zero carbon given the cross-boundary nature of the transport network. The absence of a regional policy on this important strategic issue (Alternative Policy 1) may result in minor negative effects in relation to SA objectives 6, 7 and 8. However, these negative effects identified are uncertain as it is not clear at this stage how and what other policy interventions will be made at the regional and local level.

5.101 An efficient and effective transport network that is encouraged through the preferred policy approach is likely to ensure that communities have equitable access to services and facilities and job opportunities in key employment areas. Additionally, a modal shift away from private car travel may yield benefits for biodiversity and wellbeing and quality of life in some communities due to increased uptake of active travel and decreased air pollution and noise pollution. As such, minor positive effects are identified for the preferred policy option in relation to **SA objective 2 (health and wellbeing)**, **SA objective 3 (communities)**, **SA objective 4 (economy), SA objective 5 (employment)** and **SA objective 13 (biodiversity)**..

Supporting sustainable transport in new development

5.102 Table 5.20 presents the findings of the SA for the preferred policy option and alternative relating to sustainable transport in development. The findings are described below the table.

1. Preferred policy option: Policy 18 – Sustainable transport in new development.
2. Alternative policy option 1: Leave these considerations to future Local Plans.

Table 5.20: SA findings for Policy 18 and its alternative

SA objectives	Policy Options	
	Policy 18	Alternative 1
1. To meet Oxfordshire's housing needs	-?	0
2. To improve the health and wellbeing of Oxfordshire's population	+	0
3. To sustain and create safe and vibrant Oxfordshire communities	0	0
4. To support the development of Oxfordshire's knowledge economy	+/-?	0
5. To maintain high and stable levels of employment across Oxfordshire	+	0
6. To reduce the need to travel by car in Oxfordshire	++	-?
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++	-?

SA objectives	Policy Options	
	Policy 18	Alternative 1
8. To minimise air, noise and light pollution in Oxfordshire	++	-?
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+	0
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	0	0

5.103 The preferred policy option builds on the strategic interventions set out in Policy 17, by setting out hierarchical principles relating to development proposals' approach to transport. In the first instance, the policy requires high digital connectivity within new developments so that there is potential to work from home and services and facilities should be located in close proximity where they are accessible by walking and cycling. The ability to work from home is particularly important as a result in changing work patterns arising from the COVID-19 pandemic. Where travel is needed, the policy suggests that development proposals should provide good access to active travel and public transport and, if private car travel is needed, zero-emission vehicle use should be provided for by ensuring there is access to charging infrastructure. Furthermore, the preferred policy option takes a proactive approach to this by requiring that new residential and non-residential developments should provide at least 25% of non-allocated spaces as electric vehicle charging points. As a result, **significant positive** effects are identified for the preferred policy option in relation to **SA objective 6 (travel)**, **SA objective 7 (climate change)** and **SA objective 9 (pollution)**. Minor positive effects are also recorded for **SA objective 13 (biodiversity)** in acknowledgement of the indirect benefits of fewer polluting vehicles on Oxfordshire's road on the integrity of the county's sensitive habitats. Minor negative effects are identified for the alternative policy option in relation to these SA objectives, as there is potential for less sustainable travel patterns to remain prevalent without overarching principles in place for sustainable transport. The negative effects identified are uncertain as they will depend on how stringent future Local Plans are in relation to sustainable transport provision.

5.104 The modal shift away from private car travel encouraged in the preferred policy option is likely to result in increased uptake of active travel amongst residents and potentially reduced negative health impacts arising from air and noise pollution. Therefore, minor positive effects are identified of the preferred option in relation to **SA objective 2 (health)**. Additionally, the preferred option provides residents in new developments with opportunities too access job opportunities using sustainable transport modes and promotes improvements to digital connectivity which will make it easier for employees and students to work from home, providing long-term resilience for large sectors of the local economy, and therefore minor positive effects are recorded against **SA objectives 4 (economy)** and **5 (employment)**. The preferred policy option sets out requirements for electric vehicle provision in new development, which may result in deliverability issues in new residential and employment developments. As a result, minor negative effects are identified for the preferred policy option in relation to **SA objective 1 (housing)** and **SA objective 4 (economy)**. Again, these effects are recorded as uncertain in acknowledgement of the improving cost effectiveness of such technologies and the economies of scale that most strategic developments will be able to take advantage of.

Supporting sustainable freight management

5.105 Table 5.21 presents the findings of the SA for the preferred policy option and alternative relating to freight management. The findings are described below the table.

1. Preferred policy option: Policy 19 – Supporting Sustainable Freight Management.

2. Alternative policy option 1: Leave these considerations to the OxCam Arc Spatial Framework and/or Local Plans.

Table 5.21: SA findings for Policy 19 and its alternative

SA objectives	Policy Options	
	Policy 19	Alternative 1
1. To meet Oxfordshire's housing needs	0	0
2. To improve the health and wellbeing of Oxfordshire's population	0	0
3. To sustain and create safe and vibrant Oxfordshire communities	0	0
4. To support the development of Oxfordshire's knowledge economy	0	0
5. To maintain high and stable levels of employment across Oxfordshire	0	0
6. To reduce the need to travel by car in Oxfordshire	+	0?
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	0?
8. To minimise air, noise and light pollution in Oxfordshire	+	0?
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+?	0
14. To protect and enhance the significance of Oxfordshire's historic environment	+?	0
15. To protect and enhance Oxfordshire's landscape character and quality	+?	0

5.106 Decarbonisation of freight movements in Oxfordshire is a key concern given the strategic road network in the area and an increasing prevalence of freight movement on non-strategic roads. The preferred policy option seeks to address this by supporting development proposals that enable freight movements via zero-emissions freight vehicles. Additionally, the preferred policy option attempts to minimise the freight emissions by requiring that there is careful consideration of the alignment of proposals to road networks. As a result, this strategic support is judged likely to generate at least minor positive effects in relation to **SA objective 6 (travel)**, **SA objective 7 (climate change)** and **SA objective 8 (pollution)**. The alternative option would leave these considerations to the OxCam Arc Spatial Framework and Local Plans, which in combination are highly likely to include some measures relating to sustainable freight transport. Therefore, negligible effects are recorded for all SA objectives for the alternative, with uncertainty attached to SA objectives 6 (travel), 7 (climate change) and 8 (pollution), given these SA objectives are most likely to influenced by alternative measures – for better or worse.

5.107 The preferred policy option suggests that there should be careful review of any freight related proposals that may have environmental or heritage impacts. This may prevent inappropriate freight facilities coming forward that would have adverse impacts on sensitive environmental receptors. As a result, uncertain minor positive effects are identified for the preferred policy option in relation to **SA objective 13 (biodiversity)**, **SA objective 14 (historic environment)** and **SA objective 15 (landscape character)**.

Digital Infrastructure

5.108 Table 5.22 presents the findings of the SA for the preferred policy option and alternative relating to digital infrastructure. The findings are described below the table.

1. Preferred policy option: Policy 20 – Digital Infrastructure.
2. Alternative policy option 1: Leave these considerations to future Local Plans.

Table 5.22: SA findings for Policy 20 and its alternative

SA objectives	Policy Options	
	Policy 20	Alternative 1
1. To meet Oxfordshire's housing needs	0	0
2. To improve the health and wellbeing of Oxfordshire's population	0	0
3. To sustain and create safe and vibrant Oxfordshire communities	0	0
4. To support the development of Oxfordshire's knowledge economy	++	-?
5. To maintain high and stable levels of employment across Oxfordshire	+	-?
6. To reduce the need to travel by car in Oxfordshire	+	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	0
8. To minimise air, noise and light pollution in Oxfordshire	+	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	0	0
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	-	0

5.109 As reliance on digital infrastructure increases, it has become important to ensure that any new development considers provision of fibre and mobile technology at an early stage in the planning process. The COVID-19 pandemic has reaffirmed the importance of this, with a significant amount of people working remotely. The preferred policy option reflects this need as it requires full fibre broadband and 5G mobile technology to be provided with new developments. Faster communication would make positive contributions to Oxfordshire's knowledge economy and increase the attractiveness of the area for business. Therefore, **significant positive** effects are identified for the preferred policy option in relation to **SA objective 4 (economy)**. The ability to work from home with adequate internet speeds is likely to provide residents with employment opportunities and therefore minor positive effects are identified for the preferred policy option in relation to **SA objective 5 (employment)**. By leaving these considerations to future Local Plans, the alternative policy option my result in disparities across Oxfordshire in the capacity of digital infrastructure delivered with new developments. Subsequently, this may result in negative impacts on the area's knowledge economy and the potential for people to work remotely in some areas. Therefore, minor negative effects are

recorded against SA objectives 4 and 5 for the alternative policy option. The negative effects identified are uncertain as it is not clear how future Local Plans will approach digital infrastructure at this stage.

5.110 As well as improving employment prospects for residents, delivery of fast digital infrastructure may create a reduced need to travel, potentially resulting in positive impacts on carbon emissions and air quality arising from private car travel. Minor positive effects are therefore identified the preferred policy option in relation to **SA objective 6 (travel)**, **SA objective 7 (climate change)** and **SA objective 8 (pollution)**.

5.111 The delivery of masts for 5G purposes are likely to have some visual impacts, which may cause disturbance to landscape and/or townscape character in some locations. As such, minor negative effects are recorded for the preferred policy option in relation to **SA objective 15 (landscape)**.

Strategic Infrastructure Priorities

5.112 Table 5.23 presents the findings of the SA for the preferred policy option and alternative relating to electric vehicle charging. The findings are described below the table.

1. Preferred policy option: Policy 21 – Strategic Infrastructure Priorities.
2. Alternative policy option 1: Land should be safeguarded for strategic infrastructure priorities.

Table 5.23: SA findings for Policy 21 and its alternative

SA objectives	Policy Options	
	Policy 21	Alternative 1
1.To meet Oxfordshire's housing needs	+/-?	+/-?
2.To improve the health and wellbeing of Oxfordshire's population	+/-?	+/-?
3.To sustain and create safe and vibrant Oxfordshire communities	+	+/-?
4.To support the development of Oxfordshire's knowledge economy	+/-?	+/-?
5.To maintain high and stable levels of employment across Oxfordshire	+	+/-?
6.To reduce the need to travel by car in Oxfordshire	+	+/-?
7.To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	+/-?
8.To minimise air, noise and light pollution in Oxfordshire	+	+/-?
9.To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	+	+/-?
10.To reduce the risk from all sources of flooding in Oxfordshire	+	+/-?
11.To protect Oxfordshire's soils and ensure efficient use of land	0	0
12.To safeguard Oxfordshire's mineral resources	0	0
13.To conserve and enhance Oxfordshire's biodiversity and geodiversity	+/-?	+/-?
14.To protect and enhance the significance of Oxfordshire's historic environment	-?	
15.To protect and enhance Oxfordshire's landscape character and quality	-?	0

5.113 The preferred policy option promotes the planning of strategic infrastructure priorities set out in the Oxfordshire Infrastructure Strategy (OxIS) and subsequent updates to it. This is likely to encourage sustainable patterns of growth, as new residential and employment development will be supported by the appropriate infrastructure, in terms of location and scale. Despite being a basic principle of good planning, reaffirming this principle in the Oxfordshire Plan could generate minor positive effects against the SA objectives tied to key types of strategic infrastructure, notably **SA objectives 1 (homes,) 2 (health), 3 (community), 4 (economy), 5 (employment), 6 (travel), 7 (climate change), 8, (pollution), 9 (water), 10 (flood risk)** and **13 (biodiversity)**. Conversely, promoting investment in and channeling development to particular strategic locations, could increase the cost of developments, which may compromise the viability of some developments and therefore the ability of the Oxfordshire Plan to deliver the county's growth needs. Furthermore, concentrations of development in particular strategic locations may put a strain on notable local sensitive receptors, such as new and existing local residents as well as sensitive ecology, landscapes and townscapes and the historic environment. Therefore, the minor positive effects recorded for SA objectives **1 (homes,) 2 (health), 4 (economy)** and **13 (biodiversity)** are also coupled with uncertain minor negative effects. Similarly, uncertain minor adverse standalone effects are recorded for SA objectives **14 (heritage)** and **15 (landscape)** due to the potential for new infrastructure development to adversely affect landscape character and heritage assets.

5.114 The alternative policy option promotes a more proactive approach to allocating land for strategic infrastructure priorities. This has the potential to generate more certainty in the delivery of the positive effects identified for the preferred policy option, but it could also have the potential for the misalignment of safeguarded land with evolving infrastructure needs, resulting in a mismatch between policy and more detailed growth proposals. As such, uncertain mixed minor positive and minor negative effects are identified for the alternative policy option for all the SA objectives for which positive effects are identified for the preferred option.

Theme Five: Creating Jobs and Providing Homes

Economic Growth

5.115 Table 2.24 presents the findings of the SA of the preferred policy option and one alternative option for supporting the creation of jobs. The findings are described below the table.

1. Preferred policy option: Policy 22 – Supporting the Creation of Jobs
2. Alternative policy option 1: OGNA trajectories range from an additional 20,000 to 45,000 jobs
3. Alternative policy option 2: Use a floor space calculation of new Class B employment.

5.116 Alternative policy option 1 has already been appraised in **Chapter 4**. Three initial economic growth scenarios were tested as part of an earlier phase of sustainability appraisal work. See **Table 4.21** and the associated text for further details. Furthermore, the appraisal of spatial options in the final section of this chapter considers the implications of different scales of growth on the range of effects identified.

Table 2.24: SA findings for Policy 22 and its alternative

SA objectives	Policy Options	
	Policy 22	Alternative 2
1. To meet Oxfordshire's housing needs	0	0
2. To improve the health and wellbeing of Oxfordshire's population	0	0
3. To sustain and create safe and vibrant Oxfordshire communities	0	0
4. To support the development of Oxfordshire's knowledge economy	+	+
5. To maintain high and stable levels of employment across Oxfordshire	+	+
6. To reduce the need to travel by car in Oxfordshire	?	?

SA objectives	Policy Options	
	Policy 22	Alternative 2
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+?	?
8. To minimise air, noise and light pollution in Oxfordshire	?	?
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	?	?
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	?	?
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	?	?
14. To protect and enhance the significance of Oxfordshire's historic environment	?	?
15. To protect and enhance Oxfordshire's landscape character and quality	?	?

5.117 The preferred policy does not propose to identify specific requirements for job numbers as there is too much uncertainty later on in the plan period. However, this preferred policy encourages appropriate development that delivers jobs and the adoption of appropriate metrics to measure increased productivity and the impact of business innovation in Local Plans. As such, minor positive effects are expected in relation to **SA objectives 4 (economy)** and **5 (employment).**

5.118 Minor positive effects are expected in relation **SA objective 7 (climate change)** as the preferred policy option encourages the adoption of metrics to measure business innovation as part of achieving 'clean growth'. This metric could encourage businesses to prioritise energy and water efficiency and green infrastructure when creating developments which could help mitigate and adapt to climate change. However, as the metric is not mandatory, uncertainty is attached.

5.119 Additional development could result in the loss of more greenfield land in the county and/or have adverse effects on local wildlife, the historic environment, air and water quality or sensitive landscapes and townscapes; however, as this preferred policy option provides a framework rather than development locations, uncertain effects are expected against **SA objectives 6 (travel), 8 (pollution), 9 (water), 11 (soil), 13 (biodiversity), 14 (historic environment)** and **15 (landscape).**

5.120 Alternative policy option 2 would use a floor space calculation of new B Class employment to support the creation of jobs. This option is likely to have similar effects to the preferred policy as they both support economic development. It is assumed that this metric would also not be mandatory. Therefore, this option would also have uncertain effects, including uncertain effects against **SA objective 7 (climate change)** as it does not emphasise 'clean growth'.

Protection of Economic Assets

5.121 Table 5.25 presents the findings of the SA of the preferred policy option and alternative for economic assets. The findings are described below the table.

1. Preferred policy option: Policy 23 – Protection of Economic Assets.
2. Alternative policy option 1: This option would leave these considerations to future Local Plans.

Table 5.25: SA findings for Policy 23 and its alternative

SA objectives	Policy Options	
	Policy 23	Alternative 1
1. To meet Oxfordshire's housing needs	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+/-?	0
3. To sustain and create safe and vibrant Oxfordshire communities	0	0
4. To support the development of Oxfordshire's knowledge economy	++	-?
5. To maintain high and stable levels of employment across Oxfordshire	++	-?
6. To reduce the need to travel by car in Oxfordshire	+	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	0
8. To minimise air, noise and light pollution in Oxfordshire	+/-?	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	-?	0
14. To protect and enhance the significance of Oxfordshire's historic environment	-?	0
15. To protect and enhance Oxfordshire's landscape character and quality	-?	0

5.122 Oxfordshire has a number of economic assets that are not only of regional importance, but of national and international importance. The intensification and diversification of economic activity within Oxford's business, science parks, innovation and technology centres through new investment and extensions, has the potential to contribute to the growth of the County's economy and employment opportunities. Policy 23 attempts to avoid the stagnation of these sites, by allowing flexibility in what uses are permitted within business parks so that they are future proofed for the emergence of new sectors. **Significant positive** effects are therefore recorded for Policy 23 in relation to **SA objective 4 (economy)** and **SA objective 5 (employment)**.

5.123 Policy 23 encourages investment into renewable energy generation and sustainable construction as part of business park alterations, which is likely to be valuable in reducing the carbon footprint of these developments. The provisions of charging points for electric vehicle and improved public transport connections provides employees of the economic asset with sustainable transport options, potentially reducing the need for private, fossil fuel-reliant vehicles to access these locations. Therefore, minor positive effects are recorded for the preferred policy against **SA objective 6 (travel)**, **SA objective 7 (climate change)** and **SA objective 8 (pollution)**. Minor positive effects are also recorded against **SA objective 2 (health)** in acknowledgement of the benefits of economic growth on the quality of life of local residents directly through employment and indirectly through investment in the wider local economy, services and facilities.

5.124 The preferred policy option provides support for the extension of economic assets, which may result in the greenfield land take. There is potential for this to result in negative impacts on the natural and historic environment, as well as existing landscape character. Minor negative effects are therefore recorded for this policy option in relation to **SA objective 13 (biodiversity and geodiversity), SA objective 14 (historic environment)** and **SA objective 15 (landscape)**. Similarly, such

expansions or intensifications have the potential to generate additional adverse effects on the **SA objectives 2 (health)** and **8 (pollution)**; however, these effects are uncertain until the exact nature and location of such intensifications and expansions are known.

5.125 The alternative option, of leaving these considerations to future Local Plans, is expected to generally result in negligible effects against the majority of the SA objectives, with the exception of **SA objectives 4 (economy)** and **5 (employment)** where a failure to provide strategic direction on the intensification and diversification of business parks may result in a failure to protect some industries in the county and capitalise on growing markets and industries. Therefore, uncertain minor negative effects are recorded against these two SA objectives.

Town Centre Renewal

5.126 Table 5.26 presents the findings of the SA of the preferred policy option and alternative relating to town centre renewal. The findings are described below the table.

1. Preferred policy: Policy 24 – Town Centre Renewal
2. Alternative policy option 1: This option would leave town centre renewal considerations to future Local Plans.

Table 5.26: SA findings for Policy 24 and its alternative

SA objectives	Policy Options	
	Policy 24	Alternative 1
1. To meet Oxfordshire's housing needs	+	0
2. To improve the health and wellbeing of Oxfordshire's population	+	0
3. To sustain and create safe and vibrant Oxfordshire communities	+	-?
4. To support the development of Oxfordshire's knowledge economy	+	-?
5. To maintain high and stable levels of employment across Oxfordshire	+	-?
6. To reduce the need to travel by car in Oxfordshire	+	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+/-?	0
8. To minimise air, noise and light pollution in Oxfordshire	+/-?	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	0	0
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	0	0

5.127 The preferred policy option would provide a policy framework that responds to the changing role of town centres by providing support for the delivery of new leisure and hospitality facilities and new economic and business uses. Minor positive

effects are therefore recorded for the policy in relation to **SA objective 4 (economy)** and **SA objective 5 (employment)**. The preferred policy also encourages cultural enrichment in town centres by providing support for markets and cultural activities. As a result, minor positive effects are identified for the policy against **SA objective 3 (vibrant communities)**. Conversely, the absence of a positive strategic direction through the alternative option could increase the likelihood of less coherent, complementary and resilient town centres across the county. As such, minor negative effects are recorded for the alternative in relation to SA objectives 3, 4 and 5. These effects are uncertain as they will be dependent upon the approaches taken in future Local Plans.

5.128 The provision of new leisure uses in town centres may include facilities that provide residents with opportunities to engage in activities that improve their physical and mental wellbeing. Minor positive effects are therefore recorded for the preferred policy against **SA objective 2 (health)**. The ability of residents to access these town centre uses is likely to be enhanced through the policy's support for improved public transport facilities. Furthermore, the policy also supports the provision of charging points for electric and hybrid vehicles, which may reduce the potential for travel into town centre locations to result in reduced air quality. As such, minor positive effects are recorded for the preferred policy in relation to **SA objective 6 (travel)**, **SA objective 7 (climate change)** and **SA objective 8 (pollution)**. However, the increased movements within town centres that such a policy approach may encourage also has the potential to result in a net increase in carbon emissions and air pollution. Minor negative effects are therefore recorded for the preferred policy in relation to SA objective 7 and 8. These effects are uncertain as they will be dependent on the transport movements of residents, which are difficult to predict at this stage.

5.129 Whilst housing in town centres is not generally supported by the preferred policy, it does offer support for accommodation above shop units and live work units, which will contribute to meeting some housing need in town centre locations. As such, minor positive effects are identified for the policy in relation to **SA objective 1 (housing)**.

Visitor Economy

5.130 Table 5.27 presents the findings of the SA for the preferred policy option and alternative relating to the visitor economy. The findings are described below the table.

1. Preferred policy option: Policy 25 – Visitor Economy.
2. Alternative policy option 1: This option would leave visitor economy considerations to future Local Plans.

Table 5.27: SA findings for Policy 25 and its alternative

SA objectives	Policy Options	
	Policy 25	Alternative 1
1. To meet Oxfordshire's housing needs	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+	0
3. To sustain and create safe and vibrant Oxfordshire communities	+	-?
4. To support the development of Oxfordshire's knowledge economy	++	-?
5. To maintain high and stable levels of employment across Oxfordshire	+	-?
6. To reduce the need to travel by car in Oxfordshire	+/-?	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+/-?	0
8. To minimise air, noise and light pollution in Oxfordshire	+/-?	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	-?	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0

SA objectives	Policy Options	
	Policy 25	Alternative 1
11. To protect Oxfordshire's soils and ensure efficient use of land	-?	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	-?	0
14. To protect and enhance the significance of Oxfordshire's historic environment	-?	0
15. To protect and enhance Oxfordshire's landscape character and quality	-?	0

5.131 The support for the enhancement of Oxfordshire's visitor economy in the preferred policy through new large event spaces, hotels, leisure and sport facilities and theme parks is likely to have a significant impact on the region's economy given the scale of these developments. As such, significant positive effects are identified for the preferred policy option in relation to **SA objective 4 (economy)**. Due to the employment opportunities and vibrancy to growth and community centres that such developments are likely to provide, minor positive effects are recorded against **SA objectives 3 (community)** and **5 (employment)**. There is also a strong emphasis within the preferred policy on the provision of sports facilities and adventure-based tourism, which may provide opportunities to engage in activities that will be beneficial to resident's and visitor's physical wellbeing. Minor positive effects are therefore recorded for the preferred policy option against **SA objective 2 (health)**. Opting for the alternative policy option, of leaving these considerations to future Local Plans, could miss the opportunity to provide regional direction on these important economic assets and their effects. This could result in the stagnation of some existing facilities with minor negative effects in relation to SA objectives 3, 4 and 5.

5.132 The preferred policy option suggests that the delivery of development should be at locations where there is easy access using sustainable transport modes, which includes a requirement to produce a sustainable travel plan that demonstrates how bus and rail connectivity has been secured. Furthermore, the policy requires that proposals minimise traffic impacts and include renewable energy provision. As a result, minor positive effects are identified for the preferred policy option in relation to **SA objective 6 (travel)**, **SA objective 7 (climate change)** and **SA objective 8 (pollution)**. However, the type of developments that are supported through the policy will attract high levels of visitors, which may contribute to an overall increase in transport movements if private car travel remains dominant. Therefore, minor negative effects are also expected for the preferred policy option in relation to these SA objectives. The effects identified are uncertain as it is difficult to predict the influence of specific proposals and future policies of people's travel habits at this stage.

5.133 The policy supports proposals, such as stadium scale sports facilities and theme parks, which are likely to require significant land/surface water take and may have adverse impacts on sensitive environmental receptors, including heritage assets, landscape designations and the natural environment. As such, minor negative effects are recorded for the policy against **SA objectives 9 (water quality)**, **SA objective 11 (soils)**, **SA objective 13 (biodiversity)**, **SA objective 14 (historic environment)** and **SA objective 15 (landscape)**. These effects are uncertain as they will depend on the location and scale of any proposals.

Culture and Arts

5.134 Table 5.28 presents the findings of the SA for the preferred policy option and alternative relating to culture and arts. The findings are described below the table.

1. Preferred policy option: Policy 26 – Culture and Arts.
2. Alternative policy option 1: This option would leave culture and arts considerations to future Local Plans.

Table 5.28: SA findings for Policy 26 and its alternative

SA objectives	Policy Options	
	Policy 26	Alternative 1
1. To meet Oxfordshire's housing needs	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+	0
3. To sustain and create safe and vibrant Oxfordshire communities	++	-?
4. To support the development of Oxfordshire's knowledge economy	++	-?
5. To maintain high and stable levels of employment across Oxfordshire	+	-?
6. To reduce the need to travel by car in Oxfordshire	+/-?	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+/-?	0
8. To minimise air, noise and light pollution in Oxfordshire	+/-?	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	-?	0
14. To protect and enhance the significance of Oxfordshire's historic environment	-?	0
15. To protect and enhance Oxfordshire's landscape character and quality	-?	0

5.135 The preferred policy option's broad ranging support for new cultural and arts facilities in the built-up areas of cities, towns and villages is likely to be beneficial to all communities within Oxfordshire and a wide range of demographics. The policy's attention to scale is important in this regard, with support for new venues ranging from museums and public broadcasting facilities to pop up culture and arts venues in vacant buildings. This will maximise benefits for different groups of people and Oxfordshire's creative economy. Furthermore, the policy is future proofed to an extent through a provision that support is not limited to the venue types listed in the policy text, which may be important as the creative industries adapt and change in the coming decades. **Significant positive** effects are therefore identified for the preferred policy option in relation to **SA objective 3 (communities)** and **SA objective 4 (economy)**. Uncertain minor negative effects are identified for the alternative policy option in relation to **SA objectives 3 (communities), 4 (economy)** and **5 (employment)**, as a lack of a regional policy framework may result in the stagnation of some of these important facilities and the jobs and services they provide, particularly in light of the COVID-19 pandemic where many creative industries have struggled.

5.136 The employment opportunities arising from the delivery of new arts and cultural facilities is likely to provide job opportunities for residents in the area and therefore minor positive effects are recorded for the preferred policy against **SA objective 5 (employment)**. Additionally, delivery of cultural and arts facilities in communities may yield positive effects on resident's quality of life, by providing opportunities to socialise at a range of venues. Minor positive effects are therefore recorded for the policy against **SA objective 2 (health and wellbeing)**.

5.137 The policy sets out specific criteria that any new cultural and arts facility proposals must be accompanied by sustainable travel plans, be located in good proximity to sustainable transport links, generating minimal traffic. Furthermore, the policy

requires that new cultural and arts facilities are designed to include renewable energy generation technologies. As a result, minor positive effects are identified for the policy in relation to **SA objective 6 (travel)**, **SA objective 7 (climate change)** and **SA objective 8 (pollution)**. However, given that the policy encourages new developments likely to attract significant numbers of people, there is potential for adverse impacts on sensitive environmental receptors and an overall increase in transport movements. As a result, minor negative effects are also expected for the policy in relation to **SA objectives 6 (travel), 7 (climate change), 8 (pollution), 13 (biodiversity), 14 (heritage)** and **15 (landscape)**. These negative effects identified are uncertain as they will depend on the scale and location of development and transport movements, which are difficult to predict at this stage.

Meeting Skills and Education Needs

5.138 Table 5.29 presents the findings of the SA for the preferred policy option and alternative relating to meeting skills and educational needs. The findings are described below the table.

1. Preferred policy option: Policy 27 – Meeting Skills and Education Needs.
2. Alternative policy option 1: This option would leave skills and education needs considerations to future Local Plans.

Table 5.29: SA findings for Policy 27 and its alternative

SA objectives	Policy Options	
	Policy 27	Alternative 1
1. To meet Oxfordshire's housing needs	0	0
2. To improve the health and wellbeing of Oxfordshire's population	+	-?
3. To sustain and create safe and vibrant Oxfordshire communities	+	-?
4. To support the development of Oxfordshire's knowledge economy	+	-?
5. To maintain high and stable levels of employment across Oxfordshire	+	-?
6. To reduce the need to travel by car in Oxfordshire	+	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	0
8. To minimise air, noise and light pollution in Oxfordshire	+	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	-?	0
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	-?	0
14. To protect and enhance the significance of Oxfordshire's historic environment	-?	0
15. To protect and enhance Oxfordshire's landscape character and quality	-?	0

5.139 The delivery of new schools and training facilities within Oxfordshire will be required to support growth in the County up to 2050 and will also be important in supporting the region's economic growth and employment levels. As such, the support the preferred policy provides for new education and training facilities record minor positive effects in relation to **SA objective 4**

(economy) and **SA objective 5 (employment)**. There is an emphasis in the preferred policy option on the delivery of facilities that can act as community hubs, serving the needs of local people. This will facilitate social isolation in communities and improve social wellbeing. As a result, minor positive effects are recorded for the preferred policy against **SA objective 2 (health and wellbeing)** and **SA objective 3 (communities)**. Failure to adequately prepare for planned growth in terms of educational capacity at the strategic scale may result in missed opportunities to address county-wide inequalities in education and training, with minor negative effects. Therefore, potential minor negative effects are recorded for the alternative policy option of leaving education considerations to future Local Plans in relation to **SA objective 2 (health)** and **SA objective 3 (communities)**. The knock-on effect of this lack of access to education needs may be felt within the local economy and may result in residents being less well equipped for job opportunities in the area. Therefore, minor negative effects are also identified for the alternative policy option in relation to **SA objective 4 (economy)** and **SA objective 5 (employment)**. The negative effects identified are uncertain as it is not clear at this stage how these considerations may be addressed through future Local Plans and other regional plans and strategies to capitalise on the strategic scales of growth needed.

5.140 The policy sets out specific criteria that any new education and training facility proposals must achieve a high degree of environmental efficiency, be located in good proximity to sustainable transport links and generate minimal traffic. Furthermore, the policy requires that new education and training facilities are designed to include renewable energy generation technologies. As a result, minor positive effects are identified for the policy in relation to **SA objective 6 (travel)**, **SA objective 7 (climate change)** and **SA objective 8 (pollution)**.

5.141 The delivery of large schemes for education and training facilities will potentially require land take on greenfield land, which may result in the loss of high-quality soils. Additionally, the physical and visual impacts of such schemes may result in adverse impacts on local biodiversity, heritage assets and townscape and landscape character. As such minor negative effects are identified for the preferred policy in relation to **SA objective 11 (soils)**, **SA objective 13 (biodiversity)**, **SA objective 14 (historic environment)** and **SA objective 15 (landscape)**. The effects identified are uncertain as they will be dependent on the location and scale of schemes proposed.

How Many Homes?

5.142 Table 5.30 presents the findings of the SA of the preferred policy option and alternative relating to where homes should go. The findings are described below the table.

1. Preferred policy option: Policy 28 – How many homes?
2. Alternative policy option 1: OGNA trajectories range from an additional 25,000 to 77,000 homes. See additional options appraised in **Chapter 4**. See **Table 4.20** and the associated text for further details.

Table 5.30: SA findings for Policy 28 (Alternative policy option 1 appraised in Chapter 4)

SA objectives	Policy 28
1. To meet Oxfordshire's housing needs	++
2. To improve the health and wellbeing of Oxfordshire's population	+?
3. To sustain and create safe and vibrant Oxfordshire communities	+?
4. To support the development of Oxfordshire's knowledge economy	++?
5. To maintain high and stable levels of employment across Oxfordshire	++?
6. To reduce the need to travel by car in Oxfordshire	+?
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+?
8. To minimise air, noise and light pollution in Oxfordshire	0?

SA objectives	Policy 28
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0?
10. To reduce the risk from all sources of flooding in Oxfordshire	0?
11. To protect Oxfordshire's soils and ensure efficient use of land	+
12. To safeguard Oxfordshire's mineral resources	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	0?
14. To protect and enhance the significance of Oxfordshire's historic environment	0?
15. To protect and enhance Oxfordshire's landscape character and quality	0?

5.143 The preferred policy option would have **significant positive effects** in relation to **SA objective 1 (housing)**, **SA objective 5 (employment)** and **SA objective 4 (knowledge economy)** because it would help to provide a coordinated approach of delivering housing, infrastructure and employment, which in turn would be more attractive to businesses and employees. There is uncertainty for the preferred policy option due to the fact that viable locations for economic growth and education and training may change over the long plan period.

5.144 The preferred policy option would likely help to reduce the need to travel by car **(SA objective 6 (travel))**, by helping to plan for integrated communities including housing, employment sites and sustainable transport. This would indirectly help to minimise Oxfordshire's contribution to climate change **(SA objective 7 (climate change))**. The preferred policy option also aims to provide growth at locations that can achieve zero carbon growth and environmental enhancement. There is some uncertainty about both of these SA objectives as they depend on the strategic growth sites allocated. The preferred policy option would also be more likely to direct housing and employment sites initially to previously developed land, helping to ensure efficient use of land **(SA objective 11 (soils))**. The preferred policy option is likely to have minimal impacts on the other SA objectives **(SA objectives 8 (pollution), 9 (water), 10 (flooding), 13 (biodiversity), 14 (historic environment)** and **15 (landscape))** since the sites would be selected to avoid these impacts where possible. However, uncertainty is attached to the likelihood and significance of these effects until such time as the location, design and scale of such developments is known.

The preferred policy option would help to support health and vibrant communities **(SA objectives 2 (health)** and **3 (communities))** the emphasis on sustainable outcomes would see growth being located where it could contribute the regeneration of areas and address inequalities in accessing jobs in Oxfordshire's key sectors.

Urban Renewal

5.145 Table 5.31 presents the findings of the SA of the preferred policy option and one alternative relating to urban renewal. The findings are described below the table.

1. Preferred policy option: Policy 29 – Urban Renewal.
2. Alternative policy option 1: Leave to future Local Plans.

Table 5.31: SA findings for Policy 29 and its alternative

SA objectives	Policy Options	
	Policy 29	Alternative 1
1. To meet Oxfordshire's housing needs	0	0

SA objectives	Policy Options	
	Policy 29	Alternative 1
2. To improve the health and wellbeing of Oxfordshire's population	+	0
3. To sustain and create safe and vibrant Oxfordshire communities	+	0
4. To support the development of Oxfordshire's knowledge economy	0	0
5. To maintain high and stable levels of employment across Oxfordshire	0	0
6. To reduce the need to travel by car in Oxfordshire	+	-
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	-
8. To minimise air, noise and light pollution in Oxfordshire	0	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	++	-
12. To safeguard Oxfordshire's mineral resources	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+/-	-
14. To protect and enhance the significance of Oxfordshire's historic environment	-	0
15. To protect and enhance Oxfordshire's landscape character and quality	+/-	-

5.146 The preferred policy option would support the reuse of brownfield land and intensification of land use in the market towns, Oxford City and at the former MoD sites where the majority of brownfield land is located within the County therefore, **significant positive effects** are expected in relation to **SA objective 11 (soils).** As development is to be steered to existing towns it is likely that the developments will be within close proximity to existing transport links thereby reducing the need to travel by car **(SA objective 6 (travel))** for residents, workers and visitors.

5.147 Steering development away from greenfield land is likely to retain landscape character **(SA objective 15 (landscape))** and allow natural green spaces to play a role in minimising the effects of climate change **(SA objective 7 (climate change))** through for example carbon sequestration. Therefore, minor positive effects are expected against those SA objectives. However, densification of existing urban areas, particularly in historic settlements such as Oxford have the potential to adverse effect the setting and special character of historic buildings, with minor adverse effects against **SA objectives 14 (heritage)** and **15 (landscape)**. While focusing development to brownfield land is likely to reduce the likelihood of harm on local biodiversity, there is potential for brownfield land to provide habitats to local wildlife, therefore mixed effects are expected in relation to **SA objective 13 (biodiversity)**. Ensuring greenfield land is protected is also likely to have minor positive effects against **SA objectives 2 (health)** and **3 (communities**) as green space can promote mental and physical health and social cohesion.

5.148 Alternative policy option 1 would result in no urban renewal policy, thereby relying on future Local and Neighbourhood Plans. In the absence of policy designed to promote the efficient use of land, the Oxfordshire Plan 2050 would have a negligible effect on the majority of SA objectives. However, the absence of urban renewal schemes at a county wide level could result in more potential for adverse effects on **SA objectives 6 (travel), 7 (climate change), 11 (soils), 13 (biodiversity)** and **15 (landscape)**.

Affordable Housing

5.149 Table 5.32 presents the findings of the SA of the preferred policy option and two alternatives relating to affordable housing. The findings are described below the table.

1. Preferred policy option: Policy 30 – Affordable Housing.
2. Alternative policy option 1: Instead of leaving tenure mix to Local Plans, the Oxfordshire Plan 2050 could set tenure mix targets across Oxfordshire reflecting existing Local Plan target.
3. Alternative policy option 2: Do not include an affordable homes policy in Oxfordshire Plan and instead leave to Local Plans.

Table 5.32: SA findings for Policy 30 and its alternatives

SA objectives	Policy Options		
	Policy 30	Alternative 1	Alternative 2
1. To meet Oxfordshire's housing needs	++/-?	+?	?
2. To improve the health and wellbeing of Oxfordshire's population	+	+	?
3. To sustain and create safe and vibrant Oxfordshire communities	+	+	?
4. To support the development of Oxfordshire's knowledge economy	0	0	0
5. To maintain high and stable levels of employment across Oxfordshire	0	0	0
6. To reduce the need to travel by car in Oxfordshire	0	0	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	0	0	0
8. To minimise air, noise and light pollution in Oxfordshire	0	0	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0	0
12. To safeguard Oxfordshire's mineral resources	0	0	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	0	0	0
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	0	0	0

5.150 The preferred policy requires Local Plans to ensure maximum levels of affordable housing are delivered on sites over 10 dwellings or 0.5 ha in area, based on each Local Plan's tailored tenure mix and affordable housing targets. This option is designed to prove flexibility to accommodate the needs of local markets rather than alternative option 1 which promotes a standardised tenure mix target for Oxfordshire based on the current contents of the county's Local Plans: 40% affordable rented; 35% social rented; 25% other routes to affordable housing. By providing the flexibility in the preferred policy to maximise what the market can accommodate in each are of the county, the preferred option is most likely to generate **significant positive** effects in relation to **SA objective 1 (housing)**. However, the policy is open ended leaving it to the Local Plans to define what is

and is not appropriate. Therefore, there is scope for some areas of the county not to maximise affordability. Therefore, the recorded significant positive effect is mixed with some uncertainty and the potential for some minor negative effects.

5.151 A mixed minor positive and minor negative effect are recorded for alternative option 1 against SA objective 1 (housing) in acknowledgement that a county-wide target is likely to be more constrained by the areas of the county where affordable homes are the least viable, limiting the scope for significant positive effects and introducing inappropriate targets in other areas.

5.152 The preferred policy option and alternative policy 1's provision of affordable homes would also generate indirect positive effects on the **health (SA objective 2)** and mix and vibrancy of local **communities (SA objective 3)**.

5.153 Alternative policy option 2 is similar to the preferred option in that it relies more heavily on the county's Local Plans to dictate affordable housing policy; however this option would not include any county-wide policy. The absence of a county-wide policy setting out the principles and ambition of Oxfordshire to maximise affordable housing on specific types of development and through specific tenures could lead to the delivery of less coherent and joined-up Local Plan policies on this issue, leading to overall more uncertainty as to the likely effects to be generated for alternative option 2.

Specialist Housing Needs

5.154 Table 5.33 presents the finding of the SA of the preferred policy option and two alternatives relating to specialist housing needs. The findings are described below the table.

1. Preferred policy option: Policy 31 – Specialist housing needs.
2. Alternative policy option 1: Support the delivery of specialist housing where meeting an identified need (i.e. for older people, students and key workers), in appropriate locations and where proposals conform with Local Plan policies.
3. Alternative policy option 2: Leave to future Local Plans, allowing them to define different thresholds for specialist accommodation as appropriate.

Table 5.33: SA findings for Policy 31 and its alternatives

SA objectives	Policy Options		
	Policy 31	Alternative 1	Alternative 2
1. To meet Oxfordshire's housing needs	++?	++	-
2. To improve the health and wellbeing of Oxfordshire's population	+?	+	-
3. To sustain and create safe and vibrant Oxfordshire communities	+?	+	-
4. To support the development of Oxfordshire's knowledge economy	0	0	0
5. To maintain high and stable levels of employment across Oxfordshire	0	0	0
6. To reduce the need to travel by car in Oxfordshire	+	+	0
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+	+	0
8. To minimise air, noise and light pollution in Oxfordshire	+	+	0
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0	0	0
10. To reduce the risk from all sources of flooding in Oxfordshire	0	0	0
11. To protect Oxfordshire's soils and ensure efficient use of land	0	0	0
12. To safeguard Oxfordshire's mineral resources	0	0	0

SA objectives	Policy Options		
	Policy 31	Alternative 1	Alternative 2
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	0	0	0
14. To protect and enhance the significance of Oxfordshire's historic environment	0	0	0
15. To protect and enhance Oxfordshire's landscape character and quality	0	0	0

5.155 The preferred policy addresses the provision of housing to meet the needs of older people, students, key workers and people in need of additional care. Therefore, **significant positive effects** are expected in relation to **SA objective 1 (housing)**. This option is designed to prove flexibility to accommodate specialist needs. However, the policy is open ended leaving it to the Local Plans to define what each specialist type should include. This results in greater potential for uncertainty with regards to the appropriateness and tailored nature of each type of specialist housing. Delivering a mix of specialist homes would meet the needs of a wide section of the community and is expected to help support social inclusion through the creation of mixed and balanced communities resulting in minor positive effects on **SA objective 3 (communities).** Minor positive effects are also expected in relation to **SA objective 2 (health)** as this preferred policy option is expected to help meet the specific housing needs of residents who have additional care requirements and might otherwise be vulnerable without these types of provisions. Again, given the lack of detail on what should be provided within each type of specialist housing, there is some uncertainty as to whether the preferred policy will deliver these minor positive effects.

5.156 The preferred policy option also encourages potential development proposals to maximise walking, cycling and public transport links which could reduce reliance on the private car, minimise greenhouse gas emissions and air pollution through the use of more sustainable modes of transport. Therefore, minor positive effects are expected in relation to **SA objectives 6 (travel), 7 (climate change)** and **8 (pollution)**.

5.157 The alternative policy option 1 is likely to have similar effects to the preferred policy options, however it sets out much more specific needs for each specialist group such as the need for suitable parking for minibuses and ambulances to be provided at housing for elderly people. Such a policy is likely to generate greater certainty that the specialist needs of particular groups of people are planned for effectively.

5.158 Alternative 2 would result in no specialist housing policy, thereby relying on future Local and Neighbourhood Plans. The absence of a county-wide strategy would make the provision of specialist needs more uncertain and miss an opportunity to provide a consistent county-wide approach to protect the vulnerable and resolve established inequalities in the county. Therefore, uncertain minor negative effects are recorded for alternative option 2 against **SA objectives 1 (housing), 2 (health)** and **3 (communities)**.

Gypsies, Travellers, Travelling Showpeople

5.159 Table 5.34 presents the findings of the SA of the preferred policy option relating to gypsies, travellers and travelling showpeople. The findings are described below the table.

1. Preferred policy option: Policy 32 – Gypsies, Travellers, Travelling Showpeople.

Table 5.34: SA findings for Policy 32

SA objectives	Policy 32
1. To meet Oxfordshire's housing needs	++?
2. To improve the health and wellbeing of Oxfordshire's population	+?

SA objectives	Policy 32
3. To sustain and create safe and vibrant Oxfordshire communities	+?
4. To support the development of Oxfordshire's knowledge economy	0
5. To maintain high and stable levels of employment across Oxfordshire	0
6. To reduce the need to travel by car in Oxfordshire	+?
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	+?
8. To minimise air, noise and light pollution in Oxfordshire	+?
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	0
10. To reduce the risk from all sources of flooding in Oxfordshire	+?
11. To protect Oxfordshire's soils and ensure efficient use of land	0
12. To safeguard Oxfordshire's mineral resources	0
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	+?
14. To protect and enhance the significance of Oxfordshire's historic environment	+?
15. To protect and enhance Oxfordshire's landscape character and quality	+?

5.160 The preferred policy option would set out the assessed need for sites across the county in the Plan period and a breakdown by district. It also includes parameters for setting out locational criteria for the provision of pitches for gypsies and travellers and plots for travelling showpeople. As such, this policy option has the potential to generate **significant positive effects** against **SA objective 1 (housing).** As this preferred policy option simply sets out locational criteria that ensures pitches and plots will avoid sensitive locations and be accessible to facilities and services, therefore it is likely to have minor positive effects against multiple **SA objectives 2 (health), 3 (communities), 6 (travel), 7 (climate change), 8 (pollution), 10 (flooding), 13 (biodiversity), 14 (historic environment)** and **15 (landscape).** Uncertainty is attached to each effect due to the fact that the locational criteria have not been finalised and the exact scale and location of future sites has yet to be determined.

Spatial Strategy Options

5.161 Table 5.35 presents the findings of the SA of the five options for distributing growth considered in the Oxfordshire Plan 2050 Regulation 18 Part 2 consultation document. These five spatial strategy options are based on the nine spatial alternatives that were appraised in **Chapter 4** and additional county-wide consultation:

1. Option 1: Focus on opportunities in and around larger settlements and planned growth locations.
2. Option 2: Focus on Oxford-led growth.
3. Option 3: Focus on opportunities in sustainable transport corridors and at strategic transport hubs.
4. Option 4: Focus on strengthening business locations.
5. Option 5: Focus on supporting rural communities.

5.162 The findings are described below the table.

Table 5.35: SA findings for Spatial Strategy options

SA objectives	Spatial Strategy Options				
	1	2	3	4	5
1. To meet Oxfordshire's housing needs	+?	+?	+?	+?	+?
2. To improve the health and wellbeing of Oxfordshire's population	+/-	+/-?	+/-	+/-	+
3. To sustain and create safe and vibrant Oxfordshire communities	+/-	+/-?	+/-	+/-	+
4. To support the development of Oxfordshire's knowledge economy	++	++	++	++	+?
5. To maintain high and stable levels of employment across Oxfordshire	++	++	++	++	+?
6. To reduce the need to travel by car in Oxfordshire	++?	++	++?	+/-	-
7. To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to the changing climate	++?	++	++?	+/-	-
8. To minimise air, noise and light pollution in Oxfordshire	+/-?	++/-?	+?	+/-	-
9. To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management	-	-	-	-	-
10. To reduce the risk from all sources of flooding in Oxfordshire	-	--?	-	--?	-
11. To protect Oxfordshire's soils and ensure efficient use of land	+	+	+	-	--
12. To safeguard Oxfordshire's mineral resources	0?	0?	0?	0?	0?
13. To conserve and enhance Oxfordshire's biodiversity and geodiversity	-	+/-	-	-	--
14. To protect and enhance the significance of Oxfordshire's historic environment	-	-	-	-	-
15. To protect and enhance Oxfordshire's landscape character and quality	-	-	-	-	-

5.163 This appraisal assumes that the same scale of growth could be planned for under each spatial strategy option. Given the preferred scale of growth to be planned for, in particular the number of homes to be delivered in the plan period, has yet to be determined, all options have been identified as having uncertain minor positive effects on **SA objective 1 (housing)** at this stage. Although all options would deliver a significant number of new homes, their affordability is unknown. The same general assumption has been made with regards to the provision of employment land; however the spatial pattern of existing employment opportunities has offered greater scope to draw out variations in likely effects of the spatial strategy options to SA objectives 4 (economy) and 5 (employment), which are described in more detail below. At the end of this section, the appraisal

of the spatial strategy options is supplemented by a short discussion of the likely implications of different scales of growth on the pattern of effects identified across the different spatial strategy options.

5.164 There is not a lot of variation between the effects identified for Options 1, 2, 3 and 4 as they all would result in some or all new development being either within/close to existing towns and cities, along sustainable transport corridors and/or around strategic transport hubs, offering more alternatives to private vehicle use including more active travel modes. Option 5 has the most potential negative effects because it distributes new growth across rural areas, where the loss of greenfield land and is associated natural and historic assets are more likely to be adversely effected.

5.165 Option 1 would provide strategic scale housing growth at existing market towns, Oxford, MoD sites and planned garden communities that have already been allocated through the five Local Plans within Oxfordshire. As such, it would not include the consideration of additional new settlements. While Option 3 considers growth along established transport corridors, largely centred around existing centres such as Oxford and the wider Oxfordshire market towns and out into more rural areas where there may be opportunities for accessible new settlements.

5.166 Options 1 and 3 are considered likely to have the same effects across all but one of the SA objectives. These two options would have **significant positive effects** in terms of employment and the knowledge economy **(SA objectives 4 (economy)** and **5 (employment))** because development would take place in areas where there are already employment and educational facilities, allowing economic clusters to form. The employment opportunities could be easily accessed by walking, cycling and transport potentially resulting in '20 minute neighbourhoods', in part because development would be intensified in urban areas also resulting in **significant positive effects** on **SA objective 6 (travel)**. Both options aim to support urban renewal through the redevelopment of brownfield land, helping to minimise the loss of greenfield land with positive effects against **SA objective 11 (soil)**; however, this positive effect is not recorded as significant in acknowledgement of the fact that all options are still likely to result in the loss of significant areas of greenfield land. The denser development in urban areas and/or around sustainable transport nodes would make district heating easier and use less energy per dwelling than lower density communities. This, combined with the reduced need to travel, would also have **significant positive effects** on minimising contributions to **SA objective 7 (climate change)**. These new communities would be complemented by the delivery of new infrastructure, however it would take time to establish a fully compatible range of services, facilities and infrastructure alongside new mixed-use communities, therefore uncertainty is attached to **SA objectives 6 (travel), 7 (climate change)** and **8 (pollution)** as the use of private vehicles may be needed more in the early stages of the garden communities. However, Option 3 highlights that the new garden communities will be well connected to the existing sustainable transport network and not located within isolated locations. A minor negative effect is also expected in relation to **SA objective 8 (pollution)** for Option 1 as there are currently 13 Air Quality Management Areas within Oxfordshire, each of which lies within a local centre of Oxfordshire, therefore, additional development in these areas would put more people in close proximity to these air quality issue, and potentially exacerbate them, at least in the short to medium term during construction.

5.167 Options 1 and 3 would have both positive and negative effects on **SA objectives 2 (health)** and **3 (communities)**. Existing towns and cities have existing health facilities which could support new residents but could also be placed under a lot of pressure. Existing residents are likely to feel negative impacts from a large increase in population, although new residents are likely to benefit from the existing services (e.g., leisure and retail facilities).

5.168 Although Option 3 offers greater potential for the development of large areas of greenfield land, particularly through the delivery of new settlements along existing transport corridors, Options 1 and 3 are based on a principle of maximising development around existing centres. This has the potential to help minimise negative effects on biodiversity due to their more efficient use of land, however, both Options 1 and 3 are still likely to result in large urban extensions of existing settlements, resulting in the loss of large areas of greenfield land. Furthermore, the densification of existing centres could result in fewer green spaces in and around urban areas, with associated losses of biodiversity **(SA objective 13 (biodiversity))**. Negative impacts on **SA objectives 9 (water), 10 (flooding), 14 (historic environment)** and **15 (landscape)** are also likely because existing urban areas and transport corridors, especially in the southern portions of the County, are mostly in/near designated floodplains and contains most of the County's most historic, attractive and distinctive characteristics, which would be affected by significant quantities of new development.

5.169 Option 2 focusses on Oxford City and its immediate locale, prioritising the densification and expansion of the city rather than more dispersed growth and the development of isolated new settlements. Although there is an aim to retain the city's compact and modest size, Option 2's focus on intensification within the City and new or extended urban extensions will make this difficult. The current adopted Local Plans include allocations for some significant urban extensions to the city and at

adjacent settlements, which could be expanded or supplemented in the immediate vicinity resulting in the loss of more greenfield land and the release of Green Belt land. However, similar to Options 1 and 3, priority would be given to the densification and regeneration of existing sites in the city before the loss of additional greenfield land, resulting in positive effects on **SA objective 11 (soils)**; however, this positive effect is not recorded as significant in acknowledgement of the fact that all options are still likely to result in the loss of significant areas of greenfield land.

5.170 Option 2 would have **significant positive effects** in terms of **SA objectives 4 (economy)** and **5 (employment)** because development would take place in close proximity to Oxford's word class employment and educational facilities and the wider Ox-Cam Arc. The employment opportunities could be easily accessed by walking, cycling and transport utilising the city's existing sustainable transport links, resulting in **significant positive effects** on **SA objective 6 (travel)**. While additional residents would put pressure on the existing sustainable travel options, Option 2 would improve cycling and public transport links to ensure any new developments are fully integrated with the city.

5.171 The densification of the city will make district heating easier and use less energy per dwelling than lower density communities. This, combined with the reduced need to travel, would also have **significant positive effects** on minimising contributions to climate change and air pollution **(SA objectives 7** and **8)**. However, a minor negative effect is also expected in relation to SA objective 8 (pollution) for Option 2 as the entirety of Oxford city is designated as an Air Quality Management Area, therefore, like Options 1 and 3, additional development in the city would put more people in close proximity to these air quality issues, and potentially exacerbate them, at least in the short to medium term during construction.

5.172 Option 2 would have both positive and negative effects on **SA objectives 2 (health)** and **3 (communities)**. Oxford City has a plethora of existing health facilities which could support new residents but could also be placed under a lot of pressure. Existing residents are likely to feel negative impacts from a large increase in population, although new residents are likely to benefit from the existing services (e.g., leisure and retail facilities). In addition, this option would incorporate urban renewal within the city which could have positive effects but could also price out many people within an already very expensive city having adverse effects on health and wellbeing of the community. However, the amount of affordable housing that could be delivered as a consequence of densification is currently unknown.

5.173 Although a focus of the County's existing largest urban area would help to minimise the loss of additional greenfield land and the natural habitats and species they contain, the densification of the city could result in the loss or under provision of green spaces in the existing urban area, including putting pressure on important ecological designations, such as Oxford Meadows SAC. Therefore, a minor negative effect is recorded against **SA objective 13 (biodiversity))**. This would be somewhat mitigated by the need to provide compensatory improvements to the remaining surrounding Green Belt land and enhance its beneficial uses. Furthermore, Option 2 aims to enhance the surrounding Green Belt to improve access to nature as well as provide environmental enhancements for local wildlife. Therefore, minor positive effects are also expected in relation to **SA objectives 2 (health)** and **13 (biodiversity)**. Negative impacts are also likely in relation to **SA objectives 9 (water), 10 (flooding), 14 (historic environment)** and **15 (landscape)** because a large portion of Oxford city is mostly in/near designated floodplains and contains most of the County's most historic, attractive and distinctive characteristics, which could be affected by significant quantities of new development. The negative impact against **SA objective 10 (flooding)** is considered to be potentially significant given the prevalence of flood risks zones in and around Oxford; however, this **significant negative** effect is recorded as uncertain in acknowledgement of the exact location of future growth under this option in and around Oxford is not known at this stage.

5.174 Option 4 would support the key economic assets and business locations that have been identified through the Local Industrial Strategy as priorities for investment. These locations are scattered throughout the County, however the majority of growth under this option would be focused within Bicester, Oxford and the southern portion of the County. This option could include the creation of new settlements where new business sites are proposed. This option would also focus new growth where it would help support and strengthen Oxfordshire's existing key economic assets. This option would reduce the need to travel **(SA objective 6 (travel))** to work by car as housing would be located near jobs. In addition, this option aims to extend walking and cycling routes to connect with regional routes thereby reducing the need to travel by private vehicle. However, the current large employment sites are not near services – they are on the edge of towns or outside towns – so other journeys than those to work might be made more easily by car. Therefore, mixed effects are expected. These effects are also expected in relation to **SA objective 7 (climate change)** and **8 (pollution)**.

5.175 The large employment sites are currently in areas with many environmental constraints, such as numerous Local Wildlife Sites, SSSIs and the Oxford Meadows SAC as well as many listed buildings and Conservation Areas and the Chilterns and

North Wessex AONBs. Therefore, concentrating growth in these locations could have adverse impacts on **SA objectives 9 (water), 11 (soils), 13 (biodiversity), 14 (historic environment)** and **15 (landscape)**. **Significant negative effects** are expected in relation to **SA objective 10 (flooding)** as the majority of the development locations identified under this option are located in Flood Zones 2 and 3. Uncertainty is attached however, as the exact location and layout of development within sites is unknown at this stage and may be able to avoid the flood risk areas.

5.176 The creation of new settlements would create new service centres able to support new healthy and vibrant communities with mixed effects on **SA objectives 2 (health)** and **3 (communities)**, but some of these developments could be quite remote from existing service centres, introducing a risk that some new communities become commuter suburbs, acting as dormitories for local workers. Therefore, mixed minor positive and minor negative effects are recorded against these SA objectives.

5.177 Currently, Oxfordshire struggles with the combination of retaining growth in key sectors and enabling business to grow with availability of affordable housing and capacity in the transport and infrastructure network. By providing growth across the network of business parks across the County, this option supports the knowledge economy and employment **(SA objectives 4 (economy)** and **5 (employment)),** especially in the context of COVID-19 as workers in the knowledge economy are likely to need access to specialist equipment on a weekly basis. Therefore, **significant positive** effects are expected against these SA objectives for Option 4.

5.178 Option 5 would propose growth within the rural areas of the County away from the main service centres. This option considers growth outside of the current adopted Local Plans and would include allocating new Garden Villages outside the AONBs. As this option is focused on rural areas it is likely to utilise more greenfield land for development compared to the other options, resulting in a more inefficient use of land and greater potential for the loss of habitats. In addition, there are many Local Wildlife Sites, patches of Ancient Woodland, Local Nature Reserves and SSSIs that could be adversely impacted by development in the rural areas of the county, resulting in the potential for **significant negative effects** on **SA objectives 11 (soils)** and **13 (biodiversity)**. The most widespread deprivation factor across Oxfordshire relates to barriers for housing and services as the rural areas have become increasingly isolated with fewer sustainable transport links and existing health and community facilities. Although new service centres would be created in new and expanded village communities, they are unlikely to be of a scale to be able to support significant new and improved local service and facility centres of a scale needed for the level of growth likely to be required in the County, resulting in the need for more commuting to larger centres in existing market towns and Oxford city. Option 5 would therefore likely increase greenhouse gas emissions, traffic congestion and use of the private car resulting in at least minor negative effects on **SA objectives 6 (travel), 7 (climate change)** and **8 (pollution)**. Positive effects are expected as a result of investment in additional infrastructure within the rural areas, which would improve the health and wellbeing of rural communities **SA objectives 2 (health)** and **3 (communities)**.

5.179 Additional rural infrastructure would open up new opportunities within the County's rural economy **(** and encourage residents to stay within the rural areas for work, resulting in minor positive effects in relation to **SA objectives 4 (economy)** and **5 (employment)**. For example, there is potential for an innovative rural economy with regard to farming practices in response to climate change and policy changes and more home working. However, the long-term viability and capacity of these growing practices is currently uncertain.

5.180 With a greater loss of open countryside due to Option 5 promoting growth in the rural areas there are likely to be at least minor negative impacts on **SA objectives 9 (water)** and **10 (flooding)**. Although the density of development would be lower it would have to be spread over a larger area of the county, which could potentially affect the setting and special character of the county's historic and landscape character and unique distinctiveness**,** with at least minor negative effects on **SA objectives 14 (historic environment)** and **15 (landscape)**.

5.181 All options are considered to have a negligible effect on SA objective 12 (minerals) on the assumption that safeguarded minerals within allocated areas would be recovered before development occurred; however, this is uncertain until the viability of mineral recovery on all sites is known.

Implications of different scales of growth

5.182 The Oxfordshire Plan 2050 Regulation 18 Part 2 Consultation document does not include alternative growth options for housing or employment land. However, a broad range of growth scenarios have previously been appraised in **Chapter 4**. Therefore, consideration has been given to what influence higher growth scenarios might have on the range of effects identified for the spatial options above, the implication being that lower growth scenarios would result in a similar pattern but a less significant range of effects.

5.183 Meeting the County's housing and employment needs in the short, medium and long term will likely result in a diverse range and type of housing and employment opportunities thereby producing **significant positive effects** on **SA objectives 1 (housing)**, **4 (economy)** and **5 (employment)**. It is also likely that high levels of growth would involve the most improvements to infrastructure to relieve existing pressure and to accommodate future growth in the long term. However, the higher the growth the greater potential for **significant negative effects** on environmental factors relating to **SA objectives 9 (water)**, **10 (flooding)**, **11 (soils)**, **13 (biodiversity)**, **14 (historic environment)** and **15 (landscape)**, as more greenfield land would need to be developed, and there would likely greater densification in existing urban areas, which would also adversely affect the ability of the County to combat and adapt to **climate change (SA objective 7)** through an exacerbation of the city's urban heat island effect. The greater the scale of growth the greater the potential for **pollution (SA objective 8)** associated with greater traffic congestion and more buildings to heat and power. These implications of higher scales of growth could also have a knock-on adverse effect on the health and wellbeing of the county's new and existing communities **(SA objective 2 (health)**.

5.184 The Options Paper emphasises that it is possible that no one option can sustainably accommodate all of the proposed additional Plan growth on top of the growth associated with the existing five adopted Local Plans.

Chapter 6
Conclusions and next steps

Conclusions

6.1 This SA report has been prepared to accompany the Regulation 18 Part 2 Consultation for the Oxfordshire Plan 2050. The SA has sought to identify significant effects emerging from the Oxfordshire Plan 2050 in line with the SEA Regulations.

6.2 The Oxfordshire Plan 2050 Regulation 18 Part 2 consultation document does not set out a preferred growth or spatial strategy, choosing to use the consultation process to gain further views before a decision is made in light of updated evidence at the Regulation 19 Stage of the plan-making process, when the version of the Oxfordshire Plan 2050 proposed for submission to the Secretary of State for Housing Communities and Local Government for examination is consulted upon. Therefore, the likely significant effects of the draft plan as a whole will be determined at the next stage in the plan-making process (Regulation 19).

6.3 What is clear at this stage is that the Oxfordshire Plan 2050 will provide significant strategic direction on the full range of local planning issues across the county, i.e. addressing the county's response to climate change, improving the environmental quality of the county, creating healthier communities, planning for sustainable travel and connectivity, creating jobs and providing homes. The proposed policies in the Regulation 18 Part 2 document have the potential to generate new significant positive changes for the county across the range of sustainability issues tested in this sustainability appraisal process, as well as shape and coordinate the benefits of the districts' future Local Plans.

6.4 Furthermore, in general, the preferred policies have more positive effects than the reasonable alternative policy options. Notable exceptions include Policy 3 – Water Efficiency, where one of the alternative policy options is more ambitious in its aim/ targets than Policy 3 and Policy 31 – Specialist Housing Needs, where the alternative policy option provides more certainty than Policy 31.

6.5 Besides the significant benefits of delivering the county's strategic needs and safeguarding and enhancing its unique assets, the prospect of significant scales of new growth – housing and employment land – have the potential to generate new significant adverse effects. It is clear that every effort is being made to avoid, minimise and compensate for such adverse effects through the definition of a robust and diverse range or reasonable policy approaches.

6.6 Oxfordshire does not exist in isolation. Neighbouring Counties and Districts are also planning to deliver considerable amounts of development. This will result in in-combination effects, in particular increased urbanisation including the generation of additional traffic, and put pressure on resources, such as water, air quality, tranquillity and on ecological networks. It is therefore important that the Oxfordshire authorities continue to work closely together and with their neighbours to make sure that their plans are co-ordinated to provide an integrated approach to maintaining and enhancing quality of life for all their residents, workers and visitors, and to ensure that a rich, high quality and resilient environment is created.

Next Steps

6.7 This SA Report will be available for consultation alongside the Oxfordshire Plan 2050 between 31st July and 8th October 2021.

6.8 After the public consultation, another SA Report will be produced for consultation alongside the proposed submission version of the Oxfordshire Plan 2050 before the Plan is submitted for examination.

6.9 All consultation comments on the SA process and its findings will be reviewed and addressed before any further SA work is carried out. A schedule containing a summary of the consultation comments of relevance to the SA and appropriate responses will be produced and included in the next SA Report.

LUC

July 2021

Appendix A

SA Scoping consultation comments

A.1 Table A1 below summarises all consultation comments received on the SA Scoping Report for the SA of the Oxfordshire 2050 Plan. Responses and associated actions are set out in the final column.

Table A.1: Oxfordshire 2050 SA Scoping Report Consultation Comments by Question

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
Member of the Public	**Q1-Q6:** The scope of the SA is appropriate.	Noted.
Chinnor and Princes Risborough Railway	**Q6**: Chinnor and Princes Risborough Railway notes that there are a number of Heritage sites that are not covered in the Heritage **Section 3.92 to 3.97**. They also mention that the Chinnor and Princes Risborough Railway attracted over 20,000 visitors to the area in 2018, and there are other heritage railways within the plan area that should be considered as assets to the sustainability of community wellbeing . They feel that the volunteer-driven sector of the heritage community should be included in the section on Heritage in the SA of the Oxfordshire JSSP.	All readily available data on Oxfordshire's historic environment has been recorded in the baseline section of the SA Scoping Report. It is acknowledged that no information is presented on the County's locally listed and non-designated historic assets. Work is underway with Oxfordshire's historic environment team to address this evidence gap and ensure that the Local Plan and the SA process take account of local and non-designated historic assets, including heritage at risk.
Member of the Public	**Q1:** This member of the public is concerned with Oxfordshire's commitment to reduce its carbon emissions and felt that the SA fails to set an ambitious framework and hardly mentions climate change, which is a key sustainability issue.	The SA Scoping Report has a baseline section on climate change, which has now been added to. Effects of the plan on climate change will be assessed via SA objective 7.
	Q2: A strategy for carbon emissions reduction is needed that emphasises clear targets, particularly for housing and transport. (Please note Q3 and Q4 also relate back to Q2)	Noted.
	Q6: Reduction of carbon emissions should be the overarching theme of the JSSP. Concrete measures need to be applied to the various climate related objectives (e.g. 'promoting energy efficiency', 'encouraging renewable energy provision where possible', and minimising gas emissions from transport'). The idea of growth must be reinvented to be sustainable.	Noted.
Member of the Public	**Q1:** This member of the public felt the Scoping Report was too vague and that the housing development and expansion of the road network are not sustainable. In addition, it is mentioned that the term 'sustainable' completely loses meaning in this	Noted. SA is a strategic process to assess the likely sustainability effects of the plan. Once the Council has identified

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	context as the effects on water use, land, flooding risk, climate change, landscape and biodiversity will be widespread and detrimental. It is also noted that these plans for 2050 will decimate the environment of the county.	options for the plan, these will be subject to assessment through the SA.
	Q2: The government's 25 year plan for the environment must be central to any idea of 'sustainable development.' The aim of leaving the environment in a better position for the next generation should be central to the JSSP.	The 25 Year Environment Plan is within the review of relevant international and national plans and programmes within Appendix 2.
	Q3: How have the predicted population increases of between 26-38% by 2031 for the four district council areas been arrived at? Where is the growth coming from?	This figure is taken from the Oxfordshire County Council Joint Strategic Needs Assessment, Summary Report as referenced on page 10 of the SA Scoping Report.
	Q4: The section in the Scoping Report regarding Climate Change should include a section regarding the impact of the farming sector has on climate change (e.g. impact of methane, carbon dioxide and nitrogen oxide) since it is one of the largest contributors. The impact should be drastically reduced, especially by 2050.	Farming and agriculture is outside the scope of the Oxfordshire Plan 2050.
	Q6: The sustainability objectives need to be followed by clear, legally binding policies that protect and restore the natural environment of the county. Without them, the environment will be ignored.	Noted. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
Member of the Public	**Q1 and Q3:** This member of the public notes that the scope of the SA is appropriate.	Noted.
	Q2: Thames Water's Steventon Reservoir Plan leads to the export of significant volumes of water from Oxfordshire to London. This plan points out the area will be under water stress by 2020 and may need to import water from elsewhere. The JSSP should include examination of proposals to import water from the Severn basin that were detailed in the last reservoir public inquiry.	Noted. Water issues have been acknowledged in the baseline of the SA Scoping Report.
	Q4: If the JSSP wants to steer people away from using private vehicles then it must address the provision of public transport in detail. There are currently no buses and the rail network is at capacity.	Noted. This will be assessed via SA objective 6.
	Q5: The JSSP does not provide sufficient new road infrastructure beyond strategic routes and with the housing growth in the south of the county the roads will continue to be gridlocked.	The Oxfordshire Plan 2050 has not yet been prepared. The role of the SA is to

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
		assess the plan and its reasonable alternatives against the SA objectives.
Thames Valley Police	**Q1:** Thames Valley Police felt that the SA fails to make reference to the safety and security of new and existing residents and the opportunities to reduce crime and the fear of crime within new communities.	Added a specific question on crime into SA objective 3.
	Q2: TVP highlight that crime and disorder can have significant impacts on the health and wellbeing of victims, and there are further effects on the social and economic sustainability of places, especially in more deprived areas. Locations that suffer higher levels of crime are less sustainable. The carbon cost of crime within the UK is estimated to be in the region of 6,000,000 tonnes of CO2 per annum. This is roughly equivalent to the total CO2 output of 6 million UK homes (Secured By Design: Homes Guidance document 2016). Of course, there are also financial impacts on victims personally, but also for local authorities, businesses, insurance providers etc. In addition, TVP note that the effect on police resources over the period of the JSSP will also be significant if not addressed through the provision of adequate infrastructure to mitigate the impact of the significant growth planned in the area. All of these costs adversely affect the sustainability of development and existing places. Addressing crime and disorder within the objectives and policies of the SA and subsequent JSSP would also assist Oxfordshire's authorities in meeting the requirements of the updated NPPF. TVP explains that paragraphs 8, 26, 32 and 92 of the NPPF together confirm that sustainable development means securing a safe environment through the delivery of social infrastructure needed by communities. In addition, paragraph 20 specifically states policies should deliver development that makes sufficient provision for security infrastructure. Paragraphs 16, 26, 28, 32 and 38 collectively envisage this being delivered through joint working by all partners concerned with new developments. This is expanded on by paragraph 95, which states planning policies and decisions should promote public safety and security requirements by using the most up to date information available from the police; who are essential local workers providing an acknowledged "front line" service to the public, according to Annex 2 of the NPPF. Section 12 'Achieving well-designed places', point 127 (part f), which states that; 'Planning policies and decisions should ensure that developments… create places that are safe, inclusive and accessible… and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience'. Both planning policies and decisions are expected to deliver this.	See above. In addition, relevant crime statistics have been added to the baseline of the SA Scoping Report.
	Q3: Consideration needs to be given to the impact of the significant growth planned in Oxfordshire and the impact this will have upon existing crime and disorder issues. TVP are happy to provide information regarding these issues on order that the SA can attempt assess the additional impact generated by the planned growth.	Noted.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	Q4: TVP is concerned that the draft document makes little or no reference to the need to ensure that new communities are safe and that new and existing residents are protected from crime and the fear of crime. It is therefore respectfully requested that Objective 2 is amended to read; ■ 'To improve the health, safety and wellbeing of Oxfordshire's population'. Objective 3 is amended to read; ■ 'To sustain and create safe and vibrant Oxfordshire communities'. Furthermore, the following question should be added; ■ 'Will the JSSP… address safety, crime and disorder?'	Please note that the suggested amendments to SA objective 3 have been added into the SA report.
Member of the Public	**Q1:** This member of the public is concerned that the scope of the SA is not ambitious enough.	Noted. SA is a strategic process and the scope covers all relevant topics set out in the SEA Regulations.
	Q2: There is not enough about protecting and enhancing the AONB.	With regards to AONBs, reference is already made in SA objective 15, where protection of the AONBs is specifically highlighted.
	Q3: The baseline for the SA is probably suitable.	Noted.
Member of the Public	**Q6:** This member of the public is concerned that construction around Grove and Wantage has not taken the environment into account. Open spaces in the area are insufficient to support habitats and provide benefits to wellbeing for those living in the area. Where trees have to be cut, two should be planted in a more appropriate place. It should be noted that cutting down ancient trees causes losses to flora and fauna which will not be replaced in our lifetime. Also, natural flood defences must be considered when flood planes are built on. There are many existing issues such as, congested roads, inaccessible services, homelessness that are not being dealt with, rather the Oxford Cambridge expressway is given priority and will benefit a few and further ruin the environment for all.	Noted. The role of the SA is to assess the policies of the Oxfordshire Plan 2050 against the SA objectives.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
Member of the Public	**Q1:** This member of the public broadly supports the approach of the Scoping Report. Some greater consideration and recognition of the need to consider cross-boundary issues and cumulative impacts is suggested as outlined below particularly to support continued MOD operations in the County and optimisation of its sites.	Noted. The SA will take account any cross boundary impacts and include an assessment of cumulative effects.
	Q2: The MOD operational developments across the County are not only key to the delivery of National Security, but are also some of the larger employers and trainers of specialist skills in the area. It is therefore important that the SA recognises this role and ensures that infrastructure developments continue to support these operations and developments do not either impact on safeguarding zones or access to sites (notably for Heavy Equipment Transporters). The MOD is a major land owner of sites across the County. The MOD is engaged in a process of optimisation of its estate and is engaging with local authorities as part of that process. It is important that the SA takes into account the opportunities arising from that process. Given the prominence the SA gives to the Ox-Camb 'knowledge arc' there is a need to give due consideration to neighbouring authority development plans / strategies and major growth poles (including London, Heathrow for example). But there is also a need to ensure that these do not pre-judge the outcome of the SA.	Specific effects on MOD sites is outside the scope of the SA. However, the Council will continue to consult relevant stakeholders throughout the preparation of the Oxfordshire Plan 2050.
	Q3: There are potential shortfalls in the baseline from the MOD perspective as outlined above.	Specific effects on MOD sites is outside the scope of the SA.
	Q4: As mentioned above, there is a need to engage and consult with the MOD throughout the development of the JSSP.	The Council will continue to consult relevant stakeholders throughout the preparation of the Oxfordshire Plan 2050.
	Q5: There is a need to recognise that the development of the knowledge economy and supporting job growth (and quality jobs in particular) is wider than the research sector and Oxford- Cambridge arc in the county. This aspiration links well with developments being brought forward by the MOD and its core business in the County.	The economy and employment section of the Scoping Report considers the largest employment sectors according to census data. Employment outside of the research sector will be considered via SA objective 5.
Member of the Public	**Q1:** This member of the public notes that the framework proposed is good. However, it is key to ensure that an appropriate spread of options and scenarios are assessed, so that the widest possible range of alternative approaches is explored, compared and understood.	Noted and this will be taken into consideration in the further stages of SA.
	Q3: Concerned that there is currently great uncertainty regarding housing needed in Oxfordshire. Different analyses suggest different values for the current undersupply of housing. There also needs to be clarity on strategies to supply affordable	This comment relates to the options for the Oxfordshire Plan 2050 and its

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
152	housing for rent and purchase and how they will be delivered effectively. It is noted that provision of expensive new housing close to major rail and road links to London for example, will do nothing to meet local housing and employment needs, but will put additional strain on infrastructure. This respondent emphasised that Oxfordshire's Councils should be seeking powers to capture raised land values to fund infrastructure and other services, such as has been achieved in London. A clearly defined base position on housing and employment needs with all assumptions set out is needed at the outset. Any assessments should also explore how the outcomes might vary if key outturn indicators were to vary significantly e.g. by 20% or more. By assessing options against a range of differing potential outcomes we can have more confidence in the final Plan. The respondent is concerned about the new Expressway that Central Government is proposing that links Oxford and Cambridge. The nature and location of this is currently uncertain. There must also be a question mark as to whether a new road of this kind - particularly given the uncertainties about future car use and technology application - would actually be an appropriate part of the Oxfordshire Plan. It is therefore essential that the base option for the Plan should not include the Expressway. Different options can be assessed by applying different levels of investment in public transport and/or highway networks, one of which could include an Expressway type option or options. Government has committed to the funding and development of a new East-West rail link. This should be included in the baseline, but the pattern of service frequency and location of stations could vary with different development strategies for Oxfordshire.	relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
	Q5: The framework as proposed has the potential to effectively assess the sustainability implications of the proposed Oxfordshire Plan. What is critical however is the establishment, at the outset, of a broad range of different scenarios of how Oxfordshire might change, with housing and other development located in different locations and how movement and other requirements might then best be managed. The benefits and weaknesses of each scenario can then be identified hopefully enabling an iterative move towards the optimum option(s) and ultimately the final Plan. An example of this would be to explore low growth, medium growth and high growth options, with variations for where major development is located. Each option could then be tested against the following transport options: a. minimal change (quite likely given funding constraints) b. low investment in the public transport and cycling network c. high investment in the public transport and cycling network. A fairly basic initial assessment of these variants against selected criteria against key policy objectives - and crucially including affordability of capital and revenue costs - would help identify the best performing options for further more detailed assessment and development. If climate change, air quality, reducing car dependency and reducing the need to travel are given the weight they should be, new development should primarily be focussed on either expanding existing larger towns (or cities) or establishing compact new settlements - of say 25,000 minimum population - along existing or new high quality and	Noted. The SA will assess all reasonable alternative options identified by the Council.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	frequency bus transit or rail networks, such as along the East-West rail line. This would also maximise the opportunity for people to walk and cycle to work, school, medical and other facilities. Such a scenario would also minimise the capital cost of new infrastructure and reduce the need for revenue support for public transport operations. It has been noted that the scattering of new development along existing or new road corridors, which would just increase car dependency, the length of trips and in the longer-term, congestion, should be ruled out on sustainability grounds.	
Historic England	**Q1:** Historic England welcomes the identification of the historic environment as a topic. However, they are concerned as to why the second Sustainable Development Message/Objective for Historic Environment in **Table 2.2** starts with "Where possible". None of the other Messages/Objectives have this caveat, nor is it in paragraph 184 of the National Planning Policy Framework, which states heritage assets "are an irreplaceable resource, and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations". The inclusion of this caveat could, potentially, lead to the masking of effects on heritage assets if, for example, a proposed site allocation would cause unavoidable harm to the significance of a heritage asset but because it would not be possible to "safeguard" the asset, the proposed allocation would be assessed against this objective as N/A. Historic England notes that it is essential that, to achieve genuinely sustainable development (given that, for the planning system, this includes the conservation and enhancement of the historic environment) and to make decisions based on the best information, that potential impacts on the significance of heritage assets (positive or negative) are recognised and taken into account in developing the JSSP. Accordingly, "where possible" should be deleted. The objective should also include reference to the significance of the historic environment/heritage assets – "significance" is defined in the National Planning Policy Framework but is essentially what is important about heritage assets and what should be conserved or enhanced (as well as the physical asset itself). Historic England would also suggest replacing "safeguard" with "conserve" to reflect the term used in the Framework.	With regard to Table 2.2, 'where possible' has been deleted and 'conserve' has replaced 'safeguard'. In addition, with regard to SA objective 14, the word 'significance' has been added to the wording of the objective.
	Q2: Historic England notes that in **Appendix 2**: List and Review of relevant international and national plans and programmes, reference should be made to the Convention for the Protection for the Archaeological Heritage of Europe in the section on Heritage. The National Planning Policy Framework, in paragraph 185, requires plans to "set out a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats", which is not quite how it is expressed in the Scoping Report. Paragraph 184 of the Framework is also relevant to this section: "[Heritage] assets are an irreplaceable resource, and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations.	In regards to Appendix 2, the Convention for the Protection for the Archaeological Heritage of England has been added.
	Q3: Historic England notes that in **paragraph 3.92**, not all scheduled monuments are "above ground". Reference should be made to non-scheduled but nationally important archaeological remains, which should be considered as subject to the same policies as for scheduled monuments. Historic England welcomes the reference to areas of archaeological potential – the	Reference to 'above ground' has been deleted in this paragraph.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
154	JSSP evidence base should include a strategic assessment of archaeological potential in the County. Historic England *is* also aware of work on maps showing areas that have tended to produce higher or lower levels of archaeological discoveries, based on a GIS-based statistical analysis of archaeological and other information. The patterns are likely to reflect a combination of past patterns of archaeological work, archaeological visibility (e.g., archaeology is harder to detect in woodland than in open land) and real variations in the density of archaeological remains in different areas. The maps show areas where our archaeological knowledge is generally less good, which may be less archaeologically rich than other areas, but in which there is a higher risk of unexpected discoveries. This work could feed into the map of combined environmental sensitivity, particularly as although archaeology is identified in **paragraph 3.116** as an environmental asset, we are not clear how archaeological sensitivity has been identified for this map – is it based on the Historic Environment Record? It would be possible to refine these maps further, e.g., to produce more localised models of archaeological information and potential for particular development options as the underlying data is very fine-grained. Historic England would be pleased to explore this further with LUC and the local authorities. In **paragraph 3.93**, locally listed buildings should not be conflated with nationally listed buildings, with a separate figure given for those buildings of local interest. Given that the JSSP will be for Oxfordshire, the baseline data should be for Oxfordshire. Whilst they have no objection to the singling out of Oxford in **paragraph 3.93**, **paragraph 3.94** should give an equally comprehensive picture of the historic environment across the remainder of the County e.g., how many of the Conservation Areas in the other districts have Appraisals? Which other authorities have local lists, and how many assets are on those lists? What heritage is identified as being at risk across the County (noting that, outside London, the Register does not include Grade II listed secular buildings nor places of worship used less than six times a year)? Other Oxfordshire-wide baseline information includes the County Register of Historic Parks and Gardens and the Oxfordshire Historic Landscape Character Assessment. It is the view of Historic England that HLCs provide exactly the sort of landscape-scale information which should assist an SEA; giving perspective on the relative character of the wider area into which alterations to the character of any particular part might be weighed. HLC is an inherently comprehensive and generalising approach, all about providing context to the understanding of the particular and about the management of change everywhere. Historic England considers that the HLC approach is applicable and highly relevant to informing SEA. In fact, all of the commissioned County-level HLCs were designed to inform strategic level planning. More specifically, it was one of the Oxfordshire HLC project's stated Objectives "To support OCC's role in strategic planning in respect of historic environment issues". The Oxfordshire HLC should form part of the evidence base used to inform the SEA. It should also be noted that HLC can be undertaken at any scale, including coarser or finer grained work - HLC is also a principled approach which can be, and is being, undertaken at a range of scales. Paragraph 2.24 of "A practical guide to the Strategic Environmental Assessment Directive" states, in part: 'If, however, a plan or programme proposes a specific development or type of land use for a particular area or location, the Environmental Report should include information which can reasonably be provided on the likely significant effects of that proposal and alternatives to it.'	Figure 3.12 illustrating Oxfordshire's environmental sensitivity in 2016 has been removed in light of the more recent environmental evidence and data set out in other sections of the SA Scoping Report Baseline. Finer grain information will be used to inform assessments but will not necessarily be presented as mapped data in the SA Reports. All readily available data on Oxfordshire's historic environment has been recorded in the baseline section of the SA Scoping Report. It is acknowledged that no information is presented on the County's locally listed and non-designated historic assets. Work is underway with Oxfordshire's historic environment team to address this evidence gap and ensure that the Local Plan and the SA process take account of local and non-designated historic assets, including heritage at risk. With regards to Table 3.20, reference to heritage at risk has been added for each district.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	Q5: Historic England welcomes, in principle, "The need to protect and enhance the historic character of Oxfordshire, including not only its designated assets but also its historic settlements and landscapes" as a key sustainability issue the JSSP will need to address, but would like to see a specific reference to non-designated assets, (including historic settlements and landscapes). They welcome Sustainability Objective 14 and its associated Appraisal questions. However, would welcome an additional question "Raises awareness, understanding and appreciation of, and access to, the historic environment?".	With regards to the key sustainability issues, reference to non-designated assets has been added. In addition, with regards to SA objective 14, the appraisal question suggested has been added.
	Q6: General advice on Sustainability Appraisal and the historic environment is set out in Historic England's Advice Note 8 "Sustainability Appraisal and Strategic Environmental Assessment": https://www.historicengland.org.uk/images-books/publications/sustainability-appraisal-and-strategic-environmental-asses sment-advice-note-8/.	Noted.
Member of the Public	**Q1:** This member of the public is concerned that the scope of the SA is not appropriate.	Noted. SA is a strategic process and the scope covers all relevant topics set out in the SEA Regulations.
	Q2: This respondent states that 100,000 new homes will destroy the character of the towns and villages and they will not be able to cope with the expansion (33% in Cherwell).	Effects of the plan on the character of towns and villages will be assessed via SA objectives 14 and 15.
	Q3: The baseline information is not suitable.	It is not clear why the respondent considers the baseline information unsuitable. SA is a strategic process and the scope covers all relevant topics set out in the SEA Regulations.
	Q4: This respondent mentions again that 100,000 more homes will destroy the county.	See above.
	Q5: The SA framework is not appropriate.	It is not clear why the respondent considers the SA framework unsuitable. SA is a strategic process and the scope covers all relevant topics set out in the SEA Regulations.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	Q6: This respondent believes this is pointless; the council has been bribed and have already decided to ruin the county.	The SA process has begun at an early stage of plan making so that it can influence the plan. It will be carried out in line with legal requirements and best practice.
Member of the Public	**Q1 and Q4:** This member of the public is concerned that this SA scoping report is not appropriate, because it does not take into account either Climate Policy Integration or Environmental Policy Integration as goals. Since (p.1), the SA is supposed to be 'an assessment process designed to identify and communicate the significant sustainability issues and effects of emerging plans and policies, including their reasonable alternatives,' then all policies likely to maintain a Climate Emergency within Oxfordshire needed to be identified and sound alternatives to them needed to be outlined. This respondent is concerned that the issue of resilience is missing from the SA. Apart from the possible impacts of the Climate Change crisis upon food supplies, there are also long term issues about the water, food and other physical resources the County is using and intends to use in future. Resilience can be considered to be about the capacity to withstand economic shocks, like 'hard Brexit' scenarios. In practical terms, the JSSP needs to consider – in each policy area – what capacity the County's statutory institutions and those they are in contact with, or in partnerships with, can contribute means and skills to assisting the County in carrying out both essential and desirable functions under conditions of environmental crisis. This respondent notes that we should deliver an Oxfordshire to future generations which is enhanced appreciably compared to its current ecological decline due to 'hyper-growth'. The SA must, and currently does not, take future generations into account. Other neglected issues: 'urban heat island effect'; issues of 2020 water shortages in Oxford-Swindon catchments; availability of skilled environmental officers in local government; availability of construction workers to make housing projections meaningful; no reference to PM2.5s. Consequently, SA is unfit for purpose.	The SA will assess all reasonable alternative options identified by the Council. Contribution to climate change will be assessed directly through SA objective 7, although SA objective 6 (reducing the need to travel) is also relevant. Climate change adaptation will mainly be assessed via SA objective 9 (water resource management) although SA objectives 2 (health and wellbeing), 10 (flooding) and 13 (biodiversity) also reference climate change in the appraisal questions. The SA will consider the likely effects of the plan against these and the other SA objectives. The SA will consider the issues of resilience and future generations within the scope of the plan. Consideration of what the county will look like in the future (in terms of sustainability) is a key purpose of the SA. The Scoping document presents the current background, whereas future SA reports will predict the likely effects of the plan. The baseline data has been updated to reflect these comments, where appropriate. Issues relating to water

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
157		stress/shortages are discussed in the 'water resources and water quality' section. PM2.5 is relevant to air quality. A note of the types of pollutants likely to arise from the local plan has been added. Many of the remaining suggestions are outside the scope of SA.
	Q2: This member of the public has provided several links to additional climate related policies, such as, http://ipcc.ch/report/sr15/, to provide guidance on how to create effective climate action policies.	Please note that these policy sources have been reviewed and the relevant information has been added into the Climate Change section of Chapter 3, where appropriate
	Q3: It is noted that the County Council group on congestion should be considering the respondent's report on Electronic Road Pricing for Oxford - already supplied to selected County councillors - to help reduce road traffic, parking demand, air pollution and congestion.	Noted.
	Q5: The SA framework is not appropriate until the issues under Q1 are covered, which would involve a full re-write and extensive Climate Policy Integration and Environmental Policy Integration.	See response to Q1. The role of SA is to consider the likely effects of the plan, and policy preparation (and therefore Climate Policy Integration and Environmental Policy Integration) is the role of the Council and matters beyond the Local Plan.
	Q6: Comments on content: **Section 1.5 2)** 'Whether there are any additional plans, policies or programmes that are relevant to the SA policy context that should be included.' See IPPC latest Climate Change report as mentioned above. See also Government advice on Sustainable Development which has not been taken into account adequately throughout this SA document. **Section 1.7** The Government has attempted to define 'sustainable development' although it remains to be seen how clear and consistent its attempts may be. However, 'sustainable growth' as used in this section is not defined in Government policy	Relevant plans, policies and programmes have been added where appropriate. Reference to IPCC's latest Climate Change report has been added. Note that the role of the SA is to consider the likely sustainability effects of the local plan, including consideration of those

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	since the sustainability of what is growing is not being assessed. So, there is an unresolved inherent conflict in Government between environmental policy, sustainability and the idea of growth. If growth involves the use of finite resources, it is not sustainable indefinitely. If growth involves undermining biodiversity, reducing land available for food and forestry and having harmful effects on public health through air pollution or noise, then none of this is sustainable. Sustainability and not conventional economic growth, or 'sustainable growth' should be a core priority and value in this SA, in order to meet references to sustainable development in the tests of soundness for Local Plans as a good way the SA itself might be tested, although this is not required. Quality of life will suffer if growth is pursued as if it were the only indicator worthy of significance. Suggestions included, as well as the UN Sustainable Development Goals, many other indicators are of value, such as air quality improvements year on year in all parts of the County, increased proportion of journeys made by bicycle, pedestrian priority, habitat restoration and more. Brexit will also be of concern and may mean a delay until 2021 in having a form of environmental agency to replace the roles created by EU legislation means that we are at risk of a hiatus in resources and enforcement for environmental policies. **Section 2.2** of The Local Industrial Strategy referred to here has to sit within ecological and related human health and wellbeing considerations. It will not be sustainable or acceptable otherwise. The JSSP may not link to the so called 'Cambridge-Milton Keynes-Oxford Growth Corridor' since current economic conditions do not suggest conventional economic growth will be occurring in the foreseeable future. **Section 2.3** The 100,000 homes target has been widely criticised and forensically destroyed by informed critics.	topics set out in the SEA regulations. The policies themselves and level of growth to be accommodated are determined by the Council.
Wild Oxfordshire	**Q1:** Overall, Wild Oxfordshire believes the SA should reflect a strong ambition not just for environmental protection, but also environmental improvement. This will ensure compliance with the National Planning Policy Framework (NPPF) which states in paragraph 170 that 'Planning policies and decisions should contribute to and enhance the natural and local environment by…d) minimising impacts on and providing net gains for biodiversity…'. Paragraph 174 says that 'To protect and enhance biodiversity and geodiversity, plans should: b)…identify and pursue opportunities for securing measurable net gains for biodiversity…'. As a minimum, the Oxfordshire Plan 2050 should commit to a clear target (a minimum of 20% for net environmental gain).	This is more relevant to the local plan itself, as the role of the SA is to assess the policies of the plan against the SA objectives. The appraisal questions in Table 5.1 have been amended to further include consideration of enhancement.
	Q2: In addition to what is included, they would expect to see the following included:	Oxfordshire State of Nature 2017 report, Conservation Target Areas, the Management plans for each AONB and

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
159	■ Oxfordshire State of Nature 2017 report. Led by Wild Oxfordshire, this draws together a wealth of expertise from the county's professional and volunteer base in biodiversity and nature conservation, including our local authorities. It uses the best information available to establish a picture of the state of Oxfordshire's natural habitats and species, including long-term trends as well as more recent losses and gains. See: https://www.wildoxfordshire.org.uk/stateofnature/reports/ ■ Conservation Target Areas, which are the current spatial component of Oxfordshire's strategic approach to biodiversity. They are some of the most important areas for wildlife where targeted conservation action can secure the maximum biodiversity benefits. See: https://www.wildoxfordshire.org.uk/biodiversity/conservation-target-areas/ ■ All of Oxfordshire's Areas of Outstanding Natural Beauty: Cotswolds, Chilterns, North Wessex Downs have up to date management plans. These should be included. ■ Oxfordshire's historic landscape characterisation	Oxfordshire's Historic Landscape Characterisation are all now referenced in the SA Scoping Report.
	Q3: 2. Wild Oxfordshire is disappointed not to see explicit reference to the Oxfordshire State of Nature 2017 report. This report draws together a wealth of expertise from the county's professional and volunteer base in biodiversity and nature conservation, including our local authorities. It uses the best information available to establish a picture of the state of Oxfordshire's natural habitats and species, including long-term trends as well as more recent losses and gains. We would be happy to liaise with those preparing the SA to discuss the report and its findings in more detail. Further info: https://www.wildoxfordshire.org.uk/stateofnature/reports/ 3. Likewise, they are also concerned that there is no explicit reference to Conservation Target Areas (CTAs) and would urge that these are included. **Figure 3.7:** Biodiversity and Geodiversity depicts Oxfordshire's NNRs, SACs, SSSIs and LNRs. These are effectively small, fragment islands that have been designated because they are special and vulnerable and there is nothing sustainable about that as they cannot survive indefinitely in isolation but need to be part of a wider network of habitats connected at a landscape scale. This allows populations to move, adapt to changing conditions locally and maintain genetic diversity. The Oxfordshire Wildlife and Landscape Study (OWLS) (Blackwell & Nikolakaki, 2004) which investigated the landscape character and biodiversity resource of the county was a precursor to the development of Oxfordshire's Conservation Target Areas (CTAs). The Government's own 25 year plan for the environment has pledged to develop a Nature Recovery Network to protect and restore wildlife, and provide	The Oxfordshire State of Nature 2017 report has been used as a reference to the Biodiversity and geodiversity section of Chapter 3. Specifically, within paragraph 3.137, which now references Conservation Target Areas.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
160	opportunities to re-introduce species that we have lost from our countryside. In this case, Oxfordshire is ahead of the curve as Oxfordshire's CTAs are the spatial component of Oxfordshire's strategic approach to biodiversity (as referenced in the above report - Oxfordshire State of Nature 2017 report). **Table 3.19:** Key sustainability issues for Oxfordshire and likely evolution without the JSSP (Biodiv. & Geodiv.) states that "on-going development, plus pollution and people pressure, produce on-going pressures that the JSSP can help to address at a strategic scale, seeking to safeguard and improve not only designated sites, but the ecological networks and supporting habitats that support them and their species". If properly funded the Conservation Target Area network would help deliver this. Wild Oxfordshire is the custodian of the CTA process and co-ordinates the CTA Leads group (incl. local authorities) which feeds into the Biodiversity Advisory Group. See: https://www.wildoxfordshire.org.uk/biodiversity/conservation-target-areas/ Wild Oxfordshire believes consideration of CTAs should be an integral part of the Oxfordshire Plan 2050 and should be reflected in the SA. They would be happy to liaise with those preparing the SA to discuss this in more detail.	
	Q5: They welcome the commitment to net gain in biodiversity, but it requires further clarification. It is essential that the mitigation hierarchy is applied so that, in the first instance, avoiding damage is a clear and transparent requirement. Wild Oxfordshire would ask that the appraisal clearly assesses if and how the Oxfordshire Plan will implement the government's commitment to "Embedding an 'environmental net gain' principle for development, including housing and infrastructure".	SA objective 13 contains appraisal question 'Achieve overall net gains in biodiversity and the environment?' which will be used when assessing each policy and site allocation for the Oxfordshire Plan.
Member of the Public	**Q1:** This member of the public notes that the scope key points need to be here for general points to be understood.	We understand this to be a comment on the format of consultation, rather than the SA itself.
	Q2: Again, it is noted that without the key points listed this is difficult to answer. There should be proposals to limit through traffic and car use by having electric power village, town and city network transport systems with centralised car parking to minimise traffic volumes and maximise walking and group transport network systems – this could include electric taxi system – chuc-chuc style for disabled and family commuting.	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	Q3: Infrastructure planning must come before housing development.	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
	Q4: Hedge and tree protection need bird and animal needs and population growth as principal objectives to direct what goes where across all aspects of development - from hedges for birds to under road path-tunnel systems that have existing study details to direct type and place for positioning.	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
Member of the Public	**Q6:** My environmental colleagues in other Oxfordshire Districts may have made the following comment already – several of the numbers in **Table 3.9** on page 40 in the document are inaccurate. I would recommend that both this table and the accompanying text under 'Biodiversity and geodiversity' should be checked by the Thames Valley Records Centre.	On reviewing this comment, it seems the respondent is referring to Table 3.18, not 3.9. Updated accordingly.
Sport England	**Q1:** In principle, Sports England believes it is.	Noted.
	Q2: Please note that consideration must be given to emerging Local Authority Health Plans.	Noted.
	Q3: It does as a starter for 10.	Noted.
	Q4: Sport England feels that Table 2.2 Population, health and wellbeing consideration should be given to looking at county wide playing pitch strategies and built facility strategies. Economy - Work needs to be done on looking at new emerging economies/employment beyond traditional employment sectors. The acceptance of a greater home based work force and the implications on home design and the redefining of employment hubs.	With regards to Table 2.2, 'sports facilities' has been added to the Population, health and wellbeing table in addition to community facilities.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	Q5: Sport England believes the SA framework is appropriate.	Noted.
Wokingham Borough Council (Growth & Delivery Team)	**Q6:** They have no comments at this time, but welcome the opportunity to be kept informed as the plan progresses.	Noted.
Member of the Public	**Q1:** This member of the public suggests that the 'scope' of the SA is not the problem. This respondent is concerned that the report refers at **1.5** to 1) Oxfordshire's growth needs and development ambition. This is the first sign that the JSSP will not result in sustainable development and the implied need to reduce and eliminate carbon emissions, by presuming that there are 'needs' for Oxfordshire to 'grow'. This 'ambition' cannot precede the work that will need to be put into the preparation of the JSSP to see what kind of growth could be made compatible with sustainable development (e.g. compliance with SDGs and achieving zero carbon).	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
	Q2: This respondent notes that the IPCC Report Oct 2018 on why and how global warming must be limited to 1.5 degrees. The SHMA Oct 2018 and ONS revised housing need figures should also be included. There are many reputable analyses of 'sustainable growth' that question whether this could be possible as being framed and proposed for the JSSP. The support for the Expressway is just one example of how evidence could be ignored.	The latest SHMA's findings are within the Housing section of the SA Scoping Report. Please also note that the role of the SA is to assess the plan and its reasonable alternatives against the SA objectives.
	Q3: The baseline is suitable only if it is based on the need to limit global warming below 1.5 degrees and the understanding that places like Oxfordshire will have to make a disproportionate contribution to this effort and in the shortest possible time.	Climate change issues have been acknowledged throughout the baseline of the SA Scoping Report and will be assessed by SA objective 7.
	Q4: Apart from carbon neutral or negative housing (in construction and use) and the abandonment of any support for the Expressway, the international heritage importance and tourist potential of the former RAF Upper Heyford should be included.	Noted.
	Q5: The SA is not 'appropriate' in the evidence chosen/omitted and is not being treated in a meaningful way.	Noted.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
163	**Q6:** Confirmation at **1.7** "The JSSP will provide an integrated strategic planning framework and evidence base to support sustainable growth across the county to 2050, including the planned delivery of new homes and economic development, and the anticipated supporting infrastructure needed.", of the assumption that there is an existing model of 'sustainable growth'. Given that new development (dwellings, workplaces and associated infrastructure are very carbon intensive; about 50% of emissions are embedded before occupation) the JSSP must start to investigate what is meant by genuine 'sustainable growth' before proposing 300,000 extra new houses and associated jobs and infrastructure. The commitment, "**2.3** The JSSP ….to the Housing and Growth Deal to deliver up to 100,000 homes by 2031.", should be re-examined in the light of the best evidence on the carbon emissions associated with urban development. The respondent also notes that 'taking into account' is not the same as 'taking meaningful action'. The scale of urbanization being proposed implies a scale of carbon emissions that will be significantly above those implied by the IPCC Report Oct 2018. And supporting a new road to create a corridor with car dependent housing is inconsistent with reducing carbon from transport. This respondent would like to be kept up to date with the Oxfordshire Plan.	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
Environment Agency	**Q1: Table 2.2:** Natural capital and environmental net gain should be highlighted here. They do not appear to be integrated within the proposed SA framework. Climate change is not an isolated topic and needs to be recognised as a key message integrated across topics, including resilience to climate change. Environment Agency is pleased that avoiding increase in flood risk is mentioned and that flood risk management is looking to the future, to take account of climate change, but the need to safeguard land for flood risk management should also be recognised and is key. Added to this natural flood management is highlighted as within the 25 year Environment Plan and should be acknowledged here as one of the key messages. There is a bullet point within the 'land' section relating to the use of previously development land but no mention of remediating contaminated land. A key message could be included to cover this point.	Table 2.2 has been updated in reference to climate change, natural capital, flood risk management and the remediation of contaminated land. In addition, the SA Scoping Report has drawn upon all up-to-date and readily available evidence in establishing the baseline. The SA Framework will be applied consistently to each policy and site allocation in the Oxfordshire Plan 2050.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
164	**Q2:** The Defra 25 Year Environment Plan provides significant steer and emphasis for the environmental issues that will need to be considered in particular using natural flood management solutions, the natural capital approach and the need for environmental net gain. The plan is referenced within the Appendix which we welcome, but not in the body of the report. The Environment Agency believes that it is important for the SA of this plan to use the steer of the 25 year Environment Plan more evidently, as the JSSP has such a long time horizon.	Defra's 25 Year Environment Plan is now referenced within the main body of the report as well as the appendix.
	Q2: The Defra 25 Year Environment Plan provides significant steer and emphasis for the environmental issues that will need to be considered in particular using natural flood management solutions, the natural capital approach and the need for environmental net gain. The plan is referenced within the Appendix which we welcome, but not in the body of the report. The Environment Agency believes that it is important for the SA of this plan to use the steer of the 25 year Environment Plan more evidently, as the JSSP has such a long time horizon. **Q3:** <u>Climate change</u> **Paragraph 3.59** does set the scene and acknowledges the need to address both mitigation and adaptation in terms of climate change. However, this section goes on to only cover carbon emissions which isolates this issue from all the other relevant issues relating to climate change. They accept that duplication of work and facts within the report is not wanted, but having acknowledged the issues in para 3.59 as a minimum there needs to be cross referencing to all the other issues which are linked to climate change, including resilience to climate change, even if they are considered in more detail under their own headings. This also then links into the issues that inform the framework. <u>Water resources and water quality</u> **Paragraphs 3.62 to 3.65** provide a picture of the water resource and or water quality situation within Oxfordshire but it does not appear comprehensive. Some sources of information are referenced but others are not and there does not seem to be a complete picture for the County. Reference should be made to the Thames River Basin Management Plan (TRBMP) 2015 to 2021, which is under review at the moment in preparation for the TRBMP 2021 – 2027. This will help inform the water quality issues within the county and relates to the Water Framework Directive.	Clarification that climate change is a cross cutting issue that will affect all aspects of life has been added to Table 2.2. In addition, with regards to paragraphs 3.62 to 3.65, references to the Thames River Basin Management Plan and the Catchment Abstraction Management Strategies have been added. Please note that environmental capacity is highlighted within SA objective 9. The Flood Risk section of this comment relates largely to the options for the Oxfordshire Plan 2050 itself, rather than the SA Scoping Report. With regards to the section on 'soil', a paragraph has been inserted into the SA baseline for contaminated land. The importance of the River Thames as a blue infrastructure asset connecting wider species and habitats has been added. The heading of Figure 3.4 has been amended to make specific reference to flood risk zones 2 and 3.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
165	**Paragraph 3.62** acknowledges that the area is seriously water stressed. Reference should be made to the Catchment Abstraction Management Strategy (CAMS) for the area, please be aware that a new CAMS is in preparation for the Thames, anticipated publish date for April 2019. As part of the preparation for the Oxfordshire Plan 2050 they expect a Water Cycle Study (or equivalent water evidence base) to be prepared to inform the decisions which are being made for the strategy for the County. This would usefully be informed by the Water Cycle Studies already carried out by the Districts, but they recommend that it is carried out as a new study with a consistent evidence base and methodology. Any WCS would need to cover the long time horizon for the JSSP. There is a need to plan ahead beyond the 25 years of the Thames Water, Water Resource Management Plan, using the projected levels of growth and the consequent implications for the environment. With regard to water quality there is no recognition of the need for environmental capacity to be assessed alongside the physical capacity of the waste water treatment facilities and networks. There is a misconception that if the waste water facilities have capacity or are upgraded then there is no impact on the environment. Again, a county wide Water Cycle Study will be needed to provide the evidence to demonstrate the impact of the growth strategy on water quality. This issue needs to be drawn out in the scoping report. <u>Flood Risk</u> In this section within **paragraphs 3.67 to 3.72** there is mention of flood risk and surface water flood risk/runoff. Flood risk from all sources needs to be used as the baseline and will need to be assessed as part of the evidence base for the plan. This includes fluvial flood risk, surface water flood risk, groundwater flood risk and flood risk from sewers. In terms of baseline information, a county wide Strategic Flood Risk Assessment (SFRA) will be required. All the districts and the County Council have SFRAs which will provide a good starting point but will need to be updated where new hydraulic modelling is available, to account for climate change and bring it up to date with current planning policy. The NPPF makes it clear that current and future flood risk should be taken into account for plan making and that land for flood risk management should be safeguarded. In addition, the opportunities should be taken to reduce flood risk. This SA provides an opportunity to work on a County wide scale and to consider natural floodplain management and the options that may be available alongside or as part of any growth strategy. In this way the JSSP could contribute towards decreasing flood risk rather than increasing it.	

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	The Environment Agency does not agree with the statement made in Table 3.15 as the JSSP provides the vehicle to seek opportunities to steer development towards areas of lower risk of flooding, to emphasise the need to take a sequential approach to flood risk in terms of master-planning and site design and to take the opportunity to reduce flood risk overall. **Figure 3.4** is entitled Water network and flood risk, with the source as the Environment Agency but it is unclear what flood risk this shows. It would be useful if the plan is accurately referenced to avoid confusion. <u>Soils</u> There is a section within the report on 'soils' but no section relating to 'Land'. Therefore, there is no section relating to the remediation of contaminated land. With the current focus of development on previously developed land the opportunity should be promoted to remediated contaminated sites and bring them back into functional use, whilst ensuring pollution prevention. Baseline information on historic and active landfill sites as well as information from contaminated land registers would help inform this information. <u>Biodiversity and Geodiversity</u> They understand and support the need to acknowledge and protect designated sites but there should also be an acknowledgement of the wider biodiversity within Oxfordshire. It is recommended to include the River Thames and the river network for their role as river corridors and wildlife networks. This approach is supported by the NPPF which indicates that plans should safeguard components of wider ecological networks. <u>Landscape and Townscape</u> **Paragraph 3.100** recognises the importance of the river and floodplain for the setting of Oxford however, the rivers within the county provide an important setting and for many of the towns within Oxfordshire. This attribute does not solely apply to Oxford but also to other riverside towns.	
	Q4: They agree with the challenges of climate change as set out in **paragraph 4.8.** They are pleased that the tension between the provision of built infrastructure and green infrastructure has been acknowledged in **paragraph 4.20**, as this is important in sustainable place-making. **Paragraph 4.23** summarises the key sustainability issues to be taken into account in progressing the JSSP and also the SA framework as it moves forward. They support the issues itemised relating to water resources, flood risk, biodiversity and	With regards to paragraph 4.23, the additional points that were raised have been added into the Scoping report. With regards to paragraph 4.25, highlighting the integration of the

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
167	reducing the contribution to climate change. However, they believe that other issues need to be itemised and relate to points already made above: ■ resilience to climate change, accepting that this applies across many of the issues already identified, ■ when taking into account flood risk, future flood risk should be included as well as opportunities to reduce flood risk, natural floodplain management and safeguarding land for flood risk management. ■ pressure on water resources is mentioned, which we support, but there is no acknowledgement of the pressure on water quality relating to waste water treatment and the environmental capacity of the systems. ■ suggest that environmental net gain is also acknowledged as an issue as it should be addressed and used within the JSSP as an opportunity. The use of natural capital accounting can help with this. They support the point being made in **paragraph 4.25** but feel that there is also the opportunity to emphasise the benefits of working at this strategic scale to integrate the environment as an integral part of the growth strategy.	environment within the growth plan has been referenced. Relevant updates to the baseline information have been added to the SA Scoping Report.
	Q5: There are a number of SA objectives and appraisal questions that are support but there are a few omissions or further clarity that we believe is required. Climate change resilience – they understand the need to avoid duplication and therefore support the consideration of this issue through the appraisal questions under many of the objectives indicating the need to take account of the impacts of climate change. Although biodiversity net gain is itemised and they support this, the need for environmental net gain is not specified. It may be that you consider it is covered through the aggregation of different objectives and appraisal questions but if this is the case there will need to be an outline of this and explain how the demonstration of environmental net gain will be achieved. Objective 9: They support this objective but suggest that appraisal question 2 is amended 'Ensure there is sufficient waste water treatment capacity, both in physical and environmental terms, to accommodate the new development'. This links in with the requirements of the Water Framework Directive and the need to demonstrate the environmental capacity of watercourse in relation to waste water treatment.	With regards to the SA objectives 9 and 13, they have been updated to reflect the suggestions mentioned here.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	Q6: The report identifies some of the key issues and opportunities relating to the natural environment, however they believe that there is an opportunity missed to fully integrate environmental issues with the social and economic factors at this strategic level for the whole of Oxfordshire. All new development needs to achieve environmental net gain; therefore this SA provides the framework to ensure this happens. The natural capital approach and the need to provide net environmental gain should be more evident throughout this framework and steer a more ambitious long-term plan for Oxfordshire. Resilience to climate change needs to be embedded in all new development, so that today's places and infrastructure are resilient to tomorrow's climate. This SA provides the opportunity to ensure that the plan is assessed within a framework that takes climate change resilience into account. The JSSP is an ideal opportunity to assess the options for the delivery of natural floodplain management as part of the infrastructure for the growth strategy; this needs to be considered within the SA framework. This also links with the natural capital approach. The remediation of contaminated land is not covered within the body of the report although it is mentioned within the SA framework in the appraisal questions. There are contamination/remediation issues which should be considered as part of the SA, where potential constraints and opportunities exist. For example, the opportunity to remediate previously contaminated sites and bring them back into functional use at a standard that is fit for purpose.	Remediation of contaminated land has been added to the section on Soil within Chapter 3.
Natural England	**Q1:** It is noted that the Sustainability Appraisal will incorporate the requirements of Strategic Environmental Assessment, and will be informed by Habitats Regulations Assessment; this approach is welcomed. Natural England advises that this appraisal is aligned with any similar work available for the Oxfordshire-Cambridge Growth Arc. They also advise that consideration is given to Natural Capital and ecosystem services through the Sustainability Appraisal. The role of the planning system in recognising the wider benefits from natural capital is highlighted in paragraph 170 of the NPPF. Spatial planning at this scale is an ideal opportunity to assess the existing Natural Capital of the County (see para 171 of the NPFF), to plan to conserve those features providing key ecosystem services and address deficits. They suggest that Natural Capital accounting forms part of the evidence base for the JSSP, and also that the effects on Natural Capital are considered through the Sustainability Appraisal process.	With regards to natural capital, it has been added to Table 2.2.
	Q2: It would appear that only international and national plans, policies and programmes have been considered in **Appendix 2.** They advise that there are a number of more local documents that provide relevant context to the Sustainability Appraisal. These include:	The relevant documents have been added to the appropriate sections of Chapter 3 of the SA Scoping Report.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
169	■ Oxfordshire Conservation Target Areas ■ Oxfordshire State of Nature 2017 ■ Oxfordshire Rights of Way Improvement Plan ■ Management plans for the Cotswolds, North Wessex Downs and Chilterns AONBs. ■ Oxfordshire Wildlife and Landscape Study ■ South and Vale Green infrastructure strategy ■ River basin management plans	
	Q3: ■ Air Quality: Natural England advises that exceedance of limits for the natural environment are considered alongside those for human health. Information on this is available from http://www.apis.ac.uk/ ■ Water resources and water quality: they advise that consideration is given to impacts on water dependant habitats, as well as watercourses. ■ Biodiversity and Geodiversity: they support the case that the JSSP presents an opportunity for a strategic approach to be taken to solutions to pressures on designated sites, and for planning ecological networks in line with the 25 year Environment Plan, and would welcome such an approach. ■ Landscape – as suggested in **Table 3.22**, the JSSP does offer a further opportunity to ensure that the character and quality of the landscape character is taken into account, in particular we advise that it provides the opportunity to look more strategically at alternative sites in terms of landscape impacts and to plan strategically for landscape improvements As recognised in the document, Natural England advises that the environmental sensitivity mapping in **Figure 3.12** is applied with some caution. They also advise that opportunity mapping work for natural capital and habitat networks is undertaken to inform the plan and Sustainability Appraisal	With regards to Table 3.22, Natural England's suggestion has been added and the additional comments have been noted. Please note that Figure 3.12 illustrating Oxfordshire's environmental sensitivity in 2016 has been removed in light of the more recent environmental evidence and data set out in other sections of the SA Scoping Report Baseline.
	Q4: As already mentioned, they advise that Natural Capital is considered by the Sustainability Appraisal, supported by baseline and opportunity mapping. As highlighted in the scoping report, the Oxfordshire Infrastructure Strategy recognised	Noted.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	the importance of addressing Green Infrastructure through the JSSP. They consider that Green Infrastructure and Natural Capital are closely linked and that the Sustainability Appraisal should consider the ability of the plans' policies to deliver both.	
	Q5: Natural England welcomes that the Framework includes objectives to conserve and enhance Oxfordshire's biodiversity and geodiversity, and gives consideration as to whether biodiversity net gains and ecological connectivity is achieved. They also welcome the objectives to protect Oxfordshire's soils and to protect and enhance Oxfordshire's landscape character and quality. However, they suggest that an additional objective could address Natural Capital; such an objective might be "to conserve and enhance Oxfordshire's natural capital and ecosystem services". As a cross-cutting issue natural capital could also be considered under several of the other objectives, for example: **To sustain and create vibrant Oxfordshire communities:** this section could include reference to green infrastructure in its final question: "Ensure that new development is fully supported by appropriate green infrastructure, community, transport and utilities infrastructure and services?" **To support the development of Oxfordshire's knowledge economy:** the natural environment could also be incorporated under this section, for example: "Provide for the types of homes, cultural attractions and natural environment that will attract and retain global talent?" **To minimise Oxfordshire's contribution to climate change:** they suggest that this objective also addresses adaptation to climate change and includes a question on whether the plan provides for eco-system services that are resilient to climate change. Also, consideration could be given to whether the plan recognises the role of eco-systems and soils in carbon sequestration. **To minimise air, noise and light pollution in Oxfordshire:** a question could be included on whether the plan provides for natural air quality improvements and noise absorption through strategic planning of green infrastructure. **To maintain and improve the quality of Oxfordshire's watercourses and achieve sustainable water resource management.** They advise that the final question includes water dependant habitats as well as watercourses. A question could be included here to look at whether the plan promotes the use of natural wetlands to improve water quality through water filtration.	With regards to the additional appraisal questions for several objectives, they have been added to the relevant objective. In addition, natural capital has been incorporated within the relevant SA objectives.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	To reduce the risk from all sources of flooding in Oxfordshire a question could be included here to address whether the plan promotes the use Natural Flood Management techniques.	
Member of the Public	**Q1:** In general, the scale and likely impact of existing growth plans needs more open discussion. What mechanisms will there be for a fundamental reconsideration of the scale of growth and the objectives for the strategy? This is not clear in this document, or in other information emerging from the Growth Board. For example, many district housing plans are based on unsustainable ONS 2014 figures, which have radically changed in the Oct 2018 report. Whose needs take priority and who will make that judgement? There is a risk that the SA scope will not match the Plan owing to time constraints and mismatches. There are key omissions and limitations in the scoping and statement of common ground documents for the JSSP, for example the 25 year Environment Plan; commitments to the rural and agri-economy; heritage and cultural capital; Energy; Natural Environment and 'Healthy Place-Shaping'. **Climate Change/Carbon Emissions -** For the sake of all our futures this Scoping Report needs to be drastically restructured. Tackling the threat of climate change should be the central goal for this Plan and the Sustainability Appraisal must lead work towards that goal. The carbon emissions from hundreds of new Oxford commuters could not be worse for climate change. City worker's houses need to be built within the city environs as close to the workplaces as possible. **Table 2.2** Transport - the purpose of the JSSP was to ensure an integrated strategic spatial plan. The update of the Local Transport Plan should not have been separated from this process and would urge that this decision is re-considered	The 25 Year Environment Plan is referenced within Appendix 2 and within the Climate Change section of the main body of the report. The issue of climate change has now been integrated more throughout the SA report. The Local Transport Plan is featured in paragraph 2.9. The SA will be working in tandem with the Local Transport Plan and the other Oxfordshire local plans.
	Q2: 25 Year Environment Plan DEFRA Biodiversity Metrics Wild Oxfordshire's 'Oxfordshire State of Nature Report'	Noted. Defra's 25 Year Environment Plan and Wild Oxfordshire's 'Oxfordshire State of Nature Report' is now referenced within the main body of the report. Defra's 25 Year Environment Plan is also within Appendix 2.
	Q3: The document focuses on mapping a static picture of the current situation rather than detailing current trends and rates of change. In this case, foreseeing the effects of the JSSP so far ahead is particularly challenging.	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
172	**Para 3.8 - "**improving the connectivity on this corridor, through East-West Rail and the Oxford to Cambridge Expressway projects, is a key ambition for Oxfordshire". Completely opposed to the Expressway since it would add exponentially more carbon emissions; but in favour of a fast railway link which would be quicker and greener! **Transport -** The Local Transport Plan (LTP) and JSSP are de-coupled and therefore not reliant on one another. The capacity for joined up thinking is therefore at risk. **Climate Change -** The Stern Review 2006 'The Economics of Climate Change' "This Review assessed a wide range of evidence on the impacts of climate change and on the economic costs, and used a number of different techniques to assess costs and risks. From all of these perspectives, the evidence gathered by the Review leads to a simple conclusion: the benefits of strong and early action far outweigh the economic costs of not acting." Concern about the side effects of Renewable Energy generation has to be weighed against the prospect of human extinction if we do not end fossil fuel use now. **Water resource/Flooding/Soils/Biodiversity/Geodiversity** All need to reference the 25 Year Environment Plan. The scale of growth must work alongside the finances available to protect resources it relies on for the future, to meet its national and international commitments, and to provide sufficient infrastructure investments in a timely manner to support communities and the local economy. If more development is planned than money available, then the implications for sustainability by that growth should be clearly and explicitly demonstrated in the SA report.	programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives. DEFRA's 25 Year Environment Plan is now referenced within the section on climate change within the SA Scoping Report.
	Q5: Strategic Environmental Assessment (SEA) regulations require a picture of actual change and what measures will be required to minimise or offset harmful effects or maximise benefits. To achieve this, the baseline information must record trends and rates of change, not just the static picture. In addition, there should be consideration of the cumulative and interactive impacts and it is not currently clear how this is being achieved. For example, there are clear links between biodiversity, water, soil quality and archaeology. **Needed additions:** There should be an explicit commitment to respect the rate and capacity of a community to grow without damaging social cohesion, and also for respect for the character, culture and ethos of a community.	Please note that consideration of cumulative impacts will be addressed later on in the SA process. With regards to the needed additions, it should be noted that it relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	Ensure that new development is fully supported by appropriate and timely community, transport and utilities infrastructure and services. The issues of through traffic and the proposed Expressway are not referred to here and should be. The promotion of use of Sustainable Drainage Systems (SuDS) must be coupled with assessment, policy and investment in long term maintenance and enforcement of such. Ensure biodiversity outside of designated sites is also considered a priority and its intrinsic and other value is understood and protected in decision making at all levels. The character and distinctiveness of Oxfordshire's settlements needs to encompass not only the visual, but also the social and cultural aspects.	
	Q6: The need for debate about whether growth over and above that required to continue on the current organic growth path, high employment levels and net contribution to the treasury (as already enjoyed by Oxfordshire) is appropriate given any additional stress to resources.	Noted.
Buckinghamshire County Council	No comment.	Noted.
BBOWT	**Q1:** BBOWT's focus is on the ecological aspects of the JSSP. They recognise that the role of the JSSP is to help meet and manage Oxfordshire's growth needs and development ambition. They believe that it should be similarly ambitious in seeking environmental improvements in Oxfordshire. The JSSP should provide an opportunity to safeguard and improve not only designated sites, but the ecological networks and habitats to support wildlife across Oxfordshire. They would like to see a minimum target of 20% increase in biodiversity units post-development compared with pre-development, measured using the Defra Biodiversity Metric, consistent with the Government's 25 Year Environment Plan for net environmental gain from development, though at present there is not an agreed way of measuring this, only net biodiversity gain using the Defra Biodiversity Metric. The NPPF 2018 paragraph 170 states that "Planning polices and decisions should contribute to and enhance the natural and local environment by… minimising impacts on and providing net	Noted. With regards to the points relating to net gain for biodiversity, this relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report. In regard to the comments relating to the Review of Environmental Sensitivity, please note that Figure 3.12 illustrating Oxfordshire's environmental sensitivity in 2016 has been removed in light of the more recent environmental evidence and data set out in other sections of the SA Scoping Report Baseline.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
174	gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures". The Sustainability Appraisal refers to LUC's 2016 'Review of Environmental Sensitivity in Oxfordshire' which created a series of maps to illustrate by environmental theme (including biodiversity and geodiversity assets, and community and greenspace assets) how susceptible land was to change across Oxfordshire. They believe that this study should be developed further to identify opportunities for habitat connectivity, a Nature Recovery Network Map, so that these might be delivered through development over the life of the JSSP so that net gains in biodiversity really are delivered at scale and in the right place. The following key terms should be fleshed out. These include: ■ Net gain for biodiversity: Delivering more or better habitats for biodiversity and demonstrating this measurable gain through use of the Defra biodiversity metric. ■ Natural capital: The elements of nature that directly or indirectly produce value to people, including ecosystems, species, freshwater, land, minerals, the air and oceans, as well as natural processes and functions. ■ Ecosystem services: The services provided by natural capital, such as pollination, biomass, flood management, clean air, carbon sequestration, that lead to benefits to society ■ Mitigation hierarchy: The principle that environmental harm resulting from a development should be avoided (through locating development where there will be less harmful impacts), adequately mitigated, or, as a last resort, compensated for. ■ Offsetting: The creation or enhancement of wildlife habitat to compensate for loss or degradation elsewhere. ■ Nature Recovery Network: An expanding and increasingly connected network of wildlife-rich habitat, designed to stimulate the recovery of wildlife and support the delivery of other economic and social benefits, such as water quality improvement or flood attenuation.	
	Q2: BBOWT previously commented on the 2016 Oxfordshire Infrastructure Strategy. At that time they highlighted the need for a county-wide Green Infrastructure Strategy for Oxfordshire and the importance of highlighting the links between Green Infrastructure and climate change, health and the economy, not just nature conservation and recreation. BBOWT also noted that local wildlife sites were insufficiently recognised at a local level. They noted that Oxfordshire would benefit from a Natural	Noted. Conservation Target Areas are now referenced within the Biodiversity section of the Scoping Report.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	Capital Investment Plan, which could sit alongside the Nature Recovery Network map and identify the areas within Oxfordshire where investment in enhancing Oxfordshire's Natural Capital could protect and enhance the ecosystem services on which we depend. Also, work done previously to identify Conservation Target Areas should be included. These are the spatial representation of Oxfordshire's strategic approach to Biodiversity.	
	Q3: They would like to see Conservation Target Areas included in the baseline information for the SA. It is not clear whether LUC's 2016 'Review of Environmental Sensitivity in Oxfordshire' is formally part of the baseline information. The maps in it and datasets which they are based on should form part of the evidence base. They note that the maps are more extensive than the features listed in **paragraphs 3.87-3.91** of the SA Scoping Report. As mentioned above, they would like to see a Nature Recovery Network map developed to highlight where habitat should be created to improve ecological connectivity. Baseline information should be regularly reviewed and updated so that it can be relied upon. Up-to-date quality data is available from the Thames Valley Environmental Records Centre (http://www.tverc.org/cms/). 'The State of Nature in Oxfordshire 2017' (https://www.wildoxfordshire.org.uk/stateofnature/) provides additional information that should be included in the baseline information.	Conservation Target Areas are now referenced within the Biodiversity section of the Scoping Report. In addition, with regards to the State of Nature in Oxfordshire 2017, it has now been included. Figure 3.12 illustrating Oxfordshire's environmental sensitivity in 2016 has been removed in light of the more recent environmental evidence and data set out in other sections of the SA Scoping Report Baseline. It should be noted that the baseline information will be updated at every stage of the SA process.
	Q4: They welcome the commitment to net gain in biodiversity but, as outlined above, it needs to be clearly defined and specified and a target set. They believe that the JSSP should be accompanied by a Natural Capital Investment Plan that would identify the impacts of JSSP proposals, opportunities for mitigation and investment so that Oxfordshire's natural capital and its role in providing ecosystem services is taken into account in decision-making. This Natural Capital Investment Plan would be supported by a Nature Recovery Network map (as outlined in our response to Q3).	Noted.
	Q5: There is a clear objective (no. 13) to conserve and enhance Oxfordshire's biodiversity and geodiversity with sub objectives. They make the following comments regarding SA objective 13. They welcome the recognition of designated and non-designated natural habitats and biodiversity, that the condition of designated sites must be maintained, and recognition of the indirect impacts of development on biodiversity assets: noise,	Please note that biodiversity net gain has been added to paragraph 4.23. In addition, information regarding priority and irreplaceable habitats have been

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
176	vibration, light pollution, air pollution and increased visitor numbers. However, they would argue that sites in unfavourable recovering condition should continue to improve. The SA summarises designated sites in **Table 3.18** does not cover Priority Habitats or Irreplaceable Habitats (e.g. Ancient Woodland). The value of Local Wildlife Sites must be recognised in all areas of Oxfordshire if net gain is to be achieved, so that they are protected to the same level as SSSIs. If the value of Local Sites isn't adequately recognised, then there is a danger that these sites will continue to be damaged and lost. It is noted that Local Wildlife Sites are afforded policy protection in Local Plans but want to ensure they are actually protected in practice through the decisions taken. The impact of Brexit on regulatory regimes and environmental standards is uncertain. They support that the JSSP 'can seek to safeguard and improve not only designated sites, but the ecological networks and supporting habitats that support them and their species'. The work done in LUC's 2016 'Review of Environmental Sensitivity in Oxfordshire' to create a series of maps to illustrate by environmental theme (including biodiversity and geodiversity assets, and community and greenspace assets) how susceptible land was to change across Oxfordshire is welcomed. The map combining all the themes highlights the challenge in delivering large-scale growth in Oxfordshire in an environmentally sustainable way. The use of the Environmental Sensitivity Maps are supported and a good start but the maps of biodiversity and geodiversity assets and community and greenspace assets need to be further developed into a Nature Recovery Map for Oxfordshire. This will provide certainty and cost savings for developers and enable decisions to be based on high quality, robust spatial information, backed by clear and consistent policy processes to help to help developers before they submit their planning applications. This allows biodiversity impacts to be considered at the earliest possible stage and the mitigation hierarchy (covered below) to be applied properly, avoiding damage to important sites and species and reducing costly delays. These maps would help developers to understand the potential level of risk and impact resulting from their proposed development, before committing resources on up-to-date surveys to support a planning application. These maps could also identify the contribution, in terms of habitat-type, that development sites could make. **Achieve net gains in biodiversity** Support the commitment to net gain in biodiversity, but there should be clarification as to what this actually means as mentioned in Q1.	added to the Biodiversity section of Chapter 3 of the SA Scoping Report. With regards to Figure 3.12 illustrating Oxfordshire's environmental sensitivity in 2016, please note that it has been removed in light of the more recent environmental evidence and data set out in other sections of the SA Scoping Report Baseline.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	A mandatory approach for net gain should be underpinned by a standard metric for measuring the impact of development on biodiversity. They recommend using the Defra metric, or a locally agreed metric derived from the DEFRA metric, as an agreed and standard metric to assist with delivery of real, measurable, transparent and objective net gain. The net gain commitment must apply to all development, including commercial and academic development as well as infrastructure; otherwise an overall net gain in biodiversity will never be achieved. The Oxford-Milton Keynes – Cambridge Growth Corridor is proposing 'net gain' but there are no further details yet. Concerned that the key sustainability issues list (**4.23**) does not refer to the need for biodiversity net gain to be mandated to halt biodiversity loss, a Biodiversity 2020 goal.	
	Q6: SA Objective 11 (To protect Oxfordshire's soils and ensure efficient use of land') refers to supporting brownfield development ahead of greenfield development. A significant number of brownfield sites have high levels of biodiversity value and or features of interest, especially early-successional species on what are often under-surveyed sites. Some brownfield sites also have value as buffers to designated sites, connecting habitat and providing access to nature. This should not be overlooked in any assessment of their value. There is no reference to overheating or microclimate or urban heat island effect in the Climate change section (**S3.59-3.61**). This can affect habitats and wildlife. There is no reference in the Water resources and water quality section (**S3.62-3.66**) to Thames Water's proposed new reservoir near Abingdon. There is no reference to Sustainable Drainage Systems (SuDS) in the Flood risk section (**S3.67-3.72**) The SA refers to several areas where further information will be provided in later stages of the SA process, e.g. biodiversity, fauna, flora. They look forward to seeing this in due course. Habitat Regulations Assessment will be required. This should be done at a time where it can usefully inform the JSSP as it develops.	With regards to SuDS, paragraph 3.109 refers to the incorporation of SuDS into new development. With regards to climate change, urban heat island has now been referenced in paragraph 3.90. With regards to water resources, the South East Strategic Reservoir is now referenced in paragraph 3.100. Please note that a separate HRA is being completed alongside the local plan, and will be used to inform the SA as relevant.
CPRE Oxfordshire	**Q1:** CPRE Oxfordshire believes that there is a failure to acknowledge or discuss in any detail the ambitious growth proposals underlying the Oxfordshire Plan 2050, and the fact that to a certain extent it is a self-justifying proposal – in other words the Plan needs to exist to mitigate its own effects. The Scoping Document should be revised to include: 1. A vision that reflects a strong ambition not just for environmental protection, but also environmental improvement.	Please note that consideration of cumulative impacts will be addressed later on in the SA process.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
178	2. 2Meaningful information about current trends and rates of change, not just static information (an approach far more closely aligned with what the SEA regulations require). 3. Appropriate analysis of the interactions between different SEA environmental topics and the indirect and cumulative issues arising. 4. Clarity on the context in which objectives are being assessed – where does the Oxfordshire Plan 2050 sit in relation to other projects that may be 'imposed' (such as the Ox-Cam expressway) and whose needs take priority (existing v future Oxfordshire residents? Oxfordshire needs v needs of UK as a whole?) Pre-existing local and strategic plans severely restrict the ability of the SA/SEA to ensure that the different effects on the environment of different options can be positively considered in drawing up options. The Oxfordshire Plan 2050 is being drawn up reflecting and implementing local, minerals, waste and transport plans that are already adopted or well advanced, together with a Strategic Economic Plan that has not been subject either to SEA or public examination. In terms of alternative approaches to development, this means the Oxfordshire Plan 2050 is highly constrained and for the first 15-20 years is not proactively shaping development planning. Whilst the Sustainability Appraisal process is a largely paper exercise to make sure that procedures are in place to balance economic, social and environmental objectives, Strategic Environmental Assessment is far more concerned with predicting real-world environmental change likely to arise from the scale, character and broad location of proposed development. In this case, foreseeing the effects of the JSSP so far ahead is particularly challenging. The emphasis should therefore be on the iterative process, taking historical trends and the likely speed of their acceleration in the context of a step-change in the scale and extent of development, in order to start to define real objectives. As it stands, they are concerned that the proposed scope is inadequate for the scale and timeframe of the proposed Oxfordshire Plan 2050.	
	Q2: The SA report will need to be much clearer about the legal status of the Plan, what weight it will carry and how it will influence decision-making under other plans (for example, in decisions relating to the Oxford-Cambridge Expressway and growth corridor). The coverage of environmental protection objectives is weak, focussing on local plans, but with no mention of relevant environmental guidelines, or the over-arching framework set by international treaties, UK statutes and regulations, national sectoral policy and sub-regional sectoral policies and plans.	Please note that national and international policies, programmes and plans are included within Appendix 2. With regards to Table 2.2, the phrase 'where possible' has been erased.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
179	For example, omissions include: Environmental guidelines relevant to Oxfordshire & its Districts – Landscape character assessments of the County, each District and each AONB and associated strategies and guidelines – District design guidance – Oxfordshire's historic landscape characterisation – Oxford City Council's heritage plan – Archaeological research agendas (Solent, Thames and Oxford City) – Oxfordshire biodiversity action plans Planning Frameworks (some statutory) – Regional and local health planning – Thames Water and river Catchment Management Plans – AONB Management Plans (Cotswolds, Chilterns, North Wessex Downs) Legislation that includes environmental objectives – CROW Act – Listed Buildings & Conservation Areas Act and other heritage legislation – Environment Protection Act – Environment (Principles and Governance) Bill International conventions – UNESCO: World Heritage - Council of Europe: Florence, Valetta, Granada.	

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
180	**Paras 2.1.3-2.1.5 -** reference should be made to the statutory legal duties and obligations that underpin these environmental objectives. These are far more binding than 'the environmental, social and economic objectives contained within international and national policies, plans and strategies' referred to which are themselves shaped by such statutory requirements. The primary reference here should be to the relevant statutory duties (e.g., CROW Act, NERC Act, Listed Buildings and Conservation Areas Act and other Heritage legislation). **Table 2.2** – Land – should include 'Preserve the openness and permanence of the Green Belt' (in line with national policy) – 'Where possible, safeguard historic assets including their setting' falls a very long way short of statutory duties and NPPF to have special regard to and give great weight to preserving designated heritage assets and their settings. The phrase 'where possible' and complete absence of any reference to designations is seriously misleading and clearly undermines the statutory importance of safeguarding historic environment. There is no mention of historic landscape character. **Appendix 2** also omits key statutory provisions and duties, notably the complete absence of any reference to heritage legislation and designations and the statutory duties that apply to listed buildings and conservation areas; also with regard to landscape, the absence of any reference to the CROW Act and the duties to conserve and enhance natural beauty; and for biodiversity the absence of the existing duties to enhance as well as conserve biodiversity and the draft legislation designed to strengthen these duties. Overall, these omissions mean that the environmental objectives have not as yet been sufficiently well defined to be consistent with the overall framework within which the Oxfordshire Plan 2050 must operate.	
	Q3: To understand the likely effects of the Plan, it is essential to apply the experience of actual past change as a key part of the baseline within an ever-changing scenario. Concerned about the static approach taken: the 'current state of the environment' can only mean the current trends in environmental change, not static lists of environmental resources and designations. **Para 3.3:** Scoping out topics 'because the location of development will not affect those issues' is both unsubstantiated and fraught with danger given that significant cumulative or indirect consequences may well arise. There is no evidence at all that the potential for such effects has been considered.	Please note that additional information has been added to Chapter 3 of the SA Scoping Report based on the comments relating to specific paragraphs where available, with special regard for current and future trends. In regard to scoping out topics from the SA, waste has been scoped out since it is

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181	**Para 3.5 -** Covering the whole county as if equally affected manifestly distorts the assessment and is bound to result in a substantial under-representation of the significance of effects. It also badly distorts the baseline information, by implication treating the environment as changing uniformly whereas that is far from true. The SA will need to consider which areas are likely to change most and hence where environmental effects are likely to be most significant. This also reinforces the point made above about why the baseline information waste must be trend-based. Without addressing these issues, the baseline information will be inadequate to support any realistic assessment of the effects of the Oxfordshire Plan 2050. **Para 3.8** states that "improving the connectivity on this corridor, through East-West Rail and the Oxford to Cambridge Expressway projects, is a key ambition for Oxfordshire". However, the opinion of the people in Oxfordshire is not yet sought on this; the vision and benefits are not yet defined or proven. **Paras 3.9-3.14** Population issues - The pressure of growth is not evenly spread across the county or districts as the tabulation and lack of detail might be taken to imply. **Para 3.19** claims that 'New development near to deprived neighbourhoods can help to stimulate regeneration in those areas.' They note that the opposite statement could also be true, for example loss of accessible green space could exacerbate environmental issues and have a negative impact on health and wellbeing . **Para 3.20** – the truly remarkable Oxford centric nature of this paragraph is concerning and sets the tone for relegation of more rural parts of the county, and the rural economy, to second place in both the OxPlan and any sustainability assessment. **Table 3.3** – Key sustainability issues in relation to population: – This should clearly make reference to the environmental implications arising from increased development/population growth. - Economic growth may reduce inequalities, but it may also increase them. 'The JSSP provides an opportunity to reduce car use' – only in terms of marginal limits on the overall dramatic increase implied by the growth strategy as a whole. **Paras 3.25-3.54 –** as with population above, concerns about the sections on housing, employment and transport, all of which fail to acknowledge that implications may not be equally felt across the county and that there are significant environmental implications arising from increased development. **Table 3.6** – Key sustainability issues for housing:	dealt with under the Oxfordshire Minerals and Waste Plan and the Oxfordshire Plan 2050 will provide sustainable construction and design opportunities which is considered under SA objective 7. Please note that Figure 3.12 illustrating Oxfordshire's environmental sensitivity in 2016 has been removed in light of the more recent environmental evidence and data set out in other sections of the SA Scoping Report Baseline.

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182	– The additional scale of demand arises from growth targets, on top of Objectively Assessed Need, and is being imposed through the Growth Deal – This is the only factor that is likely to prevent local authorities keeping pace with demand. – The statement that house prices will continue to rise without the JSSP needs to have appropriate supporting commentary if it is to be considered seriously. Conversely, the statement implies that with the JSSP, house prices will fall. This is vanishingly unlikely given that developers are only incentivised to build at a rate that maintains their margins and that on any given day, the market is set by existing housing stock rather than new-builds. **Table 3.7 –** Key sustainability issues for Economy & Employment: – The sustainability of the current job market in Oxon seems to be quite robust. The impact on other areas of the UK from investment in Oxon/the JSSP is not explored. Attracting people to the area is not going to help sustainability in other parts of the country and could provide a localised "brain drain", further depressing some regions/making them less attractive for investment. – Specific opportunities for low and unskilled workers needs to be recognised. Should reference the rural and agri-economy, especially in the context of the 25 Year Environment Plan, new agri-environment schemes and post Brexit. – The statement that the "JSSP provides the opportunity to focus planning and investment on key economic sectors and strategic corridors and locations, supported by sufficient infrastructure to provide the conditions to make Oxfordshire's economy competitive" raises a number of questions. Who are we competing with and will sectors or areas that are less key or relevant to priority growth areas be omitted from investment, thereby increasing an economic and social gap between areas in Oxfordshire or between Oxfordshire and elsewhere in the UK? **Paras 3.55-3.58 –** Air quality – Table 3.10 should make it clear what the current trend is (improving or worsening). **Paras 3.59-3.61 –** Climate change – Table 3.12 should make it clear what the current trend is (improving or worsening). **Paras 3.62-3.66 –** Water – This one issue alone is significant in any appraisal of the long-term sustainability of large scale growth ambitions for the county and brings into question the focus on growth on this one highly stressed area. There is no indication of whether water quality is getting better or worse, or why, nor the projected rate of growth in demand for water (not just in Oxfordshire but in other areas supplied by Oxfordshire resources). While increasing need to treat waste water is	

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183	mentioned, there is no indication of either the projected capacity of existing infrastructure to cope with increasing demand up to 2050, or alternative means of addressing the problem though already proven water recycling methods which could greatly relieve environmental impacts. **Paras 3.67-3.72 -** Flood risk – this section should include evidence about how much development has been occurring in flood-risk areas; what additional run-off is already being experienced from new development; the nature of such development (housing roads, minerals etc) which have very different implications; and whether land is allocated for future development in flood risk areas. **Figure 3.4** makes no attempt to show flood risk relative to the pressures of development, and there is thus no indication of actual locations where problems are most likely to arise. This section on flood risk therefore currently falls short of the baseline needed to meet SEA requirements properly. **Paras 3.73-3.77 –** Soils – information is required on the current rate of loss of agricultural land to development, what proportion of this is best and most versatile and whether the rate is increasing or slowing down, and how that trend is due to change because of existing development allocations and projections. The cumulative effect of existing plans has never been calculated but is clearly ascertainable in reasonably accurate terms from the totality of all different land allocated/safeguarded or implied from projected demand. The baseline evidence for the environmental effects related to soils and best agricultural land is thus inadequate to meet SEA requirements. **Paras 3.78-3.86** – Minerals - This section concerns only the need to ensure an adequate supply and not to sterilise important mineral resources through other forms of development. It says nothing about how far Oxfordshire minerals are underpinning development outside the County or the many environmental effects of mineral extraction, including cumulative and indirect effects on landscape, biodiversity, archaeology, historic landscape character, heritage settings, water and a further raft of effects indirectly arising from needs to provide adequate transport links. An absolutely crucial consideration for the Oxfordshire Plan 2050 is how far and at what stage new areas for mineral extraction need to be opened, with all the consequential implications for new infrastructure as well as major direct land take, introducing serious environmental effects for the first time to hitherto relatively unspoilt landscape and still coherent archaeological landscapes. A further major issue not considered is how far the demand for non-renewable natural mineral resources can be reduced in favour of better, more sophisticated recycling of aggregates, both within the county and beyond. This baseline evidence is currently inadequate to address the environmental impacts of mineral exploitation, falling a long way short of SEA requirements. **Paras 3.87-3.89** – Biodiversity – this section requires evidence of past and current trends in habitat and species loss or gain. Although such trends are variable among different habitat types, and species of fauna and flora, a great deal of information is	

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184	available that has not been cited. The Wild Oxfordshire's report on the state of Oxfordshire's wildlife should be included. The scope is not only at odds with DEFRA's 25 year plan but also fails to address the most sensitive aspects of Oxfordshire's wildlife which is the steady depletion of habitats and species. As it stands this baseline is entirely inadequate to understand properly the trends and where the Oxfordshire Plan 2050 could have a real influence and this does not meet SEA requirements. **Paras 3.92- 3.97** - Heritage - the numbers of designated heritage assets is an almost meaningless piece of information: what matters much more is the pressure on the historic environment and most of that arises in connection with the overall historic character of the landscape, changes to the character and setting of conservation areas and loss of archaeological remains – the latter having knock-on effects in terms of services to conserve and curate archives generated by development-led archaeology. As with biodiversity, it is thus impossible to gauge from the so-called baseline presented how far future development will add to ongoing trends of loss and degradation of historic character and how far the richest and/or rarest surviving character will be under pressure. Although the importance of Oxford's heritage is recognised there is no reference to all the different aspects covered by the City Council's Heritage Plan and the trends that are emerging, especially for example with regard to high buildings. The bland statements in **Table 3.21** do not predict what effects further development under the Oxfordshire Plan 2050 will bring – and where there are degraded areas most ripe for enhancement. This is not an adequate basis to judge the effects of the Plan on the historic environment in any meaningful way, and once again this does not meet SEA requirements. **Paras 3.98- 3.110** – Landscape – this requires trend information about landscape change or pressure relative to nationally and locally designated landscape areas and the Green Belt. The absence of any reference to the Area of Outstanding Natural Beauty (AONB) management plans, guidance and position statements as defining key issues for the AONBs is a major omission. The absence of any attempt to map where the main areas of recent development, allocated development sites, and areas of potential (e.g., for minerals and major infrastructure) against these landscape appraisals is a very obvious gap. Once again **Table 3.22** consists of general statements that do not support meaningful assessment. There is therefore no adequate baseline for properly assessing which parts and characteristics of Oxfordshire's landscape will be most under pressure under existing plans or how the county's landscape can best be conserved and enhanced into the future. **Paras 3.111 - 3.114** - Green Belt – this section does very briefly allude to (though does not quantify or map) historical trends that have seen a significant switch from tight control of development to de-designation to allow development. The assertion that there is currently debate about whether more land should be released for development than those areas removed from the Green Belt in the 1990s by the City Council is misleading and inaccurate: major areas have already been earmarked for	

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185	release in local plans that are adopted or well advanced, and there are other major pressures on the Green Belt land especially related to transport infrastructure and flood alleviation measures. This falls so far short of SEA requirements as to be positively misleading. Although already designated environmental sites are known and recorded, unrecorded ones are not. **Paras 3.115 – 3.123 -** Sensitivity mapping study – the methods adopted by this study to examine some aspects of environmental sensitivity are fundamentally flawed. The report itself stresses its limitations and states "The results of this study are not a replacement for standard planning protocol and the evidence studies undertaken by local planning authorities to inform Local Plans, and its limitations should be recognised" On this basis it clearly should not be used as part of the baseline study for the SA/SEA of the JSSP and instead proper evidence studies (as briefly outlined above for each topic) should be undertaken, starting from a basis of seeking to understand the reality of ever-moving trends of environmental change, not the artificially static, partial and often incomplete and in some cases misleading picture that this scoping report presents. **Para 4.11-4.13 –** this identifies the LEP's Strategic Economic Plan as "the key driver for local economic growth in the future". There has been no consultation on this. This objective is not one arising from within the JSSP process, but from an associated initiative and the adoption of that particular objective has yet to be tested. If adopted for the strategy, the SA needs to ensure that there is clarity on what benefits the objective is going to deliver against which the impact can be assessed. **Para 4.17-4.18** – The SA should take the probability and practicality of any required funding for any mitigation measures into account in its modelling and assessment, and any risk should be a limiting factor to the scale of proposed growth.	
	Q4: **Green Infrastructure Strategy** As noted at **Para 4.2,** the Oxfordshire Infrastructure Strategy in 2019 identified the lack of a green infrastructure strategy for the county. They are pleased that the Oxfordshire Plan (Para 2.3) intends to rectify this. Given the critical nature of this strategy, we believe that the Scoping Document should clearly identify this as a current gap in the baseline information and ideally explain how local authorities are intending to remedy this, in advance of considering spatial development proposals.	Noted. These comments have been reviewed and relevant changes have been made to the SA Scoping Report where considered appropriate. With regards to light pollution and dark skies, additional information has been added to the sections on landscape and biodiversity. In addition, it will be

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	Light Pollution & Dark Skies The Oxfordshire Plan 2050 could make a step change to a far more proactive co-ordinated effort to ensure that a consistent strategic and robust approach is taken to enhancing dark skies. In addition to being a key aspect of natural beauty (as recognised in AONB management plans) dark skies are important for wildlife, heritage settings and human health. Light pollution has become an increasingly serious problem. Although all Oxfordshire's districts have light pollution policies, hardly any have proactive dark skies policies that seek to reduce existing light pollution, and the county transport plan has no policy (although highways are a key contributor to rural light pollution). The Oxfordshire Plan 2050 could make a step change in the approach to this issue. **Tourism** As an area with both international and many nationally significant attractions, the ability to accommodate visitors in a sustainable way without harming the very assets they come to enjoy is a key issue for the next 50 years and one that currently is not properly addressed in local and transport planning. This is another cross-cutting issue related to landscape, cultural attractions events, heritage and museums. Tourism is generally seen as an undiluted benefit in terms of the local economy; it is already rapidly growing and there are ambitious plans to increase tourism in Oxfordshire further. But this cannot be achieved without environmental cost and there are already cases where there are problems of capacity. **Para 4.24** – currently lacks any reference to environmental studies, guidance, management plans and position statements. As well as referring to the statutory consultation bodies such as Natural England, it would be appropriate to mention the non-statutory organisations/voluntary bodies (often supported by these agencies) that undertake vital professional work that could helpfully inform the Oxfordshire Plan 2050, including organisations such as RSPB, Wild Oxfordshire and CPRE. However, as it stands, it fails to identify what already exists or future requirements to enhance environmental information to provide a much better platform to understand and manage change.	addressed under the SA framework by SA objective 8. With regards to tourism, additional information regarding the natural and rural assets of the county has now been referenced within the economy and employment section of Chapter 3. With regard to paragraph 4.24, non-statutory organisations are now referenced.
	Q5: Concerned that there is a complete absence (see for example **Paras 4.25-4.27**) of discussion of the step change in pressure on the environment likely to arise from the Growth Board's ambitions for economic expansion. This may be what is expected of sustainability appraisal, but it is not what the SEA regulations require, which is a picture of actual change and what measures will be required to avoid, reduce, minimise or offset harmful effects or maximise benefits. Assessment of environmental effects cannot be sound and adequate if the baseline is not robust. Unfortunately, the SA objectives and appraisal questions do not meet SEA requirements.	Noted. These comments have been reviewed and relevant changes have been made to the SA Scoping Report where considered appropriate. The use of SA objectives and the 'traffic light' approach to illustrating predicted sustainability effects is tried and tested,

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187	In particular: – The objectives do not cover all the topics required be SEA e.g. archaeological issues – The requirement to look at interactive effects amongst the topics is not considered (see comments above on water, soils, tourism etc). The appraisal questions as posed fall a long way short of the SEA requirement to consider '(f) the likely significant effects* on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. (*These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.)' But some questions also serve to emphasise some of the clear shortcomings of the baseline identified above. ■ For biodiversity, there is no read-across to the Government's 25 years plan, established biodiversity target areas and habitats, and the general aspiration to 'safeguard' locally and nationally designated assets and habitats makes no reference to the need to enhance them; no reference is made to threatened species, nor what an 'overall net gain in biodiversity' means. Once again the baseline as presented simply does not allow these questions to be addressed meaningfully or for a monitoring framework to be established. ■ In relation to heritage there is no mention of undesignated archaeology– the heritage resource arguably under greatest pressure of development (and often of regional and not infrequently national importance). The laudable question of whether the Oxfordshire Plan 2050 will encourage conservation management and enhancement of the County's heritage assets particularly heritage at risk and historic landscapes [added emphasis] highlights the yawning gap in the baseline evidence that makes no mention of either heritage at risk or historic landscape character. ■ It is noticeable that the landscape questions make no reference to enhancement despite this being part of the statutory duty for AONBs. Once again, including special views of and from Oxford here belittles the real point that the Oxford skyline composed of major listed buildings within Conservation Areas is an internationally significant cluster of designated heritage assets whose setting is a statutory consideration requiring 'special regard' and 'great weight,' not merely a locally designated set of 'special' views. The standard 'traffic light' approach to SA may be fine for the largely self-fulfilling process of sustainability appraisal of objectives and policy options, but it is most unlikely to fulfil the requirements of the UK SEA process in which actual changes	and has not been found unsound by Inspectors to date. With regards to the SA objectives, archaeology is now specifically referenced and will be addressed by SA objective 14. Please note that the SA will take account any cross boundary impacts and include an assessment of cumulative effects. With regards to biodiversity, conservation target areas are now referenced and the SA appraisal questions now include the safeguarding and enhancement of biodiversity assets. With regards to landscape, enhancement is now referenced within the SA appraisal questions.

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188	for good or ill need to be predicted as far as reasonably practical – taking account of the complex interactions between different aspects of the environment. Especially in the context of the severe shortcomings of the baseline data presented here, this approach is likely to be very poor at achieving the requirements of SEA to identify and where possible describe (and preferably quantify) the likely effects on the environment. In particular, it is very unlikely to identify as required the impacts on areas most likely to be affected significantly by the development facilitated and promoted by the Plan. **Further comments on specific objectives:** SA 3 Communities – Infrastructure should be appropriate and timely – Need the right type and tenure of homes to reflect local need - Respect for the rate and capacity of a community to grow without damaging social cohesion – Respect for the character, culture and ethos of a community. SA 5 – Employment – Generate opportunities for lower-skilled – Invest in and enhance rural, agri and tourism-based economies – Ensure a gap does not emerge between areas of high investment (City and Arc) and other parts of the (rural) county SA6 – Car travel – Needs a reference to the issue of through travel. SA7 – Climate change – Fails to reference the Oxford-Cambridge growth corridor and expressway, which will have significant impact. SA15 – landscape character – The character and distinctiveness of Oxfordshire's settlements needs to encompass not only the visual, but also the social and cultural aspects.	

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	Q6: Our over-riding concern is that because of the fundamental problem of not looking at either historic trends or emphasising current trends (for better or worse), no evidence is presented as to which issues present the greatest challenges and which the greatest opportunities. Therefore, consider the process inadequate to assess or address the major long-term environmental pressures and opportunities that confront Oxfordshire in the next 30 years.	Noted. Many amendments have been made to Chapter 3 of the Scoping Report to address CPRE's (and other consultees') detailed comments above.
Member of Public	See CPRE Oxfordshire representation above.	See responses above.
Member of Public	Resident of Forest Hill who agrees with CPRE Oxfordshire's representation, see above.	See responses above.
Member of Public	See CPRE Oxfordshire representation above.	See responses above.
Need not Greed Oxfordshire	**Q1:** **a)** The scale and likely impact of existing growth plans needs more open discussion. More clarity is required on whether the central tenet of the strategy – growth & development – is appropriate in the first place. The scale of influence by Government and other strategies, outside the scope of the Growth Board and Oxfordshire elected bodies, is acknowledged (**para 2.5**) but not defined. Concerned that the Oxford-Cambridge growth corridor and expressway appears to be accepted without question, despite the fact there has been no public consultation, parliamentary scrutiny or environmental assessment. **b)** There is little clarity on how emerging evidence will have influence on decision-making, especially about growth. Any mitigation, spatial planning and infrastructure investment must not lose sight of the wider impacts and cumulative effects both within the county and to the wider UK. This is not clear in this document, or in other information emerging from the Growth Board. **c)** There needs to be greater clarity on whose needs take priority and what the wider social or environmental impacts of this are in the SA/SEA. Many of the questions asked in the document are good ones, and the setting of a vision and objectives is welcome, but it is not clear yet as to how the vision and objectives will be used, how the objectives are to be assessed, and whose needs will take priority. The document does note that the SA will consider impact across time and outside of the county (**para 1.15**) but this does not address the point being made here whereby asking for the context of the objectives being assessed to be made clear.	c) and d) Chapter 3 of the Scoping Report sets out the baseline for the SA, which has in turn informed the key challenges and sustainability issues identified in Chapter 4 and the SA Framework in Chapter 5. The SA Framework will be used to appraise the significant effect of the plan and its reasonable alternatives. No weighting will be applied to the issues and opportunities identified within the SA Framework. e) The baseline will be updated at each stage of the SA process. g) The baseline chapter includes a section on climate change, which has now been added to. Effects of the plan on climate change will be assessed via SA objective 7.

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190	**d)** There needs to be clarity on how evidence will be analysed and objectives balanced against each other. **e)** There is a risk the SA scope will not match the Plan. The document notes that SEA Regulations require "an outline of the contents and main objectives of the plan or programme and of its relationship with other relevant plans and programmes". Given the tight timescales and the lack of opportunity for meaningful, iterative consultation discussion, there is a concern that either the outcome of any SA will not match the resultant strategy (and risk the Plan being considered unsound) and/or that the SA will be ineffective, leading to unsustainable practices. **f)** Omissions in these documents, such as an explicit understanding of the interface with the 25 year Environment Plan, or commitments to the rural and agri-economy, heritage and cultural capital, are reflected in their absence or minor role in this document. Specific additional concerns include the fact that some more recent changes in rhetoric or discussions at Growth Board are not reflected in the consultation document. Note that Para 2.3 explains areas for which the JSSP will provide, but omits energy and natural environment, listed in the original Scoping Document. The apparent lack of technical skills on sustainability matters embedded in the OxPlan structure and processes (such as it is for Healthy Place-Shaping) is a further risk to the process. **g)** The document as it stands fails to give sufficient priority to Oxfordshire's urgent need to reduce its carbon emissions in the coming decades. The scope needs to consider the 25 year Environment Plan and latest Climate commitments and agreements, fails to set any ambitious framework. Concerned that climate change is not mentioned enough throughout the document. The scoping report talks generally about the need to 'Promote energy efficiency', 'encourage' the provision of renewable energy 'where possible' and 'minimise' greenhouse gas emissions from transport. There are sections on strategies for growth, infrastructure, place-making and more. Nowhere is there a strategy for carbon emission reduction. This Scoping Report needs to be drastically restructured. Tackling the threat of climate change should be a central goal for this Plan and the Sustainability Appraisal must lead work towards that goal. **h)** Some specific comments on **Table 2.2** Sustainable Development Messages – Economy – 'facilitate building competitive economy' – If the goal is for net gain to the UK, then this should be explicit and benefits (or detriment) to other areas – including indirect effects such as the re-focusing of investment away from them – needs to be in the scope of the appraisal. – Transport – NNGO believed that the whole purpose of the JSSP was to ensure an integrated strategic spatial plan. Disappointed that the update of the Local Transport Plan has been separated out from this process and would urge that this decision is re-considered.	h) Please note that the Scoping Report contains a section on Green Belt below the section on Landscape. The rest of this comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

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191	– Land – a clearly stated hierarchy of types of land appropriate for development is required. The whole ecosystem services value of the land needs to be considered, not just specific qualities. – Biodiversity – this section is overly focused on designated habitats and assets and should be broadened out to reflect wider natural systems. – Landscape – specific mention of the Green Belt is required.	
	Q2: ■ Wild Oxfordshire's Oxfordshire State of Nature report ■ Landscape character assessments of the County, each District and each AONB and associated strategies and guidelines – incl. AONB management plans ■ District design guidance ■ Oxfordshire's historic landscape characterisation ■ Oxford City Council's heritage plan ■ 25 Year Environment Plan ■ Glover Report on designated landscapes ■ Healthy place shaping ■ DEFRA biodiversity metrics ■ Oxfordshire Strategic Environmental Economic Investment Plan	The relevant documents have been added.
	Q3: Concerned that the document focuses on mapping a static picture of the current situation rather than detailing current trends and rates of change. To adequately fulfil the demands of a Strategic Environmental Assessment (predicting real-world environmental change likely to arise from the scale, character and broad location of proposed development), the emphasis should be on the iterative process, taking historical trends and the likely speed of their acceleration in the context of a step-change in the scale and extent of development, in order to start to define real objectives.	Noted. Additional information regarding current and future trends is now included in Chapter 3. The rest of this comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
192	**a)** **Para 3.8** states that "improving the connectivity on this corridor, through East-West Rail and the Oxford to Cambridge Expressway projects, is a key ambition for Oxfordshire". However, the opinion of the people in Oxfordshire is not yet sought on this; the vision and benefits are not yet defined or proven. **b)** **Population characteristics** the assumption that growth of the county as a whole would address areas of deprivation is not necessarily a consistent argument. **Para 3.19** notes that new development near to deprived neighbourhoods can stimulate regeneration. Careful spatial strategy, growth and investment may deliver improvements to these neighbourhoods and that would be most welcome, but the impact of focusing infrastructure and other investment away from other areas of the county, or a primary focus on "high quality" jobs or a knowledge-based economy, should be carefully considered such that new societal pressures are not created. The Oxford centric nature of **Para 3.20** is concerning and sets the tone for relegation of more rural parts of the county, and the rural economy, to second place in both the OxPlan and any sustainability assessment. Specific comments on **Table 3.3**: - It should be stated that the opportunities for economic growth and development will "help to reduce the inequalities" but they may also increase them if prices increase due to the attractiveness of an innovation hub with high wage jobs etc. - The statement regarding reduced car travel fails to mention the impact of the JSSP and associated strategies on through traffic. **c)** Housing Specific comments on **Table 3.6:** – The additional scale of demand arises from growth targets, on top of Objectively Assessed Need, and is being imposed through the Growth Deal – this is the only factor that is likely to prevent local authorities keeping pace with demand. – The statement that house prices will continue to rise without the JSSP needs to have appropriate supporting commentary if it is to be considered seriously. Conversely, the statement implies that with the JSSP, house prices will fall. This is vanishingly unlikely given that developers are only incentivised to build at a rate that maintains their margins and that on any given day, the market is set by existing housing stock rather than new-builds. **d)** Economy and Employment Specific Comments on **Table 3.7**: – The sustainability of the current job market in Oxon seems to be quite robust. The impact on other areas of the UK from investment in Oxon/the JSSP is not explored. – High value sectors are again specifically mentioned. Other community investment is acknowledged, but specific opportunities for low and unskilled workers needs to be recognised. The role of the rural and agri-economy should	programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

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193	also be highlighted, especially in the context of the 25 Year Environment Plan, new agri-environment schemes and post Brexit. Local food production and reduction of food-miles is essential if Oxfordshire is to play its role in developing a sustainable national model. **e)** Transport Specific comments on **Table 3.9:** – The Local Transport Plan (LTP) and JSSP are de-coupled and therefore not reliant on one another. – Investment in infrastructure such as bus networks is welcome but long term modelling of the impact of the (likely) investment into priority areas versus across the county must be considered. – Healthy Place Shaping should be included if it is now indeed embedded in the strategy. The 25 Year Environment Plan must be considered against many objectives. **g)** Climate Change In addition to our previous comments, some specific observations include: – a move to increased use and embedding of renewables and clean energy in development and energy supply in the county is welcome, but impact on other issues, including biodiversity, air quality, long-term waste disposal, tranquillity, land use and landscape need to be carefully considered in the SA – Assessment of the economic costs associated with investments in renewable versus conventional energy systems and low-carbon footprint expenditure, the SA for such should identify if full lifecycle analyses have been undertaken such that the manufacture, maintenance/replacement and long term indirect costs, including health, have been considered. **h)** Water Resources and Water Quality - The limited nature of this vital resource, and its capacity to accommodate more stress, is clearly highlighted in the text (**para 3.62-3.65**). This one issue alone is significant in any appraisal of the long-term sustainability of large-scale growth ambitions for the county and brings into question why a focus on growth should be in this one highly stressed area. A notable issue that has been omitted from the text that should be included is specific reference to the regular discharges of untreated sewage into rivers. Specific comments on **Table 3.14**:	

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194	– The JSSP may well help locate development in less water stressed areas, but the basic premise that it is delivering growth over and above that which is currently organically needed means that it in itself is introducing a significant leap in additional stress to the system. – Climate change and land use changes will add further stress to the system and must be factored into modelling/SA considerations. – Infrastructure investment in SuDS etc should not be considered in isolation from longer term maintenance investment, sustainable mechanisms for such and also enforcement costs – Modelling/assessment must look at cumulative effects over time and different system boundaries. **i)** Flood Risk, **Para 3.67** suggests SuDS may help. These are only as good as the long-term structures in place to manage them, and so long term costs and enforcement needs to be factored into appraisals. Specific comments on **Table 3.15:** – Again, the same issue of scale of growth applies. – Changed land use can have local and wider effects on climate, creating a feedback loop further affecting flood risk in the shorter, and longer, term. – Modelling and assessment must take into account of cumulative effects, long term projections of different land use scenarios and offsite and wider region implications over time. Specific comments on **Table 3.16**: – The Growth Deal and effects of other strategies pushing/concentrating a growth strategy on Oxon does add stress to the system and increased demand for land that otherwise would not be there. – The impact or requirements of the 25 Year environment plan and also any new agri-schemes are not yet known and will need to be integrated into the SA process and analysis. **k)** Biodiversity and geodiversity, the strategy and SA needs to recognise statutory commitments to halt biodiversity loss and apply this across all development, cumulatively as well as in staged assessments, in the county. It would also be suitable to dovetail into the work DEFRA is doing regarding net biodiversity gain.	

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
195	Specific comments on **Table 3.19:** – There is a concerning focus on designated biodiversity sites and providing corridors between them. The biodiversity in all natural habitats has an intrinsic value. Green space in built environments can also be important for biodiversity and the presence of animals and plants have direct proven wellbeing and healthy place shaping benefits. – The cumulative effect of different parts of the strategy need to be considered, as well as the impacts of specific developments or projects. – The proposal for a county wide green infrastructure strategy being proposed by OXIS would be a welcome additional consideration. **l)** Heritage Specific comments on **Table 3.21:** – The context and setting of heritage assets are also important factors. – Projections for the impact and effect of cumulative development, and the escalated scale of development and transport infrastructure that the JSSP and associated strategies are introducing to the county, should be modelled and part of the assessment. **m)** Landscape and Townscape Specific comments on **Table 3.22**: – Needs to consider the Glover Review. – The character of landscapes and settlements within it are important also. – Modelling and assessment of impacts of development cumulatively, and at the enhanced scale, and the effects not only directly but in the setting need to be considered. – Dark skies and tranquillity need to be explicit considerations. – The proposal for a county wide green infrastructure strategy being proposed by OXIS would be a welcome additional consideration. **n)** Future Challenges & Key Sustainability Issues **Para 4.11-4.13** refers to global talent, knowledge spine, high value science-related jobs and similar. This objective is not one arising from within the JSSP process, but from an associated	

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
196	initiative and the adoption of that particular objective has yet to be tested. If adopted for the strategy, the SA needs to ensure that there is clarity on what benefits the objective is going to deliver against which the impact can be assessed. **o) Section 4.24** lists a number of plans and programmes. – **4.25** notes the JSSP has a "major role" in setting the spatial strategy and policy framework. It is perhaps notably that it admits it is not a "defining" role. The SA scope will need to evolve and reflect these other influencing programmes more or less as the OxPlan progresses as the degree to which some of them impact, influence – or dictate – the scope and parameters of the OxPlan is still unknown. – **4.26** notes the £215million government funding for infrastructure (para 4.17 noting a gap of £7.14billion) and suggests "the JSSP should help to secure additional funding for the future", but it is unclear in this document if there is any legal commitment for such.	
	Q4: See discussion for previous question above.	Noted.
	Q5: SEA regulations require a picture of actual change and what measures will be required to avoid, reduce, minimise or offset harmful effects or maximise benefits. To achieve this, the baseline information must record trends and rates of change, not just the static picture. Comments are listed below on a number of the proposed objectives: SA Objective 2: ■ Add healthy place shaping/making ■ clarity is required on for what purpose the countryside is being optimised as this fundamentally affects the decisions being made, and sustainability assessments of such. SA Objective 3: ■ Ensure that new development is fully supported by appropriate and timely community, transport and utilities infrastructure and services	Noted. These comments have been reviewed and relevant changes have been made to the SA Scoping Report where considered appropriate, notably healthy place making will be addressed by SA objective 2 and SA objective 15 now addressed the social and cultural importance of the landscape.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
197	■ There should be the addition of a commitment to encourage delivery of the right type and tenure of homes, reflecting the changing age profile of the county and the demography of specific economic sectors targeted for growth/additional jobs. ■ There should be an explicit commitment to respect the rate and capacity of a community to grow without damaging social cohesion, and also for respect for the character, culture and ethos of a community SA Objective 5: ■ there is a need to commit explicitly to growing job opportunities that are not knowledge/high value and will generate opportunities for the lower skilled in the community. ■ there is a need for a commitment to respect and enhance the rural, agri and tourism based economies and ensure a gap does not emerge between areas of high investment (City and Arc) and other parts of the county (rural) or neighbouring counties. SA Objective 6: ■ The whole issue of through traffic is not referred to here and should be. SA Objective 7: ■ The whole issue of some associated projects such as the Expressway are not referred to here and should be. SA Objective 9: ■ Given the specific sensitivity of this issue, the need to assess the cumulative impact of development and growth, and the long-term effects of any scale that is planned, must be explicitly committed to. SA Objective 10: ■ The promotion of use of SuDS must be coupled with assessment, policy and investment in long term maintenance and enforcement of such. SA Objective 13: ■ As described in previous section, ensure biodiversity outside of designated sites is also considered a priority and its intrinsic and other value is understood and protected in decision making at all levels.	

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	SA Objective 15 ■ The character and distinctiveness of Oxfordshire's settlements needs to encompass not only the visual, but also the social and cultural aspects.	
	Q6: Whether the SA Framework is appropriate and includes a suitable set of objectives and appraisal criteria for assessing the effects of the proposed JSSP and reasonable alternatives is further affected by the phrasing used throughout the document looking at what would happen/the implications without the JSSP. This is concerning. Any growth will by its nature put additional stress on certain resources and objectives addressed in the SA document. Therefore, the question used through this document, of what would happen without the JSSP, rather ignores the need for debate about whether growth over and above that required to continue current organic growth, high employment levels and net contribution to the treasury (as already enjoyed by Oxfordshire) is appropriate given any additional stress to resources.	Support noted for the SA report. This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
Member of the Public	See Need not Greed Oxfordshire's representation above.	See above.
West Oxfordshire District Council	**Q2:** The scoping document makes no reference to the following plans and programmes: ■ Local Industrial Strategy ■ Oxfordshire Energy Strategy ■ Oxfordshire Strategic Environmental Economic Investment Plan (SEEIP) ■ Adopted and emerging Local Plans These are important documents and should be included in the scoping document with any key implications drawn out as appropriate. **Table 2.2:** Economy This makes no specific reference to increasing productivity despite this being a key aim of OxLEP. While the need to 'make provision for clusters or networks of knowledge and data-driven, creative or high technology industries' is understood, this invariably seems to bias main employment sites and larger urban areas. The SA should ensure that the needs of the rural economy are also properly taken into account through the JSSP.	Please note that updates to Table 2.2 have been made.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
199	**Table 2.2:** Transport The table should also refer to other non-motorised forms of transport including riding. **Table 2.2:** Population, health and wellbeing The objective to 'take into account the needs of less able people' should be strengthened to 'meet the needs…' The objective to improve peoples' health and reduce health inequalities might also include something about improving access to healthcare, services and facilities. Reference should also be made to meeting education needs. **Table 2.2: Land** An additional point could be added to seek to bring contaminated land back into beneficial use through remediation. **Table 2.2: Climate Change mitigation and adaptation** Promoting energy efficiency could be further specified here to include sustainable design and construction. An additional objective to develop/ensure climate resilience is also needed which should then be reflected in the SA framework itself (see comments below). **Table 2.2: Historic environment** This section could also include 'Promote access to and enjoyment of the county's historic environment'.	
	Q3: **Table 3.3** does not include reference to deprivation and the likely evolution without the JSSP in place. The section on housing should refer to the Oxfordshire housing and growth deal as it is directly relevant to the delivery of new homes in Oxfordshire in the period to 2031. It should also be expanded to include more information on housing affordability e.g., affordability ratios as well as further information on specific housing needs e.g. for the travelling community, older people, self-build etc. The section on economy and employment talks about job creation since 2011 and projected job forecasts to 2031 but does not set out how many existing jobs exist in Oxfordshire to put this in context. Furthermore, whilst it gives a breakdown of the	Please note that Table 3.3 does address inequality and deprivation. Information regarding the Oxfordshire housing and growth deal has been included, including information on affordable housing. Additional information has also been added to the section on Air quality within Chapter 3 of the SA Scoping Report.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
200	County's economic growth by sector it gives no explanation as to how this is predicated to change and what sectors are seen as likely to grow significantly. The section on transport should reference the known congestion that occurs on the A40 for which existing baseline data is readily available. Further information could usefully be made available in respect of current levels of non-car transport across the County i.e., public transport, walking and cycling. The section on Air Quality should make reference to any known issues in relation to European sites of importance including Oxford Meadows and cross reference the need for HRA to determine impacts/mitigation in more detail. Other comments on Section 3 are as follows: **Table 3.19** Biodiversity and ecology (row 1, column 2) Additional impacts of the JSSP in this regard could include benefits for networks that cross local authority boundaries (or should but do not because of those boundaries) and that are not otherwise protected by County or National policy. The JSSP could add further coherence and connectivity to these biodiversity networks which of course should not be otherwise bound by such administrative boundaries.	
	Q4: Although infrastructure provision is identified as a particular future challenge, it should be listed as one of the key sustainability issues to be taken into account during the SA of the JSSP. More could also be said on the requirement to achieve net gain in biodiversity. Additional detail requiring the development of robust metrics to measure biodiversity gain/loss should also be included.	Noted. Relevant information has been added accordingly.
	Q5: As a general observation some of the appraisal questions seem to be more applicable to a district level local plan rather than the JSSP. Thus it should perhaps be reworded to say 'Will the JSSP enable provision to be made for objectively assessed housing need and enable the delivery of a range of types and tenures etc? Similarly, is it the role of the JSSP to provide for sports and recreation facilities other than perhaps in very general locational terms for facilities of any significant scale?	Please note updates have been made to the SA framework. With regards to rural economy, the importance of supporting it is now addressed by SA objective 4. With regards to climate change, SA objective 7 now aims to build climate resilience and promote sustainable construction practices.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
201	In relation to SA objective 4 – the economy, the appraisal questions should highlight the need to increase productivity in Oxfordshire to reflect the aspirations of various county strategies. It should also reflect the importance of the rural economy in Oxfordshire. SA objective 7 should be expanded to include climate change resilience and mitigation, not just reducing the County's contribution to climate change. Furthermore, 'Promote energy efficient design' should also include reference to the use of sustainable construction methods. SA objective 8 should include reference to the potential impact on European sites of importance e.g., the Oxford Meadows SAC. Under SA objective 11 it may be more appropriate to refer to minimising the need for development of best and most versatile agricultural land rather than avoid. Under SA objective 12 - a further appraisal question could relate to the potential for prior extraction of any known mineral resource prior to development.	
Member of the Public	**Q1:** Appropriate, but needs to be more ambitious or aspirational regarding support for new cycling infrastructure along inter urban routes within easy commuting distance of Oxford; Eynsham-Botley/Oxford (B4044) and Wootton-Cumnor-Botley and Wootton- Abingdon (B4017) corridors for example. A commitment to "to increase levels of cycling through targeted improvements to cycling infrastructure" (**page 20 3.47**) is inadequate given that it later acknowledges on the same page that "Cycle routes along inter-urban routes are largely non-existent".	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report.
	Q2: Links to the wider transport plans are noted but they need to link to new local cycling and walking infrastructure plans as part of a more ambitious commitment to a range of measures regarding the climate change section.	This comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report.
Member of the Public	**Q2:** Concerned there is not budget to prepare and execute the plan with. Concerned that the Oxfordshire Plan cannot be made until the route of the Oxford to Cambridge Expressway is published.	Noted.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	Q4: The mistakes of the past need to be corrected e.g. a fully planned road system, reducing air pollution in AQMAs and providing a reliable health service is necessary.	Noted.
	Q6: Concerned that Bicester is in urgent need of modernisation.	Noted.
Oxford Swindon A420 Landowners Consortium	**Q1:** The Sustainable Appraisal scope should steer Oxfordshire's growth needs and development ambition in the Oxfordshire Plan 2050 (JSSP) also towards: 1) Protecting where possible the current Oxford Green Belt and the Area of Outstanding Natural Beauty (AONB) 2) Railway connectivity to Heathrow and other UK airports. 3) The Development and economic growth along strategic transport corridors including the A420 corridor between Oxford and Swindon. 4) The A420 Oxford to Swindon strategic corridor could be an extension of the Cambridge to Oxford Expressway connecting onward along the M4 to Bristol / Avonmouth. 5) Kingston Bagpuize, Faringdon and Shrivenham all have suitable and available land to enable residential and commercial development along this economical corridor. 6) Shrivenham, Faringdon and Kingston Bagpuize would be ideal locations for New Towns. 7) The added benefit is the connection of commerce between Oxford and Swindon, together with producing the shortest and fastest route between them both. 8) Consideration should be given as to whether a railway line from Oxford to Didcot and then onto Swindon. A new railway should be considered between Oxford and the old station at Challow. 9) Consideration should be given to opening stations along this more direct local calling Oxford to Swindon railway line at location such as Cumnor, Kingston Bagpuize, Challow (for Faringdon and Wantage), Shrivenham and Swindon Parkway Station at South Marston.	The SA will identify the significant effects of the Plan and its reasonable alternatives (to be set out in later SA Reports). These effects will be used alongside other material considerations and evidence to make an informed decision as to the most appropriate strategy and planning policies to include within the Oxfordshire Plan.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
203	10) Swindon is an important economic hub which a A420 growth zone could capitalise commercially and take pressure away from the Oxfordshire towns / villages along the A34 corridor and Oxford Green Belt. 11) Please note although the East - West Rail and Expressway projects are focussed on enhancing the latitudinal connectivity between Oxford and Cambridge, no official commitments have been made within the sub areas west of the CAMKOX Growth Arc. There are driving forces from hauliers, major industrial companies and the general population in general to see an increased transport provision and stimulated economic growth along the A420 corridor between Swindon and Oxford. 12) The A420 is the shortest A road route between the Oxford and Swindon. It is currently running very close to capacity and due to the economic success of Milton Keynes and Swindon will continue to be used as the first choice by traffic rather than going the extra 21 miles via the A34 to Newbury. The A420 road therefore needs upgrading, dualling and creating an economic area along its route and will reduce congestion on the A34 and around Oxford. 13) The A420 corridor is now one of the most used Stagecoach coach routes in the UK with the S6 coach running at 20 minute intervals between Swindon and Oxford. 14) The Eastern Development villages of Swindon will build 8,000 dwellings at the western end of the A420 route and in the current VWHDC Local Plan will see over 3,500 new dwellings built along the route. With new Park and Rides proposed at both Cumnor and Kingston Bagpuize, all of which will create without any improvements congestion. Based on the above there is a real economic and commerce requirement for a better road link with new settlements and employment between Oxford and Swindon along the A420 route.	
	Q2: The following plans should be also included: 1) A Plan of the existing Roads and those needing upgrading e.g. A420. 2) A Plan of existing Railway lines / Stations and those needing upgrading or opening. 3) A plan of corridors reserved in adopted Local plans for Highways and Water reservoirs.	Appendix 2 includes the relevant adopted international and national plans, programmes and projects and relevant regional and local plans, programmes and projects are referenced in the main body of the report. The information listed here relates to the evidence informing the baseline of the

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
204	4) A plan of Oxfordshire constrained land (e.g., non coalescence areas around airports, sewer treatment works and gas / oil pipelines. 5) plans of current allocated development sites in the Local Plan both proposed and allocated. 6) Plans of employment locations in Oxfordshire. 7) Topography Plan. 8) Plan of Traffic Congestion at Peak Hours. The following programmes and policies should also be included: 1) The Oxfordshire Local Transport Plan. 2) All of the Cambridge to Oxford Growth Corridor studies and reports. 3) East West Rail Consortium Plan and Department of Transport and Network Rail visions 4) All of the Oxford to Cambridge Expressway Strategic studies and reports. 5) The Government statistics on housing growth and future requirements. 6) A plan of Oxfordshire airports. 7) Volume of vehicles using the A420, A40 and A34 daily.	SA. The baseline has been reviewed in this regard.
	Q3: Please see responses to Q1 and Q2.	Noted.
	Q4 and Q5: Consideration should be considered to develop 3 locations along the A420 corridor between Oxford and Swindon at land South of Kingston Bagpuize, North West of Faringdon and North of Shrivenham.	Noted.
	Q6: Looking at the hierarchy of existing towns and villages, along with the location of the transport links and the constraints plan the following towns in Oxfordshire appear to lend themselves for expansion as some towns are severely constrained by the green belt and the Flood Plain:	Noted.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	Bicester, Banbury, Thame, Faringdon, Didcot, Witney, Wantage / Grove. The following towns have high constraints on future large-scale development environmental / heritage (e.g. World Heritage Site) / land / flood plain / Green Belt classifications (e.g. AONB): Woodstock, Chipping Norton, Burford, Wallingford, Watlington, Henley-on-Thames, Abingdon, Goring, Abingdon, Sonning Common, Charlbury. This leaves the following larger villages which are located on major roads which could be expanded: Steventon, Kingston, Bagpuize, Shrivenham, Southmoor.	
University of Oxford	**Q1:** The University of Oxford welcomes this opportunity to comment on the Sustainability Appraisal Scoping Report for the Oxfordshire Plan 2050 (also known as the Joint Statutory Spatial Strategy). It understands that the purpose of this Scoping Report is to provide the context for and determine the scope of the Sustainability Appraisal (SA) of the Oxfordshire 2050 Plan and to set out the assessment framework for undertaking the later stages of the SA. The University is pleased that the Councils in Oxfordshire have agreed to produce a Joint Statutory Spatial Plan (JSSP), building upon the existing joint working and partnership arrangements through the Oxfordshire Housing and Growth Deal. It is pleased to read that the scope of the Plan will be to identify the number of new market and affordable homes, the level of economic growth and related infrastructure that is needed across Oxfordshire. The University agrees that the scope of the SA is appropriate as set out considering the role of the Oxfordshire Plan 2050 (JSSP) to help meet and manage Oxfordshire's growth needs and development ambition.	Noted.
	Q2: The University would like the University of Oxford Strategic Plan 2018-2023 to be included as an additional plan or programme that is relevant to the SA policy context. This Strategic Plan sets out a framework of priorities for the University, its divisions and departments. The relevant part of its vision is to work to provide world-class research and education in ways which benefit society on a local, regional, national and global scale.	Please note that Appendix 2 contains solely national and international policies relevant to the Oxfordshire Plan 2050 (as required by the SEA Regulations) . Relevant local plans, programmes and projects are referenced in the main body of the report.
	Q3: The University agrees that the existing and emerging baseline information set out in the scoping report provides a suitable baseline for the SA of the Oxfordshire Plan 2050, with one exception. In 2017 the University commissioned a report on the Economic Impact of the University of Oxford. The academic study, research and innovation at the University is the tip of a pyramid that drives the local Oxford, Oxfordshire County and Regional economy. This economic impact report estimated	Relevant information has been added to the Economy and employment section of Chapter 3.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	that in 2014/15 the University of Oxford contributed £5.8 billion GVA to the UK economy, of which £2.3 billion GVA was to Oxfordshire. The report considers how the activities of the collegiate University and its related organisations have contributed to the economy through their activities in 2014/15. The University considers that this report will provide essential evidence to support the baseline economic context for the Oxfordshire Plan, which is set out in the SA scoping report at **chapter 3 paragraphs 3.32 -3.39**. It will also be important evidence to support the analysis of future challenges set out in Chapter 4 especially the section on technology and knowledge at **paragraph 4.9.**	
	Q4: The University considers that there are no additional SA issues relevant to the Oxfordshire Plan 2050 (JSSP) that should be included. It supports especially the inclusion of the following as a key sustainability issue to be taken into account during the SA of the Plan (set out in Chapter 4 paragraph 4.23): ■ The national importance of Oxford and Oxfordshire in providing high quality jobs linked to its research, science and knowledge sectors.	Noted.
	Q5: The University considers that the SA Framework is appropriate and includes a suitable set of SA objectives and appraisal criteria for assessing the effects of the proposed Oxfordshire Plan 2050 (JSSP) and reasonable alternatives. It is particularly pleased to see the inclusion of the following Objectives in Chapter 5 at table 5.2: ■ To meet Oxfordshire's housing needs ■ To support the development of Oxfordshire's knowledge economy ■ To reduce the need to travel by car in Oxfordshire ■ To protect and enhance Oxfordshire's historic environment	Noted.
Wheatley Parish Council	**Q1 and Q3:** The scope of the plan is too Oxford City centric with little or no proposals relating to other large centres of population centres such as Bicester, Banbury, Henley or Wallingford. The scoping report is contradictory in several areas; on the one hand it seeks to reduce traffic and car journeys but proposes to support a major road development that can only bring additional traffic congestion, air pollution and environmental degradation, particularly in the south of the county which contains the highest number of biodiversity designated sites as well as those with cultural heritage designation.	An attempt has been made to include more information on the other districts within Oxfordshire. This rest of this comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	A plan that extends over the next thirty years should not rely on outdated current infrastructure technology in the form of an expressway to facilitate one of its major objectives. The key objective of providing enhanced housing conditions is not dependent upon being "unlocked" by an expressway when the housing that is claimed will be the result is already planned through the various district council's local plans, without any decision or detailed information on this project being available. By 2050, in an area specialising in high tech research and development, major road infrastructure of this kind may well be largely irrelevant and is contradictory to key objectives stated in the scoping document.	the policies of the plan and its reasonable alternatives against the SA objectives.
	Q2: The scope of the plan does not provide adequate information to inform decisions on the required infrastructure at local level. Stated key objectives include; reducing the need to travel, promoting sustainable travel and improved air quality. Little or no account is taken of current local conditions regarding any of these objectives and without this detailed local information any plan will be ill informed, resulting in inaccurate conclusions that fail to provide successful solutions to both existing and long-term conditions. This is particularly relevant in terms of environmental pollution (especially air pollution where the information appears to be incomplete and lacking detail) as well as traffic congestion.	Please note that the baseline includes information on each of the key objectives mentioned in this comment.
	Q4: Improving existing infrastructure at local level infrastructure is necessary.	Noted.
	Q5: No.	Noted.
Member of the Public	**Q1-Q3 and Q6:** Does not understand the terminology used in the questions. The questionnaire is designed for planners not for average people with no planning knowledge. Unsuitable consultation.	Noted.
	Q4: Provision of health and other services consistent with the houses must be built. This hasn't been done so far especially in Chinnor. Similar to North America there should be zone areas for certain uses, health, retail etc. Concerned that the plan is only focused on housing and not improving the existing services.	Noted.
	Q5: Concerned that the plan is concentrating on housing in large estates which are faceless and cold. Housing should be spread throughout the district in all parishes with a suitable maximum, with a good mix of sizes and tenures. Concerned that big developers are being favoured, which could be unsustainable economically.	Noted.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
Oxford Bioregion Forum	**Q1:** The Assessment is fundamentally flawed as it fails to critique the role of the JSSP, and ask the question "are Oxfordshire's growth "needs" and development ambition sustainable"? The juxtaposition of the words "needs" and "growth" reflect the facile supposition that growth is good in itself. The scope proposed for the "Sustainability" Assessment is in reality "how can the investment opportunity the JSSP is written to support, be made compliant with regulations?". The core of the scoping document lies in **Appendix 2** in the lengthy list of legislation and treaty obligations. But even on that basis it is unsound as it omits any reference to the Sustainable Development Goals, which are the heart of international sustainability principles in the 21st Century. The limitation of the scope to 30 years, i.e., the period covered by the plan, disqualifies the SA as an assessment of "sustainability" as that period will hardly begin to show the long-term implications of the vast transformation of the county proposed by the JSSP.	Please note that SA Scoping Report sets out the scope and methodology for appraising the significant effects of the plan and its reasonable alternatives. No assessment has been undertaken at this stage.
	Q2: This SA should include an "input output" analysis to test the JSSP against the zero-carbon circular economy which should be a focus of the plan due to climate change. The SA should put forward a statement of the legacy we wish to leave to the 22nd Century, and an attempt to envision the lives of those both human and other species that will live here then.	SA objective 7 of the SA Framework will test the Oxfordshire Plan and its reasonable alternatives on their ability to minimise Oxfordshire's contribution to climate change.
	Q3: The SA fails to assess the JSSP against a zero carbon circular economy; it needs to be revised to take account of Oxford City Council's declaration of Climate Emergency in Jan 2019, and the IPPC report of Oct 2018; likely to pass 1.5 degrees of warming by 2024.	SA objective 7 of the SA Framework will test the Oxfordshire Plan and its reasonable alternatives on their ability to minimise Oxfordshire's contribution to climate change.
	Q5: It is not appropriate as this framework is not about sustainability, but about compliance with legislation.	SA is a strategic process and the scope covers all relevant topics set out in the SEA Regulations.
	Q6: ■ A Sustainability Assessment worthy of the name should be commissioned and carried out by a Commissioner for Future Generations.	Noted.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	■ The brief given to LUC for this SA should be published and openly debated.	
Member of the Public	**Q1:** The SA mentions health in terms of its aims to ensure healthy and thriving communities but makes little mention of it in terms of infrastructure other than in **paragraph 4.16 and 4.18.**	Noted. The health of the County's population is also summarised in Chapter 3.
	Q2: Health services are a vital part of the county's infrastructure and in particular primary care services. If 100,000 homes are to be built by 2013 there will be a need for much greater provision of primary health care. This needs to be addresses by the SA policy and the Oxfordshire Plan. Primary Care cannot be expected to absorb this extra population without a corresponding growth in facilities and personnel. Primary Care needs good, modern premises and the plan must address where these are going to be located and how they are going to be paid for. Developer contributions should be sought at the outset.	Noted. This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives. SA objective 2 of the SA Framework will test the Oxfordshire Plan and its reasonable alternatives on their ability to improve the health and wellbeing of the Oxfordshire population. Furthermore, SA objective 3 will test the ability of the Plan and its reasonable alternatives to sustain and create vibrant communities, including the provision new and improved services and facilities in line with local needs
	Q3 and Q4: The baseline information makes repeated claims about the importance to human health and wellbeing but the information about the pattern, scale and quality of development and sufficient provision for community facilities such as health infrastructure is glossed over. The current pattern scale and quality of primary care infrastructure in the county is already poor and more needs to be done to improve it, even before we are 100,000 new homes. Primary Care infrastructure should be audited now to ensure an informed baseline is understood.	Noted.
Member of the Public	**Q1:** This sentence is so badly worded that the question is obscured. Should it read; 'Is the scope of the SA (is) appropriate as set out, considering the role of the etc.....';There is no evidence of the 'need; on such a massive scale.	Noted.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	Q2: There is no evidence of these plans being put in a national context. The south east is already over populated with enormous pressure on utilities, roads and public services. Surely infrastructure investment should go to where it is most needed, not where most money can be made out of it by developers.	Please note that Appendix 2 includes national and international plans, policies and programmes. Furthermore, Chapter 3 sets out the relevant local, regional and national environmental, social and economic evidence.
	Q4: Probably	Noted.
	Q6: It seems quite clear that this questionnaire is designed to ensure that as few people as possible plough their way through the complicated and specialised vocabulary, so is a million miles away from a genuine consultation. There is absolutely no appetite that he/she is aware of or growth on this scale which will put further pressure on access to London. While it is clearly desirable for plans to be made, they should be democratically generated out of genuine need, and proportionate to existing conditions (e.g. there is no way an increase in housing stock of 30% and a 6 lane highway can possibly not be environmentally devastating). These proposals are clearly being driven by people who will not be personally affected by their implementation, are not in touch with local opinion and stand to gain financially from their implementation.	Noted.
Witney Town Council	**Q1:** No. It should be required to include the impact on infrastructure i.e. housing, roads, health, schooling etc. to 2050 and beyond. Location of employment not co located with housing developments puts additional strain on existing infrastructure.	This comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives. SA objective 3 will test the ability of the Plan and its reasonable alternatives to sustain and create vibrant communities, including the provision new and improved infrastructure, services and facilities in line with local needs.

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	Q2 and Q5: Health, air quality, cycle lanes, integrated infrastructure. The government's 'Cycling and Walking Strategy'; should be included. The following should also be added: electric charging points for vehicles, 3 phase electricity for houses (to enable car charging), energy supply securities, food and water securities and local/national travel policies.	The Cycling and Walking Strategy is included within Appendix 2.
Wheatley Parish Council (additional comments)	**Q1:** The scope of the plan is too Oxford city centric with little or no proposals relating to other large centres of population centres such as Bicester, Banbury, Henley or Wallingford. It looks as if the plan is only about growth and sustainability of Oxford city and its immediate surrounding area. It also begins by reference to the Housing and Growth Deal with the government requiring delivery of 100,000 homes by 2031. Since this deal was entered into by an unelected body without public consultation and without reference to the affordability of the homes provided, this constraint should be removed from the report to enable a full and honest public consultation to take place. The scoping report is contradictory in several areas; on the one hand it seeks to reduce traffic and car journeys but proposes to support a major road development that can only bring additional traffic congestion, air pollution and environmental degradation, particularly in the south of the county which contains the highest number of biodiversity designated sites as well as those with cultural heritage designation. A plan that extends over the next thirty years should not rely on outdated current infrastructure technology in the form of an expressway to facilitate one of its major objectives. The key objective of providing enhanced housing conditions is not dependent upon being 'unlocked' by an expressway when the housing that is claimed will be the result is already planned through the various district councils&; local plans, without any decision or detailed information on this project being available. By 2050, in an area specialising in high tech research and development, major road infrastructure of this kind may well be largely irrelevant and is contradictory to key objectives stated in the scoping document. The report is also deficient in that it has been drawn up without reference to the results of a Strategic Environmental Assessment (SEA) as no SEA has been implemented in drawing up the local plans on which it relies, and without drawing a balance between the requirements for the environmental sustainability and any reasonable and sustainable growth ambitions. The importance of these considerations is such that it is insufficient to pay lip service to the SEA requirements by simply setting out in an Appendix steps to be undertaken at some unspecified future date at a local level. A detailed environmental plan should be set out at this stage. Furthermore, by stressing the need to meet entirely artificially set growth targets, the report slews its scope in a direction away from its declared aims.	SA incorporates the requirements of the SEA Regulations, including all relevant topics set out in the SEA Regulations. More information has been included within the baseline chapter on the other districts within Oxfordshire.
	Q2: The scope of the plan does not provide adequate information to inform decisions on the required infrastructure at local level. Stated key objectives include; reducing the need to travel, promoting sustainable travel and improved air quality. Little	Please note that the baseline includes information on each of the key objectives mentioned, including existing and

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
212	or no account is taken of current local conditions regarding any of these objectives and without this detailed local information any plan will be ill informed, resulting in inaccurate conclusions that fail to provide successful solutions to both existing and long-term conditions. This is particularly relevant in terms of environmental considerations, such as environmental pollution (especially air pollution where the information appears to be incomplete and lacking in detail) as well as traffic congestion and environmental protection of landscape and biodiversity.	potential future transport infrastructure and current demands and air quality issues.
	Q3: No. In addition to the reasons given in section 2 above, there is little or no vision for the county outside the immediate Oxford city area. The whole county deserves and requires equal importance. The Sustainability Scoping Report contradicts its own objectives in many areas, particularly in terms of reducing car journeys and congestion when the inclusion of an expressway will only encourage and increase the number of vehicle journeys. The baselines adopted in relation to other environmental considerations are also inadequately stated, particularly in relation to water, flood risk, minerals and biodiversity. Reference should be made to the acknowledged key reference on the current state of biodiversity in Oxfordshire that is Wild Oxfordshire's report on the State of Oxfordshire's Wildlife. By its own admission, there is a funding shortfall for required infrastructure in excess of £7 billion, but there is no suggested or planned approach for how this shortfall is to be accommodated.	More information has been included within the baseline chapter on the other districts within Oxfordshire. The State of Oxfordshire's Wildlife Report has been added to the Biodiversity section with Chapter 3.
	Q4: There needs to be a clearer indication of the need to improve existing infrastructure at the local level.	Please note that the baseline includes information on existing and potential future transport infrastructure and current demands, including notable congestion issues.
	Q5: No.	Noted.
	Q6: The report is prejudiced throughout by the stated aim to build numbers of homes far in excess of the needs of the county, 100,000 up to 2031 and apparently up to 250,000 thereafter doubling the housing stock of the county by 2050. This is neither proportionate nor realistic in terms of the existing infrastructure or funds available.	This comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
Member of the Public	See Wheatley Parish Council's (additional comments) above. With the addition: There has also been no proper public consultation as to what criteria are to be applied in setting the levels of growth within the county.	Noted. See comments above.
Member of the Public	**Q1:** Health needs to be priority.	Noted. Additional information regarding health has been included. Health will be addressed by SA objective 2.
	Q2, Q4 and Q6: Oxfordshire Plan 2050 notes the requirements of future development which are needed to ensure that growth results in the creation of healthy communities. Whilst all the objectives identified in the plan are important, would like to emphasise that developing strong and healthy communities needs to be a priority. Therefore strongly recommend that the plan needs to include a clear healthy place shaping policy. Initial review of the population health and wellbeing section, (Section 3.21 and Table 3.3) has identified a number of gaps in its identification of key sustainability issues for Oxfordshire relating to the health and wellbeing challenges facing the Oxfordshire population. It does not recognise the increasing gap between years lived without disability and/or long-term conditions and overall life expectancy. The growth in long-term conditions will have profound implications and may create unsustainable demand for health and social care support unless action is taken to reduce future demand. Similarly, although it identifies that most comparative indicators show Oxfordshire is better than the England average, current lifestyles will impact on demand for health and care services amongst the whole population - not just older people or those from more deprived communities. This section should make clear that the whole population faces significant health challenges such as obesity and mental wellbeing. This section also makes no mention of the need to cater for new models of care which aim to support independence for as long as possible and which require different health and care facilities. This needs to be identified as an additional priority. These sustainability issues need to be reflected in section 4 and in the sustainability appraisal questions as set out in section 5. Additional questions might include: Promote active lifestyles to help address a range of key public health priorities including mental health and wellbeing, obesity, cardiovascular disease, diabetes and dementia?, Make it easier for people to make healthier food choices., Reduce the gap between healthy life expectancy and overall life expectancy., Does the Plan take account of and support new models of care with a health and care infrastructure that seeks to reduce the need for treatment and delay the need for care?	Part of this comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives. Please note that the SA framework contains appraisal questions regarding the promotion of healthy lifestyles (See SA objective 2). In addition, the health section of Chapter 3 of the SA Scoping Report has been updated to include additional information about the health challenges of Oxfordshire.
Member of the Public	**Q1**: Inadequate planning for water delivery to new houses and sewage disposal. The burden on Thames Water has not been considered by the planners. Excessive water extraction causes damage to the environment. In dry summers water courses dry up and wildlife suffers. All animals including humans need water to survive. All food production needs water. Rubbish	Please note additional information has been added to the section on water resources within Chapter 3 of the SA Scoping Report.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	disposal from increased number of houses. Incineration? Plastic disposal, recycling, more eco-facilities to deal with rubbish. Also inadequate provision of new GP surgeries to manage increased population.	SA objective 3 will test the ability of the Plan and its reasonable alternatives to sustain and create vibrant communities, including the provision new and improved infrastructure, services and facilities in line with local needs.
	Q2: Primary healthcare, Education, Playing Fields, Local buses to join up with shopping centres and GP Surgeries.	Noted. SA objective 3 will test the ability of the Plan and its reasonable alternatives to sustain and create vibrant communities, including the provision new and improved infrastructure, services and facilities in line with local needs.
	Q3: Will now have to account for the possibility of fewer people coming to live and work in Oxfordshire due to Brexit. Possible bad effect on number of young academic researchers being able to come and work/study at Oxford University and Oxford Brookes. Brexit effect on morale of visiting university academic staff. Prestige of Oxford City is dependent on the academic reputation of its schools and universities. Culture and ethos of city has to be maintained. These points are NOT well addressed in the Oxfordshire Plan. In fact they are largely ignored. Brexit effect is unknown as yet. It may or may not be an important factor in the future, but must be considered and contingency plans made.	Please note the potential effect of Brexit and the uncertainty surrounding it and its effects are mentioned within the SA Scoping Report.
	Q5: Still not addressed the social effects on residents of too many people living in small spaces, too much traffic and pollution. Increased stress in their daily lives. Must provide Parks etc for people to relax in.	Health and wellbeing is a topic that is crosscutting and that is noted throughout the baseline section. SA objective 3 will test the ability of the Plan and its reasonable alternatives to sustain and create vibrant communities, including the provision new and improved infrastructure, services and facilities in line with local needs.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
Oxon Environment Board	**Q1:** Overall, they believe the SA should reflect a strong ambition for the environment. The environment is important to people that live and work in Oxfordshire it provides quality of life, clean air, water. The benefits and needs are well articulated in previous responses but not recognised in Oxfordshire's current strategies and plans. Oxfordshire's ambition should extend beyond environmental protection and the traditional thinking, and into environmental improvement using understanding and quality of ecosystems to define impact. This will ensure compliance with the National Planning Policy Framework (NPPF) which states in paragraph 170 that; Planning policies and decisions should contribute to and enhance the natural and local environment by d) minimising impacts on and providing net gains for biodiversity. Paragraph 174 says that 'To protect and enhance biodiversity and geodiversity, plans should: b) identify and pursue opportunities for securing measurable net gains for biodiversity'. As a minimum, the Oxfordshire Plan 2050 should commit to a clear target for net environmental gain that reflects Oxfordshire's ambition and value of the natural world.	Noted.
	Q2: They would expect to see the following additional plans, policies or programmes included: Government's 25 Year Environment Plan which sets out Government commitment and ambition for the natural world Natural Capital Committee reports and recommendations Oxfordshire State of Nature 2017 report. Led by Wild Oxfordshire, this draws together a wealth of expertise from the county's professional and volunteer base in biodiversity and nature conservation, including our local authorities. It uses the best information available to establish a picture of the state of Oxfordshire's natural habitats and species, including long-term trends as well as more recent losses and gains. Conservation Target Areas, which are the current spatial component of Oxfordshire's strategic approach to biodiversity. They are some of the most important areas for wildlife where targeted conservation action can secure the maximum biodiversity benefits. See: https://www.wildoxfordshire.org.uk/biodiversity/conservation-target-areas/ Area of Outstanding Natural Beauty Management Plans (Cotswolds, Chilterns, North Wessex Downs) - these plans should be a material consideration in creating Oxon 2050 to ensure it meets the national policy requirement of giving great weight to the conservation of landscape and scenic beauty in these areas. Supporting achievement of these plans helps ensure the county and districts are fulfilling their statutory duty to care for the AONBs.	Relevant policies, plans and programmes have now been incorporated within the SA Scoping Report.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
216	Oxfordshire's historic landscape characterisation South Oxfordshire District Council Green Infrastructure Strategy which maps and describes green infrastructure requirements and opportunities (as an example of what is needed to inform a green infrastructure plan.	
	Q3: They are concerned that much of the information presented reflects a static picture of the status quo, rather than a mapping and assessment of trends (both positive and negative) that would be more appropriate for fulfilling the requirements of a Strategic Environmental Assessment. By focussing only on designated sites (**Paras 3.87-3.89**) the scope is not only at odds with DEFRA's 25 year plan but also fails to address the most sensitive aspects of Oxfordshire's wildlife which is the steady depletion of habitats and species and the ecosystems on which we and nature depend. The approach being taken is one that may have been appropriate 20 years ago, but not today and not in the context of future development plans. Government guidance https://www.gov.uk/guidance/natural-environment lists the local ecological networks evidence that should be identified and mapped. Not all of these have been included in the Scoping Report and we strongly recommend they are included. These comprise: areas of irreplaceable natural habitat, such as ancient woodland or ancient hay meadows, the significance of which may be derived from habitat age, uniqueness, species diversity and/or the impossibilities of re-creation habitats where specific land management practices are required for their conservation; main landscape features which, due to their linear or continuous nature, are important for the migration, dispersal and genetic exchanges of plants and animals, including any potential for new habitat corridors to link any isolated sites that hold nature conservation value, and therefore improve species dispersal; areas with potential for habitat enhancement or restoration, including those necessary to help biodiversity adapt to climate change or which could assist with the habitats shifts and species migrations arising from climate change; an audit of green space within built areas and where new development is proposed. They expect to see analysis of the potential for habitat enhancement and/or restoration in order to improve connectivity or increase area (the more, bigger, better, joined principles of the Lawton Review 1).We would also expect clearer recognition of the value of accessible natural green spaces and their contribution to health and wellbeing, as well as ecological benefits, and an assessment of how capacity in this area could be extended. The current baseline data is out-of-date and incomplete.	The Biodiversity section of Chapter 3 of the SA Scoping Report has been updated to now include available additional information on priority and irreplaceable habitats.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
217	The most up-to-date and highest quality data currently available is accessible from the Thames Valley Environmental Records Centre (TVERC). This includes species data, priority habitats (and potential priority habitats) mapped to field level, all designated sites (Local Wildlife Sites, District Wildlife sites, Ancient Woodland etc) and connectivity analysis for grassland, woodland and wetland. This data is updated every 4 months for species and annually for other data. Analysis will be required to provide assessment of and mapping for natural capital. The above information could inform a plan for ecosystem services provision. Both will be needed for the OP2050: for instance, for considering services such as water, flooding and provision of water for new homes and achieving clean air standards in towns and the city. https://www.gov.uk/government/news/making-space-for-nature-a-review-of-englands-wildlife-sites-published-today	
	Q4: The continued loss of biodiversity across Oxfordshire is a major concern; ecosystems and ecosystems services and some key components of the ecological network, including irreplaceable habitats, will be impacted by the planned infrastructure and housing. Access to natural green space - The plan needs to address the issue of people not being able to benefit from access to natural greenspace. Access to green space is needed to ensure health and wellbeing particularly physical and mental health. There is a recognised lack of accessible natural greenspace in Oxfordshire, according to Natural England Access to Natural Greenspace Standards. According to analysis carried out by TVERC on behalf of Oxfordshire County Council in 2017[58], 63% of households in Oxfordshire do not have access to a 2-hectare accessible green space within 300 metres. The analysis also shows that no residences have access to a 500-hectare accessible green space within 10 kilometres. Light Pollution & Dark skies - The Oxfordshire Plan 2050 has the potential to make a step change to a far more proactive co-ordinated effort to ensure that a consistent strategic and robust approach is taken to enhancing dark skies which, as well as being a key aspect of natural beauty are important for wildlife, heritage settings and human health. Ecosystem services and natural capital NPPF paragraph 171 says that plans should... plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries. The Oxfordshire Plan 2050 needs to take a coherent strategic approach to enhancing natural capital across the county, and also take into account natural capital in neighbouring counties, ensuring landscape and habitat connectivity.	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

[58] Carpenter et al. 2017 An Analysis of Accessible Green Space Provision in Oxfordshire. Thames Valley Environmental Records Centre.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	Natural capital has been defined as the elements of the natural environment which provide valuable goods and services to people. It is now well understood across all sectors that the effective management of natural capital is an environmental necessity that underpins a thriving economy and a healthy population. SEEIP and The State of Nature in Oxfordshire both identified that the extent and condition of many of the county's natural capital assets have been declining over the course of decades, with major challenges including air and water pollution, land contamination, fragmentation of habitats and a decline in biodiversity. We know that planned development will impact on our natural environment and the benefits we derive from it. The key questions for the Oxfordshire Plan 2050 are; What will the impact of the development be? Can the plans be modified to avoid or reduce impact and safeguard ecosystems? If not, what plans need to be actioned to ensure the entirety of these natural features and functioning ecosystems are recreated elsewhere? and by what mechanism will this be funded? If these questions cannot be answered, then either the development proposals should change or the Plan will fail in its environment, legal and moral obligations. An Environmental Investment Plan (EIP) will provide answers, in line with Natural Capital Committee recommendations, that changes in natural capital should be measured, valued, reflected in corporate and national accounts, and taken into account in decision making processes. The Oxfordshire Plan 2050 should include a strategic approach to investing in natural capital to offset the impacts of proposed development as well as improving the delivery of the vital goods and services on which the current and future residents of Oxfordshire rely for their health, wellbeing and prosperity. **Para 4.24** rightly recognises the role of the statutory environmental bodies such as Natural England and the Environment Agency. It would also be appropriate to highlight the role of non-statutory organisations, including members of the Oxfordshire Environment Board (see below), that undertake vital professional work that could helpfully inform the Oxfordshire Plan 2050.	
	Q5: They welcome the commitment to net gain in biodiversity, however it requires further clarification and specification. It is essential that the mitigation hierarchy is applied so that, in the first instance, avoiding damage is a clear and transparent requirement. Oxfordshire 2050 should commit to implementing a system for secure measurable net gains for biodiversity through the planning system, as required by the NPPF. A minimum percentage increase should be specified to reflect the value Oxfordshire places on the natural world and the support services provided for our health and wellbeing. The basic prerequisites for this must always be to follow the mitigation hierarchy (i.e., avoid harm where possible first) and use the expertise and judgement of an in-house local authority ecologist. **Table 5.1** SA 15 (Landscape Character) should reference not just protection but the enhancement of landscape (a statutory duty of AONBs). The character and distinctiveness of Oxfordshire's settlements needs to encompass not only the visual, but also the social/cultural.	With regards to SA objective 15, updates have been made.

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	Q6: As noted at **Para 4.2,** the Oxfordshire Infrastructure Strategy in 2019 identified the lack of a green infrastructure strategy for the county. It appears that the Oxfordshire Plan (Para 2.3) intends to rectify this but there is no detail as to how this process will be taken forward. The Oxfordshire Environment Board recognises the need for a Green Infrastructure Strategy and Plan for the county and for this to be integrated into all other long-term development strategies as a priority if Oxfordshire is to achieve genuinely sustainable economic growth, visionary place-making, and remain a healthy and attractive destination for people and business. They would be happy to work with those involved in the Oxfordshire Plan 2050 and the SA to discuss how this could best be achieved.	This comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
OAHS	**Q1:** The Oxfordshire Architectural and Historical Society believe that the SA fails to consider adequately the cumulative impacts of future development and change or to consider current rates of change. The indirect and direct impacts of interactions between the different environmental topics are not considered. These issues are directly relevant to heritage e.g., loss of below-ground archaeology and erosion of settlement distinctiveness.	Noted. Please note that updated baseline information regarding the historic environment and landscape are within Chapter 3 of the SA Scoping Report. In addition, SA objectives 14 and 15 will address safeguarding and enhancing the character and distinctiveness of the historic environment and landscape, respectively.
	Q2: The list of International and National level plans and policies in Appendix 2 omits the Convention for the Protection of the Archaeological Heritage of Europe (revised) (Valletta, 1992) or any references to heritage legislation such as the Listed Buildings and Conservation Areas Act. At a regional and local level there are numerous valuable documents, including Landscape Character Assessments for the Districts, Oxford's Historic Landscape Characterisation study, Oxford City Council's Heritage Plan, archaeological research frameworks for Oxford City and the Solent Thames Region.	The Convention for the Protection of the Archaeological Heritage of Europe has been added to Appendix 2. Only international and national plans and policies have been included as per the requirements of the SEA Regulations.
	Q3: The environment is changing and it is inadequate just to consider a snapshot of the present to compare with predicted impacts. **Para 3.3** It is not possible to scope out topics because the location of development will not affect them. Waste will increase with housing and require transport and processing, which has the potential to affect landscape and heritage for example. There are several topics such as Minerals and Climate Change where the potential impacts on heritage are not mentioned. Similarly, the role of the Green Belt in maintaining separation and character of settlements is overlooked. The section on Heritage is focused on known and designated sites, with no consideration of Oxfordshire's important buried archaeology, which is constantly at risk from and actively being eroded by development. Designated assets are protected,	Current and future trends have been updated where relevant. In addition, the effects of climate change on historic assets has now been addressed by SA objective 14.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	but the wider historic environment, including landscape character needs to be given adequate weight in planning in line with NPPF. The concentration of special views in and out of Oxford should be considered as being only one key component of the setting of designated heritage assets (top grade listed buildings, multiple Conservation Areas and Registered Parks and Gardens) to which special statutory duties and planning weight apply, as befits a cluster of heritage assets and skyline recognised to be of international importance. A review of the impact of mineral development on the archaeology of Oxfordshire was prepared by Oxford Archaeology in 2011, The Oxfordshire Aggregates and Archaeology Assessment.	
	Q4: The tourist industry of Oxfordshire is not adequately addressed. While it may be beneficial in terms of employment the negative impacts, such as overcrowding, pressure on transport and damage to historic sites and buildings need to be considered.	Information regarding tourism's effect on transport has been included with Chapter 3 of the SA Scoping Report.
	Q5: The SEA requirements consider likely significant impacts on all aspects of cultural heritage or its interrelationship with other factors. The lack of attention paid to below-ground archaeology or of the historic character of landscapes and settlements. Objective 14 is particularly disappointing.	Please note that below ground archaeology has now been included.
	Q6: There is an opportunity being missed here to develop a clear assessment and overview of the historic environment of the county, its potential for heritage tourism, the trajectory of damage and identification of strategies to protect and enhance it. The social, community identity and wellbeing benefits of cultural heritage have not been considered. Culture and identity are also built through events and shared values.	Noted. The SA draws on the most up-to-date and accurate evidence available and uses it to establish the likely significant effects of the Plan its reasonable alternatives. The SA does not represent a historic environment study.
Member of the public	**Q1:** Fittingly, this questionnaire opens with a misleadingly loaded question. Since the County's 'growth needs' and 'development ambition' are not factors that have been democratically accepted (or satisfactorily proven), the question is inapplicable. Essentially, this 'bold, forward-thinking' plan with its 'clear vision for growth' is instead a plan for developers and big business, designed with the hope that it will 'release opportunities for Government funding'.	Noted.
	Q2: Yes, see below.	Noted.
	Q3: No, see below.	Noted.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
221	**Q4:** Yes, see below.	Noted.
	Q5: No.	Noted.
	Q6: The Plan lacks both proper democratic legitimacy and credible long-term planning principles. Its prime justification appears to be the perceived 'need' to inflate an already thriving economy where there is already full employment. Quantity has been confused with quality, physical growth with the expansion of ideas. The proposed vast increases in population and housing stock are not justified. While the UK does need more housing, it is the country's numerous forgotten towns and cities that urgently need serious investment in jobs and 'development' on this scale. To 'boost' Oxford unnecessarily merely compounds the problem. Cast-iron guarantees of good-quality, modest-scale, affordable housing would be essential. Yet the building industry appears to have grown too powerful to oblige without undue concessions. Oxford City has chosen to expand almost to bursting point; it cannot be encouraged simply to continue expanding beyond the City's bounds and into the County. Adding to the County's existing infrastructure problems makes no sense, and neither does the loss of yet more green fields. The irreversible damage to the essentially rural character of the County would be enormous. To suggest otherwise is disingenuous. Oxfordshire does not deserve to become any more urbanised or suburbanised. The fundamental principle of the Green Belt to prevent (further) sprawl is at serious risk of being opportunistically side-lined in favour of questionable Government house-building targets. The various long-term environmental implications of the proposed developments (housing, infrastructure, roads) are superficially treated pollution (air, water, light, noise), loss of both open spaces (agricultural, recreational, historical) and of corridors and habitats for wildlife and even run counter to certain government guidelines and objectives. The Plan should instead be focussing the real needs of the County's residents, over time and within its existing social and environmental limits.	This comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

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	The problematic proposal of a glamorous-sounding Oxford-Cambridge 'Expressway' in effect, another motorway but with many more exits and potential new rat-runs into Oxford is neither necessary nor desirable. Its environmental impact is significantly underestimated as (most probably) is its cost, too. The Plan's seductively aspirational 'vision' appears to lack a secure financial basis. How, for example, will the £8 billion hole in the current infrastructure budget be filled?	
Limited, Pye Homes Limited	**Q1:** It is stated at **para 3.3** that the issue of waste is not to be included in the scope of the SA. Given the level of growth proposed, it is not clear why the issue of waste has not been included, which will have significant environmental implications in relation to matters such as: the amount of waste produced; waste management measures; sustainable construction methods; the materials used and their transportation. In addition, at **para 2.5**, it is states that the JSSP will inform the Oxfordshire Minerals and Waste Local Plan. If the issue of waste is not to be included in the scope, it is not clear how the JSSP can inform the Oxfordshire Minerals and Waste Local Plan. Reference should also be made to the Government's strategy for waste; Our Waste, Our Resources: A Strategy for England, December 2018. **Table 2.2** sets out the sustainable development messages/environmental objectives which have been identified in the review of plans, policies and programmes. The table identifies the need to address sustainable construction, however, the issue of waste has been scoped out as explained above. Other issues which are not considered in sufficient detail are as follows: The Oxford-Cambridge Growth Arc Infrastructure provision and capacity Green Belt Built Environment.	While the Oxfordshire Plan will inform waste management in the County, the Oxfordshire Minerals and Waste Plan and its associated SA will consider and test the options for doing so. However, the Oxfordshire Plan will promote sustainable construction and design practices and this will be tested in the SA through SA objective 7.
	Q2: Missing documents, which should be considered include: UK Industrial Strategy and the Oxfordshire Local Industrial Strategy documents. Whilst there is some mention in passing and in footnotes the documents are not included in the relevant section on plans and programmes or the Appendix. National Infrastructure Delivery Plan 2016-21	Please note each of these strategies has been added to Appendix 2.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
223	Our Waste, Our Resources: A Strategy for England, December 2018The references to plans and programmes are scattered throughout the document making it difficult to check for omissions. It would be helpful to provide a list of the documents in a table for ease of reference, sub-divided by International, National, Regional and Local level, as well as topic area.	
	Q3: The following concerns with regards to the baseline information are set out below by issue: Economy: provides no information on the Oxford Cambridge Growth Arc and the potential implications for the economy. Whilst it is recognised that the Growth Arc is mainly going to have implications for the future, it is a matter which is known about now and should be included. Transport: there is no data given on the number of people working from home or current split of travel by modes. In order to measure the change in work and travel practices, the current data is needed. Air Quality: there is no mention of the Low Emission Zone introduced in Oxford City or its implications. The baseline data also does not identify whether the AQMAs are getting better or worse. There is no discussion of the impact of Air Quality on health and any data in relation to this matter. Climate Change: does not give a breakdown of the energy consumption by source e.g., % of renewable energy. There is also no discussion of the sustainability standards in buildings, such as the no. of BREEAM accredited buildings. The Government has also proposed a new Future Housing Standard to be introduced by 2025 to future proof new build homes with low carbon heating and world leading levels of energy efficiency, which will have significant implications for future development. Water: there is no mention of waste water and the sewerage capacity of the area. Land: there is no discussion of brownfield land or contaminated land data Landscape: there is no mention of Landscape capacity. Green Belt: the text states that without the JSSP, it is likely that the Green Belt would remain as it is. This statement is not correct, given the current pressures for development on the Green Belt land surrounding Oxford. For example, the recent Publication Version of the SODC Local Plan allocates 6 out of 7 strategic allocations within the Green Belt.	Updates have been made accordingly, where data has been found available and considered appropriate to use. With regards to economy and employment, additional information addressing the Oxford Cambridge Growth Arc has been added to the economy section of Chapter 3. With regards to air quality, the Low Emission Zone is now referenced. With regards to land, contaminated land is now referenced within the soil section of Chapter 3. With regards to the green belt, the SODC Local Plan is now referenced.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
224	**Q4:** The Future Challenges and Key Sustainability issues section identifies issues with ITC and changes in working patterns that are expected, however the baseline does not include the current data to assess impacts against. **Section 4.9-13** needs to be reflected in the baseline data to show clearly the step change in the provision of homes, jobs and infrastructure that is expected. The information on infrastructure (**para 4.14-4.22**) identifies the need for more specific information on infrastructure to be provided in the baseline data. The baseline data has not included a separate section on infrastructure, including the data on health and education. The key issues identified at **para 4.23** do not identify the pressure on the Green Belt as an issue, which will impact upon the JSSP.	Infrastructure is a cross cutting theme which is addressed within the transport, air quality, economy and employment, climate change and water resources sections.
	Q5: The SA Framework does not include any indicators, targets or decision-making criteria for use in the assessment. It would be beneficial for the above to be identified at this stage to avoid difficulties when the assessment is undertaken. A few errors and omissions are noted including the following: Housing should read; assessed need rather than accessed. Health there is no mention of the health facilities needed. Communities include the provision of community, transport, utilities infrastructure and services. Suggest assessing infrastructure requirements as a separate category as the infrastructure requirements are significant and complex. Oxfordshire's Knowledge Economy includes housing issues, suggest keeping all the housing issues under the first objective. Land use should include the issue of the Green Belt. Infrastructure the capacity of infrastructure does not appear to be addressed. Viability and deliverability - have not been included, which will have significant implications for the JSSP. Waste and materials - are not included or the need for sustainable construction	Suggestions have been noted and appropriate updates to the SA framework have been made. Viability and deliverability will inform the definition and identification of the reasonable alternatives considered for inclusion within the Plan. Green Belt issues will also be considered as part of the Plan preparation. As Green Belt is a policy designation and not an environmental designation and is also not in the list of SEA topics to be covered it is not specifically included in the SA objectives. However, SA objective 11 will test the ability of the Plan and its reasonable alternatives to ensure the efficient use of land in Oxfordshire, and maintaining countryside in and around existing and new communities is addressed by SA objective 2. Infrastructure needs are covered under SA objectives 3, 6 and 9.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	Q6: Methodology The methodology does not include the significance criteria set out in Schedule 12 of the regulations, in particular the duration, permanence, cumulative and synergistic effects. The need to identify suitable mitigation measures should also be included. Report Structure A summary of the how the consultation responses have been taken into account should be included within the SA main report, with the detailed responses provided in an Appendix, in order to aid transparency on the decision-making process. The JSSP Options should include an outline of the reasons for the selection and rejection of each option and a summary of the sustainability implications for the options so the reasons are clear to the reader. The cumulative impact of options and combinations of options should also be included.	The duration, permanence, cumulative and synergistic significant effects of the Plan will be assessed through the use of the SA framework in the next stage of the SA. A summary of the consultation responses received and responses will be included in the SA Report following each stage of consultation.
Windrush Bike Project	**Q3:** No. The fully referenced book 'The Uninhabitable Earth' provides the latest background to the climate crisis which is key to the SA during the period that the plan is current:https://www.amazon.co.uk/Uninhabitable-Earth-Story-Future/dp/0241355214	Noted. Relevant international and national climate change evidence has been drawn on in Chapter 3 of the SA Report.
	Q5: The transport objectives as presented fail to take the challenge we face seriously: 'Reduce the need to travel.' How? It doesn't say, presumably because it is not currently within the gift of local authorities. I suggest it is wishful thinking. 'Promote a sustainable way of travelling.' Promote? I'm surprised that that is the best the joint efforts of the county's spatial and transport planning authorities can come up with. How long has the county and its districts have been 'promoting' sustainable travel thus far and what that has achieved in modal shift? 'Encourage walking and cycling and public transport.' Encourage? They suggest that will work about as well as the county's efforts thus far to discourage use of private cars. Appropriate words/phrases might be plan for, design, charge, subsidise...	This comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
	Q6: The SA recognises that Witney does not have a rail link but it does not say why the level of housing development proposed does not warrant one. Suggestion: a transit link that can move significant numbers of people and that does not rely on the A40 is required for the level of dwellings being proposed to the West of Eynsham. Couple that to a well-designed local cycle network and it will create a sustainable transport network that people will use.	This comment relates to the options for the Oxfordshire Plan, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
		reasonable alternatives against the SA objectives.
Gresswell Environment Trust	**Q1:** Inappropriate. Very few people actually know or understand what OxLEP is. The public have not been informed, nor were they consulted when the Growth Board £215M 'deal 'was first put on the table. This is completely undemocratic. OxLEP has decided that Oxford should become a business and commercial hub whether residents like it or not - a decision taken without democratic consultation. Growth Board diktat, under the nomenclature of NIC Strategy, shows a total disregard for sound planning principles as laid out in the NPPF. OxLEP is not a democratically elected body. OxLEP is thinking money and profit, over sound sustainable planning or governance. Oxfordshire Plan 2050 has been drawn up behind closed doors, and without consideration for the people of Oxford or for surrounding villages and countryside. It will do huge damage to the local area It is greed and masquerading as growth Vested interests at work, with institutional land owners and developers set to ruin Oxford and its environment. Government should spend its funds on sustainable travel links, with climate change to the fore. Re-kindle the Varsity railway link to join with HS2, and then re-consider transport before steamrolling-over, ruining, rural South Oxfordshire.	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
	Q2: The whole plan is wrongly conceived. It is one giant step in the wrong direction. It makes no provision for the long-term effect that more houses, cars, and people will have on Oxford. It is greedy on green field land, therefore unsustainable. Far from offering environmental and transport improvement it will put further pressure on local infrastructure. Oxford cannot sustain this level of growth without doing huge harm to the environment, its heritage assets and surrounding countryside. Very few people actually know or understand what OxLEP is, never mind what it is up to. The public were not informed or consulted when the Growth Board £215M deal was first put on the table. This is completely undemocratic. Oxfordshire Plan 2050 has been drawn up behind closed doors, and without consideration for the people of Oxford or for surrounding villages and countryside. OxLEP accepted £215M deal on our behalf without proper consultation (section 18).	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
	Q3: Greed not Need Oxford cannot sustain this level of growth or expansion. Not what Oxford needs or wants. Government funds should be redirected to less advantaged areas of England where growth and regeneration is needed. The only thing that unites this plan is economic greed: a wild conjecture on a ruinous scale that will damage Oxford and its environment forever.	This comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan

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227	To quote Joni Mitchell: They took all the trees And put them in a tree museum And they charged all the people A dollar and a half to see 'em Don't it always seem to go That you don't know what you've got 'Till it's gone They paved paradise And they put up a parking lot. This is not a good vision for the future.	and its reasonable alternatives against the SA objectives.
	Q4: This whole document assumes that building on the Green Belt is acceptable. It is not. Outlying villages rely on the Green Belt in order to remain rural, and separate. Oxford relies on the Green Belt for good air quality, flood alleviation, and reasonable access to the countryside.	This comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report.
	Q5: Inappropriate. The Oxfordshire 2050 plan has effectively been steamrollered out over Oxfordshire, without listening to or consulting with the public. No one wants growth on this scale, it is inappropriate in this part of England. It will ruin what is effectively a rural county. The principles of good planning seem to have gone out the window.	This comment relates largely to the options for the Oxfordshire Plan 2050 itself, rather than the SA Scoping Report.
	Q6: 1. Oxfordshire Plan 2050 has been drawn up behind closed doors, and without consideration for the people of Oxford or for surrounding villages and countryside. It shows little or no respect for Oxford, its residents, its outlying villages, the Green Belt, wildlife conservation or preservation of national heritage assets, our quality of life is effectively at stake. Development led housing as an economic policy is questionable. It will result in all the wrong houses being built on the edges of town, attracting the wrong people (incomers and commuters), which in turn will exacerbate traffic. The Plan is fundamentally flawed due to underlying unaccountability and lack of consultation in the early stages. 2. SHMA 2014 housing figures + a further 100,000 houses in Oxfordshire. Adopting the outdated SHMA 2014, OxLEP has jumped onto this building bonanza without considering the effect Local Plans 2034 and the hideous reality of what a further 100,000 houses (300,000 people and their cars) will do to Oxford and Oxfordshire. Oxford will be ruined by a series of roundabouts and peripheral housing in the style of Swindon, Milton Keynes and Cambridge. Conjectural unmet housing need does not constitute exceptional circumstances. 2014 SHMA figures are a proven over estimation, calculated on the basis that to fulfil social housing quotas, developers need to build 9:1 in order to make a profit. Watch Oxfordshire disappear under a blanket of housing, a tangle of roundabouts and perimeter link roads, distribution centers and ancillary business parks, one elongated sprawl, Oxford doubled in size, the loss of our Green Belt, and open countryside amenity. Land is not a commodity: it is finite, and our future. Greenfield development is the lazy, complacent and unsustainable option. Local	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

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228	district councils have been bullied into taking on Oxford's unmet housing need under the duty to cooperate. If Oxford City is to develop sustainably, in proportion to its historical backdrop, with respect for the local community, it must start using urban brownfield sites for residential as well as commercial use. Contrary to NPPF recommendations OxLEP is refusing to regenerate commercial premises for housing. Contrary to the principles of the NPPF, Oxford is proposing to expand out onto the Green Belt, resulting in instant urban sprawl. Developer led profit driven executive style housing does nothing to relieve the social/ affordable housing crisis for key workers. Making Oxford into England's golden business hub, boom town, and commercial shopping centre (to rival Reading?) is completely inappropriate. Oxford needs a good balance of life: a cultural mix, students and local residents, visitors, in order to thrive. It is a vast conceit that Oxford should develop its brownfield sites for business and commercial sites over housing. Houses for key workers closer to employment, so that Oxford's commercial areas do not become does not become deserted at night. Great harm will be done to the city, the Green Belt, and surrounding rural countryside, if land is used up for unnecessary developer led housing. Proven demographic need should always be a planning requirement around historic towns. The Growth Board promises infrastructure, which is dependent on developers, with no guaranteed delivery date. The right houses never get built: developers tend to cherry pick only the most profitable sites, thus guaranteeing the highest return and maintaining house prices at inflated levels. 3. Green Belt Review: The NPPF states that all Green Belt land should remain permanently open. Unproven housing need does not constitute exceptional circumstances. The Growth Board Scrutiny Committee is committed to ensuring that the Growth Board does not reduce the Green Belt around Oxford without extra land being allocated local as GBelt. The 5 purposes of the Green Belt should be upheld. Planning creep must be enforced. The Green Belt is our lifeline and protection from suburban sprawl. Oxford has a limited allocation of green space amenity per capita. The Green Belt not only helps contain Oxford, keeping it in scale with itself, but it represents the breath and lungs of the city. If the Green Belt is to become the new greenfield parkland amenity for Oxford, then stop it becoming the parking lot for Oxford. Once laid to tarmac it ceases to be green, it becomes a parking lot (quote: Joni Mitchell) The Green Belt is fundamental to Oxfords success story. Far from being a stranglehold, the Green Belt has kept Oxford in proportion to its historical and landscape backdrop. 4. Jobs and business growth over sustainability and demographic need. Oxford already has 45,000 jobs. Oxford cannot easily sustain more without huge sacrifices and loss of amenity: pressure on its local services, the footfall on its open spaces, loss of Green Belt, wear and tear on its historical and architectural infrastructure. Transport services are at an overload. Satellite park and rides are full. Where are these new people coming from? Why should Oxford, a national heritage asset and university town, take London overspill or become the commercial epicenter for more jobs and more people? Oxford cannot take it.	

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	5. The Expressway Let's just cut up the country into ever-smaller slices and nab a bit here then there, then everywhere: houses all along the route, a ;string of settlements with good connectivity. This is a relief road for the A34 national freight, (with quick access to the M40/A40), Portsmouth to Felixstow. Scarring the country with a freight-way will diminish our countryside and wildlife corridors. An Expressway will encourage longer daily commuting travel distances. A Sprawl-way, with houses and distribution centres all along its route. In a sustainable future, people should be travelling less, or by rail, by bus, or best by bicycle. On a daily basis we should have fewer long distance car journeys. Government wants us to think Climate Change, and yet it commissions a 'golden arc' of sprawl and an Expressway over southern England. The Plan is flawed by an irresponsible assumption of growth, OxLEP thinking is profit over sound planning for sustainable governance. The public wants a return to a fully accountable and democratic planning process. Sound principles at the heart of its thinking. Government aspiration needs to be more grounded and locally respectful if it is to be successful.	
Member of the Public	**Q1-Q6:** Please refer to the submitted representation 'SA Scoping Report Consultation. FCC' issued to OCC via email at 15:39 25 March 2019.	Noted.
Cotswolds Conservation Board	**Q1:** The way in which this question is framed automatically skews the scope and focus of the Sustainability Appraisal (SA) towards issues associated with; growth needs and development ambition. This is highly inappropriate. As outlined in paragraph 7 of the National Planning Policy Framework (NPPF), the purpose of the planning system is to contribute to the achievement of sustainable development. Paragraph 8 of the NPPF expands on this by stating that; achieving sustainable development means that the planning system has three overarching objectives [economic, social and environmental], which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives). By focussing primarily on; growth needs and development ambition, rather than addressing all three sustainable development objectives equally and in a mutually supportive way, the Oxfordshire Plan 2050 / Joint Strategic Spatial Plan (JSSP) is failing to address the purpose of the planning system and the requirements of the NPPF. For the SA to be equally biased is even more inappropriate given that; its role is to promote sustainable development by assessing the extent to which the emerging plan will help to achieve relevant environmental, economic and social objectives. The SA should address all three sustainable development objectives equally, regardless of the scope of the Plan that is being assessed. As such, the second half of the question (i.e., considering the role) is irrelevant. With regards to the first part	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives. Relevant changes have been implemented throughout the SA Scoping Report based on the topics highlighted, notably SA objective 7 addresses building climate resilience, the key sustainability issues for flood risk has been updated and the importance of irreplaceable and priority habitats is now referenced.

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230	of the question (i.e., Is the scope of the SA appropriate) the Cotswolds Conservation Board (the Board) has the following comments to make. Overall, the Board agrees with the key sustainability issues identified in **paragraph 4.23** of the SA, albeit with the following caveats: Under-provision of homes **(paragraph 4.23 and Table 3.6)** A distinction should be made between meeting current housing needs in Oxfordshire and meeting the much larger housing numbers that are being proposed for Oxfordshire. A distinction should also be made between meeting county / local authority wide need and the provision of housing in Areas of Outstanding Natural Beauty (AONBs), which cover 25% of the county. The NPPF specifies that the scale and extent of development [in AONBs] should be limited (paragraph 172) and that, under most circumstances; planning permission should be refused for major development [in AONBs]. Paragraph 11 and Footnote 5 of the NPPF exempt AONBs from the requirement to accommodate local authority-wide objectively assessed needs for housing. The statutory Cotswolds AONB Management Plan 2018-2023 states that; development in the Cotswolds AONB should be based on robust evidence of local need arising with the AONB. For these reasons, housing provision in AONBs should focus on meeting affordable housing needs arising within the individual settlements of the AONB. If this restriction means that Oxfordshire can&;t meet its housing needs wholly within the Plan area, consideration should be given to accommodating these needs elsewhere, in line with paragraph 26 of the NPPF. The Board's recommendations relating to these issues are outlined in response to Question 5, in relation to SA objective 15. Flood Risk **(paragraph 4.23 and Table 3.15)** The Board supports the recognition of the importance of taking into account flood risk. However, an important element of the JSSP's flood risk strategy should be to minimise the amount of and slow the rate of - surface water run-off from new and existing developments through the use of; sustainable drainage systems. This appears to be reflected in SA objective 10, but not in paragraph 4.23 or Table 3.15. The Board recommends that the following phrase should be added to this key sustainability issue: and managing surface water run-off through the use of sustainable drainage systems. Climate Change **(paragraph 4.23 and Table 3.13)** The bullet point relating to climate change focusses on reducing the County's contribution to climate change. Whilst this is an important issue, consideration should also be given to how the County will adapt to climate change. The Board recommends that the following sentence is added to this key sustainability issue: Building resilience for adaption to climate change. Biodiversity **(paragraph 4.23 and Table 3.19)** The Board supports the recognition of the need to protect the County's biodiversity and to particularly the aspiration to maintain and strengthen its ecological networks. However, the bullet point	

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231	could be considerably strengthened. For example: Rather than just seeking to protect biodiversity, the aspiration should be to significantly increase biodiversity in order to redress the significant and ongoing losses to biodiversity. Rather than referring to internationally and nationally designated habitats, it would be more correct to refer to internationally and nationally designated sites of importance for biodiversity, as the designations relate to both habitats and species. The bullet point should emphasise the importance of irreplaceable habitat and other priority habitats and species. The bullet point should recognise the value of locally designated sites. Development should be required to deliver significant net-gains in biodiversity, in line with the aspirations of the Government's 25 Year Environment Plan. Taking account of, and supporting, Oxfordshire's network for Conservation Target Areas. For these reasons, the Board recommends that this key sustainability issue should be changed to: The need to significantly increase the County's biodiversity, including: protecting the hierarchy of international, national and locally designated sites of importance for biodiversity and irreplaceable habitat; conserving and enhancing priority species and habitats; creating coherent and resilient ecological networks, particularly in Conservation Target Areas; and ensuring that development delivers a significant net-gain in biodiversity. Landscape: The Board supports the recognition of; the need to protect and enhance the character of Oxfordshire's landscape, including the protected landscapes of the AONBs and their settings. However, the purpose of AONB designation is to conserve and enhance the natural beauty of the AONB. As such any assessment of the sustainability of the JSSP in relation to AONBs should Landscape character is obviously a key feature of AONBs. However, the statutory purpose of AONB designation is to conserve and enhance their natural beauty. Landscape character is an important component of natural beauty but natural beauty also covers a wider range of issues, including scenic beauty, relative tranquillity, natural heritage and cultural heritage. Natural beauty also relates to the special qualities of the AONBs. The bullet point refers to there being two AONBs but, as identified elsewhere in the SA, there are, in fact, three AONBs Cotswolds, Chilterns and North Wessex Downs. For these reasons, the Board recommends that this key sustainability issues should be changed to: The need to conserve and enhance: the character of Oxfordshire's landscape, including the special views into Oxford; and the natural beauty of the three AONBs and their setting.	
	Q2: The Management Plans of the three AONBs Cotswolds, Chilterns and North Wessex Downs are statutory plans, which set out policies for the management of the AONBs. They are important material considerations and should be included as relevant plans in the SA. Ideally, the policies of the JSSP should be consistent with the policies of the AONB Management Plans.	Noted. The Management Plans of the three AONBs are now mentioned within the Landscape section of Chapter 3 of the SA Scoping Report.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
232	**Q3:** Biodiversity and Geodiversity **(paragraphs 3.87-3.91)** The Biodiversity and Geodiversity section should highlight the significant declines in biodiversity, both nationally and at a county level, as outlined reports such as the Wild Oxfordshire report; State of Nature in Oxfordshire 2017. Landscape and Townscape **(paragraphs 3.98-3.110)** The Landscape and Townscape section should highlight the fact that the three AONBs cover 25% of Oxfordshire: Chilterns AONB = 9% of Oxfordshire; Cotswolds AONB = 9%; North Wessex Downs = 7% This section should also highlight the scale of development that has already taken place in these three AONBs - and in their setting - in recent years and the pressure that this puts on the purpose of AONB designation (i.e. conserving and enhancing the natural beauty of the AONBs), as outlined below: Table of housing pressure in the Cotswolds, Chilterns and North Wessex Downs (number of housing schemes: 10 units approved and number of units within AONBs and within 500m of AONB 2012-2017) Chilterns: 23 schemes approved; 1,213 housing units approved within the AONB; 30 schemes approved within 500m of the AONB; 992 housing units approved within 500m of the AONB. Cotswolds: 62 schemes approved; 2,869 housing units approved within the AONB; 41 schemes approved within 500m of the AONB; 2,968 housing units approved within 500m of the AONB. North Wessex Downs: 35 schemes approved; 1,286 housing units approved within the AONB; 15 schemes approved within 500m of the AONB; 567 housing units approved within 500m of the AONB.	Noted. Additional information regarding housing pressures on the AONBs of Oxfordshire has been added to the Landscape section of Chapter 3 of the SA Scoping Report.
	Q4: Tranquillity and Dark Skies The Board acknowledges that the issues of tranquillity dark skies have been identified in SA Objective 8. However, these issues have not been adequately addressed in earlier sections of the SA (where the main focus is on air pollution). These are very important issues for three AONBs, which cover 25% of Oxfordshire, not least because they are two components of the 'special qualities' of the AONBs. The Cotswolds AONB Management Plan has policies to specifically address these issues - Policy CE4 (Tranquillity) and Policy CE5 (Dark Skies). These policies seek to avoid and minimise adverse impacts on tranquillity and dark skies resulting from new development and encourage measures to be taken to remove and reduce existing adverse impacts. Given their importance for the AONBs these topics merit being addressed in earlier sections of the SA, in particular, in Chapter 3. As a minimum the SA should explain what these terms mean and provide maps of: dark skies in Oxfordshire, based on the interactive maps on CPRE's Night Blight website and Tranquillity in Oxfordshire, based on CPRE's Tranquillity Map: England.	Additional information regarding tranquillity and dark skies has been included within the Landscape section of Chapter 3 of the SA Scoping Report.

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233	Chapter 3 should make reference to these topics being special qualities of the AONBs and the high level of importance that these topics should be given in the AONBs. This should include the impact that development outside the AONBs has on these issues within the AONB (e.g., by creating additional traffic movements within and adjacent to the AONBs). Natural and Cultural Capital and Ecosystem Services are important issues which should be addressed in the SA and in the JSSP. As a starting point, Oxfordshire's natural and cultural capital and the services that they provide should be fully assessed and evaluated.	
	Q5: SA objective 7 (To minimise Oxfordshire's contribution to climate change) As outlined in response to Question 1, in addition to considering Oxfordshire's contribution to climate change, the SA and JSSP should also consider how Oxfordshire can build resilience for adaptation to climate change. For this reason, the Board recommends that SA objective 7 is changed to: To minimise Oxfordshire's contribution to climate change and build resilience for adaptation to climate change. To take account of this wider scope, the appraisal questions should include: Will the JSSP encourage building resilience for adaptation to climate change? SA objective 8 (To minimise air, noise and light pollution) Based on the points made in response to Question 4, the final appraisal question should be changed to: Will the JSP maintain Oxfordshire's tranquil areas and dark skies, particularly in the three AONBs? The following additional appraisal questions should be added: Will the JSSP: Help to avoid and minimise light pollution? Help to remove and reduce existing sources of light pollution? Help to avoid and minimise noise pollution and other aural and visual disturbance? Help to remove and reduce existing sources of noise pollution and other aural and visual disturbance? SA objective 15 (To protect and enhance Oxfordshire's landscape character and quality) The Cotswolds, Chilterns and North Wessex Downs AONBs are the highest quality and most important landscapes in Oxfordshire. As such, they merit being explicitly referred to in SA objective 15. Landscape character and quality are obviously key features of the AONBs. The statutory purpose of AONB designation is to conserve and enhance their natural beauty. Therefore, it would be appropriate for the wording of the objective to be changed to: To conserve and enhance Oxfordshire's landscape character and quality and the natural beauty of its three Areas of Outstanding Natural Beauty, including their setting. As indicated in response to Question 1: natural beauty covers a wider range of issues than landscape character and quality. These issues include scenic quality, relative tranquillity, natural heritage features and cultural heritage. Natural beauty also relates to the special qualities of the AONBs. Some of these issues (e.g., biodiversity and historic environment) are addressed in some detail elsewhere in the SA. However, those natural beauty issues that are not addressed elsewhere (e.g. tranquillity and special	These comments have been reviewed and appropriate updates to the SA framework have been made, notably, building resilience is now referenced within SA objective 7 and the enhancement of the landscape will now be addressed by SA objective 15.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	qualities, including dark skies) should be specifically addressed under this objective. Also, as indicated in response to Question 1, in relation to the under-provision of homes, the SA should address a number of issues relating to housing provision in the AONBS. Based on these points, the Board recommends that the first appraisal question for SA objective 15 should be replaced by the following two questions: Will the JSSP: Conserve and enhance the natural beauty of Oxfordshire's three AONBs (Cotswolds, Chilterns, North Wessex Downs) and their setting, including their landscape beauty, character and quality scenic beauty and quality, including views into and out of the AONBs special qualities? Limit the scale and extent of development within the AONBs, including ensuring that major development is not permitted in the AONBs, development in the AONBs is based on robust evidence of local need arising from within the AONBs (particularly in the context of housing)?	
	Q6: It is important note that relevant authorities, including public bodies such as local planning authorities (LPAs), have a statutory duty to have regard to the purpose of conserving and enhancing the natural beauty of AONBS when exercising or performing any functions in relation to the AONBs. This duty is known as the duty of regard. Natural England and Defra have produced useful guidance on the duty of regard, which clarifies the expectations of the duty and best practice relating to the duty. This guidance is also summarised in Appendix 4 of the Cotswolds AONB Management Plan. For example, the expectation of the duty of regard is that adverse impacts on the AONBs will be avoided or mitigated where possible. Best practice for relevant authorities, in relation to the duty of regard, includes: considering the duty of regard at several points any decision making process or activities, including during initial thinking, at more detailed planning stages and at implementation; providing written evidence that they have had regard and considered whether it is, or is not, relevant; undertaking and making publicly available and assessment of any plan which is likely to affect land within an AONB; ensuring that decisions affecting these areas are properly considered and recorded in high level policy documents and public statements; set out the actions that they have taken to comply with the duty of regard; make reference to the duty of regard in appropriate monitoring documents. This duty should be a key consideration in the development of the JSSP, especially given that AONBs cover 25% of Oxfordshire, and compliance with the duty should be appropriately assessed and recorded, as outlined above. LPAs also have the power to take all such action as appears expedient to them for the purpose of conserving and enhancing the natural beauty of AONBs. This adds extra weight to the need to ensure that the JSSP genuinely contributes to conserving and enhancing the natural beauty of Oxfordshire's three AONBs.	Noted.
	Q1: More or less	Noted.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
Bus Users Oxford	**Q2:** The Climate Change Act 2008 should be prominent in the JSSP's policy context. The SA is wrong to relegate the CCA to page 76 of Appendix 2. The SA notes that the NIC and LEP support the Government policy to build the CaMKOx Expressway road and increasing the capacity of the A34 road. But it fails not toe that Oxford City Council policy formally opposes the Expressway, and that Oxford City Council has declared a climate emergency. Bus Users Oxford agrees with Oxford City Council on both points. We are in a climate emergency now, and building the Expressway and increasing capacity on the A34 is incompatible with mitigating World climate change to 1.5 degrees Celsius. Building the Expressway and upgrading the A34 contravene other parts of the JSSP such as table 3.9 (page 21) and table 5.1 Section 6 (page 58) which emphasise the need to end high dependence on private cars and section 3.59 (page 27) which stresses reducing the need to travel in order to mitigate climate change. The Expressway would create large volumes of induced traffic. The Expressway makes the JSSP inherently self-contradictory.	The importance of building resilience to climate change has been highlighted throughout the SA Scoping Report.
	Q3: The baseline notes that Oxfordshire has more jobs than resident workers, and that the imbalance is most acute in Oxford. This causes high housing costs and high levels of inward commuting. It also notes that West Oxfordshire, by contrast, has more resident workers than jobs, which causes high levels of outward commuting. However, section 3.50 (page 20) asserts that many of the workers commuting out of West Oxfordshire work in either Oxford (correct) or in the Abingdon and Didcot area. Do not 2011 Census data show more West Oxfordshire residents working in Cherwell district than in southern Oxfordshire? The SA mentions reducing the need to travel. But it does not note that average commuting distances in the UK are twice what they are in other European countries. Reducing commuting distances toward the European average should perhaps be a goal of the JSSP.	Noted. Please note that the commuting data has been updated since the 2011 Census, which is method of travel to work data specific to 2001. The updated information is shown in Table 3.8. Most of this comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
	Q4: Section 4.7 mentions how our climate may change. This may require many aspects of transport to be revised, including higher melting points for road surfaces, higher-capacity road drainage, a need for more and better bus shelters, and what materials will be best for bus shelters in a warmer climate with wetter winters, drier summers and possibly more frequent high winds. Sections 4.7 and 4.9 discuss ICT and transport. The distinction between traditional scheduled bus services and new demand-responsive services such as PickMeUp may become blurred. It might be helpful for the SA to mention that Oxfordshire's Knowledge Spine is an ideal place to pilot such innovations. Section 4.18 names the rail network as the biggest cost and strategic rapid transport as the least. Buses are not mentioned, unless some forms of bus service are implied under strategic rapid transport. Buses are key to decongesting and decarbonising the first and last mile segments of many rail	Noted. This comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
236	journeys. It should be emphasised that buses can yield relatively large benefits for relatively low capital investment, but have suffered chronic and acute under-investment by local and national governments. Section 4.23 emphasises severe under-provision of homes. Oxfordshire's housing shortage does cause both homelessness and high prices for private property to buy or rent. This is a key cause of workers living far from their jobs and commuting long distances. Enough social and affordable housing must therefore be provided. However, the targets numbers for new homes being prescribed for Oxfordshire for the next few decades seem excessive. If 100,000 or 300,000 new homes are built in Oxfordshire, transport will be strained and is unlikely that the transport sector will reach its climate change and air quality targets. Instead, we need more modest numbers of homes, strategically located to develop communities of sustainable density and size. These would help to make public transport viable for more communities, and for a larger proportion of residents in those communities.	
	Q5: Table 5.1 section 5 (page 57) sets as an objective to maintain high and stable levels of employment across Oxfordshire. This omits the shortage of jobs in West Oxfordshire, which leads many residents to commute out of their district (see above). **Table 5.1 sections 7 and 8** (page 58) sets as objectives minimising climate change and pollution. A policy to achieve transport that is carbon-neutral and has zero exhaust emissions by 2050 is not ambitious enough. Our climate emergency must be fixed by 2030 at the very latest. It makes sense to address air quality at the same time, which if successful could eliminate AQMAs by 2030.	Noted. This comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report.
	Q6: The SA mentions the Knowledge Spine in **sections 4.11 and 4.12** (page 53) and **Table 5.1 section 4** (page 57). And Section 3.50 (page 20) mentions that West Oxfordshire has more workers than jobs, leading to high levels of commuting out of the district. But the SA seems not to consider the need for a solution or what it should be. Much of West Oxfordshire's population lives in Witney and Carterton, which suffer from acute and chronic congestion on the A40. Oxfordshire County Council plans various works intended to relieve the A40. But the SA and JSSP seem to leave West Oxfordshire as a mere adjunct to the Knowledge Spine. The SA and JSSP should perhaps consider adding Witney and perhaps Carterton to the Knowledge Spine, and therefore deserving public transport links of equal quality. This would give the planned A40 bus lanes higher priority, and add the longer-term objective of restoring a rail link first to Witney and then to Carterton. Equal quality public transport would enable high-value, high-skill employers to locate in the Carterton Witney Eynsham corridor. This could enable West Oxfordshire to have as many jobs as resident workers, which would reduce both the need for residents to commute out of West Oxfordshire and the imbalance of commuter flows in and out of the district.	This comment relates to the options for the Oxfordshire Plan 2050. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

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Active Oxfordshire	**Q1:** The document does meet the need. However, we would like to see greater reference to Health; Inequalities and Healthy Place shaping (both for new growth areas and existing communities). These three areas underpin our vision of Everybody in Oxfordshire is Physically Active. Active Oxfordshire aspires to deliver healthy place making and community activation underpinned by the provision of good quality sports/leisure facilities; informal recreation spaces and good walking, cycling and running routes that is accessible to all.	Noted. Healthy place shaping has been added into the SA framework and will be addressed by SA objective 2.
	Q2: Yes. There should be greater reference to the Oxfordshire Health and Wellbeing Strategy (and the sub strategies around Children and Young People; Adults and Older People) and the Oxfordshire Health Inequalities Commission report (plus associated documents related to both including the JSNA). There should also be greater reference to Getting Everybody Active Everyday a framework to changing people's daily activity. At a national level the references should be made to Sporting Future (Government sport and physical activity strategy) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/717782/2166-C_Sporting_Future.pdf and Towards an Active Nation (Sport England strategy) https://www.sportengland.org/media/10629/sport-england-towards-an-active-nation.pdf. These are the two key national strategies related to increasing physical activity. We would also recommend use of national and local insight (which Active Oxfordshire can provide https://www.activeoxfordshire.org/national-insight); national guidance on Active Design (developed by Sport England https://www.sportengland.org/facilities-planning/active-design/) and national learning on place based approach being led by Sport England https://www.sportengland.org/our-work/local-delivery/	Noted. Relevant updates have been made to the Health section of Chapter 3 of the SA Scoping Report.
	Q3: We would like to submit information related to physical activity data. Active Lives 16+ Levels of Activity Area / Region Inactive (less than 30mins per week) Insufficiently active (31 149 mins per week) Active (over 150mins per week) Population total Rate (%) RAG Rating Population total Rate (%) Population total Rate (%) RAG Rating Cherwell 72,400 22.3% 19,600 16.6% 26,300 61.2% Oxford 95,000 16.3% 11,800 9.3% 20,800 74.5% South Oxfordshire 80,100 18.2% 12,400 10.9% 20,600 70.9% Vale of White Horse 70,300 17.4% 17,400 16.4% 18,400 66.2% West Oxfordshire 59,500 22.3% 9,800 11.0% 19,800 66.7% Oxfordshire 105,700 19.1% 70,700 12.8% 377,800 68.2% South East 1,637,200 22.3% 920,200 12.5% 4,785,800 65.2% England 11,340,500 25.2% 5,615,400 12.5% 28,025,600 62.3% Active Lives 5-16 Active every day (60 minutes or more every day)1 Active across the week (an average of 60 minutes or more per day) Fairly active (an average of 30-59 minutes a day) Less active (less than an average of 30 minutes a day) Population total Rate (%) Population total Rate (%) Population total Rate (%) Population total Rate (%) RAG Rating Cherwell 3,900 21.8% 5,300 29.7% 3,900 21.9% 4,700 26.6% Oxford 4,300 23.9% 4,100 22.6% 3,700 20.5% 6,000 33.0% South Oxfordshire * * 5,600	Noted. Additional information regarding active lifestyles has been added to the Health Section of Chapter 3 of the SA Scoping Report.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	28.5% 6,200 31.2% 5,600 28.6% Vale of White Horse 4,400 25.1% 4,700 26.8% 4,000 22.9% 4,400 25.2% West Oxfordshire 2,300 15.4% 3,300 22.7% 3,700 25.0% 5,400 37.0% Oxfordshire 18,600 21.2% 22,900 26.1% 20,400 23.2% 25,900 29.5% South East 182,800 17.5% 272,900 26.2% 256,700 24.6% 331,000 31.7% National 1,232,600 17.5% 1,808,100 25.7% 1,678,600 23.9% 2,309,000 32.9% The rates of physical inactivity increase in Oxfordshire if: - You live in an area of deprivation- You have a disability and/or a long-term health condition (and multiple conditions makes this figure worse)- You have poor/low mental wellbeing- You are an older person The overview for data sets for Oxfordshire for different demographics and groups can be found here https://www.activeoxfordshire.org/uploads/oxfordshire-state-of-play.pdf	
	Q5: Yes, it is appropriate. We would however like to see the inclusion of Oxfordshire (and districts and city level) physical activity/inactivity data across all ages and all themes. Active Oxfordshire can provide guidance and input on what is required.	Noted. Chapter 3 of the Scoping Report acknowledges the data on physical activity and obesity. SA objective 2 will test the ability of the plan and its reasonable alternatives for improving the health and wellbeing of Oxfordshire's population.
Fairfax Properties	**Q1:** There is little or no reference in the JSSP to its duty to cooperate role with adjoining Counties. The document focuses its strategy entirely inwards and therefore needs to ensure that opportunities across the County boundary are explored where they can assist in achieving the wider objectives. Where reference is made to development further afield, this is in regard to the Oxford, Milton Keynes, Cambridge arc to the north east of the County. No reference is made to other major towns and cities that adjoin the County, in particular Reading located directly to the south. This is particularly relevant as the land that surrounds Reading is not located within the Green Belt or within an AONB and, further, has excellent transport links by road and rail, providing significant opportunity to take new development that can assist Oxfordshire in meeting its growth needs and development ambition. Taking this into account, the Plan should be more specific in allocating areas for development in particular for housing growth. **Table 3.6** states that the Plan will allow for a more strategic approach to housing delivery where District Local Plans may struggle to deliver. Focus on the location of these areas should cover the whole County and not just focus all development opportunities to the Oxford/Cambridge arc in the north of the County. Identifying land around existing settlements will allow for existing infrastructure and facilities to be utilised. Furthermore, by looking at the County as a whole and identifying a spread of development will, in essence, provide a steer to Districts, such as South Oxfordshire regarding where housing could be provided. This could be either as part of the emerging Local Plan, or as reserve sites, should concerns still linger regarding deliverability of the strategic housing allocations in that document.	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	Q2: A program for assessing how Oxfordshire fits in with neighbouring Authorities should be undertaken and analysed in order to ensure that development is located in the most appropriate places. This is particularly pertinent considering the constraints of Green Belt and AONB within the County as well as the location of existing infrastructure and services beyond it, but accessible from it. Taking this approach will help consider the ability of proposed sites in Oxfordshire to provide the necessary services and infrastructure upgrades to bring forward development in the context that it is capable of being provided in connection with existing major service centres located just outside of the County. Development placement should be assessed on a holistic and wider scale to ensure that either major infrastructure improvements are implemented in locations that will bring maximum benefit or to take advantage of the opportunity provided by existing major service centres to locate development and growth in a manner that can be accommodated without the need for major upgrade.	This comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report.
	Q3: More emphasis could be placed on Housing need rather than what is planned for and existing house prices. Information on what is driving the need in specific areas would be useful when assessing how to address issues such as housing locations and infrastructure requirements, for example: Why are people living where they do and why are they commuting to where they are? To better understand this question the SA needs to understand if people are commuting into Oxford to work, is it because that is where they want to work, or is it because it is the next best alternative to Reading or London, but that existing transport connections are so poor that they have no choice but to go to Oxford instead? Wider issues such as the benefit/disbenefit accrued by a Third Reading Bridge should form part of considerations.	Noted.
	Q4: One significant piece of infrastructure that would bring many benefits to Oxfordshire is a new Thames bridge proposed to be located to the east of Reading. A significant amount of work has already been undertaken that assesses the impact a new bridge would be. Wokingham Borough Council have had a Forecasting Report produced which assess how the bridge could function against predicted and modelled transport scenarios up to 2026. The report concludes that this new bridge would alleviate the current traffic pressures across the existing bridges in Reading and Sonning and open up access into Oxfordshire from the south. The new bridge would also divert traffic away from the centre of Reading providing significant congestion relief in many of the currently congested roads in South Oxfordshire, Reading and Sonning. With the Support of the Authorities either side of the Thames, it may be possible to secure Government funding towards the project. Furthermore, funding could also be sourced from development sites located near to the project.	Noted.
	Q5: Objective no. 1 is for the Joint Strategic Spatial Plan to meet Oxfordshire's housing needs. However, it is very unclear how this document will achieve this if it is not proposing to spread its allocation for new areas of development across the	This comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report. The role of the

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	County. Therefore, in order to fulfil this objective, the plan will need to go much further than just identify areas for development around the northern Oxford to Cambridge arc. These areas identified should be spread evenly across all towns and cities in and on the edge of the County to ensure that there is adequate infrastructure and facilities in place to support development.	SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
	Q6: There is a noticeable lack of reference to major towns and cities outside of Oxfordshire which currently play an important role in terms of serving the County's economy. This is particularly evident in the case of Reading, which is located close to the south of the borough and is regularly utilised by Oxfordshire residents. In addition to the facilities and services provided within Reading itself, the town provides high speed rail links into London and access to the wider southern rail network, as well as proximity to the M3/M4 corridor which is a major employment area.	Cumulative effects will be considered later on in the SA process.
Vale of White Horse Liberal Democrat Group	**Q1:** The scope as written here includes climate change, but only our reaction to it, our resilience. Some of the councils have recently declared a Climate Emergency, indicating that our policies must include steps we'll be taking to drastically reduce or eliminate our contribution to climate change. This doc needs to include that and assess against the overall objective of zero carbon footprint, or whatever is appropriate with regard to Oxfordshire's contribution to climate change. I believe this message has also come to you from the Scrutiny Panel. The main challenge seems to be planning for economic growth, but in a sustainable way, where we actually improve our environment. Typically, over the past many years, we have focussed on the former at the expense of the latter. I would very much want us to have a balanced plan in OxPLan50.	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
	Q2: Consider national limits (or international limits) to air pollution and global warming and include things in the JSSP to address our shortfalls. How is the gap between the cost of infrastructure and the available funding being addressed? Are there policies that should be included here? Do we have a policy addressing what our nearly full employment means in terms of proportion of land reserved for housing vs employment sites?	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
	Q3: The baseline needs to be set for 2030 (or thereabouts) as all the current local plans intend to handle needs up until then. So taking population and housing and traffic from that point seems appropriate.	Current and future trends have been updated accordingly.

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241	Population forecasts from different sources are included within the scoping report. It's important to be consistent, and these various sources predict different population growth. Compare for example, NIC figures, Oxfordshire figures, ONS figures. They differ, yet all are 'evidence'. Which are we using, and why? Which has been historically more reliable? Can you show them all graphically? And justify your choice of which figures to base this plan on?	
	Q4: **a.** Transport. Iterations of the county transport plan (LPTx) over the years have brought no improvement to our most intractable obstacles to growth; the A34 and A40 and A420 (at least) are too often over capacity and too often at a standstill. Building more houses in locations that require a commute to work will only exacerbate the problem. I'd like to see an assessment of the way LPTs are written, to find other ways of bringing forward effective plans for reducing road congestion. This JSSP is hanging its transport hat on the next iteration of LPT, and I question what's changed to allow us to continue to rely on the same old plan making. **b.** Transport (more). The gap between what's needed to support the houses planned and what is funded is huge. It's irresponsible to move forward with providing more houses than the infrastructure funding can provide for. **c.** Growth in general. It's arguable whether we can actually afford to grow any more at all, or whether we are full. School places, GP surgeries, hospital beds, social	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
	Q6: Houses are unaffordable in the county. JSSP should have a plan to price houses affordable to people on average (this report says that's £27,793) and below average salaries. I read in the aspirations doc that most jobs here are in retail, a traditional low paying field. How do we provide housing for people in retail jobs, close enough to work that they can abandon car use? We need to address this. We need a new definition of 'affordable' that somehow relates to a family's income and joined up thinking about employment and housing. Poor maths and writing achievement in Oxfordshire students means school leavers aren't suitable to the well-paying jobs we have and therefore are priced out of the area. What will we do to address that? Recently we heard of a study by British Lung Foundation that measured particulate air pollution near health facilities. Botley Medical Centre was over WHO standards. They are right next to a primary school. What are we doing to improve air quality in our AQMAs? It looks like not enough, as we are still over the threshold in many areas. So the 100,000 houses we're	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

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	building between now at 2030, and the (however many) after that will add to our troubles and the resulting health and mortality.	
Elsfield Parish Meeting	**Q1:** The SA has to have within its Scope the assessment of the sustainability of the Oxford Housing and growth Deal, the OXLEP strategic Economic Plan and the Oxfordshire Infrastructure Strategy. The JSSP is going to provide the first ever statutory consultation on the programmes of work and the strategies in these documents. Therefore, the SA needs to review the sustainability of these plans. The SA lacks a section considering Alternatives to the development ambitions. The SA will need to consider alternatives to the JSSP development ambition, particularly for the later period where there is greater uncertainty about the technological, economic and environmental conditions. The SEA regulations require the SA to look at alternatives to the strategy set out in the JSSP.	Please note each of the documents mentions are considered within Chapter 2 of the SA Scoping Report. However, this SA will only assess the sustainability of the Oxfordshire Plan 2050. Reasonable alternatives will be identified, appraised and reported later on in the SA process.
	Q3: The OSOSAR is not a suitable baseline for the SA of the Oxfordshire JSSP because it has never been subject to Regulation 18 consultation (or any extensive consultation), its purpose is incompatible with the JSSP, and its assessment of accessibility, bus network, deliverability, and landscape issues is flawed. We believe that its information can only be used with great care and not as an unscrutinised starting point for the SA Scoping report. The OSOSAR has not been subject to statutory Regulation 18 consultation. As a result its baseline cannot be given weight in the SA process. The lack of extensive consultation also means there are errors and omissions, further diminishing its usefulness. The OSOSAR had as its focus on providing for Oxford's needs and not Oxfordshire. This impacted on what it looked at and how it assessed sustainability. This included an uncritical application of 'nearer to the centre of Oxford the more accessible and sustainable', without considering that transport problems start in getting into Oxford from the ring road, and that fast dedicated buses from anywhere in Oxfordshire can get to the City Centre quickly. The study also failed to take into account the need for households to have easy access to a range of employment opportunities, including those elsewhere in Oxford and in Oxfordshire. The OSOCSAR admitted to limitations in its approach and information base, however it made significant errors in its assessment of accessibility, bus network, deliverability, and landscape issues.	Part of this comment relates to the Oxford Spatial Options SA report, which was part of a separate study and will not be addressed here. The baseline of the SA has drawn on the most up-to-date and appropriate evidence available, and will be updated at each stage of the SA process. The comments relating to the baseline have been reviewed and appropriate updates have been made to the baseline section of the SA Scoping Report, specifically additional information regarding bus and cycle routes, the adverse impact of air pollution on biodiversity assets, integrating climate change throughout the SA Scoping Report and mapping Conservation Target Areas. Please note that Figure 3.12 illustrating Oxfordshire's environmental sensitivity in

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243	Our interest is mostly in relation to the 'Wick Farm' site, where the OSOCSAR failed to capture the historical and cultural connections of Elsfield Lane, and College Pool and Sidlings Copse (Gerard and Ashmole collected wildlife samples there), missed the international importance of the Historic View of Oxford, and underplayed the now rare (in terms of Oxfordshire) feature of the landscape of 18th Century small fields with hedgerow trees. The OSOCSAR failed to take into account the environmental constraints of the 'Wick Farm' site (including significant damage to the nationally important wildlife site) in assessing how much housing would be possible, and admitted that it did not assess the infrastructure needed for sites and the cost. It thus erroneously concluded that the site was deliverable when the conclusions by South Oxfordshire District Council Planning staff (who carried out more reliable research) is that it is not deliverable. There is also significant doubt on the site's viability. The OSOCSAR made major assumptions about the accessibility of the 'Wick Farm' site that do not bear scrutiny. The site is cut off from both Barton and Barton Park by the Bayswater Stream and the flood Zone 1 and 2, and of course Barton and Barton Park are cut off from the City by the A40. Much of the 'Wick Farm' site is a long walk from the bus at Barton and Barton Park. The bus service is not that frequent and takes over 25 minutes to get to the centre of Oxford, the same as the fast buses from Abingdon, Didcot and Witney! The actual walking distance to Headington from the western part of the 'Wick Farm' site is 2.4km. Cycling that route is dangerous, particularly going through Old Headington and crossing the A40 on a bridge without cycle tracks. Car access to Oxford's facilities is increasingly limited by parking spaces: adding demand without increasing parking and road capacity in the city does not make sense; in effect the Wick Farm residents won't have access by car. The Sustainability appraisal will need to take into account the access to a range of jobs because households have more than one employed person, and we are trying to increase flexibility of the workforce- being able to move to different jobs in the Region. A development site with jobs in more than one direction is a better choice that a site with jobs only in one direction. For example, the Wick Farm site is at the short-end periphery of the Eastern Arc of Oxford limiting easy access to Oxford based jobs, and has poor access to the Knowledge Economy Growth Areas to the North and South of Oxford. **Housing baseline page 15** A new assessment of housing needs and its location in relation to economic, social and planning aims and requirements needs to be developed. The baseline on Housing should not make assumptions on where housing needs arises and should	2016 has been removed in light of the more recent environmental evidence and data set out in other sections of the SA Scoping Report Baseline.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
244	be met. It is second-guessing the spatial strategy being developed, and perpetuating the District Council bias to only look at their own obligations. This section of the Scope talks about Oxford's Housing need as though it is a fixed assumption that Oxford's housing need should be considered separately from the rest of Oxfordshire. The JSSP is for Oxfordshire, and is premised on the idea that the County acts as an economic unit. It is impossible to separate Oxford's housing need from that of the surrounding county when so many people commute to jobs in Oxford. The University and knowledge economy already extends beyond Oxford City, so therefore so does its housing needs. Furthermore, the relationship between housing and employment raises questions that go beyond Oxford. For example, how does the idea of balancing employment with housing equate with an assumption that we put more employment into Oxford and push the housing further out? The JSSP will tackle these questions and therefore needs to consider housing need in relation to its economic and social aims and not to the geographical areas of the District Authorities; a new geographical assessment of housing need is required. **Transport baseline page 19** The baseline on Transport in the SA Scoping report needs to be based on further and more rigorous research. The description of the baseline makes it seem that there is a significant transport advantage in locating housing near to Oxford, when the evidence tells a different story. The Scoping Study seems to make the assumption that cycle and bus use is uniformly high in Oxford. It isn't. Research on cycling to work has the percentage down to 13% 2 miles from the centre. It would be even lower outside the ring road. Bus use to get to work is no higher than the national average in the Eastern Arc of Oxford. The bus network in Oxford is not good away from the main axes, and bus travel to work that crosses the main axes of the Eastern Arc is difficult and time consuming. Buses into the centre of Oxford go via crossroads and suburban streets, stopping along the way and therefore are slow. As mentioned above the fast buses from Abingdon, Didcot and Witney can get to the centre of Oxford as fast as buses from Marston or Barton. For buses to be economic and viable need to go through higher density areas and connect with other services and major housing areas. This is just not the case for large parts of the Eastern arc in Oxford, and certainly not for buses North of Marston- there is no large settlements for the buses to go on to.	

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245	With reference to 'Sustainable Transport, the SODC Sustainable transport study to inform the 2033 Local Plan found that the percentage of journeys likely to use sustainable transport to be the same wherever housing was located in South Oxfordshire (Adjacent to Oxford or outside the Green Belt): 10%. As the scoping study says elsewhere, the traffic problems in commuting into Oxford occur at the Ring Road and inside the Ring Road. New housing on the edge of Oxford suffers from the same queues and have only marginally quicker journeys. Ironically, the Oxford Transport Plan is seeking to reduce the road space for cars and push them on to the ring road and link roads, making it more difficult to access jobs and facilities from outside Oxford. **Air quality baseline page 24** The NOX level experienced by vulnerable national Priority Habitats should be measured for the Air Quality baseline. As stated elsewhere in the Scoping Report, air quality is vital for certain biodiversity sites which could be near to the tipping point of NOX levels that will destroy them. This baseline section and Table 3.11 should reflect this. We recommend that the baseline NOX level for vulnerable habitats near to Air Quality action zones be measured- for example at Sidlings Copse and College Pool SSSI acid and calcareous grassland and heathland, and the alkaline fen- all habitats we have European obligations to protect. **Climate change baseline page 27** We are pleased to see that this section addresses the increased risk of flooding, and the potential impact on biodiversity. Flood risk baseline page 29 Significant changes need to be made to the Flood risk baseline. Environment Agency (latest expected April 2019), Government and the Committee on Climate Change advice has greatly changed since the Thames Region Catchment Flood Management Plan published in 2009. It is now not enough to just use Fluvial Flood zones 1, 2, and 3 without taking climate change into account. Also here is a stress on including both Surface Water and Groundwater flooding, modelled for climate change, and to consider the interaction between the types of flooding. For example, Groundwater flooding saturates the soil and greatly increases the area vulnerable to fluvial flooding. Where an urban extension is being considered, a +80% scenario should be used. Where	

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246	the source of fluvial flooding drains an urban catchment area (with all its hard surfaces), the catchment needs to be modelled to enable accurate estimate of the impact of climate change. Applied to the 'Wick Farm' site, the South Oxfordshire Strategic Flood Assessment specifically recommended no housing on the western half of the site vulnerable to groundwater flooding, and that a modelling of the Bayswater Stream catchment be carried out to assess the impact of climate change on the boundary of the Flood Zones. We recommend Table 3.15 is modified to include the groundwater flood risk and the higher risk due to Climate Change in urban drainage catchment areas. Biodiversity and geodiversity baseline page 37 **Paragraph 3.87** needs not toe that the high biodiversity sites and wildlife are very vulnerable to negative impacts, and that the UK is failing to meet its national and international obligations for biodiversity (see the recent JNCC report 6th annual Report on the Convention for Biological Diversity). **Paragraph 3.90** should not just concentrate on the favourable/ unfavourable status of SSSIs. Natural England has stated that we cannot take a purely site-based approach, we need to preserve habitats and species across the countryside. In particular, the baseline should: ■ Note that Oxfordshire's nationally important SSSIs cover less than 2% of the land area, significantly less that the 8% lowland England average, and we cannot afford to lose any more. ■ Describe the Conservation Target Areas developed by Wild Oxfordshire with the County Council, since these are protected in the NPPF and vital in responding to Climate Change. ■ Give areas of Priority habitats, and their contribution to England's protection of these rare wildlife features. ■ Give information of the Red Book species in Oxfordshire. **Figure 3.7** should include the Conservation Target Areas **Figure 3.7** should also use the Natural England 600m alert zone around the SSSIs (the level for major development of more than 100 houses) to show the constraint on selecting broad areas of development. **Landscape and townscape baseline**	

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247	The importance of access to high quality Countryside on the doorstep of the City, towns and villages needs to be included in Paragraph 3.99. This paragraph talks about the impact of development on the landscape but not the impact on easy access to that landscape. Conserving the high-quality landscape near where people live meets the Health and Wellbeing objectives in the scoping project, and cannot be replaced by more controlled urban 'Greenspace'. It is an important resource that needs to be recognised by the Scoping Report's baseline. One particular use of the Countryside is that of road cycling. It should be added to the Baseline, alongside footpaths and bridleways. An example is the access by Elsfield Lane and the Woodeaton Road to the Otmoor circular routes very popular with Oxford City's riders. We welcome that stress on the importance of the key views into Oxford which are arguably of International importance, but definitely of National Importance. Only two views give the whole rural context of the historic setting of Oxford (if you put aside the one that is viewed from a bridge over the A34). Only one- at Elsfield, has the 18th century enclosure arable fields in the foreground, and is without Pylons in the view (the electricity cables were put underground at considerable public expense in the 1960s). The view cone in Fig 3.10 will need to be modified to reflect the view cone into Oxford- a broader triangle to preserve the foreground. The view cones in the original Oxford Local Plan were only based on the view out from the City. As both your Scoping Study, the Historic England study and work by SODC show, that foreground needs protecting: Note the lack of pylons! We therefore recommend a view cone based on 55° viewing angle that is normally taken as the natural vision angle: We recommend an addition to the Table 3.22 Key Sustainability issues: Access to high quality landscape near town is important for inhabitants' access to landscape and should be protected. Without the JSSP piecemeal development could remove this strategic recreational resource. Summary of environmental sensitivity page 49 We welcome the use of the environmental sensitivity approach. However we would want to see the following changes to Figure 3.12: ■ addition of the Oxford View cones- modified to protect the vital foreground of the views into the City.	

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248	■ Flood risk to reflect the increased risk due to Climate Change over the JPPS period, and include Surface and Groundwater flood risk also modified to reflect climate change. Where urban hard surface catchment areas exist, the modelling of those catchment areas should inform the flood risk. ■ For biodiversity ■ The Conservation Target Areas need to be added- to reflect what is needed to help biodiversity adapt and survive Climate Change and their inclusion in the NPPF. ■ An alert zone of 600m to be around SSSIs and local wildlife sites, reflecting the approach of Natural England. ■ The inclusion of the Priority habitats outside nature reserves and designated sites. These are of national importance. ■ The areas of higher quality Countryside near population centres mapped as needing protected.	
	Q5: We recommend changes to the Sustainability Framework in Table 5.1 to reflect the changes we have suggested earlier in this comment on the scoping report: SA objective 1: Objectively accessed housing need, but not one that is calculated on a District basis, but that is related to geographical criteria that reflect a coherent Spatial Strategy. That Spatial Strategy to be based on understanding housing need in relation to the spatial aspects of economic, social and environmental objective of the JSSP. SA Objective 2: Add "Maintain [not just create] high quality Countryside next to urban areas. ■ SA Objective 3: Ensure that any urban extensions have many and good links into the adjacent urban areas, and are near effective rapid transport systems. ■ SA Objective 4: Strengthen the appraisal in relation the Science Transit initiative. This is core to supporting the Knowledge spine, and the relatively low priority so far in infrastructure for rapid transit between employment sites and housing is a major concern. Dedicated bus lanes, reopening railway lines, and bus links to stations all need development to link Oxford, Harwell, Didcot, Wallingford, Abingdon, Witney, Eynsham, Kiddlington, Begbroke, Oxford science Park, Bicester. ■ **SA Objective 5: We would question the inclusion of 'economic vitality and vibrancy of Oxfordshire's City and town centres.** Holding to the current model could result in distortions to our response to economic and technical	Notes on the SA framework have been reviewed and appropriate changes made.

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249	changes with the major changes in economy and technology we could well need new types of centres, for example giving access in one place a range of services, for example to health care, day centres for old and young, formal and informal meeting areas, delivery collection and drop-off. ■ SA Objective 6: We welcome that there is no simple statement of 'nearness' to facilities as a proxy for sustainability. For at least 25 years car use is going to be the predominant form of transport and access by car, including parking, needs to be considered in siting development. In later years for a connected Oxfordshire the emphasis needs to be on Rapid Transport and buses, which is effective in an area the size of Oxfordshire. We recommend a change to the wording not to focus on 'road congestion'. Using 'road congestion' to describe the problem could result in a 'road' solution. This would starve investment from a comprehensive rapid transport/bus system, stop measures that convert road space to bus and cycling, and would make car use more attractive. The wording in relation to walking and cycling infrastructure is insufficient- we need housing with many links in all directions to employment and facilities, to make walking and cycling safer, more pleasant, and link them into a rapid transit or bus system. Bicycle lanes and bridges alone are not enough, and they often do not link together but abruptly stop leaving the user with busy dangerous roads and crossings. We also need to ensure housing has access via buses, rapid transport, walking and cycling to a variety of jobs. Peripheral sites are not ideal. ■ SA Objective 13: We would want to see added "To conserve and enhance the effectiveness of the ecological network identified in the NPPF and implemented in Oxfordshire as the Conservation action Areas". ■ SA Objective 15: We are very supportive of the inclusion of protecting special views into and out of Oxford. We would also want to add "protect high quality countryside landscapes next to urban areas". We share the Scoping Report's concerns about the scoring system and the closeness between 'significant' and 'some' impact. The scoring system creates dangerous anomalies for biodiversity which the SA needs to be aware of and compensate for: ■ Uncertainty about the negative impacts on biodiversity should rule out an option because of the Government's commitment to the Precautionary Principle under the 1992 Convention on Biodiversity Diversity.	

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	■ 'Significant' negative impact often puts on a level local and national or European biodiversity assets. This is counter to the NPPF, the hierarchy of sites, habitats and species needs to be applied, otherwise key irreplaceable assets could be significantly damaged. ■ There has to be an absolute reporting of the significance of negative impact on biodiversity Because of the parlour state of biodiversity in Oxfordshire and its location, most options will significantly damage biodiversity, and if the scoring is applied only comparatively, significant damage to biodiversity becomes inevitable. The SA has to ensure the JSSP actively seeks to avoid significant damage to biodiversity. ■ Sustainability Assessments often rely on mitigation and compensation without rigorously checking if they are possible and appropriate. They are only options for some impacts and some biodiversity resources. Most mitigation and compensation/creation schemes followed up in rigorous scientific study are not effective. The Precautionary Principle often precludes their use.	
Shipton-on-Cherwell Quarry	**Q1:** The scope of the SA as currently provided is considered appropriate to support the wider Oxfordshire Plan process but should be continually reviewed to ensure additional evidence base is robustly assessed at later stages in the plan making process.	Noted.
	Q2: Alder King Planning Consultants (AKPC) firmly support the Oxfordshire Plan as a sensible basis to comprehensively plan for growth in the county up to 2050. AKPC further support the collaborative working arrangements underpinning the plan in place between the six Oxfordshire authorities, the government together with national, regional and local bodies. The National Infrastructure Commission (NIC) describes Oxford as "amongst the UK's most productive, successful and fast growing cities which plays host to a highly skilled labour force; world leading research facilities; knowledge intensive firms and technology clusters which compete on world stage." It is therefore critical to the region, and indeed the UK as a whole, that the economic performance of this city region is not only maintained but enhanced and strengthened. In the longer term. The Oxfordshire Plan has a critical role to play in achieving this. The importance of the plan is underlined in a range of national strategies including the government commitments in the Oxfordshire Housing and Growth Deal (2017). These commitments are now being taken forward in a series of local plans and strategies, advanced by Oxfordshire County Council, the Local Enterprise Partnership and local planning authorities.	Noted. The SA will take account of any significant cross boundary effects and include an assessment of cumulative effects.

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251	This being the case, AKPC lends significant support to the Oxfordshire Plan and the collaborative working arrangements that have informed it. The National Planning Practice Guidance scoping stage (Stage A) must identify the scope and level of detail of the information to be included in the sustainability appraisal report. It should set out the context, objectives and approach of the assessment; and identify relevant environmental, economic and social issues and objectives. Although the scoping stage is a requirement of the process, a formal scoping report is not required by law but is a useful way of presenting information at the scoping stage. A key aim of the scoping procedure is to help ensure the sustainability appraisal process is proportionate and relevant to the Local Plan being assessed. Within this context, we have the following points to make on the scope of the baseline section of the SA: ■ Policy context for the JSSP should be amended to include explain the relationship between the pre-existing and proposed plans for the area as a key component in the Oxford Housing and Growth Deal. This context is important in establishing the context for the JSSP up to 2031. ■ Within this context, the SA Scoping Reports for each of the adopted and emerging plans is, indeed, relevant baseline context for the JSSP SA as noted on page 9. It would also be sensible to include relevant information arising from the Inspector's Reports into each of the plans in addition as they become available together with representations made at these stages in the plan period. ■ It should be updated to reflect any matters arising in the topic papers that were published in support of the Regulation 18 version of the Oxfordshire Plan, published after the opening of consultation on the SA.	
	Q3: We have the following comments to make on the SA: ■ **Figure 3.2** should be elaborated on to show committed highways infrastructure in adopted plans which should be a key determinant in assessing the location of future growth. A diagram showing planned housing infrastructure hasn't been provided but would be useful to do so (Section 3). ■ **Figure 3.12** (Combined Environmental Sensitivity) is important as a means of discharging the authority's duty under Regulation 12(3) section 6(m) of the Environmental Assessment of Plans and Programmes Regulations 2004 and should be provided at a scale to enable respondent to comment on the accuracy as a key determinant of the acceptability of development proposals submitted for consideration.	Noted. The baseline of the SA has drawn on the most up-to-date and appropriate evidence available, and will be updated at each stage of the SA process. This includes all GIS data, available from the authorities, that consistently and comprehensively covers the Plan area. Please note that Figure 3.12 illustrating Oxfordshire's environmental sensitivity in 2016 has been removed in light of the

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252		more recent environmental evidence and data set out in other sections of the SA Scoping Report Baseline.
	Q4: Our client land interest relates to Shipton on Cherwell Quarry and have the following comments on the environmental sensitivity of the site: ■ The site is designated as a LWS on the basis of extensive open water, wetland, calcareous grassland and open-ground habitats. The bird interest is significant for over wintering, migrating and breeding birds. Much of this habitat is on land that has yet to be restored and is therefore temporary in nature. This land is under the flight path for Oxford Airfield. Compensatory habitats would be created in the land east of the railway and protected in perpetuity as part of the updates to the restoration scheme. ■ Shipton-On-Cherwell & Whitehill Farm Quarries SSSI is a geological SSSI which is located within the site area and is of importance in interpretation of sedimentology and environment during the Middle Jurassic period. It is of greatest importance during the extraction phases of the site and as exhibit outcrops on completion. The designation does not relate to ecology or biodiversity. A sympathetic design could benefit the SSSI by allowing greater exposure and maintenance of the geological features. Access to the SSSI would be greatly improved. ■ Shipton on Cherwell Quarry site benefits from access off the A4095 road. The already approved restoration scheme includes the provision of an improved access into the site, with a new roundabout. Consequently a substantial part of the road improvements needed would be provided on the site. ■ The site benefits from significant established infrastructure such as roads, potential rail connections and services (electricity, water, etc.). The electricity supply to the former cement works was the sufficient to power 1600 homes. Therefore there is no requirement for additional overhead powerlines. Other Infrastructure required would be secured under a Section 106 agreement. The development of the Shipton on Cherwell Quarry site presents a rare opportunity to integrate committed transport infrastructure with strategic land use and future growth strategy:	Noted.

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253	■ **Committed transport infrastructure:** Significant private sector investment has already been made at Shipton Quarry as part of the quarry restoration4. This includes a new railway depot and highway improvements along the A4260, effectively 'pump priming' infrastructure for the garden village. ■ **The Oxford Cambridge Arc:** In order to maximise economic potential within the Arc, the government has identified the need to deliver one million new homes by 2050. This is supported by government backed initiatives, many of which also support the case for development at Shipton Quarry: ■ **The Knowledge Spine:** Shipton Quarry is located within the 'Science Vale to Bicester Knowledge Spine' which has been embraced as a fundamental component of the Oxford-Cambridge Arc. Shipton Quarry could contribute 1,800 dwellings and 2,500 new jobs to the Knowledge Spine and realise a long-held ambition for a railway link between Oxford City Centre and Begbroke Science Park. ■ **The Oxford to Cambridge Expressway:** The site is located within the preferred corridor for the Oxford-Cambridge Expressway which is designed to create a multi-modal transport spine to support the development of large-scale new communities such as Shipton Quarry. ■ **East West Rail Link:** East West Rail has significantly enhanced connections between Oxford and London Marylebone Station. Shipton Quarry would complement this strategy by providing a new parkway station for journeys between Oxford and London Paddington, a sequentially preferable station for London Central, Crossrail and Heathrow. ■ **Connecting Oxfordshire Local Transport Plan (2015 to 2031):** In the plan, the A4260 is set to deliver vastly improved rapid transit/bus services and an associated Super Cycleway into Oxford. Located just 2km to the south of Shipton Quarry, these services can readily be redirected into the site to establish sustainable commuting patterns between the site and Oxford Parkway. Within this context, Shipton Quarry has the capacity to deliver the following development between 2025 and 2036: – At least 1,800 dwellings – 10.8 ha of employment land for technology and R&D (Use Class B1, B2, B8) – A mixed use retail centre (A1, A2, A3, D1, D2) – Primary school and nursery (2.4ha)	

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254	– Railway station (0.8ha) and park and ride facility (8.7ha) – Highways infrastructure to support bus rapid transit (0.7ha) – Ecological mitigation (24.4ha) – Public open space and play facilities (18.1ha)	
	Q5: Neither the vision for the Oxfordshire Plan or the objectives that are derived from it, align with the objectives of the Sustainability Appraisal. The purpose of the sustainability appraisal is to promote sustainable development by assessing the extent to which the emerging plan, when judged against reasonable alternatives, will help to achieve relevant environmental, economic and social objectives. Without closer alignment between the two documents, there is a risk that the plan will fail in its statutory duty to be prepared with the objective of achieving sustainable development. Further, sites submitted for consideration as part of the separate Call for Strategic Locations exercise will not be fairly assessed against the plan framework, which is neither lawful nor appropriate. To address this, the vision for the plan, aspirations and objectives that follow should be aligned with the SA objectives to ensure that the plan is appropriately assessed. Within this context, the SA objectives should be updated to reflect the comments made on the aspirations for the Oxfordshire Plan: First, the use of the word 'aspiration' is not correct. While the vision for the plan is 'aspirational' in nature, in setting out what the county as a whole should achieve by 2050, the next stage of the plan should be to deliver this vision in practice. This stage is better described as the plan's 'aims' rather its 'aspirations' which are deliverable, specific, measurable and achievable. The distinction goes beyond semantics alone, as it should enable the plan to set clearly written and unambiguous aims, so it is evident how the plan can achieve its vision in practice. Second, we have significant concerns that the plan aims lack the ambition necessary to deliver on the bold commitments to increase the competitiveness of Oxfordshire's economy within the wider region made at local, regional and national levels. Third, the aims should be restructured to reflect the plan priorities identified below. We therefore suggest that the plan aspirations are revised as follows: ■ **Aim 1 (Sustainable transport and development strategy):** This should replace 'Aspiration 5: Improve connectivity and movement' to become the very first aim of the plan. This is in the acknowledgement that the cornerstone of any plan	SA is a strategic process to assess the likely significant effects of the plan and its reasonable alternatives. The proposed SA Framework has been informed by the most recent SA Frameworks of the Oxfordshire Districts and a detailed review of the baseline and policy context of the Plan area to establish the key sustainability issues and opportunities. This comment mostly relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
255	should be to direct development to the most sustainable locations. Only by doing so, can the plan achieve a range of sustainability benefits including reducing the need to travel, easing congestion, improving air quality, enhancing the quality of life of residents and protecting the environment as a whole. This strategy also gives rise the ability for the plan to 'plug in' to existing and proposed infrastructure and make the investments necessary to increase capacity on the network and support sustainable development growth. ■ **Aim 2 (Significantly increase the supply of housing):** The National Infrastructure Commission indicates that the "sustained shortfall in housing supply" is placing a "fundamental constraint on the continued growth of the arc's most successful economies". Workers at all levels are being priced out of local housing markets, restricting firms' access to labour and impacting upon competitiveness. The NIC recommends that if the region is to maximise its economic potential, current rates of house building will need to double, delivering up to one million new homes by 2050 to improve quality of life of local residents and the competitiveness of the economy as a whole. As a consequence, significantly increasing the supply of housing should be the second priority of the plan strategy replacing 'Aspiration 4 (Improve housing availability and affordability). ■ **Aim 3 (Strengthen economic competitiveness and growth):** Once the infrastructure investment is secured and housing supply existing constraints on economic competitiveness are relieved and growth will be better assured in the sub region. This strategy has been endorsed by the NIC. Oxfordshire is one of the strongest economies in the UK and is one of three net contributors to the exchequer, generating an economic output of around £23 billion of Gross Value Added each year, from about 400,000 jobs and 30,000 businesses. Consequentially, Oxfordshire is one of three authorities preparing a Local Industrial Strategy (LIS) to support the National Industrial Strategy nationally which aims to double GVA to £46 billion and create 108,000 private sector jobs in the County. In order for this bold ambition to be achieved, 'Aim 3: Strengthen economic competitiveness and growth' should replace 'Aspiration 3 (Supporting economic growth)' to ensure that the national and local commitments can be met. ■ **Aim 4 (Facilitate sustainable communities):** Only once sustainable infrastructure, housing and economic growth strategies are secured, can a range of sustainability benefits be delivered for local communities. This should replace 'Aspiration 4: Strong and Healthy Communities'. ■ **Aim 5 (Protect and enhance the environment):** Similarly to Aim 4 above, the only tangible way in which the environment can be protected is to first direct development to the most sustainable locations that can confer the greatest sustainability gains. This being the case, this should replace 'Aspiration 1 (Protect environmental quality)' which is also	

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256	bolstered to also 'enhance' the environment as is required by the National Planning Framework (the Framework, 2019) at paragraph 170. The following hierarchy describes the manner in which these aims should be prioritised: ■ **Aim 1 (Sustainable transport and development strategy):** The cornerstone of plan strategy needs to be directing development to the most sustainable locations. These locations give rise to the greatest sustainability benefits by locating new housing which gives rise to a range of sustainability benefits including the ability for the plan to 'plug in' to existing infrastructure and make the investments necessary to support sustainable development growth. ■ **Aim 2 (Housing delivery):** The NIC identifies that a lack of housing supply is one of the most serious constraints on the future growth of towns and cities in the region. The success of the city region in economic terms has fuelled a demand for homes but the long recorded shortfall in housing supply has led to high house prices and low levels of affordability, for both home ownership and private rental and an undersupply of affordable housing. Only by placing housing growth as the second priority of the plan, can the recommendations of the NIC be met: Maximising the economic potential of the region is the delivering of one million new homes by 2050. ■ **Aim 3 (Economic growth):** Once the infrastructure investment and a significant increase in housing supply is secured, economic competitiveness and growth will be better assured. To maximise the economic potential of the region – and the contribution it makes to UK output, trading accounts and tax revenues – economic growth should take third priority in the strategy. ■ **Aim 4 (Facilitate sustainable communities) and Aim 5 (Protect and enhance the environment):** Only once sustainable infrastructure, housing and economic growth strategies can the delivery of sustainable communities the protection of the environment be assured, which should be given equal weight in the priority of plan's remaining aims. The SA Appraisal Framework should also be updated in line of the following comments on the Oxfordshire Plan draft objectives (with addition in underline and retraction in strikethrough): ■ **Draft Objective 9 1:** "To promote development in the most sustainable locations which mitigate the effects of climate change, and co-locating homes and jobs; then connecting those less sustainable locations through improved public transport and digital networks." Draft Objective 9 should become the first objective in the plan – only through promoting	

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257	development in the most sustainable locations can the plan meet its objectives in contributing to mitigating the effects of climate change. ■ **Draft Objective 10 2:** "To reduce the need to travel and provide better travel choices, ensuring that walking and cycling are convenient and attractive, and that public transport is preferred by residents to private car ownership and use." Once the most sustainable locations are chosen, the plan can then bolster existing infrastructure and make the necessary investments to ensure its sustainability in the longer term. ■ **Draft Objective 7 3:** "To meet the county's identified housing needs, particularly affordable housing and support our selected economic aspirations." As recommended by the NIC, the delivery of housing needs to be significantly increased. We note that the Housing and Growth Deal does not meet all the affordable housing requirements of the county up to 2031. If meeting affordable housing need is an objective of the plan, then the plan should seek to deliver all of its affordable housing requirements over the plan period with the housing requirement identified requirement as 112,480 dwellings up to 2031. ■ **Draft Objective 8 4:** "To ensure that a range of housing options are available to meet the needs of communities that will cater for a variety of needs and are built for adaptability, energy efficiency and to a high quality and support the plan's economic growth strategy." The plan should then deliver the type and mix of housing to meet the needs of communities and the overall economic growth strategy. ■ **Draft Objective 5:** "To establish the right conditions to sustain and expand strengthen the role of Oxfordshire in the UK and global economy by supporting the objectives of the Local Industrial Strategy and building on our key strengths and assets." This revision would better reflect a measurable and achievable strategy for economic growth over the plan period. ■ **Draft Objective 6:** "To create a prosperous, successful and enterprising economy which invests in the most deprived areas to rebalance economic growth to ensure the benefits are felt by all." Differences in life opportunities and quality of life are felt even within relatively small geographic areas in Oxfordshire. In those more deprived areas (which can be found in each of the districts of Oxfordshire) residents often have lower wages and skills, educational attainment is lower and health is poorer. Readdressing this balance needs to be a key objective of the plan. ■ **Draft Objective 1 7:** "To maintain and enhance the historic built and natural environment of the county through strategic investment and high quality design and to capitalise on the benefits these assets contribute to quality of life and	

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	economic success." This revision simply reprioritises the objective in the overall hierarchy to indicate that these benefits can be better realised once the correct decisions are taken in directing development to the most sustainable locations. ■ **Draft Objective 2 8:** "To protect and enhance the County's distinctive landscape character, recreational and biodiversity value by considering the benefits these assets bring when selecting areas for growth, by optimising densities, prioritising the efficient use of previously developed land, by improving connectivity between environmental assets and securing a net gain for biodiversity." The Framework, at paragraph 123, confirms that the efficient use of previously developed land should be prioritised in areas that are highly constrained environmentally or there is an anticipated shortage of housing land for meeting identified needs – both of which apply to Oxfordshire. Having regard to both to the characteristics of the county and the significant level of housing growth required over the plan period, planning policies and decisions should prioritise and make the very best use of brownfield land. This objective should be amended as set out above to better reflect these points.	
East Hendred Parish Council	A review of the Oxfordshire Plan 2050 would not be soundly based without monitoring & a review of the 2014 Oxfordshire Strategic Housing Market Assessment (SHMA), which formed the basis of the Oxfordshire Housing and Growth Deal for 100,000 dwellings, for these reasons: ■ To comply with national planning policy that the NPPF Standard Method should be the starting point, and that exceptional circumstances reflect current & future demographic trends, (i.e., the 2014-based ONS Household Projections), and market signals. ■ To allow the Sustainability Appraisal to assess whether the exceptional circumstances for departing from the Standard Method are justified on the basis of the social, economic & environmental impacts, ■ Because of the implications on the 5 year housing requirement of a significant under-delivery of housing 2011-2018, (14,000 dwellings), and a 10%-20% buffer requirement, which would be double the 4,213 dwellings per year completed over the last 3 years. The 100,000 dwelling target should be phased over 30 years to 2041, not over 20 years to 2031. **NATIONAL POLICY ON ASSESSING HOUSING NEED** 2.1 The Government's Planning Practice Guidance (PPG) states that: *The standard method for assessing local housing need provides the minimum starting point in determining the number of homes needed in an area.* The NPPF paragraph 60 states that: *To determine the minimum number of homes needed, strategic policies should be informed by a local housing need*	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
259	*assessment, conducted using the standard method in national planning guidance - unless exceptional circumstances justify an alternative approach which also reflects current and future demographic trends and market signals.* The 2014 SHMA does not reflect current demographic trends, using the out-dated birth, dead, migration and headship rates in 2011-based Government household projections to 2021, extended to 2031 with 2008-based projections, instead of 2014-based household projections set out in the PPG advice on Housing Need Assessments. **The Justification of exceptional circumstances:** The use of the Standard Method as a starting point would enable the Sustainability Appraisal to assess whether there are exceptional circumstances for departing from it, and the social, economic & environmental impacts. These would cover population, economy, transport, air quality & noise, land, water, climate change, historic environment, biodiversity & landscape impacts, as set out on Table 2.2 of the Scoping Report. **The Implications of housing under-delivery:** The NPPF paragraph 73 sets out the need to demonstrate a deliverable 5 year land supply. However, the SHMA 5 year housing requirement of 5,003 dwellings per year is affected by under-delivery of housing 2011-18, and the need for a 10%-20% buffer to reflect under-delivery. Only 20,875 dwellings of the 2014 SHMA housing requirement for 35,021 new dwellings, (2011-18), has been delivered (60% of the total). This results in a shortfall of 14,146 dwellings, a significant underdelivery of the housing requirement. A review of the SHMA is justified to address such a significant failure to implement a Core Objective of the SHMA as included in District Local Plans, see Table 1. The implications for the SHMA's 5 year housing requirement (2018-23), compared to 3,370 dwellings per year proposed by the Parish Council, are: **Table 1: THE 5-YEAR HOUSING REQUIREMENT** **SHMA** **Proposed by EHPC** 5 year Housing requirement 25,015 16,850 Plus Housing shortfall 2011-18 +14,146 +14,146	

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
260	Requirement incl. shortfall 39,161 30,996 Buffer for under-delivery 46,993 34,096 (84% over last 3 years) (+20%) (+10%) Annual housing requirement 9,398 6,819 This increased SHMA target, 2018-23, is not therefore deliverable, being double the 4,213 per year housing completions over the last 3 years, see CLG Table 122. The Oxfordshire Growth Board have already accepted that they cannot meet a Government 5 year housing land supply requirement in negotiating the 20th of September 2018 MHCLG Written Statement, reducing it to a 3 year requirement until the Oxfordshire 2050 Plan is adopted. Half of the Oxfordshire shortfall occurs in Oxford City, with only 241 dwellings per year completed, (2011-2018), compared to a SHMA target of 1,400 dwellings per year. The shortfalls are largely due to delays in the adoption of District Local Plans, with Oxford City & South Oxfordshire not yet achieving this requirement 7 years after the SHMA housing requirement plan period started (2011). A housing review is therefore required. **Conclusions:** The 2014-based ONS household projections should be used to assess housing need, to comply with the 2018 National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG). This would ensure the Oxfordshire 2050 Plan is based on current national policy & is deliverable, to be soundly based. Table 3 shows that using the Standard Method, the Oxfordshire housing requirement falls from 5,000 dwellings per year in the out-dated Oxfordshire SHMA to 3,370 households per year. **Proposed Amendment to Housing Requirement** Using NPPF Standard Method = 3,370 dwellings per year	

Consultee	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	This would allow the re-phasing of the 100,000 dwelling target in Oxfordshire's Housing Growth Deal from 2011-31 to 2011 to 2041, (3,370 x 30 years), to reflect the significant under-delivery of housing 2011-18, due to delays in the adoption of some District Local Plans. In the absence of household projections beyond 2040, and uncertainties in demographic & economic projections, power & water supplies, infrastructure & climate change requirements beyond 2040, clarification is sought on the justification for a plan period beyond 2040, almost 30 years from adoption of the plan, instead of the 15 year requirement in the NPPF.	

Table A.2: Oxfordshire 2050 SA Scoping Report Consultation Comments by Document Part

Consultee	Document Part	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
PfT Planning	**Introduction**	The Report refers at **1.5** to 1) Oxfordshire's growth needs and development ambition. This is the first sign that the JSSP will not result in sustainable development and the implied need to reduce and eliminate carbon emissions, by presuming that there are 'needs' for Oxfordshire to 'grow'. This 'ambition' cannot precede the work that will need to be put into the preparation of the JSSP to see what kind of growth could be made compatible with sustainable development (e.g. compliance with SDGs and achieving zero carbon). Confirmation at **1.7** "The JSSP will provide an integrated strategic planning framework and evidence base to support sustainable growth across the county to 2050, including the planned delivery of new homes and economic development, and the anticipated supporting infrastructure needed.", of the assumption that there is an existing model of 'sustainable growth'. Given that new development (dwellings, workplaces and associated infrastructure are very carbon intensive; about 50% of emissions are embedded before occupation) the JSSP must start to investigate what is meant by genuine 'sustainable growth' before proposing 300,000 extra net houses and associated jobs and infrastructure.	This comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report. SA objective 7 of the SA Framework will test the Oxfordshire Plan and its reasonable alternatives on their ability to minimise Oxfordshire's contribution to climate change.
	Policy context for the JSSP	There are references like "**2.2**…It will also seek to address linkages to wider planning considerations, for example the Cambridge-Milton Keynes-Oxford Growth Corridor." that continue to assume that the type of 'growth' underlying the concept of the 'corridor' could be made sustainable. The commitment, "**2.3** The JSSP ….to the Housing and Growth Deal to deliver up to 100,000 homes by 2031.", should be re-examined in the light of the best evidence on the carbon emissions associated with urban development. "**2.5** …there are already a number of proposals for improvements to the local transport network, addressing both traffic congestion and seeking to provide high quality public transport services to both support growth and achieve a shift in use of transport modes away from private vehicles….**2.6** Of particular note is the work being carried out by the National Infrastructure Commission, which has been asked to provide Government with proposals and options to maximise the potential of the Cambridge-Milton Keynes-Oxford arc …". The preparation of the JSSP is the perfect opportunity to expose the false assumptions that underlie the NIC report Partnering for Prosperity. The proposal to build a new road to Cambridge via Milton Keynes and Bedford flies in the face of the NIC report Congestion, Capacity and Carbon that explains the futility of new road building (citing the relevant research).	This comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report. The SA will draw on the most up-to-date evidence and policy available at the time of appraisal. SA objective 7 of the SA Framework will test the Oxfordshire Plan and its reasonable alternatives on their ability to minimise Oxfordshire's contribution to climate change. SA objectives 6 and 8 of the SA Framework will test the Oxfordshire Plan and its reasonable alternatives on their ability to reduce the need to travel by car in Oxfordshire and to minimise air, noise

Consultee	Document Part	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
263		"It is possible, though expensive, to build more capacity on longer distance roads on the outskirts of cities, unlike in the city centre. But any such new capacity is still unlikely to solve the congestion challenge. Instead, it enables people to make different choices about where to live and work, and when and how to travel, which generate benefits for those individuals, but quickly fill up the new road space." "… In the long term, it also supports an Oxford-Cambridge expressway, which will provide a new high-quality road link between Oxford, Milton Keynes and Cambridge. Once completed, the new road is expected to take up to 40 minutes off journeys between the M4 and the M1, bringing Oxford and Cambridge to within a 45-minute drive of Milton Keynes." This time saving is based on existing technology and an assumption that the route will continue to be used by ICEs driving at the environmentally damaging speeds of over 50mph which is the average achievable today. In fact, any new road would mainly be used by electric vehicles that will be traveling at about 50mph to maintain the range to avoid anxiety and/or carrying excessive battery weight. Neither the NIC nor Highways England have factored in the effects of electrification or automation in their continued support for the idea of a new road. "**2.12** The high growth planned for Oxfordshire is part of the development of a 'knowledge arc' between Oxford, Milton Keynes and Cambridge. The 'knowledge arc' is being promoted by all of the local authorities along this corridor, and by the National Infrastructure Commission. In particular, the National Infrastructure Commission supports the East-West rail line and an Oxford-Cambridge expressway in its 2017 report 'Partnering for Prosperity'." In fact, Oxford City Council has withdrawn its support for the Expressway. Meanwhile the NIC is aware of, but has not fully admitted, that the new road will attract more traffic and congestion onto the feeder roads (i.e., A34, A40, and A420) that would be very damaging to the functioning (and further growth) in the Oxford area. The NIC has not been able to show that the East-West rail line will proceed under the threat of a road being built-along the same route. It is very likely that any new development along the 'knowledge corridor' would need to be serviced by rail, built as soon as possible and unfettered by the threat of the new road. The road would be designed to serve car dependent housing, contrary to all the transport policies of all the constituent authorities (between Oxford and Cambridge). **Table 2.2** Under 'Population health and wellbeing' Table 2.2 proposes meeting. -Meet objectively housing need (sic). The SHMA covers a housing market area and quantifies 'demand' and not 'need'. In October 2018 Oxford City Council reviewed the 2014 SHMA finding and found a significantly lower figures of 'need' that look close to the recent estimate made by the ONS.	and light pollution in Oxfordshire, respectively.

Consultee	Document Part	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
264		Under – 'Promote sustainable construction' Table 2.2 does not refer to residential sub-divisions that would be the only way to meet any of the estimates of housing need within carbon budgets. * Under 'Transport is' – 'reduce the need to travel' that is contradicted by the support for the Expressway. * Under 'Land' is – 'promote local food production' but without any supporting evidence or suggestions as to how this might be achieved to allow any assessment of whether or how 'local food production' might fit with the notion of 'growth' being promoted by the Report. * Under Climate change mitigation and adaptation there is 'Support low carbon economies'. There is an understanding that '…information can change or be updated on a regular basis.' Given that there would be full knowledge of the lower estimates of 'need' and the imperative to start reducing carbon emissions it is concerning that the JSSP is prepared to ignore this updated evidence.	
	Baseline environmental, social and economic context for the JSSP	**3.53** provide further detail about the Expressway, …'which the Government sees as filling major gap in the national road network, will work together with the proposed East West Rail link to improve east-west connectivity. The Expressway is projected to take up to 40 minutes off the journey between the A34 south of Oxford and the M1 to improve connectivity to high quality jobs in centres of rapid growth such as Oxford Science Park.' In fact, the Expressway would prejudice the completion/and/or viability of the rail link and only reduce journey times for ICEs driven at speeds producing high carbon emissions.	The SA will draw on the most up-to-date evidence and policy available at the time of appraisal.
	Future challenges and key sustainability issues	'Future challenges' include 'Climate Change' but **paras 4.7** & **4.8** only deal with adaptation and not challenge of mitigation (i.e. 1.5 degrees) that is of immediate importance and not for the future. Key sustainability issues to be taken into account during the SA of the JSSP. 7. To minimize Oxfordshire's contribution to climate change Promote energy efficient design? Encourage the provision of renewable energy infrastructure where possible? Minimise greenhouse gas emissions from transport? Clearly 'taking into account' is not the same as 'taking meaningful action'. The scale of urbanization being proposed implies a scale of carbon emissions that will be significantly above those implied by the	Noted. Reference to the need for climate change mitigation has been added to Chapter 4. SA objective 7 of the SA Framework will test the Oxfordshire Plan and its reasonable alternatives on their ability to minimise Oxfordshire's contribution to climate change.

Consultee	Document Part	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
		IPCC Report Oct 2018. And supporting a new road to create a corridor with car dependent housing is inconsistent with reducing carbon from transport. On a separate matter the JSSP should note at **para 14**. that the former RAF Upper Heyford is also recognised as being of 'international heritage importance' and should be developed into a major tourist attraction.	
Member of the Public and Many	**Introduction**	SUBMISSION – CONSULTATION: OXFORDSHIRE JOINT STRATEGIC SPATIAL PLAN: Sustainability Appraisal Scoping Report This is a personal submission on the Sustainability Appraisal (SA) Scoping Report for the Oxfordshire JSSP. This SA is not adequate in terms of its scope, particularly with reference to the Climate Emergency and a failure to conform to the latest NPPF. All evidential references shown as footnotes in this submission offer additional material to the evidence base for the SA, if not previously used in the preparation of the consultation document. Omissions: The Climate Emergency: This consultation document was published recently and could have taken into account the latest evidence of accelerating Climate Change. On 8th October 2018, the Intergovernmental Panel on Climate Change (IPCC) released its latest report. The effect of this report is not reflected in this consultation document. The consultation document is, in fact, significantly outdated in respect of the serious Climate Emergency which the IPCC has detailed in its 700pp report. [1] In consequence, systematic and extensive revisions to the draft Sustainability Appraisal and future JSSP are needed if they are to be relevant to the wide variety of intensifying Climate challenges in the period which the Plan is intended to cover. Essentially, this can be considered 'future proofing' throughout the JSSP with references to how the Climate Emergency is to have policy effects in virtually all sections of the final Plan. In addition, it is vital that Climate concerns are integrated into and are made explicit throughout the Plan so that the Climate Emergency is the over-arching policy priority for Oxfordshire. Without this, there will be serious damage to the ecology, economy and society within Oxfordshire. Specifically, the County needs to adopt a net Zero Carbon target for the entire County to achieve no later than 2030. Since (p.1), the SA is supposed to be 'an assessment process designed to identify and communicate the significant sustainability issues and effects of emerging plans and policies, including their reasonable alternatives,' then all policies likely to maintain a Climate Emergency within Oxfordshire needed to be identified and sound alternatives to them needed to be outlined. A range of sources can be used to justify a far more rigorous response to the SA than the current draft document offers. [2] This is not done in this consultation so far, meaning the document is not fit for its own stated purpose.	Climate change is highlighted throughout the SA Scoping Report as a cross cutting issue and building resilience to climate change is now addressed through SA objective 7. In addition, reference to the urban heat island effect has been added to the Climate Change section of Chapter 3 of the SA Scoping Report. Please note that the additional documents have been reviewed and references have been made to them where appropriate, for example the IPPC report referenced has been reviewed and added to the climate change section of Chapter 3. The comments relating to policy options for the protection and enhancement of biodiversity and associated assets relates largely to the options for the Oxfordshire Plan itself, rather than the SA Scoping Report.

Consultee	Document Part	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
266		Climate policy integration clearly needed to be accompanied by environmental policy integration in every part of this consultation document. Resilience: The issue of resilience is missing from the SA. Apart from the possible impacts of the Climate Change crisis upon food supplies, there are also long term issues about the water, food and other physical resources the County is using and intends to use in future. Resilience is primarily an ecological concept, important for assessing how humans and other species can and do deal with extremes of Climate and other types of environmental stresses. But resilience can also be considered to be about the capacity to withstand economic shocks, like 'hard Brexit' scenarios. In practical terms, the JSSP needs to consider – in each policy area – what capacity the County's statutory institutions and those they are in contact with, or in partnerships with, can contribute means and skills to assisting the County in carrying out both essential and desirable functions under conditions of environmental crisis. Responses to the Hurricane of 1986 and 7/7 indicate how councils and services supported by the public can respond to extreme pressures. In short, this is an upgrade to conventional Emergency Planning which ought to feature in the final JSSP. Intergenerational Equity: We should deliver an Oxfordshire to future generations which is enhanced appreciably compared to its current ecological decline due to 'hyper-growth'. I refer not just to the 2050 horizon of the JSSP, but in preparation for hundreds of years into the future. The SA must, and currently does not, take future generations into account. PM2.5s (see comments below) The 'urban heat island effect': Related to the concept of resilience is the 'urban heat island effect' which is not mentioned in the draft SA. In brief, this refers to urban settlements being warmer than rural ones due to reflected heat. This is appreciably worsened during hot dry periods, a reflection of rising global temperatures. The areas where this is most significant are in need of more trees, fountains and pedestrianisation to make them more liveable spaces throughout the County. Addressing the development problem of 'biodiversity compensation': I am very, very sceptical about 'biodiversity compensation' in terms of providing 'like for like'. Destroying 40 ancient woodland sites and promising replanting (for HS2) is not replacing one ecosystem with one identical to it. I also think that the basic principle of biodiversity restoration should be part of the SA given the appalling species and habitat losses in the UK since 1945.[3] Moving from 'ecological fragments' to corridors within which species can readily move is very important. The SA needed to address this problem and indicate how biodiversity can be protected from development. In more detail:	

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267		Biodiversity Policies should include the following: – set out an ambition for a net gain for biodiversity (to establish coherent ecological networks that are more resilient to current and future pressures) – require the creation of biodiversity spaces and features in and around new developments appropriate to the scale of the development (alongside the requirements for good design in the NPPF). For example, this could include new green spaces or green roofs or – roosting or nesting provision on built structures. – require the creation of biodiversity spaces and features in and around new developments protect existing sites of biodiversity importance (designated and undesignated) – appropriate to the scale of the development (alongside the requirements for good design in the NPPF). For example, this could include new green spaces or green roofs or roosting or nesting provision on built structures. – set out local standards for accessible green space provision at least equivalent to the Natural England Accessible Natural Greenspace Standards[4] – recognise the benefits of urban habitats and their role in supporting large, diverse communities of bees and other insects that plan an important role in pollinating urban crops, especially gardens and allotments and requiring new building and infrastructure developments, as well as conservation strategies, take this into account."[5] Section 1.5 2) 'Whether there are any additional plans, policies or programmes that are relevant to the SA policy context that should be included.' See IPPC latest Climate Change report as mentioned above. See also Government advice on Sustainable Development which has not been taken into account adequately throughout this SA document. See next point: Sustainability and not conventional economic growth, or 'sustainable growth' should be a core priority and value in this SA, in order to meet references to sustainable development in the tests of soundness for Local Plans as a good way the SA itself might be tested, although this is not required. Quality of life will suffer if growth is pursued as if it were the only indicator worthy of significance. I suggest that, as well as the UN Sustainable Development Goals, many other indicators are of value. Here are some suggestions: – Section 1.7 The Government has attempted to define 'sustainable development' although it remains to be seen how clear and consistent its attempts may be.[6] However, 'sustainable	

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268		growth' as used in this section is not defined in Government policy since the sustainability of what is growing is not being assessed. So, there is an unresolved inherent conflict in Government between environmental policy, sustainability and the idea of growth. If growth involves the use of finite resources, it is not sustainable indefinitely. If growth involves undermining biodiversity, reducing land available for food and forestry and having harmful effects on public health through air pollution or noise, then none of this is sustainable. Consequently, the basic idea of a Sustainability Appraisal needs to consider how forms of growth contemplated for Oxfordshire will be free of such obvious conflicts, since the idea of 'sustainable growth' in current official preferred usage is quite meaningless. In addition, comments on content: – Longevity in all social classes improving year on year. – Air quality improvements year on year in all parts of the County – Increased proportion of journeys made by bicycle. – Area increases for pedestrianisation, pedestrian priority, allotments, the Oxford Green Belt and in areas within Oxfordshire providing food. – Increases in species now rare within the County year on year, in part through habitat restoration. – Educational attainments improving in all social classes by age 18. – Increased area of biodiverse land in Oxfordshire – Decrease in disused brownfield sites because of conversion to housing. Section 1.13 **Figure 1.3** Bearing in mind the comments in the previous paragraph, the baseline conditions of 'current and likely future environmental, social and economic conditions in Oxfordshire,' must take into account the potential depredations or depletions of water, soil, biodiversity and physical resources which would undermine the ecological resilience and human wellbeing which are inherent in current forms of growth. Using a SA without doing this effectively would not be intellectually honest. News that a 'hard' or no deal Brexit may mean a delay until 2021 in having a form of environmental agency to replace the roles created by EU legislation means that we are at risk of a hiatus in resources and enforcement for environmental policies. [7] It is difficult to see how meaningful the SA can be under this constraint and whilst a third of environmental laws & regulations have yet to find a home in new	

Consultee	Document Part	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
269		Government legislation to replace what we will lose if Brexit occurs. This raises the question of whether the SA & JSSP can be realistically completed at present. [1] See the following. This link gives access to both the full report and a summary for policymakers: http://ipcc.ch/report/sr15/ [2] See all these examples as additions to the evidence base: – https://www.oxfordresearchgroup.org.uk/blueprints-for-a-green-challenge?fbclid=IwAR0P3QSwsY1XYT6QRvktptB7ZfF6pE79UwraItFDOtC65oyyrKYyqvVciCs – https://www.sciencealert.com/giant-void-identified-under-antarctica-reveals-a-monumental-hidden-ice-retreat?fbclid=IwAR1QPH0hIJkcR5eH86C18S-tHoSlcKOxQ8oLI0AR0UyUCIEYgLxrlwpV5wQ – https://www.theguardian.com/us-news/2019/jan/30/polar-vortex-2019-usa-what-is-it-temperatures-cold-weather-climate-change-explained?CMP=Share_iOSApp_Other&fbclid=IwAR0oWNEsIemGpcXr7SISxEmd7eumtWsfuPE39GqikC2Asn2ax_oPJs9G82Q – https://www.independent.co.uk/environment/arctic-summer-global-warming-climate-change-high-temperature-canada-baffen-island-115000-years-a8750181.html?fbclid=IwAR3DEBsPAVvAb_cxo8nIbvM2ayL3qUp5Eb0kVmmGK7qXdTagotSdoUDGvvc – https://phys.org/news/2019-01-landscape-unseen-years.html?fbclid=IwAR3LVU5fkASMi1WsobkN9jHEQSYXL_BxQmPJYgqG-nGA2k3j9up40a60YFY#jCp – https://www.eenews.net/stories/1060118349?fbclid=IwAR2ULHHFnzknu55uSXq_PwYF7P4aRS9phsO5PnE8Q4Ir2I-nHubyP429hYI – https://www.nationalgeographic.com/environment/photos/rivers-run-dry/?fbclid=IwAR3oL6gpqvr4hRt_Sfi4DvOd6Zbp1jzWj_A62GOS2pdXgr5D0LcpVpq9uCc – https://www.independent.co.uk/environment/co2-levels-rise-climate-change-global-warming-fossil-fuels-met-office-a8744911.html?fbclid=IwAR1d03VoheZpH-y_kv3oPBuOc53XqINRUBltTufDucvOnvWQ9AfII8o_YtM	

Consultee	Document Part	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
270		– https://www.businessinsider.com/greenland-approaching-threshold-of-irreversible-melting-2019-1?utm_content=topbar&utm_medium=referral&utm_source=facebook.com&utm_campaign=buffer&utm_term=desktop&referrer=facebook&fbclid=IwAR1JPJwsKz2s6R3RtjxMOo_mjLe2vtK7lsWThHkYxzPmDOLn4UiRMKXdfiw&r=US&IR=T – https://www.theguardian.com/environment/bike-blog/2019/jan/23/government-miss-cycling-targets-by-mile-time-invest?CMP=share_btn_fb&fbclid=IwAR1dSqbzmYMSzSnwcol9ogO19WK3N55DuwLeX3QgFcaVipbmsoouDUpUc4E [3] See for example: – http://uknea.unep-wcmc.org/LinkClick.aspx?fileticket=IfVaZJDoV8c%3d&tabid=82pp.2-4 – for forests, woods and trees specifically, see: https://www.woodlandtrust.org.uk/mediafile/100229275/stake-of-uk-forest-report.pdf?cb=58d97f320c [4] http://webarchive.nationalarchives.gov.uk/20140605090108/http:/www.naturalengland.org.uk/regions/east_of_england/ourwork/gi/accessiblenaturalgreenspacestandardangst.aspx [5] Local Plan Guide, ibid, p.28. [6] See, for example: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/404521/RFI_7241_-_20150216_Government_Definitions_of_Sustainability_Redacted__2__amended.pdf [7] See for example: https://www.climatechangenews.com/2019/01/31/no-deal-brexit-leave-uk-without-green-watchdog-two-years-report/	
	Policy context for the JSSP	**Section 2.2** The Local Industrial Strategy referred to here has to sit within ecological and related human health and wellbeing considerations. It will not be sustainable or acceptable otherwise. The JSSP may not link to the so called 'Cambridge-Milton Keynes-Oxford Growth Corridor' since current economic conditions do not suggest conventional economic growth will be occurring in the foreseeable future. The Government's Brexit impact studies suggest a 2-8% reduction in GDP depending upon how 'hard' Brexit	Many of the comments relate to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess

Consultee	Document Part	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
271		is in practice. Figures suggesting a loss to date of 2.1-2.5% of GDP are instructive. The current failure to agree a settlement of the future UK-EU relationship suggests a 'hard' form of Brexit with a longer and probably highly impacting form of recession. The SA needs to be candid and realistic about the conditions which may well apply throughout the Corridor in a collapsing form of Brexit if it is to be of any practical use whatsoever. How, for example, is growth to be expected if the end of freedom of movement and the choice by EU citizens – in increasing numbers already – to return to continental Europe exacerbates the extremely serious skills shortages noted on the Foreign Office shortage occupations web pages? **Section 2.3** The 100,000 homes target has been widely criticised and forensically destroyed by informed critics. Sustainability cannot be achieved if each new home being built is adding substantially to carbon emissions in its construction and operation, including consequent transport emissions. On housing and its relationship to sustainability, there are many deficiencies in the basic thinking of bodies clustered around the planning process in Oxfordshire: Skills shortages in the construction industry are at a record high.[1] From 2013 onwards, the retirement estimate for UK construction workers aged over 55 is 400,000 people during the following 5-10 years; for those aged 45-54, the estimate was that a further 518,000 people would retire. For self-employed construction workers, it was also estimated that about 182,000 would retire during the same period.[2] The 16-21 age group is under 6% of our construction workforce and the industry needs about 400,000 new entrants each year, at a time when EU-origin construction workers are tending to return home.[3] This replenishment by young entrants into construction is not happening at the needed scale, perhaps because financial support for students for doing apprenticeships and further education courses is too low. The industry allegedly 'grows' - as the Government has noted how 100,000 construction jobs were added in England in 2015 alone [4] – but this does not accurately portray the actual current situation or compensate for losses to retirement and others leaving the industry, or the country. The Government is cutting back financial support for part-time students as well. The above figures also do not take into account shortages of civil engineers or planning officers in local government, both essential for implementing new housing and the provision of associated infrastructure. Austerity itself as the apparent key goal of Government policy undermines housing growth, which is faltering as home prices especially in the SE go down or flat line. Our councils, like our Government, need to consider how best use may be made of the existing built environment in areas of high pressure demand for homes. This is consistent with the idea of sustainability and better use of the existing built environment and brownfield sites. We simply do not have, and are not likely to obtain in the foreseeable future, the much larger number of skilled construction workers needed to build many new homes. Assuming otherwise in the	the significant effects of the Plan and their reasonable alternatives against the SA objectives. The SA will draw on the most up-to-date evidence and policy available at the time of appraisal.

Consultee	Document Part	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
272		prospective Industrial Strategy will not change failings in Government policy. It may take many years of effort and better financial support to students to eradicate very serious skills shortages. In short, we should all be exceptionally sceptical about construction delivery on the scale suggested throughout many official documents and as part of the evidence base for the SA. Government hostility to migrants is currently prejudicial to meeting skills needs in construction and elsewhere; the Malthouse plan for an extra 300,000 homes in Oxfordshire, to double the County's homes, is even more questionable and I note the bemused and less than compliant responses of Oxfordshire's local authorities to this idea – which are entirely constructive given the utterly implausible housing delivery figures Mr Malthouse appears to believe he can wish into existence. This is a difficulty for the SA: acute uncertainty about the realism of housing projections. With regard to the GL Hearn update of the SHMA evidence for Oxford, [5] I note the CPRE analysis from a recent newsletter: "Oxford City – new SHMA update from GL Hearn appears to reduce Oxford's need dramatically. "……This includes proposals to take a number of sites out of the Green Belt, totalling approx. 800 dwellings, and CPRE will of course be challenging these. However, the more existential threat to the Green Belt is the City's continuing expansionist tendency, with a failure to meet its housing need within its own boundaries, looking to its neighbours to pick up the slack (ideally through urban extensions). CPRE's case is that the City could meet this need if it prioritised land for housing, rather than employment, and built at a density appropriate for city living. One of the most interesting documents to emerge is an update to 2036 of the Oxfordshire Strategic Housing Market Assessment by its original authors GL Hearn. This appears to bring Oxford's objectively assessed need (OAN) down from 1,400 to 776 dwellings per annum. We must obviously bear in mind that the OAN is a floor, not a ceiling – and their argument that the higher figure is required to support the Oxfordshire Housing & Growth Deal will no doubt be viewed as significant. However, this is certainly a strong point to challenge as it is Oxford's OAN that is driving the vast majority of the current Green Belt allocations." Since this is part of the evidence base for the SA and JSSP, its accuracy is critical in its implications for the entire County given Oxford's importance as an employment centre. However, the extent to which it heavily stresses uncertainties is a major question about how it then becomes useful as guidance for policy. The failure to improve housing policy can become a failure of the JSSP if the naiveties and misplaced growth assumptions of bodies such as the Oxfordshire Growth Board and LEP are not set	

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273		aside. There is also a general problem of consultants: evidence seen as 'good' from the client's point of view is stressed; evidence 'bad' from the client's point of view may not get the attention it deserves; deficiencies may occur if the consultant is not briefed – e.g., in this case on sustainability as a key factor and the need to take into account the implications of likely increases in targets for cutting carbon emissions. In terms of sustainability, we need land for biodiversity, food, recreation and tourism, forestry and to ensure that urban sprawl is not permitted in any location. Current fantastical plans for homes not likely to be built ignore how the average number of homes built each recent decade is going down because of a reliance on markets to meet housing demand – when home prices in Oxfordshire are beyond the reach of most households in terms of income. There is a farming case for feeding ruminants just on pasture, which would free land from being used for feed.[6] To do this, and to remove animals from factories, we need an assurance of a sustainable area of pastureland equal to the task as part of land use long-term. The SA as drafted does not offer this. We cannot attain long-term food security and food sovereignty [7] unless the SA takes these needs into account. This draft SA does not mention either. Similarly, local food strategies including more farmers' markets and infrastructure which supports agriculture are actually, as documents attempting to amend the Government's Agriculture Bill demonstrate.[8] **Section 2.9** This is clearly contradictory. We cannot 'support jobs and housing growth and economic vitality' and simultaneously 'reduce transport emissions', enhance the environment, improve public health etc. Since about 533,000 people die in this country each year, and households turn over – by as much as 25% each year in the case of Oxford – and homes across the County remain empty – 430 in Oxford alone – we need to obtain maximum use of homes available instead of building on the countryside. If councils have the funds, they can purchase homes for social housing and keyworker housing that are on sale. They can look at reducing the empty spaces in industrial estates and science parks with very low cost housing. They should, always and everywhere, seek to build around the edges of and above the surface level of private and public car parks and stop wasting valuable space. Building on the countryside is lazy thinking and necessitates further appreciable spending on infrastructure that could be avoided by making better use of the existing built environment and under-used brownfield sites. **Section 2.10** Bus journeys have fallen by 90 million in a year in England. [9] Bus strategies in Oxfordshire have been undermined by the removal of bus subsidies. The efficiency and reliability of buses in Oxfordshire is undermined by traffic growth on many although not all routes. Car commuting into Oxford shows little sign of succumbing to LTP4 policy to reduce it on most routes. The Electronic	

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274		Road Pricing Report I prepared and sent to key County Councillors needs to be considered as part of a strategy, including re-opening disused rail lines, to systematically reduce road traffic over time – including those areas with at capacity or over capacity conditions such as the A34.[10] 2.11 This clause treats the Cambridge-Oxford Expressway as an accepted policy, although no consultation on the principle of this road has ever been undertaken. Reference to the Expressway should not, in consequence, influence the SA as it is still very much subject to legal challenge. I also note the steadily growing opposition to this idea, particularly but not exclusively within Oxfordshire: Oxford City Council now opposes the Expressway [11]; there are two coalitions of groups opposing the Expressway: the No Expressway Alliance (22 supporting groups at the time of writing) and the Expressway Action Group (33 Parish Councils in support). Data given for time supposedly to be reduced by the existence of an Expressway is completely unreliable. Since the Expressway has neither chosen route nor any decision about the number of junctions it may have, there can be no reasonable estimate of how many minutes might be taken – if any – off journeys. This sort of claim borders on fraudulence. The Expressway does not satisfy any known actual transport demand, nor can it be made 'sustainable' in any sense. The SA should, in fact, be ruling it out as unsustainable and in conflict with stated policies and plans in Oxfordshire including LTP4. It is one of the tests of veracity of the SA that it should do so. Further on this topic: Commuter traffic increases caused by the Expressway if ever built are in conflict with the County's Local Transport Plan, as are major developments likely to add significantly to both air pollution and greenhouse gas emissions in the City. The draft SA, to be consistent with other national, City and County policies, and indeed national ones, has to rule out the Expressway. To be specific, The Local Transport Plan for Oxfordshire emphasises goals such as: "2. To reduce emissions, enhance air quality and support the transition to a low carbon economy. * To protect and enhance the environment and improve quality of life (including public health, safety and individual wellbeing)" & "Goal 2: Reduce emissions, enhance air quality and support the transition to a low carbon economy. Minimise the need to travel. Reduce the proportion of journeys made by private car by making the use of public transport, walking and cycling more attractive;"[12]	

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275		There is no way that these goals or the rest of the Oxfordshire County Transport Plan can be reinterpreted to permit the Cambridge-Oxford Expressway. The SA cannot be distorted to permit the Expressway. Support given by councils or any other body to the Expressway contravenes the Local Transport Plan and makes a nonsense of devolved decision making in the interests of the local communities which will suffer if this project goes ahead. There is no prospect whatsoever of the Expressway and associated corridor development being sustainable in all aspects, or carbon neutral in all aspects, despite the Climate Emergency. **2.12** 'High growth planned for Oxfordshire'? Such a concept is incompatible with Brexit in any form, incompatible with any reasonable notion of sustainability or sustainable development since the idea of 'sustainable growth' touted in this consultation is intellectually insecure and fantastical in relation to current conditions. **Table 2.2** I regret that claimed environmental rectitude and goals in this table are in conflict with unarticulated and highly questionable notions of growth. There are too many uses of the word 'Promote' where both local government and national Government policies need funding and improvement e.g., on carbon free construction, food production, pollution free travel, energy efficiency etc. The overall agenda here is in fact crippled by austerity and in particularly the utter inadequacy of the tax base in the UK: neither corporations nor the highest income/wealth groups are paying enough taxes and we desperately need Land Value Taxation, a financial transaction tax and other measures to fund a decent and sustainable Oxfordshire in a better UK. [1] https://www.independent.co.uk/news/business/news/uk-construction-worker-shortage-recruitment-brexit-eu-nationals-citizens-europe-trade-association-a8172466.html [2] https://www.citb.co.uk/news-events/uk-construction-skills-time-bomb/ [3] https://www.constructionproducts.org.uk/news-media-events/blog/2017/september/the-underlying-challenges-of-the-construction-industry/ [4] See: https://www.gov.uk/government/news/ministers-call-on-construction-industry-to-invest-and-build-home-grown-talent [5] GL Hearn et al – Oxford City – Objectively assessed need update – October 2018. [6] https://www.pastureforlife.org/news/pasture-for-life-it-can-be-done/	

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276		[7] https://viacampesina.org/en/landworkers-alliance-recommendations-for-post-brexit-agricultural-policy-in-uk/ [8] https://www.amendagbill.uk/ [9] See: https://governmentbusiness.co.uk/news/30012019/bus-journeys-fall-90-million-year [10] From Cowley Area Transport Group and available from me: stevedawe@gn.apc.org [11] Decision of its meeting of 28th January 2019. [12] See p.16: http://mycouncil.oxfordshire.gov.uk/documents/s33704/Background%20CA_JUN2816R07%20Connecting%20Oxfordshire%20vol%201%20-%20Policy%20and%20Overall%20Strategy.pdf	
	Baseline environmental, social and economic context for the JSSP	**3.7** It is a colossal failure that more people are commuting to work in Oxford than live and work in the City. Housing needs are not being met for very low cost housing in the City, and alternatives suggested above are part of protecting the environment of Oxfordshire from a needless spatial expansion of Oxford. The SA needed to take this as a goal and work assuming this was the case in every area of suggested policy. **3.8** Connectivity across the Cambridge-Oxford Arc when just 1% of those who commute in this area do so across the whole distance Cambridge to Oxford indicates that 'corridors' are fictions of developers and allied planners and are not based on evidence suggesting real demand. The Expressway can, and probably will, be rejected for seeking to answer a demand that does not exist. Freight should move more by rail and canal, and by cargo bikes whenever possible in urban areas, as examples of what should be done. **3.9** Population projections are very highly questionable at present under Brexit conditions. Less EU citizens coming, more EU citizens going, an end to freedom of movement and the high risk of a Brexit recession raise questions. The beginning of actual and planned movements of investment and jobs to continental Europe is being noted repeatedly by the CBI and IoD in the media. There is a risk of really significant migration of people with skills in consequence. This could mean the risk of net outward migration in a Brexit-based recession of indeterminate length. As an example of the length of a potential Brexit recession, it is now estimated that trading freely under the highly disadvantageous World Trade Organisation rules may take 7 years to achieve – given the ability and actuality of objections by existing WTO members.[1] Over 20 WTO members have raised questions about UK trading post Brexit already. A 'hard' Brexit would mean renegotiating at least 357 treaties, which could take more than a decade.	Many of the comments relate to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the significant effects of the Plan and their reasonable alternatives against the SA objectives. The SA will draw on the most up-to-date evidence and policy available at the time of appraisal. The information provided has been reviewed and updates have been made to the baseline where considered appropriate and effective. With regards to 3.44, the re-opening of the rail route is now addressed. With regards to air quality, PM10 and PM2.5 are now addressed.

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277		The SA needs to be far more realistic about population projections and household formation or actual household decreases in Oxfordshire, just as it needs to re-consider its repeating of housing targets that are not and may never be met even up to 2050 unless Brexit falls in a new referendum. We cannot assume Oxford is assume to such processes and the SA needed to reflect this issue stressing how likely this is if Brexit does occur. **3.25** The Strategic Housing Market Assessment of 2014 is outdated and challenged as noted above. It is not a reasonable part of an evidence base for this SA. **3.32-3.34** Indicates the problems of excessive and unsustainable growth in Oxfordshire when other areas have greater needs. The SA does not consider the content of growth and how sustainable it may or may not be. This is major failure. **3.38** This needed to be many pages, not one small clause indicating concern about Brexit. Resilience, in all senses, depends on long-term sustainability in human activities including consumption and how this relates to greenhouse gas emissions. The folly of Brexit combined with mad austerity policies cannot be expected to provide security for people or their environment in any reasonable SA. **3.44** The re-opening of the Carterton-Witney-Oxford-Cowley-Wheatley rail route is an essential element in reducing traffic emissions, giving commuters a more sustainable transport option and beginning a process of traffic reduction in the County. The SA should be explicit about the need for expanding rail, and the return of bus subsidies. **3.45** The road corridors around Oxford suffer from congestion since Park and Ride locations contribute to the attraction of car drivers to those locations. As noted before, Electronic Road Pricing (ERP) could make some routes costlier to use and encourage a larger switch to more sustainable transport modes. It would also, as in Singapore where such a system has been operating since 1998, contribute funding towards road repair, electric bus deployment, pavement upgrades, cycle networks and marking, and enhanced walking routes. **3.47** Matching and exceeding Oxford's cycling, walking and bus use figures in other districts requires taking into account the need for investment in cycling, public transport and ERP. This is an important impact to consider in the SA as it will help to reduce public health impacts of air pollution – and walking and cycling increases can improve public health. **3.52** The £215 million Housing and Growth Deal is a derisory amount indicative of continuing austerity in UK public spending, and the current minimal tax base of the UK. Spread over the County, it will make	With regards to landscape, additional information is now included and the impact of tourism is now referenced in para 3.48.

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278		remarkably little difference to the declining physical infrastructure of roads, hospitals and schools which are critical to the unquestioned notions of housing and growth. **3.53** The Expressway is not achieved or in any sense consensual. The Government cannot readily circumvent either the planning system or the legal system with its Expressway corridor plans. The Expressway is bad enough in terms of potential environmental damage and conflict with environmental policy and the idea of sustainable development, but far more countryside would be obliterated by accompanying corridor development of warehousing, dormitory settlements and associated infrastructure. Doing this when existing infrastructure in current settlements needs attention is irrational and very costly. **Table 3.10** PM 2.5s are not mentioned in this table. This is a serious omission, given 40,000 deaths per year in the country from air pollution. Briefly, particles of dust and those originating from brake pads remain present even if other pollution sources are minimalised from tailpipes. These are referred to as 'Fine Particulate Matter' or PM2.5s and it is worth noting that the entire area of London has an unacceptable level of such particulates in its air. [2] Studies suggest that these particulates are actually highly toxic and worse for public health than PM10s.[3] Some further elaboration on this subject: total PM10 emissions from EVs have been found to be equal to those of modern Internal Combustion Engine Vehicles (ICEVs). PM2.5 emissions have been found to be only 1–3% lower for EVs compared to modern ICEVs. Therefore, a switch to electric vehicles may well not have a great effect on PM levels. It should be noted that non-exhaust emissions already account for over 90% of PM10 and 85% of PM2.5 emissions from traffic. Such emissions come from brake wear, tyre wear and road surface abrasion.[4] It therefore seems desirable to pedestrianise and give areas pedestrian priority in order to cut this source of air pollution in the centres of settlements. The SA, with a stronger health emphasis, should have dealt with this topic. We await technological solutions to this type of pollution. **3.12** The figure of 4.5 tonnes per person of carbon dioxide per annum in Oxford is certainly to be welcomed compared to the higher figures of all other Oxfordshire districts. However, this is only part of the transportation aspects of emissions since aviation and shipping serving Oxford residents and visitors does not appear to be included here. Nor do we see other essential baseline information such as the complete ecological footprint of the County. These make the SA less than adequate in scope. This information should be collected from available sources or researched without delay. **3.62** The water supply situation in Oxfordshire is grave. This section indicates that by next year (2020) demand will be greater than supply in the Swindon and Oxford water catchment areas. It is assumed that water will be drawn from neighbouring areas but no mention is made of how water stressed they might be at present or in future. Apart from the carbon implications of moving more water, which are	

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279		noted, there is the more serious constraint that each additional home in the County will require a water supply and it is a major obstacle to housing growth plans that such supply cannot currently be guaranteed. There is no doubt that the Climate Emergency means more weather extremes including longer dry periods. The SA needed to consider how water may be provided in far more detail, bearing in mind what may be very high estimates of population growth, up to 2050. However, there is another very serious related consideration: The UK is importing more than half of its food and feed. Much of this is from the EU. Current conditions indicate a need to radically increase UK food production and to cut the amount of land used to grow crops for feeding animals to allow it to be used for feeding people directly. Agriculture in all its forms is a water consuming activity which the UK needs to increase as part of reducing avoidable imports in its current precarious economic situation shadowed by the high risk of a bad Brexit. Having inflated housing targets for Oxfordshire is bad enough: meeting long-term food needs by greater use of existing land means more water use in Oxfordshire too. **3.63-3.65** Biological conditions in rivers, and the volume of flows in an uncertain Climate, need an empowered and properly funded Environment Agency. Under pressure for more water use, this becomes imperative and the SA should indicate this. **3.67-3.71** Under-states the problems of flood risk since available evidence clearly indicates a speeding up in the process of Climate Change. More extreme weather conditions means more flooding and more drought. Protection of homes and workplaces, and powers and resources for protecting vulnerable locations, needs to be given to an Environment Agency freed from the mindlessness of austerity. The SA should be unambiguous about this need. Given the colossal sums suggested - £150m for the Flood Alleviation Channel alone – natural barriers including tree planting, rough drainage in streams and brooks, and the full engagement of water companies are all needed to stem what are likely to be worse floods at times. In addition: Sustainable Urban and Rural Drainage Systems require maintenance and renewal. Permeable pavers and similar put down across driveways or as roads in new developments quickly fill up with dust and cease to be a permeable surface. I know of no overall scheme for businesses or privately rented properties or owner-occupied homes in areas which are either flood prone or susceptible to surface flooding in times of heavy rainfall. Water re-use in new buildings is essential and sustainable retrofitting of buildings needs to incorporate this type of water conservation measure. Higher quality drainage arrangements are needed for roadside drains that overspill frequently all over the County due to poor maintenance. The County should push a programme of Water conservation and management in cooperation with appropriate partners in a new County-wide partnership, including	

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280		addressing how SUDSs are to be maintained. Management of floor risk and water movements in urban settlements, exacerbated by poorly maintained drainage on roads, is not meeting tests of soundness, for example in the draft Oxford City Plan, regarding sustainable development now, nor seem likely to do so in future. **3.73-3.74** Land uses are not fixed nor are agricultural classifications permanent. As noted in the last two Oxford Real Farming Conferences I have attended, diligent action to improve land leads to greater productivity and improved soil qualities. Land cannot be handed over to development because of agricultural land classifications giving a misleading picture of permanence of condition to some. Both agriculture and forestry can occur on low grade land. Agroforestry has huge potential for meeting both food and forestry needs.[5] **3.87-3.90** Biodiversity and geodiversity – section: This section is small, inadequate and fails to bring together the sustainability aspects of the natural environment with local, regional, national and international tourist and recreational uses of the landscape – quite apart from agriculture. The overall offering to all of these areas of need should be SA work, setting out how the protected areas should be increased; how forestry can be extended for all uses; and how the Oxford Green Belt area should be increased in size and retained. This is very poor as SA work up to this point. **3.98-3.110** See previous comment. **3.111-3.114** The Oxford Green Belt should be retained as essential barrier against urban sprawl and fringe, dormitory settlement urban extensions of Oxford. It should also be increased in overall area and be given other protective designations in whole or in part which do things like maintaining agricultural uses, protecting biodiversity over larger areas and ensuring public access via footpaths. The SA is supposedly to serve Oxfordshire as part of the JSSP up to 2050, but we need longer-term protections for future generations. [1] See: https://www.theguardian.com/politics/2019/jan/27/uk-cannot-simply-trade-on-wto-terms-after-no-deal-brexit-say-experts [2] Information supplied by Caroline Russell, AM, London Assembly. [3] SEE: https://www.gov.uk/government/publications/fine-particulate-matter-pm2-5-in-the-uk	

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281		[4] Information from Professor John Whitelegg. Re: Non-exhaust PM emissions from electric vehicles" Atmos. Environ. 134 (June 2016) 10–17] Authors: Victor R J H Timmers and Peter A J Achten [5] https://www.soilassociation.org/media/15756/agroforestry-in-england_soilassociation_june18.pdf	
	Future challenges and key sustainability issues	**4.7** Onwards, Climate Change: Oxfordshire County Council, the JSSP, the Oxfordshire Growth Board and the LEP all need to declare a state of Climate Emergency and commit to a net zero carbon Oxfordshire by 2030. This Emergency has arisen because mitigation efforts globally up to the current date have been so poor that both greenhouse gas emissions and temperatures have carried on rising, and more rapidly in both cases in recent years. Only the absorption of heat and of carbon dioxide by the Oceans has, up to now, cushioned the Planet from the effects of the global irresponsibility that existing and future generations face. The SA needed to take into account, in its baseline evidence, all recent scientific evidence showing increases in physical effects – including upon ice throughout the world – from a warming world. The implication of doing so is that leisurely mitigation measures concerning Climate Change are now Climate complacency, and that measures must be expedited to achieve deeper cuts year on year in emissions. Oxfordshire must play its part. **4.23** Is a section in which austerity as a factor in causing deprivation, and an under-supply of very low costs homes should have been mentioned. Austerity is a choice made by Government, as is the choice to allow many forms of Government debt to increase dramatically rather than provide an adequate tax base. The section is inherently contradictory: you cannot address road congestion by having a Cambridge-Oxford Expressway that increases the number of car journeys people take and the distances they will travel: the normal effects of increasing road capacity as known since the 1920s, but not to Highways England and its ilk. [1] You cannot be serious about air pollution and build new trunk roads like the Expressway. You cannot assume housing provision can just be added when the market is not providing very low cost homes and the water supply for such homes has yet to be demonstrated in this SA. You cannot protect agricultural land without recognising the need to prevent concrete and tarmac from being poured on it. Neither Climate Policy Integration nor Environmental Policy Integration have taken place in the resulting content of this deficient SA document. **4.24** Raises expectations that may well not be fulfilled under austerity conditions. Housing is not objectively assessed when realistic projections and housing completions have gone down since the SHMA figures – and yet this is still quoted as gospel in this consultation as if it made sense. Infrastructure investment is under-resourced e.g., road conditions within Oxford are extraordinarily bad and will take years of investment to cure. Thames Water needs to demonstrate how the clearly fantastical housing projections for Oxfordshire are going to be accompanied by meeting consequent	The additional evidence has been reviewed and references have been made to them where appropriate, for example the IPPC report referenced has been reviewed and added to Appendix 2. Some comments relate to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

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		water demand. If this evidence is not supplied and assessed by a non-commercial academic body rather than a 'consultant', then it must be assumed that the supply of water is not available to meet the demand resulting from an increased population in the County. The Local Transport Plan cannot move people easily to more sustainable modes of transport without funds. I have suggested ERP for this, and the need for a return to bus subsidies and a general programme of re-opening rail lines NOT new trunk road investment or increases in road capacity. The NIC has no authority to orchestrate a Cambridge-Oxford Expressway and it cannot be pursued if a Climate secure Oxfordshire by 2030 is to be achieved. [1] See accumulated evidence on this in: https://webarchive.nationalarchives.gov.uk/+/http:/www.dft.gov.uk/pgr/economics/rdg/nataarchivedocs/trunkroadstraffic.pdf	
	Sustainability Appraisal framework	**5.5** Types, tenures and affordability of housing is not a matter of market activity, in terms of real demand. Developer, private landlord or foreign speculator demand is not actual housing demand. The primary housing need is for very low cost housing in a County with national average wages and some of the most expensive homes in the country, relative to wages. Given relatively low incomes in relation to housing costs, it is imperative that all opportunities to locate housing within existing settlements are taken. Brownfield site development and the use of the existing built environment are paramount, with zero carbon housing and sustainable retrofitting something which legal advice to Oxford City Council shows each planning authority can demand of developers. [1] All subsequent points in table 5.1 under 2 are best served by intensification of housing density and population within existing settlements and near to existing facilities. This is more sustainable than urban sprawl or dormitory settlements as planned/suggested. The SA needed to ensure land was retained for its many other uses rather than giving space to urban sprawl and dormitory settlements. **p.57** Point 5 employment: The case that additional employment will result from additional land devoted to employment has not been made. Low density use of industrial estate and science park sites demonstrates very poor land use, with vacancies all over the County indicating that employment can grow and reach full employment levels as in Oxford without the allocation of additional land to employment. In terms of sustainability, people working at home or from home allows more of the employment land to be re-allocated to housing – instead of forcing urban sprawl of communities due to bad planning and a lack of a comprehensive approach to sustainable development in the long term. **p.70** The SA as outlined in this document is not consistent with the idea of 'sustainable solutions' in the NPPF, nor more generally consistent with the idea of sustainable development. Tacit support for the	Noted. Please note that SA is a strategic process to assess the likely significant effects of the plan and its reasonable alternatives. Once the Council has identified options for the plan, these will be subject to assessment through the SA.

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283		Cambridge-Oxford Expressway is symptomatic of a failure to consider what sustainability is, and what it means for Oxfordshire up to 2050. The SA and Oxfordshire 2050 documentation are not compatible with the notion of sustainability since they lack a policy base for a transformation of County transport to a carbon free future by 2030 – in line with immediate and serious evidence of accelerating Climate Change. And: **p.74** The NPPF is stronger on reducing congestion and air pollution than this SA, since it is not clear what policies are to be used in Oxfordshire that will actually achieve this. [2] Local Authorities must strive to achieve sustainable development. Details of how this is to be done include reference in the NPPF to resolution 42/187 of the United Nations detailing the responsibilities of Governments in relation to their associated agencies and other bodies.[3] It specifically requires that growth is fundamentally changed towards actions consistent with the principle of sustainability. The SA is not doing this, since 'sustainable growth' is undefined (and questionable) and its relation to existing carbon reduction targets is unclear. Since these targets are very likely to be revised after the Committee on Climate Change reports in March 2019, it is desirable that the SA seeks to present evidence about HOW development is to be sustainable not making unsupported assertions suggesting there is something called 'sustainable growth' which is does not define. [1] Information supplied by Cllr Craig Simmons, meeting of Oxford Climate Lobby with a number of Oxford City councillors on 29.1.2019. [2] See page 5 and especially footnote 4: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/740441/National_Planning_Policy_Framework_web_accessible_version.pdf [3] See: http://www.un.org/documents/ga/res/42/ares42-187.htm	
Member of the Public	**Introduction**	I am pleased the SODC Local Plan provides protection to smaller villages.	Noted.
Member of the Public	**Introduction**	Re **paragraph 1.7**: it is not defined what is meant by "sustainable growth", or "sustainable development", for that matter. Future versions of the SA process should include these definitions at the beginning of each document, so that the public have clear criteria against which to judge proposals and decisions.	Noted. Sustainable development as defined in the NPPF is recorded in Appendix 2.

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284		**Paragraphs 1.17-1.18**: the reliance on Habitats Regulations Assessment is far too restrictive, as it applies to European-designated sites only. As you rightly point out elsewhere, there are no Ramsar sites, for example, in Oxfordshire, but this does not mean the whole county is therefore OK to go under tarmac and concrete.	
	Policy context for the JSSP	**Paragraph 2.3**: This paragraph has a list of nine areas that the JSSP will include. Notably absent from this important list is agriculture, and the balance between intensive and non-intensive farming. This is vitally important for biodiversity, food security, pollution and landscape. Agriculture (in the rural county of Oxfordshire) must be a priority, and included as a separate item in the list. **Paragraph 2.7**: "The assumption built into this figure [100,000 new homes by 2031] was that 1,400 dwellings per annum were required in Oxford to 2031." G L Hearn provided this figure in the 2014 SHMA, based on maximalist and unrestricted growth targets. It should be added that G L Hearn have subsequently revised this figure down to 776 dwellings per annum in their Objectively Assessed Need (OAN) update of October 2018. **Table 2.2**: "Where possible, safeguard historic assets including their setting." Please delete "Where possible".	Paragraph 2.3 relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report. In regard to Table 2.2, 'where possible' has been deleted. The SA will draw on the most up-to-date evidence and policy available at the time of appraisal.
	Baseline environmental, social and economic context for the JSSP	**Paragraph 3.2**, footnote 16: For West Oxfordshire you refer, as your source, to Enfusion's 'Sustainability Appraisal Addendum Appendices' (CD10). This document has been shown to be riddled with factual errors and misleading assertions, while omitting important information; it should not be relied on in any way. **Table 3.7**: One of the "key sustainability issues" for Oxfordshire is that there are "more jobs than there are people, with minimum growth in the working age population". There are plenty of places in England where there are more people than there are jobs and a substantial working age population. Furthermore, in these places, housing is far more likely to be affordable. So the solution is simple: put the jobs where the people are, not the people where the jobs already outnumber the people. **Paragraph 3.53**: The Expressway is apparently going to cut journey times and improve connectivity between centres of rapid growth. So more traffic, more congestion, more pollution, more carbon dioxide emissions during and after construction. Utter madness.	Noted. The baseline information included in the SA Reports for the District Local Plans has been supplemented by more up to date sources as necessary. Updates have been made accordingly. Parts of this response relate to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report. The SA will draw on the most up-to-date evidence and policy available at the time of appraisal.

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285		**Table 3.10**: Are there really only two AQMAs in West Oxfordshire (in Witney and Chipping Norton)? If so, that is not nearly enough. See comment below on Table 3.12. **Paragraph 3.59**: Since the "UK Climate Projections scenarios confirm that the South East will be one of the region's most severely affected by climate change", it seems counter-intuitive, if not perverse, to plan for so much growth, development and construction in an already overheated region. **Table 3.12**: It appears that carbon dioxide emissions in West Oxfordshire are the lowest among the five districts for domestic and industry, but by a huge amount the largest for transport. Is this all down to the A40? Whatever the reason, more AQMAs must be put in place and the data analysed as soon as possible to account for this extraordinary statistic. **Paragraph 3.62**: Since, by 2020, "demand for water will outstrip supply from the Swindon and Oxfordshire catchment area, meaning that more water will have to be imported from adjoining water resource management areas", wouldn't it make more sense to build in those better-endowed areas instead? **Figure 3.5**: This map does not distinguish between Grade 3a and Grade 3b land. You need a map that does because, as you rightly point out in paragraph 3.74, best and most versatile agricultural land "is considered a national resource and should not be lost".' **Figure 3.6**: Interesting not toe that the eastern half of the proposed 'garden village' site is in a Minerals Strategic Resource Area, given that mineral resources, "where possible, should not be lost or compromised by future growth" (Table 3.17). **Paragraphs 3.87ff:** The text on biodiversity and geodiversity only talks about designated or other officially recognised sites, not the rest of the countryside, which in many cases is of equal value. **Figure 3.11**: The Oxfordshire Plan and Expressway/Growth Arc are obviously going to decimate the Green Belt.	
	Future challenges and key sustainability issues	**Paragraph 4.17**: I note the huge discrepancy between the OXIS-calculated infrastructure requirement costs (£8.35 billion) and the current amount of known funding (£1.21 billion). Surely that gap must be substantially narrowed before taking the risk to embark upon such ambitious plans? **Paragraph 4.27**: Given the 5-year Oxfordshire Housing Growth Deal of £215 million, "to help deliver more affordable housing and infrastructure improvements" (paragraph 4.25), it is odd to read that the Growth Board's transport improvements already published for Year 1 of the 5-year deal "have a full total	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the significant effects of the plan and its

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		cost estimated at around £274 million". If the £215 million pounds has already been allocated in Year 1, where is the rest of money coming from? Some clarification needed here.	reasonable alternatives against the SA objectives.
Member of the Public	**Introduction**	The Introduction should make it clear that in identifying broad areas of growth, the JSSP will still need to gather enough evidence that a significant part of that broad area of growth can be developed sustainably and is viable. Because of the environmental constraints in Oxfordshire, some of those Broad Areas of growth are likely to be quite small, and therefore site specific issues, like the impact of Climate Change on flooding risk from fluvial, surface and ground water sources in an urban catchment system, could be crucial, as could the practicability of providing cycling and walking transport links- simple assumptions would not be enough. The Introduction should spell out that the SA and SEA process will apply the Precautionary Principle to Biological Diversity- the onus will be on the JSSP to prove that significant harm to biological diversity will not happen. If there is uncertainty, then significant harm will be presumed. I commend you for the comprehensive list of other policies to be considered including the International Convention on Biological Diversity. This convention binds the UK to apply the precautionary principle.	Noted. SA is a strategic process and the scope covers all relevant topics set out in the SEA Regulations and is guided by national planning policy and practice guidance.
Oxford University	**Introduction**	**1.15** states that the JSSP covers three decades; 2020-2030, 2030-2040 and 2040-2050. Isn't the first decade here (and some of the second) covered by the existing Local Plans? Since the latter are already submitted how can, or might, the JSSP change them?	A significant amount of joint work across the Oxfordshire authorities has already taken place which has fed into the current and emerging round of Local Plans. These Local Plans cover the period from 2011 to 2031, 2034 or 2036. There is therefore a good deal of detail and certainty around that period as plans are well advanced. The latter period of the Oxfordshire Plan to 2050 will be based on a new evidence base produced specifically for the project. Future Local Plans will sit within the framework defined by the Oxfordshire Plan.
	Policy context for the JSSP	**2.3** mentions that the JSSP will not identify specific development sites (possibly referring to the period 2030 - 2050) but how can it not do so in light of the fact that many of the additional 200,000 homes in the period will be associated in some way with the Ox-Cam expressway. The Oxford Growth Board	This comment relates to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report. The role of the

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287		appears to be consulting with Highways England over such matters and the expressway proposals mention the possibility of several major new housing developments (large towns). Surely this must involve identifying sites capable of such large scale developments? **Table 2.1** suggests clearly that the Housing and Growth Deal is contingent upon a JSSP being developed and submitted to a definite timetable. The Growth Deal involves increasing Oxfordshire's housing stock by more than a third by the mid-2030s, a rate which is more than double that predicted by the ONS for England as a whole to 2050. The JSSP involves another quantum of housing, possibly an additional 200,000. There has been no public consultation on the level of growth implied either by the Local Plans or the JSSP. Comments on the Local Plan are more about the distribution than number of houses, because the Growth Deal funds will be withheld if the housing target (100,000 across the county) is not met. **2.8** the internal workings of OxLEP are opaque to the general public. They may or may not 'ensure sustainability', but they cannot claim 'inclusivity'. **2.11** OXIS, in the long term, 'also supports an Oxford-Cambridge expressway' which, when completed, 'is expected to take up to 40 minutes off journey times between the M4 and the M1'. The expressway is another development that has not sought any form of public approval to date, and has not carried out any form of environmental assessment as required by international law. Even within supporting documents, the economic case for the expressway is dubious at best (benefit to cost ratio only barely exceeding 1). It is not at all clear how journey times can be estimated on a road not yet built, along a route not yet chosen, in traffic conditions 30 years hence. From the two OXIS Stage Reports it is clear that Oxfordshire has a >£7 billion hole in its infrastructure budget to 2040 before any Local Plan or expressway houses are added to the mix. How can building more infrastructure-dependent projects solve this infrastructure deficit problem? Little or no mention is made of the increasing inequality between the English Regions, which more development in the South East can only exacerbate. In the Oxfordshire Plan document it is pointed out that the South East regions, including London, are the 'only' net contributors to the UK Treasury. Shouldn't some of the development planned for Oxfordshire's JSSP be distributed to other regions, thus reducing the strain on local housing and infrastructure?	SA is to assess the plan and its reasonable alternatives against the SA objectives.
	Baseline environmental, social and economic	**3.9** Projected population changes 2016-2031 in Table 3.1 (7% for Oxford City, but 26 to 38% for the Districts) should be viewed in light of the ONS projections of only 16% population growth for the whole of England for the period 2016 to 2050. Does the county need to grow this much? The County's population changes are driven more by in- and out-migration that by reproduction of its residents. Both	Noted.

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288	**context for the JSSP**	migration rates are notoriously variable and hence, also, the net migration rate. Migrant populations are more likely to want to rent than buy properties and will want properties of a particular type and location. Is this being factored into the housing calculations? Many of the migrant workers are associated with the Science hubs and Universities. Shouldn't these employers be involved more in providing housing for their workers, along the lines of Cambridge's North West (New Eddington) development? http://www.nwcambridge.co.uk/ **3.53** The dubious benefits of the expressway are mentioned in comments elsewhere. The improved connectivity to high quality job centres such as the Oxford Science Park is one of the expressway's stated benefits: see p. 11 in http://assets.highwaysengland.co.uk/roads/road-projects/Oxford+to+Cambridge+expressway/Oxford+to+Cambridge+Expressway+Corridor+overview+booklet.pdf This graphic states that with the expressway the Oxford Science Park (currently 70 companies employing 2,500 people in a 75 acre site) will be within a 45 minute drive time for 470,000 people. Even allowing for spectacular Science Park growth, why might almost half a million people want to visit a site with only 2,500 'residents' and rising? High-tech industries are not labour intensive. The expressway is advertised as connecting the presently un-connected, or poorly connected. But only about 2% of the journeys between Oxford and Cambridge are end-to-end. The expressway is a project meeting ill-defined or non-existent needs. Why we should need or want to squeeze between Oxford and Cambridge an additional economy equal to that of the whole of Scotland (another pointless statistic in the same graphic referred to above) is neither explained nor justified. **3.62** The problem of water shortage by 2020 in the region is mentioned, to be solved by 'importing from adjoining water resource management areas'. But the London region will be short of water for 2 million people by 2040 on present trends (Thames Water figures). As Mark Twain said of land 'they ain't making any more of it'. There is only a limited supply of water. You can only redistribute it, not make more of it. The projected 300,000 increase in Oxfordshire's housing stock by 2050 will make water shortages much worse.	Updates have been made as considered appropriate.
	Future challenges and key	**4.15** The AECOM study referred to in 4.14 assumed population growth in Oxfordshire of 267,700 people in the period 2016 to 2040 (a 39% increase) whereas the likely increase brought about by the current round of Local Plans (Oxford Growth Deal, 100,000 houses or approx. 230,000 more people by	

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	sustainability issues	the mid-2030s) plus the proposed expressway houses (an additional 200,000 houses or 460,000 people to 2050) will lead to an approximate 100% increase in the county's population by 2050. **4.22** acknowledges the huge OXIS infrastructure investment required to 2040, and the current £7 billion shortfall (presumably under the modest AECOM scenario of growth). To conclude (4.22) that 'This will be a major issue for the JSSP to acknowledge and address as it is prepared' is something of an under-statement. Infrastructure is the key to all successful development and it needs to be put into place before that development begins; not during or after. **4.26** In light of the above, the £215 million of the Oxford Growth Deal seems totally inadequate to meet the infrastructure needs of the Growth Deal's 100,000 houses. This section states that 'Without the JSSP, it is questionable whether such funding would have been made available, and the JSSP should help to secure additional funding in future.' Claiming as a 'success' getting totally inadequate funding with the JSSP shows an alarming refusal to face the facts of the real costs of development.	
	Sustainability Appraisal framework	**Table 5.1** SA Framework. Objective 2 includes the aim to 'Create vibrant, multifunctional countryside in and around existing and new communities'. The countryside is already multifunctional without any help from the JSSP, and is less likely to be so with such help.	Noted.
	Consultation and next steps	It would be good if the SA looked at other communities worldwide that developed at the rate proposed for Oxfordshire in the next 30 years. There are few examples in history of development at such rates (e.g. some areas of the USA). What can we learn from them? What mistakes were made?	Noted.
Member of the public	**Introduction**	The Sustainability Appraisal (SA) (incorporating Strategic Environmental Assessment (SEA)) of Oxfordshire Joint Strategic Spatial Plan (JSSP) has been prepared by LUC. It is noted that paragraph 1.15 states that the JSSP will cover three decades, 2020- 2030, 2030 - 2040 and 2040 - 2050, yet the consultation document itself is not clear on the start date of the plan/plan period. The SA also provides more information in terms of what is anticipated to be included in the Plan, stating that it is expected to be quite detailed to 2030, be relatively specific for 2030 - 2040, and be visionary and less specific for 2040-2050. The consultation states that the JSSP will be prepared in partnership with Oxfordshire County Council, Oxfordshire LEP and that it will also seek to address the linkages to wider planning considerations such as the Cambridge-Milton Keynes-Oxford Growth corridor, however, the latter is not necessarily reflected	Noted. This comment relates more to the Oxfordshire Plan 2050 than the SA Scoping Report.

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		in the consultation document Oxfordshire 2050, yet this together with the Oxford to Cambridge Expressway and East-West Rail will have significant implications for the strategy to 2050. The role and the purpose of the JSSP to help meet and manage Oxfordshire's growth needs to 2050, is supported, however it will need to address the wider cross boundary issues and in particular the implications of the Oxford Cambridge Arc. The JSSP will need to be prepared in the context of the NPPF and the PPG as recently amended. The Sustainability Appraisal Framework is not surprisingly Oxfordshire focussed, However, as mentioned above the JSSP will need to address issues wider than the county boundary and it will as an emerging plan need to address the duty to co-operate and how such cross-boundary issues influence the shape and content of the Plan. DRM support the preparation of the JSSP as it has the potential to attract people to the area through a joined up, collaborative approach to future development across the County that delivers the homes that are needed alongside the jobs.	
Oxford Friends of The Earth	**Introduction**	The Sustainability Appraisal (SA) (incorporating Strategic Environmental Assessment (SEA)) of Oxfordshire Joint Strategic Spatial Plan (JSSP) has been prepared by LUC. It is noted that paragraph 1.15 states that the JSSP will cover three decades, 2020 - 2030, 2030 - 2040 and 2040 - 2050, yet the consultation document itself is not clear on the start date of the plan/plan period. The SA also provides more information in terms of what is anticipated to be included in the Plan, stating that it is expected to be quite detailed to 2030, be relatively specific for 2030 - 2040, and to be visionary and less specific for 2040-2050. The consultation states that the JSSP will be prepared in partnership with Oxfordshire County Council, Oxfordshire LEP and that it will also seek to address the linkages to wider planning considerations such as the Cambridge-Milton Keynes-Oxford Growth corridor, however, the latter is not necessarily reflected in the consultation document. Oxfordshire 2050, yet this together with the Oxford to Cambridge Expressway and East-West Rail will have significant implications for the strategy to 2050. It is noted that the key issues for sustainability in terms of transport are set out in Table 3.9 and that it concludes that without the JSSP, it is likely that car dependency will continue to be high. The Oxfordshire LTP (2015), which is to be reviewed, aims to minimise private travel through the promotion of public transport and by making walking and cycling more attractive alternatives to the car. It follows	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

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291		that locations that support and provide sustainable modes of transport are best placed to accommodate future growth. A joined up, strategic approach to transport planning to reduce car use through the JSSP is supported. The JSSP provides the opportunity to promote a joined up, strategic approach to transport planning across the County, integrated with the delivery of housing and economic development. The JSSP provides the opportunity to ensure that the area of land covered by the Green Belt is appropriate for the plan period and to allow for housing and economic needs to the county to be delivered whilst ensuring the purpose of the Green Belt are met in delivering new development. The role and the purpose of the JSSP to help meet and manage Oxfordshire's growth needs to 2050, is supported, however it will need to address the wider cross boundary. issues and in particular the implications of the Oxford Cambridge Arc. The JSSP will need to be prepared in the context of the NPPF and the PPG as recently amended. The Sustainability Appraisal Framework is not surprisingly Oxfordshire focussed; however, as mentioned above the JSSP will need to address issues wider than the county boundary and it will as an emerging plan need to address the duty to co-operate and how such cross-boundary issues influence the shape and content of the Plan. DRM and CC support the preparation of the JSSP as it has the potential to attract people to the area through a joined up, collaborative approach to future development across the County that delivers the homes that are needed alongside the jobs.	
Elsfield Parish Meeting	**Introduction**	The Sustainability appraisal (SA) will need to be confident that the 'broad areas of growth' that the Joint Strategic Spatial Plan (JSSP) identifies are in fact developable and viable. To do so the SA may need to look in more detail at the Sustainability of that area. The Scoping report talks about identifying broad areas of Growth, at a level above that of the Local Authorities' Local Plan. Because of the restricted scope for development sites, some of those Broad areas of Growth will be quite small and will be vulnerable to being unviable or not deliverable because of site level environmental limitations and transport and infrastructure issues. The SA will need to be prepared to look at these site issues, and to expect the Oxfordshire Joint Strategic Plan to do so too. An example of this problem is the allocation of the 'Land North of Bayswater Brook' in the South Oxfordshire Local Plan for strategic development when the Chief Planning Officer has said there is significant doubt over delivery of the site, because of flooding, impact on biodiversity, financial viability,	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.

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		access to the transport network and connectivity with existing communities and facilities in Oxford. The SA for the SODC Plan (the updated 2019 version) flagged up the uncertainty and the significant impact on biodiversity, but not the other issues.	
Stanton St. John Parish Council	**Policy context for the JSSP**	The Parish Council rejects the overall premise that the plan should be based on the acceptance of the Housing and Growth Deal delivering 100,000 houses and the building of the Oxford - Cambridge Expressway. There has been a huge democratic deficit in deciding these policies with no proper consultation and decisions made by undemocratic organisations such as The Oxfordshire Growth Board, the Local Enterprise Partnership and Highways England. These organisations do not have a mandate to make decisions which will overpopulate Oxfordshire and which ignores the critical environmental imperatives overtaking the world. The SHMA 2014 on which the housing needs are assessed were prejudiced and unrealistic. An increase in the population will overwhelm Oxfordshire's infrastructure which is already creaking at the seams. Growth should only be achieved if it can have a neutral or reductionary effect on climate changing gas outputs. The levels of funding provided by the Growth Deal is paltry combined with how much would be needed to fund the necessary infrastructure. The green belt around Oxford will become a victim of this expansion as is already happening against the guidelines of the NPPF.	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
Henley in Transition	**Policy context for the JSSP**	Climate Change Mitigation and Adaptation is relegated in this document to an entry towards the end of **Table 2.2** Climate Change and its effects will come to dominate every aspect of this plan unless it is given greater priority and action is taken over the next few years. There is a consensus now that we have 11 years to act to hold global temperature rise of 1.5 Degrees Celsius and even this change will affect Agriculture, food supply, the Economy and also demographic change.	Please note that climate change is highlighted as a cross cutting issue within the SA Scoping Report. Furthermore, SA objective 7 of the SA Framework will test the Oxfordshire Plan and its reasonable alternatives on their ability to minimise Oxfordshire's contribution to climate change.
	Baseline environmental, social and economic	3.44 Cholsey and Goring stations are in South Oxfordshire and on the GWR Mainline. They feed commuters into Reading and London. Henley and Shiplake stations also in South Oxfordshire and are connected via the Henley Branch to the GWR Mainline at Twyford. They feed over 1000 commuters a day to Reading and London.	Noted.

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293	**context for the JSSP**	**3.57** The increased urbanisation of the county not only brings pressure to bear on the major roads: M40, A34 and A40. As these roads are already close to capacity there is an overflow effect where rural A roads and even B roads have to take the excess. There is a flaw in the funding of infrastructure development from SIL money. The development has to take place before the funds become available and with large infrastructure projects there is a significant lead time between planning and completion. The greater the rate of development the more significant this effect becomes. The effect of this will be a worsening of the Local Environment with increased traffic and increased Air Pollution. **3.59** and **3.61** A number of Local Authorities on Oxfordshire have either made or are going through the final stages of making their Local Plans. In particular, South Oxfordshire has decided to mandate the minimum standard for energy efficiency under Building Regulations Part L, rather than considering other Legislation such as the Climate Change Act. These plans are set in place until 2034. How can Oxfordshire through the JSSP influence Local Authorities to tighten the environmental requirements on New Build Dwellings to include measures to reduce Embodied Carbon as well as increasing efficiency and including local and renewable sources of energy?	
Gresswell Environment Trust	**Policy context for the JSSP**	16. The 'Deal', and Democracy Vested interests have taken over our town and county. Whether we like it or not Oxford is about to be 'shafted' by the Growth Board and OxLEP. Very few people actually know or understand what OxLEP is, never mind what it is up to. The public were not informed nor consulted when the Growth Board £215M deal was first put on the table. This is completely undemocratic. Oxfordshire Plan 2050 has been drawn up behind closed doors, and without consideration for the people of Oxford or for surrounding villages and countryside. OxLEP has decided that Oxford should become a business and commercial hub whether we like it or not - a decision taken without democratic consultation. ■ OxLEP accepted £215M deal on our behalf without proper consultation (section 18). ■ Growth Board diktat, under the nomenclature of NIC Strategy, shows a total disregard for sound planning principles as laid out in the NPPF. ■ OxLEP is not a democratically elected body. OxLEP is thinking £££'s and profit, over sound sustainable planning or governance. ■ Building developer led housing on the Green Belt will exacerbate rather than improve traffic in and around Oxford.	These comments relate to the options for the Oxfordshire Plan 2050, rather than the SA Scoping Report.

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294		■ Building on the Green Belt will rapidly attract commuters and people from elsewhere who want to cash in on the good lifestyle, heritage attractions and the natural and cultural assets that Oxford has to offer. In the process they will kill the town they have come to 'enjoy'. ■ New roads will lead to extended distances and travel times along 'the 'golden arc' to Cambridge: people who want quick access to other parts of the country and commuter traffic making daily rush hours worse. More people trying to access the city for work, with or without their cars. ■ The people of Oxford do not want this level of expansion. There is nothing in this plan that will benefit those who already live here, or that address Oxford's demographic housing need. The principles of good planning seem to have gone out the window. The Oxfordshire Growth Plan 2050 is now presented as a fait accompli colourful toy town brochure of developers' marketing spiel: a 'golden arc' stretching from Didcot and Cambridge. This is greed masquerading as growth: an economic conceit of such magnitude that will wreck the rural heartland of England. It shows little or no respect for Oxford, its residents, its outlying villages, the Green Belt, wildlife conservation or preservation of national heritage assets, our quality of life is effectively at stake. Not what Oxford needs or wants. Golden only for those who profit from the deal: land agents and developers. Diktat from central government to build houses as part of a NIC £215M deal. If you're offered a pot of gold, you do what you're told. This is a policy which does not address local people. It shows little or no respect for wildlife, the environment, or local green field amenity for future generations. Development led housing as an economic policy is questionable. It will result in all the wrong houses being built on the edges of town, attracting the wrong people (incomers and commuters), which in turn will exacerbate traffic. The Plan is fundamentally flawed due to underlying unaccountability and lack of consultation in the early stages. It makes no provision for the long-term effect that more houses, cars, and people will have on Oxford. It is greedy on green field land, therefore unsustainable. Far from offering environmental improvement and transport solutions it will put further pressure on local infrastructure. It is one giant step in the wrong direction.	
	Baseline environmental, social and	17. SHMA 2014 housing figures + a further 100,000 houses in Oxfordshire Adopting the outdated SHMA 2014, OxLEP has jumped onto this building bonanza without considering the effect Local Plans 2034 , + the hideous reality of what a further 100,000 houses (300,000 people and their cars)	

Consultee	Document Part	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
295	**economic context for the JSSP**	will have on Oxford and Oxfordshire. This will come at huge cost: Conjectural unmet housing need does not constitute 'exceptional circumstances'. 2014 SHMA figures are a proven over estimation, calculated on the basis that to fulfil social housing quotas, developers need to build 9:1 in order to make a profit. ■ Watch Oxfordshire disappear under a blanket of housing, a tangle of roundabouts and perimeter link roads, distribution centres and ancillary business parks, one elongated sprawl, Oxford doubled in size, the loss of our Green Belt, and open countryside amenity. Oxford will be ruined by a series of roundabouts and peripheral housing in the style of Swindon, Milton Keynes and Cambridge. Land is not a commodity: it is finite, and our future. Greenfield development is the lazy, complacent and unsustainable option. Not an option. Local district councils have been bullied into taking on Oxford's 'unmet housing need' under the duty to cooperate. If Oxford City is to develop sustainably, in proportion to its historical backdrop, with respect for the local community, it must start using urban brownfield sites for residential as well as commercial use. ■ Contrary to NPPF recommendations OxLEP is refusing to regenerate commercial premises for housing. ■ Contrary to the principles of the NPPF, Oxford is proposing to expand out onto the Green Belt, resulting in instant urban sprawl. ■ Edge of town houses end up being car dependent. ■ Developer led profit driven executive style housing does nothing to relieve the 'social/ affordable' housing crisis for key workers. ■ Making Oxford into England's 'golden business hub boom town, and commercial shopping centre (to rival Reading?) is completely inappropriate. Oxford is an architectural jewel where a balance should be kept between Town + Gown: an homogenous mix of education excellence, commercial opportunity, and cultural interchange. Nine to five business and shopping areas become evening ghetto out of term. Oxford needs a good balance of 'life': a cultural mix, students and local residents, visitors, in order to thrive.	

Consultee	Document Part	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
296		■ It is a vast conceit that Oxford should develop its brownfield sites for business and commercial sites over housing. Houses for key workers closer to employment, so that Oxford's commercial areas do not become does not become deserted at night. ■ From the housing secretary (Brokenshire): "We will continue to consider the design of a permitted development right to allow commercial buildings to be demolished and replaced with homes". Brownfield every time. ■ The demographic housing need if for key workers at the lower end of the market, not just for executive top end. Great harm will be done to the city, the Green Belt, and surrounding rural countryside, if land is used up for unnecessary developer led housing. ■ Proven demographic need should always be a planning requirement around historic towns. ■ The Growth Board promises infrastructure, which is dependent on developers, with no guaranteed delivery date. ■ The 'right' houses never get built: developers tend to cherry pick only the most profitable sites, thus guaranteeing the highest return and maintaining house prices at inflated levels. ■ Land banking should become illegal. The law needs to be changed so that developers are forced to build on existing planning permissions before applying for new ones. 18. Green Belt Review. The Green Belt is fundamental to Oxford's success story. Far from being a stranglehold, the Green Belt has kept Oxford in proportion to its historical and landscape backdrop. It is our lungs, and sanity. The NPPF states that all Green Belt land should remain permanently open. Unproven housing need does not constitute exceptional circumstances. The 5 purposes (and guiding principles) of the Green Belt should be upheld in order to preserve Oxford. What is ENV2? HE maps show a newly washed-over land in the Green Belt. This needs to be defined. ■ What does this mean? Some parts are protected, others aren't? Does this mean that the rest of the Green Belt is up for grabs? Does this mean non ENV2 villages are to become merged into Oxford?	

Consultee	Document Part	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
297		■ Outlying villages such as Stanton St John/ Forest Hill/ Beckley are dependent on the Green Belt in order for land to remain permanently open, agricultural, and separate from Oxford, i.e. rural. The Green Belt is our lifeline and only protection from suburban sprawl. ■ Oxford has a limited allocation of green space amenity per capita. The Green Belt represents the breath and lungs of the city. If the Green Belt is to become the new greenfield parkland amenity for Oxford, then stop it becoming the parking lot for Oxford. Once laid to tarmac it ceases to be green, it becomes a parking lot (quote: Joni Mitchell) 19. Jobs and business growth over demographic need and sustainability: ■ Oxford already has 45,000 jobs. Oxford cannot easily sustain more without huge sacrifices and loss of amenity: pressure on its local services, the footfall on its open spaces, loss of Green Belt, and wear and tear on its historical and architectural infrastructure. ■ Transport services are at an overload. Satellite park and rides are full. Houses = people and cars. Where are these new people coming from? Why should Oxford, a national heritage asset and university town, take London overspill or become the commercial epicentre for more jobs and more people? Oxford cannot take it. 20. The Expressway, " A once in a lifetimes chance!" Let's just cut up the country into ever-smaller slices and nab a bit here then there, then everywhere: houses all along the route, a 'string of settlements with good connectivity'. This is a relief road for the A34 national freight, (with quick access to the M40/A40), Portsmouth to Felixstow. Scarring the country with a freight-way will diminish our countryside and wildlife corridors. An Expressway will encourage longer daily commuting travel distances. ■ A Sprawl-way, with houses and distribution centres all along its route. ■ Cars, and lorries fill the spaces allocated them. In the interests of equality Government should spend its funds addressing the North/ South divide and on regenerating less advantaged parts of England. Re-kindle the Varsity railway link to join with HS2, then re-consider transport before	

Consultee	Document Part	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
298		steamrolling-over rural South Oxfordshire. In a sustainable future, people should be travelling less, or at least by rail, bus, or bicycle. On a daily basis, we be thinking fewer long distance car journeys. Government wants us to consider Climate Change, and yet it is proposing a National Strategy Expressway across rural England: a policy which is flawed by irresponsible growth and greed. ■ Oxford's geographical layout cannot sustain a projected economic growth level of this level. Flood plains and landscape features at risk. To sum up: The public wants a return to fully accountable democratic planning principles. OxLEP is an unelected body made up of land agents and developers in bed with our local district councillors. Vested interests at work. Localism seems to have gone out of the window? No one local wants this level of expansion or growth. To quote Joni Mitchell: They took all the trees And put them in a tree museum And they charged all the people A dollar and a half to see 'em Don't it always seem to go That you don't know what you've got 'Till it's gone They paved paradise And they put up a parking lot The only thing that unites this plan is economic greed: a wild conjecture on a ruinous scale, one that will damage Oxford and its environs by 2034, never mind 2050. This is not a good vision for the future.	
Member of the Public	**Baseline environmental, social and economic context for the JSSP**	Please don't change the Green Belt around Oxford. Already we are beginning to see it eroded & affecting the area. The proposed Bayswater development is an example of destruction of countryside, overloading of transport links & would affect the skyline.	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
Member of the Public	**Baseline environmental, social and economic context for the JSSP**	There has not been adequate analysis for the initial demographic scenarios used to create the housing needs assumptions underlying this report including the uncritical support for the government's Oxford Cambridge expressway and development plans. The document raises some of the key challenges in terms of transport and air quality, but does not address the difficulty of addressing climate change and pollution caused by extra car travel due to the new expressway plan.	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess

Consultee	Document Part	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
	Future challenges and key sustainability issues		the policies of the plan and its reasonable alternatives against the SA objectives.
Member of the Public	**Consultation and next steps**	The 2050 plan holds the Expressway as a given. This is not the case. It has not been consulted on and it would be disastrous for Oxfordshire. Adding more pollution to the environment, when we already have illegal pollution on Oxfordshire roads, e.g. A34. The expressway is incompatible with the Council Transport Plan 4. I have not encountered a single person in favour of the Expressway. Also, I would urge those involved to ensure that the Oxford Cambridge rail link to ensure it is adequately funded so it can be a real success and offer the maximum benefits. For a start it should be able to take freight, getting freight of the roads will bring countless benefits in reducing pollution, noise and traffic and risks on the roads. And should be electrified.	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
Farringdon Town Council	**Consultation and next steps**	Farringdon Town Council resolved at their meeting held on 13/3/2019 to make the following comments: ■ Adequate provision of employment land should be included, as stated in the Farringdon Neighbourhood Plan ■ Infrastructure for the community should keep pace with development. ■ The community should be involved in any plans. ■ Provision for young people and children should be carefully considered and included	This comment relates to the options for the Oxfordshire Plan 2050 and its relationship with other plans and programmes, rather than the SA Scoping Report. The role of the SA is to assess the policies of the plan and its reasonable alternatives against the SA objectives.
Bloombridge Development Partners	**Baseline environmental, social and economic context for the JSSP**	I have been going through the SA LUC completed for the Oxon Plan and have a question on the Green Belt annotations you have used around Kidlington in **Figure 3.12**. It looks like you have cut out parts of the Green Belt with green edging. Could you please explain the rationale for this?	The SA Scoping Report is the first stage of the SA of the Oxfordshire Plan 2050 and no appraisal has yet been undertaken, that will come at a later stage. Please note that Figure 3.12 illustrating Oxfordshire's environmental sensitivity in 2016 has been removed in light of the more recent environmental evidence and data set out in other

Consultee	Document Part	Consultation comments – summarised where appropriate	Response/action taken to address consultation comment in this updated SA Scoping Report
			sections of the SA Scoping Report Baseline. However, the consultee is likely referring to Figure 3.11 which shows the 2018 boundaries of the Oxford Green Belt as defined in the national dataset held by the Department of Communities and Local Government (DCLG). The 'green edging' represents the existing Green Belt boundary at the urban edges of the settlements inset within Oxfordshire's Green Belt including Oxford.

Appendix B

Detailed sustainability and policy context

Population Health and Wellbeing

Population

B.1 According to the most recent Joint Needs Assessment Report (JSNA)[59], there are thought to be around 687,500 people living in Oxfordshire. The latest Oxfordshire County population forecasts, predict an increase in the number of residents of +57,130 (+8.3%) between 2018 and 2040 as shown in **Table B.1**, with the largest percentage increase in Vale of White Horse and Cherwell both with an expected increase of 21% and 12%, respectively. Oxford was the most populated district in the County in 2018 with an estimated 154,300 people, while West Oxfordshire was the least populated with 109,800 people.

Table B.1: Projected growth in total resident population 2018 to 2040[60]

District	2018	2040	% change
Oxford City	154,300	146,233	-5
Cherwell	149,161	167,885	12
South Oxfordshire	140,504	148,872	6
Vale of White Horse	133,732	162,287	21
West Oxfordshire	109,800	119,350	9

B.2 There are various reasons why the population across the County varies. For example in Oxford, the two universities mean that the City has a large student population which is relatively young, a 2019 estimate states that 32,930 students were enrolled for full-time studies[61]. The City's population is also culturally diverse, with the third highest minority ethnic population in the South East. However, the population turnover is also very high. The County's rural character is also another factor. In Cherwell District, the population density is just 2.5 persons per hectares, which is much lower than the South East region (4.8 persons per hectare). Similarly, West Oxfordshire's population of 109,800 is spread across an area of 71,500 hectares (276 square miles), in approximately 130 separate towns, villages and hamlets. Nearly 60% of the 81 parishes contain fewer than 500 residents[62].

B.3 The population in Oxfordshire is expected to grow by 6,000 per year to 928,000 in 2052[63]. At the same time, Britain has an ageing population which has significant implications for the economy and public service provision. In Oxford, however, trends predict that the older population will actually decrease over the next 30 years, presumably driven by migration of older people out of the City[64]. However, in other districts and for the county as a whole, the pattern is predicted to be different. The oldest age

[59] Oxfordshire County Council (2020) *Joint Strategic Needs Assessment, https://insight.oxfordshire.gov.uk/cms/system/files/documents/2020_JSNA.pdf*
[60] Office for National Statistics (2020) *Population projections for local authorities: Table 2 https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/localauthoritiesinenglandtable2*
[61] Oxford City Council (2019) *Key facts about Oxford https://www.oxford.gov.uk/info/20131/population/459/oxfords_population*
[62] Oxfordshire County Council (2020) *Joint Strategic Needs Assessment, https://insight.oxfordshire.gov.uk/cms/system/files/documents/2020_JSNA.pdf*
[63] Oxfordshire County Council (2016) *Oxfordshire's Population*
[64] Oxford City Council (2009) *Oxford Economic Profile, 2009*

group, those aged 85 and over, is predicted to increase from 18,000 in mid-2019 to 21,300 by mid-2027, an increase of 3,300 people (18%)[65].

B.4 At present, Cherwell, South Oxfordshire and the Vale of White Horse Districts have the highest number of residents aged over 65. In South Oxfordshire between 2001 and 2011 there was a shift in the age structure of the District with growth in all age groups over 60. The proportion of older people aged 65 and over in Cherwell was 15.3% in 2014 and is predicted through ONS projections to increase to 24% by 2033.

B.5 Similarly, the population of Vale of White Horse District is predicted to be 158,118 in 2035[66]. However much of this increase will be in the over 50s and early 60s age groups, while the estimated number of working age population (16-64 males/59 females) is estimated to remain fairly static.

B.6 These demographic changes across Oxfordshire are likely to have planning and resources implications. An ageing population is also a key factor affecting a reduction in household size, with more homes being occupied by fewer people in the future.

Social inclusion and deprivation

B.7 The English Indices of Deprivation 2019[67] is a measure of multiple deprivation in small areas or neighbourhoods, called Lower-layer Super Output Areas (LSOA). Seven domains of deprivation are measured: Income Deprivation; Employment Deprivation; Health Deprivation and Disability; Education, Skills and Training Deprivation; Crime; Barriers to Housing and Services; and Living Environment Deprivation. Each domain contains a number of indicators. The seven domains are combined to give a multiple deprivation score.

B.8 According to the Indices of Deprivation 2019[68] ranking (i.e., rank of average score) out of the 326 local authority areas in England (where 1 is most deprived and 326 is least deprived) Oxford City was ranked 189th, Cherwell 220th, South Oxfordshire 302nd, Vale of White Horse 305th, and West Oxfordshire 301st.

B.9 There are 32,844 LSOAs nationally. Oxfordshire is the 10th least deprived of 152 upper tier local authorities in England but some small areas experience high levels of deprivation. Ten of Oxford City's 83 neighbourhood areas are among the 20% most deprived areas in England. These areas include the Leys, Rose Hill and Barton areas of the city. Twelve neighbourhood areas are amongst the 20% most deprived in the UK. There are great disparities between different areas of Oxford, with peripheral areas such as parts of Barton, Blackbird Leys, Littlemore and Rose Hill, as well as part of the city centre, being the most deprived.

B.10 Although Cherwell District is in the 25% least deprived areas nationally, there is evidence of disparity between the different parts of the District when looking at the assessment at the small area level. For example, the highest ranking (therefore most deprived) LSOA in Cherwell District ranks 4,701 (approximately 14%) – this is Banbury Grimsbury and Castle ward (Cherwell 004A). In South Oxfordshire District, there are no LSOAs in the most deprived 20% nationally. However, around 26% of LSOAs ranked poorly in the barriers to housing and services domain. Vale of White Horse District has one LSOA, located in Abingdon, which is in the bottom 20% nationally.

B.11 For the year 2020, Oxfordshire as a whole had a crime rate of 24.8 per 1,000 people[69]. For the year 2019, West Oxfordshire had a crime rate per 1,000 of 44, which is relatively low[70]. In Cherwell, during 2019/20 there were a total of 10,827 recorded crimes in the District, which is an increase of 184 from the previous year (10,643). The majority of crimes recorded were in violent (32.7%) and anti-social behaviour (13.9%)[71]. The rest of the Districts within the county have not provided crime

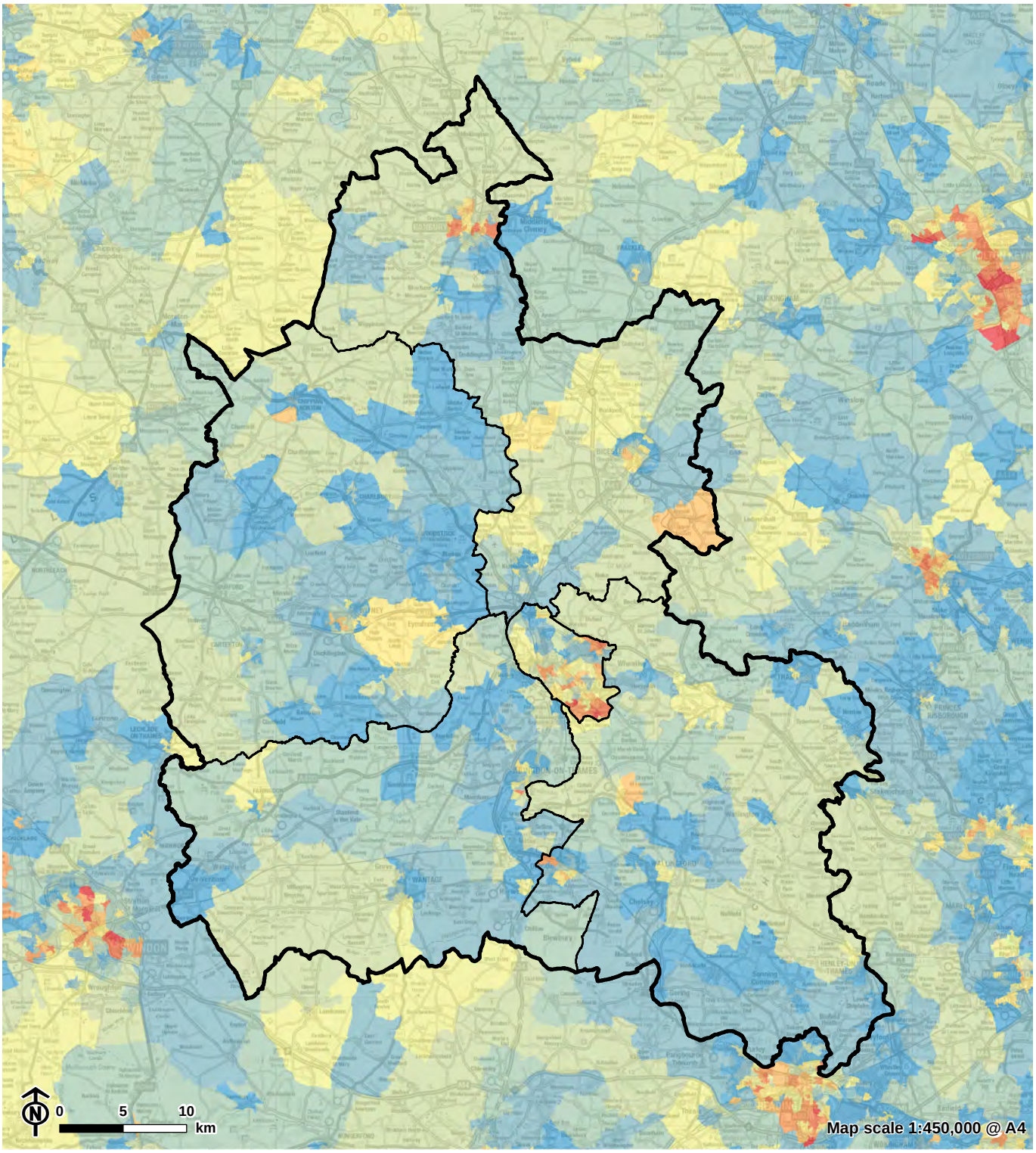
[65] Oxfordshire County Council (2020) *Joint Strategic Needs Assessment, https://insight.oxfordshire.gov.uk/cms/system/files/documents/2020_JSNA.pdf*
[66] ONS 2018-based subnational population projections for local authorities and higher administrative areas in England (2018) https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/localauthoritiesinenglandtable2
[67] DCLG (2019) *The English Indices of Deprivation*
[68] DCLG (2019) *The English Indices of Deprivation, File 10: Local authority district summaries*
[69] Plumplot (2020) *Oxfordshire violent crime statistics* https://www.plumplot.co.uk/Oxfordshire-violent-crime-statistics.html#:~:text=Oxfordshire%20violent%20crime%20rate%20compared%20to%20other%20counties,by%20crime%20rate%20and%20crime%20rate%20percentage%20change
[70] West Oxfordshire District Council (2019) *Local Plan Monitoring Report 2018-19* https://www.westoxon.gov.uk/media/njtameyh/2018-to-2019-local-plan-monitoring-report.pdf
[71] Cherwell District Council (2020) *Annual Monitoring Report 2020* https://www.cherwell.gov.uk/info/33/planning-policy/370/monitoring-reports

statistics. Nationally, average crime rates are lower in rural areas than urban areas. For example, in 2019/20, the rate of violence against the person was 23.1 per 1,000 population in predominantly rural areas compared with 30.4 per 1,000 population in predominantly urban areas. This would suggest that the rural areas of Oxfordshire would similarly have a lower rate of violence than the more built up areas[72].

B.12 In addition, it should be noted that locations that suffer higher levels of crime are less sustainable. The carbon cost of crime within the UK is estimated to be in the region of 6,000,000 tonnes of CO2 per annum. This is roughly equivalent to the total CO2 output of 6 million UK homes[73].

B.13 New development near to deprived neighbourhoods can help to stimulate regeneration in those areas. Therefore, the location of the Oxfordshire Plan 2050 spatial options in relation to the most deprived neighbourhoods could influence the extent to which they can have positive effects on those areas. **Figure B.1** shows the Index of Multiple Deprivation for Oxfordshire.

[72] Crime, August 2020 [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/912406/Crime_August_2020.pdf
[73] Secured by Design (2016) *Secured by Design Homes* http://designforsecurity.org/downloads/SBD-New-Homes-2016.pdf



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CB:KS EB:Chamberlain_K LUC FIG03_01_10573_IMD_A4P 03/06/2021
Source: DCLG, OS

Figure B.1: Index of Multiple Deprivation

Oxfordshire county
District boundary

Index of Multiple Deprivation decile
- 0 - 10% (most deprived)
- 10 - 20%
- 20 - 30%
- 30 - 40%
- 40 - 50%
- 50 - 60%
- 60 - 70%
- 70 - 80%
- 80 - 90%
- 90 - 100% (least deprived)

Culture, leisure and recreation

B.14 There is a wide range of leisure, cultural and recreation facilities throughout Oxfordshire. The most significant concentration is in Oxford City Centre with its high concentration of museums and galleries, many (but not all) of which are associated with the universities and colleges.

Health

Life expectancy

B.15 Oxfordshire tends to be relatively healthy compared with other parts of the country, however in those communities suffering socio-economic deprivation, ill health and preventable health issues are more pronounced. The County has above average life expectancy compared to the rest of England, as shown in **Table B.2** below.

Table B.2: Life expectancy in Oxfordshire

Life expectancy	England	Oxford City	Cherwell District	South Oxfordshire District	Vale of White Horse	West Oxfordshire District
Males	79.5	80.6	80.2	81.6	82.3	82.1
Females	83.1	84.3	84.5	85.5	85.4	84.1

B.16 Oxfordshire Joint Health and Wellbeing Strategy (2018 – 2023) states that: demographic pressures (a growing and ageing population), high levels of child poverty, isolation and loneliness have been found to be a significant health risk for the elderly population, increase in 'unhealthy' lifestyles, the provision of adequate facilities for the mentally ill and preparing a coordinated approach are all challenges specific to health services in Oxfordshire[74]. The Health and Wellbeing Strategy outlines 4 priorities which centre on children and young people, older people and mental health and health improvement.

B.17 Pockets of deprivation and ill health have a major impact on the County's residents' health and life expectancy. Overall, common conditions include high blood pressure, diabetes, asthma, and common mental health disorders like depression and anxiety. Across the County, Districts are dealing with various health issues. For instance, in Oxford City and West Oxfordshire District there are certain pockets that have a higher proportion of people with limiting long-term illnesses and in deprived areas e.g. Carfax in Oxford City was ranked as the worst of all of the Lower-layer Super Output Areas (LSOAs) in Oxford for the health and disability deprivation domain. Similarly, there are parts of West Oxfordshire that fall within the most deprived 40% LSOAs in England in terms of health inequalities. Life expectancy is 6.2 years lower for men and 4.0 for women in the most deprived areas of Oxfordshire than in the least deprived areas[75]. The leading causes of death in Oxfordshire are dementia (for women) and heart disease (for men). Furthermore, those with a heart condition are at an increased risk of more severe complications of COVID-19[76].

B.18 The Health and Social Care Information Centre found that the total number of emergency hospital admissions (continuous inpatient spells) was 42,841 inpatients in 2014/15, which was less than the 2010/11 predicted value of 62,443 inpatients[77]. It should be noted that these statistics were collected before the COVID-19 pandemic, during which emergency hospital admissions were considerably higher. Despite this, the effects of a growing population are likely to result in an increase in the

[74] Health and Wellbeing Board, Oxfordshire County Council (2019), *Oxfordshire's Joint Health and Wellbeing Strategy,* https://www.oxfordshire.gov.uk/sites/default/files/file/constitution/oxfordshirejointhwbstrategy.pdf
[75] Public Health England (2020) *Oxfordshire Local Authority Health Profile 2019* https://fingertips.phe.org.uk/static-reports/health-profiles/2019/E10000025.html?area-name=Oxfordshire
[76] British Heart Foundation (2021) *Coronavirus: what it means for you if you have heart or circulatory disease*, https://www.bhf.org.uk/informationsupport/heart-matters-magazine/news/coronavirus-and-your-health#:~:text=Anyone%20with%20a%20heart%20condition,high%20risk%20(clinically%20vulnerable)
[77] Health and Social Care Information Centre (2016) *Compendium of Population Health Indicators*, https://digital.nhs.uk/data-and-information/publications/clinical-indicators/compendium-of-population-health-indicators/compendium-hospital-care/current/emergency-admissions

number of emergency hospital admissions. There has been an increase in the number of emergency hospital readmissions in Oxfordshire, according to the NHS. There were 9,615 emergency readmissions in 2017/2018, compared to 7,025 in 2013/14[78].

B.19 There are more road deaths in South Oxfordshire District than the regional average. This may be due to the rural nature of the District where residents are heavily reliant on the private car to move around, represented by the high levels of car ownership.

Physical activity/access to green space

B.20 Oxfordshire contains a higher than average proportion of physically active adults (72.5% compared to 66.3% national average) and lower than average excess weight in adults over 18 (58.9% compared to a national average of 62.0%)[79].

B.21 An assessment of available green spaces within Oxfordshire against Natural England's Accessible Natural Greenspace Standards (ANGSt) concluded that most households in the County did not meet accessibility levels for strategic sites, with particularly inadequate provision in Vale of White Horse and West Oxfordshire[80]. In addition, according to an analysis done by TVERC in 2017, 63% of households in Oxfordshire do not have access to a 2-hectare accessible green space within 300 metres and no residences have access to a 500-hectare accessible green space within 10 kilometres[81]. The importance of good access to high quality blue and green infrastructure to the health and wellbeing of communities is increasingly well recognised. A range of evidence has shown that access to parks and green spaces can help address national, regional, and local policy priorities relating to tackling obesity, diabetes, and heart disease as well as supporting mental wellbeing . The COVID-19 pandemic has also highlighted the importance of residents being able to visit an open space within a short walking distance. Evidence generally indicates that the quality of open spaces has a stronger bearing on health outcomes than quantity[82].

B.22 Access to the countryside via rights of way can also provide an important recreation resource, with paths often stretching across the County linking communities with the countryside. However, although accessible land such as down land and common land also provide the opportunity for those living in cities to access natural greenspaces, it only makes up a small portion of the County. Woodland across Oxfordshire also attracts a large number of visitors, and can provide significant value from ecosystem services including climate regulation and for the timber industry[83].

B.23 South Oxfordshire and Oxford City are the only Districts within Oxfordshire to have commissioned Green Infrastructure studies. New and existing development has the potential to create additional green infrastructure or destroy the existing network, therefore affecting the County's resilience to climate change, biological and ecological networks and the health and wellbeing of residents.

B.24 The proposed Didcot Garden Town aims to connect and interlink green spaces, both within Didcot and into the surrounding countryside. Proposals include: reducing traffic traveling through the centre of Didcot by re-directing as much traffic as possible around the town's northern periphery, upgrading and completing the 'Garden Line' cycleway and walkway that links the town centre with Culham and Harwell campuses, connecting Didcot to the surrounding countryside through cycle routes and pathways, enhancing the streets that link Didcot station with the town centre, upgrading routes so they are safer for cyclists, and providing a wider mix of homes and encouraging multi-generational living[84].

B.25 A key element of the West Oxfordshire Local Plan 2031 is the establishment of a new garden village to the north of the A40 near Eynsham. The initial garden village proposals set out in the Local Plan include 2,200 new homes and a new science business park which will give local people an alternative to driving to work in Oxford. In addition, the nearby Hanborough railway station together with a new Park and Ride facility to the north of Eynsham (expected to be open by 2020) will give people an alternative to using their cars. In addition, the key principles that lay the foundation for this garden village include, but are not limited to: development that enhances the natural environment, providing a comprehensive green infrastructure network and

[78] NHS (2020) *Compendium – Emergency readmissions to hospital within 30 days of discharge* https://digital.nhs.uk/data-and-information/publications/statistical/compendium-emergency-readmissions/current
[79] Public Health England (2019) *Local Authority Health Profiles – Oxfordshire* https://fingertips.phe.org.uk/static-reports/health-profiles/2019/e10000025.html?area-name=oxfordshire
[80] AECOM (2017) *Oxfordshire Infrastructure Strategy* https://www.oxfordshiregrowthboard.org/wp-content/uploads/2018/04/oxis_stage2.pdf
[81] Carpenter et al. 2017 An Analysis of Accessible Green Space Provision in Oxfordshire. Thames Valley Environmental Records Centre.
[82] Julian Dobson, Cathy Harris, Will Eadson and Tony Gore (2019) *Space to Thrive – A rapid evidence review* https://www4.shu.ac.uk/research/cresr/sites/shu.ac.uk/files/space-to-thrive-2019-evidence-review.pdf
[83] AECOM (2017) *Oxfordshire Infrastructure Strategy* https://www.oxfordshiregrowthboard.org/wp-content/uploads/2018/04/oxis_stage2.pdf
[84] South Oxfordshire District Council (2017) *Didcot Garden Town Delivery Plan* http://www.southoxon.gov.uk/business/support-business/supporting-our-town-centres/didcot/didcot-garden-town-0

biodiversity net gains, ensuring climate resilience, community engagement with an emphasis on cultural, recreational and shopping facilities in walkable, vibrant and sociable neighbourhoods and providing integrated and accessible transport systems that encourages walking, cycling and public transport[85].

B.26 A summary of the key sustainability issues in relation to the population characteristics described above is provided in **Table B.3**, along with the likely evolution of each issue if the Oxfordshire Plan 2050 were not implemented.

Table B.3: Key sustainability issues for Oxfordshire and likely evolution without the Oxfordshire Plan 2050 (Population Characteristics)

Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
An ageing population which is likely to have planning and resource implications (especially in the short to medium term with regard to the COVID-19 pandemic).	Without the Oxfordshire Plan 2050, it is likely that services and facilities would still be delivered. However, it is less likely that these would be planned for in a coherent, sustainable manner across the County alongside development. Demographic change is accounted for throughout many policies within each District's Local Plan.
Oxford has a high population turnover due to problems associated with the retention of highly qualified students in the area.	Without the Oxfordshire Plan 2050, it is likely that Oxford City would continue to have a high population turnover. The Oxfordshire Plan 2050 encourages more collaborative working between the six Oxfordshire Councils which could, to an extent, result in delivering the types of employment opportunity that will attract highly qualified people, for example in the knowledge sector. This could make the County more attractive to recent graduates. Without the Oxfordshire Plan 2050 it is likely that affordable housing would still be delivered but not in sufficient quantity to meet the needs of recent graduates.
There is a need to reduce the inequalities gap between those living in the most and least deprived parts of Oxfordshire.	Without the Oxfordshire Plan 2050, it is possible that the gap between the most and least deprived areas in Oxfordshire would remain. However, each District Council's Local Plan addresses issues of deprivation, whilst documents such as the OxLEP Strategic Economic Plan (2016) seek to provide opportunities for economic growth and development. This may help reduce the inequalities.
High reliance on the private car which may be resulting in more road deaths in South Oxfordshire than the regional average.	Without the Oxfordshire Plan 2050, it is likely that car dependency will continue to be high. However, the Oxfordshire Infrastructure Strategy (2017) aims to deliver long-term investment in major public transport schemes, and the Oxfordshire Local Transport Plan (2015) aims to minimise private travel through the promotion of public transport and by making walking and cycling more attractive alternatives to the car. The Oxfordshire Plan 2050 provides an opportunity to reduce car use through the promotion of a joint-up, strategic approach to transport planning across Oxfordshire, in an integrated way with the Oxfordshire Infrastructure Strategy and Local Transport Plan.
The majority of households in Oxfordshire do not have easy access to natural greenspace, an issue exacerbated by the COVID-19 pandemic.	The Oxfordshire Plan 2050 represents an opportunity to provide strategic direction on this important issue. While each District Council's Local Plan addresses lack of green space, it is less likely that green spaces would be planned for

[85] West Oxfordshire District Council (2018) *Oxfordshire Cotswolds Garden Village* https://www.westoxon.gov.uk/residents/planning-building/planning-policy/local-development-framework/garden-village/

Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
	in a coherent network across the County alongside development.

Housing

B.27 The Oxfordshire Strategic Housing Market Assessment (SHMA) (April 2014)[86] reports that Oxfordshire is a relatively high value market. In relative terms, the SHMA analysis suggests that the strongest demand pressures are in Oxford, followed by the south of the County (Vale of White Horse and South Oxfordshire). In relative terms, the market signals suggest that there is less market pressure in Cherwell District. However, there are marked differences in Cherwell, with house prices in the south of the District being markedly higher than in the north.

B.28 **Table B.4** shows the relative levels of median house prices across the Districts which make up the SHMA.

Table B.4: Median house prices 2020[87]

	Median House Price	Differential to Oxfordshire average
Cherwell District	£286,952	-£63,518
Oxford City	£433,918	£83,448
South Oxfordshire District	£405,669	£55,199
Vale of White Horse District	£352,294	£1,824
West Oxfordshire District	£309,952	-£40,518
Oxfordshire	£350,470	£0
England	£247,355	-£103,115

B.29 The Oxfordshire Growth Needs Assessment notes that, like many parts of the South East, Oxfordshire is characterised by high housing costs with the median house prices over the last 20 years rising from £100,000 to £350,000. Across the County, the median cost of a home is now 10.4 times incomes and up to 17 times median earnings in the city of Oxford. Oxford is one of the UK's least affordable cities. There is significant need for affordable housing with the estimated need being almost 3,200 affordable homes per year to 2030[88].

B.30 Benchmarks of land values in 2010 using data published by the Valuation Office Agency and HCA cited in the Oxfordshire Strategic Housing Market Assessment (April 2014) indicates that Oxford has some of the highest recorded land values in the region (e.g., bulk land at £5 million per ha).

B.31 Housing demand is particularly strong in Oxford and those areas with good transport links to it. More generally, demand is stronger in the towns with rail links, with prices falling in the west and north of the Housing Market Area. Particularly west of Oxford near Brize Norton, and near Didcot, the presence of MOD personnel has an important influence on local markets[89].

B.32 Oxford is not a large city, but population density is high and the city's institutions (universities colleges, schools hospitals, administration) occupy a great deal of the available space alongside retail and housing. Oxford's local housing market therefore extends well beyond the City's boundary. Beyond the City, Oxfordshire towns fall into two main groups, those that have easy

[86] GL Hearn Limited (2014) *Oxfordshire Strategic Housing Market Assessment*
[87] HM Land Registry/UK House Price Index 2020
[88] Cambridge Econometrics and Iceni Projects (2021) Oxfordshire Growth Needs Assessment – Executive Summary
[89] GL Hearn (2014) Oxfordshire Housing Market Assessment

access to direct rail links to the City of Oxford and London and those that do not. Those that do not are generally to the west of the County[90].

B.33 Oxfordshire's Housing and Growth Deal provides the County with £215 million of new funding to support the County's ambition to plan for and support the delivery of 100,000 homes by 2031. The Oxfordshire Plan 2050 reinforces the commitment of the Housing and Growth Deal to deliver up to 100,000 homes by 2031. The plan is expected to be quite detailed to 2030, be relatively specific for 2030-2040, and be visionary and less specific for 2040-2050. In addition, of the £215 million, £150m of this funding focuses on infrastructure delivery, £60m on additional affordable housing, and £5m capacity funding for the costs of delivering on the agreement. The £60m affordable housing funding is intended to support a bespoke Oxfordshire-wide affordable housing delivery programme that will support delivery of at least 1,320 affordable homes across a range of tenures to start on site by 2021. The fund will work in tandem with Homes England Affordable Homes Programme[91]. The most recent versions of the five Districts' Local Plans aim to deliver at least 96,000 net additional dwellings, including contributions to Oxford City's unmet housing need, albeit over different time periods. The 96,000 net additional dwellings will help to complete Oxfordshire's Housing and Growth Deal goal of 100,000 homes by 2031. The four Districts outside Oxford City are expected to contribute the most towards this figure, as shown in **Table B.5.**

Table B.5: Planned housing delivery.

District	Planned Net Additional Dwellings	Local Plan Period	Status of Local Plan
Cherwell	22,840	2011-31	Adopted 19th December 2016
Cherwell's delivery of Oxford City's unmet needs	4,400	2019-31	Adopted 7th September 2020
Oxford City	10,884	2016-36	Adopted 8th June 2020
South Oxfordshire District	18,600	2011-35	Adopted 10 December 2020
South Oxfordshire's Delivery of Oxford City's unmet needs	4,950	2021-35	
Vale of White Horse District	20,560	2011-31	Adopted Dec 2016
Vale of White Horse's Delivery of Oxford City's unmet needs	2,200	2019-31	Publication Version Part 2 Adopted October 2019
West Oxfordshire District	13,200	2011-31	Adopted 27th September 2018
West Oxfordshire's Delivery of Oxford City's unmet needs	2,750	2021-31	

B.34 Currently across the county there are 6 permanent council-owned traveller sites, providing 89 pitches and 21 privately run authorised sites[92].

B.35 A summary of the key sustainability issues in relation to the housing baseline described above is provided in **Table B.6**, along with the likely evolution of each issue if the Oxfordshire Plan 2050 were not implemented.

[90] As above.
[91] Oxfordshire Housing and Growth Deal Delivery Plan https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/692366/Oxfordshire_Housing_Deal_-_Delivery_Plan.pdf
[92] Draft Oxfordshire Plan 2050.

Table B.6: Key sustainability issues for Oxfordshire and likely evolution without the Oxfordshire Plan 2050 (Housing)

Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
Under-provision of homes to meet the needs of a growing number of households and demographic change.	The purpose of the Oxfordshire Plan 2050 is to facilitate strategic planning across all Districts in Oxfordshire, as part of the Oxfordshire Housing and Growth Deal Agreement. Without the Oxfordshire Plan 2050, it is likely that housing would still be delivered through each of the District Council's individual Local Plans but without a strategic approach it may be more difficult to keep pace with demand. Specifically, there may be a shortfall in appropriate housing in Oxford City.
High house prices and lack of affordable homes, despite demand.	Without the Oxfordshire Plan 2050 it is likely that house prices will continue to rise across the County. However, each District Council aims to provide a percentage of affordable housing in all new residential developments. The Oxfordshire Plan 2050 offers the opportunity to facilitate and expedite the delivery of affordable housing across the County, especially affordable housing that would have otherwise been located in Oxford City but cannot due to constraints within the area.

Economy and employment

B.36 Oxfordshire has been one of the country's fastest growing economies in recent years, and sustained jobs growth of around 6,000 per year over the 2010-18 period. Oxfordshire is one of the three net contributors to the national exchequer, generating approximately £22 billion GVA to the UK economy in 2015. The evidence suggests that whilst rates of housing delivery have been rising, jobs growth over the 2010-2018 period outpaced growth in housing and labour supply within the County. Between 2011-18 the working-age population age 16-64 increased by just 1%. A supply-demand imbalance for housing has resulted, contributing to both house price growth and growth in net in-commuting into Oxfordshire[93].

B.37 Oxfordshire also attracts over 30 million people each year, including a significant number of international visitors. The tourism and hospitality industries contribute £2.17 billion to the economy[94]. 50,000 new jobs were created since 2011/12 and Oxford has the second fastest growing economy of all UK cities[95].

B.38 The Oxfordshire Strategic Economic Plan of 2016 sets out a goal of 85,600 new jobs to 2031, reflecting the pace of change and effects of new and emerging technologies on the labour market. However, a key challenge that Oxfordshire is experiencing is the extremely tight labour market (many more jobs than there are people) with low levels of unemployment (0.7% out of work benefits claimants) and high job density at 0.96 (i.e., there are 96 jobs available for every 100 residents of 'working age'). With minimal growth in the working age population in the coming years and a child population (0-18 years) that is expected to decrease, this will present further challenges. The largest contributions to the County's growth came from the following sectors: public administration, education and health (24%), distribution, transport, accommodation and food (17%), business activities and property (both with 13%)[96]. Between July 2017 and June 2018, in terms of occupation, managers, directors and senior officials are the largest employment group for the County (59.8%) followed by professional occupations with 28.3% and associate professional and technical with 17.4%[97]. South Oxfordshire is home to just over a quarter (26%) of the County's business enterprises. The majority of these are small companies and many are based on the business and science parks in the area.

B.39 The median annual pay for employees resident in Oxfordshire in 2017 was £27,793. Oxfordshire has seen nearly 14% growth in the median annual pay since 2012 and much more growth than the South East at 7% and England with 9%. Most of

[93] Cambridge Econometrics and Iceni Projects (2021) Oxfordshire Growth Needs Assessment – Executive Summary
[94] Oxfordshire Local Enterprise Partnership (July 2019) *Oxfordshire Local Industrial Strategy*
[95] Oxfordshire Local Enterprise Partnership, Annual Report (2017/18)
[96] Oxfordshire Local Enterprise Partnership (2018) *Overview of the Economy*
[97] Local Area Report: Oxfordshire (2018) https://www.nomisweb.co.uk/reports/lmp/la/1941962886/report.aspx?town=oxfordshire

(83.1%) the working age population in Oxfordshire is economically active and in work. 68% of those in employment work full-time rather than part-time. Three quarters of part-time workers are women. However, there is a significant proportion of the population not in work. In 2017, 12,500 people were registered as unemployed and an additional 16,600 are economically inactive, not claiming anything from the state, but wanting a job. This is up from 2016 by 1,200. 0.7% of the working age population in the County were claiming out of work benefits in 2017, this equates to 2,950 people[98]. In March 2020, there were 6,670 people claiming out of work benefits, an increase from 2017. However, by December 2020, the number of claimants rose to 16,460, an increase of 146%[99]. The increase is likely due to the economic shock and rise in unemployment caused by the COVID-19 health pandemic.

B.40 Oxfordshire has a significant network of business parks located in the city, towns and rural locations. They range from the internationally significant sites at Harwell and Culham to the smaller business parks on the edges of towns.

B.41 In 2019 the Ministry of Housing, Communities and Local Government published a report on the government ambitions and joint declaration between Government and local partners for the Oxford-Cambridge Arc. The report illustrates that productivity in the Arc as a whole, is around 2.55% higher than the UK average. In addition, the Arc's economy appears to be more resilient than the national average, with 2.5 percentage point growth in GVA per head between 2009 and 2010, compared to 1.7 percentage points in England and Wales as whole[100]. The Oxfordshire Growth Needs Assessments (2021) sets out that there is the potential for a more spatially balanced growth picture to emerge compared to 2011-18 trends. Central Oxfordshire, encompassing the Knowledge Spine (including Oxford City and Fringe), is expected to remain a significant driver of economic activity, accounting for two-thirds of net additional employment growth to 2050.

B.42 The Oxfordshire Housing and Growth Deal includes the commitment from Government and local partners to work together to boost productivity through a number of measures including the development of an Oxfordshire Local Industrial Strategy, supporting local business growth and addressing skills gaps[101]. The Oxfordshire Local Industrial Strategy is a direct response to the UK Industrial Strategy, launched by Government in November 2017. The Oxfordshire Local Industrial Strategy aims to provide a long-term vision for economic growth until 2040[102]. The Oxfordshire Investment Plan translates the ideas in the Oxford Local Industrial Plan into a coherent programme of delivery over an initial 10-year period, up until 2030. This plan responds to the economic challenges which COVID-19 has created for businesses, supply chains and the workforce in Oxfordshire[103].

B.43 In 2011, businesses in the UK arts and culture industry generated an aggregate turnover of £12.4 billion. The 2020 Economic Impact Report for Tourism in Oxfordshire noted that the county saw a significant increase (9%) in visitor spend in 2019. The report also highlights that the visitor economy is extremely important across the whole of Oxfordshire, with the largest proportion of visitor spending taking place in Oxford (40%) and the largest number of visits to North Oxfordshire (26%) with Oxford City closely followed with 25% of the total visits. However, the findings of the report are now a stark contrast to the current situation across Oxfordshire where business across the visitor economic are facing challenging times due to the COVID-19 pandemic[104].

B.44 The Strategic Investment Plan: Oxfordshire Creative, Cultural, Heritage and Tourism Sectors notes that the rural economy is strong, including a diverse agricultural sector and growing renewable energy sector as well as an increasing number of small businesses. The Creative Industries is increasingly a small and micro business sector. 85% of creative businesses are micro businesses (up to 10 employees), a further 12% are small businesses (up to 50 employees), and 43% of workers within the creative and cultural industries are self-employed and self-employment in the sector is growing – especially in rural areas.

B.45 In addition, the natural and rural assets of the County play an important role in the heritage and cultural offer and are a major tourist attraction that includes three AONBs, the Chilterns, Cotswolds and North Wessex Downs. An act of Parliament in 1949 first gave provision for National Parks and Long Distance Routes to be created, with The Thames National Trail finally

[98] Oxfordshire Local Enterprise Partnership (2018) *Overview of the Economy*
[99] Unemployment Claims in Oxfordshire (2020) https://public.tableau.com/views/OxfordshireUnemploymentDashboard/MainStory?embed=y:display_count=no&:showVizHome=no%20
[100] Ministry of Housing, Communities and Local Government (2019) *The Oxford-Cambridge Arc*
[101] Oxfordshire Housing and Growth Deal Delivery Plan https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/692366/Oxfordshire_Housing_Deal_-_Delivery_Plan.pdf
[102] OxLEP *Local Industrial Strategy* https://www.oxfordshirelep.com/lis
[103] OxLEP (2020) *The Investment Plan* https://www.oxfordshirelep.com/lis#:~:text=The%20Oxfordshire%20Investment%20Plan%20-%20issued%20in%20August,which%2C%20in%20turn%2C%20will%20leverage%20almost%20%C2%A32%20
[104] Experience Oxfordshire (2020) *Pre Covid-19 Tourism Figures show Challenge Ahead for Oxfordshire's Visitor Economy* https://www.experienceoxfordshire.org/tourism_figures_pre_covid/

coming into being in 1997. Stretching over 184 miles, part of the route passes through the southern reaches of Oxfordshire alongside the River Thames which plays an important role attracting visitors to the countryside. Passing close by numerous villages, historic market towns, skirting the city of Oxford and including many places of interest opens up opportunities for business in rural areas. The natural and rural landscape is a major cultural asset and its sensitive management will be essential to effective and sustainable growth[105].

B.46 In 2017, the University of Oxford commissioned a report on the Economic Impact of the University of Oxford. The academic study, research and innovation at the University drive the local Oxford, Oxfordshire County and Regional economy. This economic impact report estimated that in 2014/15 the University of Oxford contributed £5.8 billion GVA to the UK economy, of which £2.3 billion GVA was to Oxfordshire, and supports 50,000 full time jobs[106]. The University of Oxford's Strategic Plan 2018-2023 is committed to benefit society on a local, regional, national and global scale through the collaboration of staff, students and alumni, their colleges, faculties and departments and will foster a culture of innovation and collaboration[107].

B.47 Due to Oxfordshire's proximity to London and Berkshire, and its links to Higher Education, it has created an economy that is competitive and proved resilient during and following on from the last recession. A report by the Enterprise Research Centre published in May 2017 positioned the County top in three of the ten innovative metrics: for marketing innovation; new to market products and services; and sales of innovative products.

B.48 The UK left the European Union in January 2020. It is uncertain what effect this will have on the Oxfordshire economy, particularly given its excellent transport links to the continent and the rest of the UK. However, there is general consensus that the immediate impact will be negative.

B.49 Finally, the impact of COVID-19 on changes in consumer behaviour and spending patterns tied to changes in average economic circumstances and travel patterns is unknown. The Social Market Foundation briefing paper published in July 2020 highlights that "lockdown will change consumer and business behaviour on a long-lasting basis, with a permanent shift to homeworking and digital retail. This change will impact urban spaces, risking widening income and wealth inequality. Reduced commuting costs will benefit white collar professionals, while those working in retail have faced widespread job losses."

B.50 It is likely that the COVID-19 pandemic will accelerate the shift towards online retail and service access, resulting in higher shop vacancy rates on the high street and in retail parks as stores become financially unviable. Office space could increasingly become vacant and difficult to re-let as firms embrace a policy of (at least) partial homeworking, resulting in a need to allocate less office space in Local Plans. This will have knock-on impacts for other businesses. Without office workers, tourists and shoppers returning to cities and towns, food and drink and cultural attractions are at risk, as well as office management and cleaning services.

B.51 The Oxfordshire Growth Needs Assessment also notes that there is potential for the pandemic to trigger and accelerate longer-term economic, social and behavioural change in Oxfordshire and throughout the UK. While in the short term, negative impacts within Oxfordshire have been severe and will continue to be felt for years to come, some of the new trends, such as homeworking and localism, could present a significant opportunity to reshape Oxfordshire's economic geography and transport systems[108].

B.52 A summary of the key sustainability issues in relation to the economy and employment baseline described above is provided in **Table B.7**, along with the likely evolution of each issue if the Oxfordshire Plan 2050 were not implemented.

[105] OxLEP (undated) *Creating the Environment for Growth: A Strategic Investment Plan for Oxfordshire* https://www.oxfordshirelep.com/sites/default/files/uploads/Creative%2C%20Cultural%2C%20Heritage%20and%20Tourism%20Sectors_0.pdf
[106] BiGGAR Economics (2017) *Economic Impact of the University of Oxford* https://www.ox.ac.uk/sites/files/oxford/Economic%20Impact%20of%20the%20University%20of%20Oxford.pdf
[107] University of Oxford (2018) *Strategic Plan 2018-2023* http://www.ox.ac.uk/about/organisation/strategic-plan-2018-23
[108] Cambridge Econometrics and Iceni Projects (2021) Oxfordshire Growth Needs Assessment – Executive Summary

Table B.7: Key sustainability issues for Oxfordshire and likely evolution without the Oxfordshire Plan 2050 (Economy and employment)

Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
More jobs than there are people, with minimal growth in the working age population. Although the number of people claiming out of work benefits has skyrocketed due to the COVID-19 pandemic, there is a large number of economically inactive people in Oxfordshire who are not claiming anything from the State but do want a job.	Without the Oxfordshire Plan 2050, it is likely that there will continue to be more jobs than there are people. However, the OxLEP Strategic Economic Plan (SEP) (2016) seeks to increase accessibility to the employment market. The Oxfordshire Plan 2050 offers the opportunity to revitalise the local economy in response to the COVID-19 pandemic and promote employment prospects within urban areas and the rural economy which may make the job market more accessible to the wider Oxfordshire community, focusing not only on high value sectors but also on those communities in need of economic investment due to poor job prospects. The Oxfordshire Plan 2050 also has the potential to attract people to the area through a joined-up, collaborative approach to future development across the County that delivers the homes that are needed alongside the jobs.
Uncertainty associated with the effects of Brexit and COVID-19 will have on the Oxfordshire economy.	It is uncertain how the job market will change without the implementation of the Oxfordshire Plan 2050, particularly given the uncertainties posed by Brexit and COVID-19. The Strategic Economic Plan (2016) highlights Oxfordshire's commitment to sustainable economic growth across the County. The LEP is seeking to help businesses prepare for Brexit, and also to support the world-class economy of Oxfordshire in order to compete in a post-Brexit world. Whilst the District Council's Local Plans will continue to allocate land for employment uses, the Oxfordshire Plan 2050 provides the opportunity to focus planning and investment on key economic sectors and strategic corridors and locations, supported by sufficient infrastructure to provide the conditions to make the Oxfordshire economy competitive, as well as promoting access and opportunity for all.

Transport

B.53 Oxfordshire sits on the busy road and rail transport corridor between the south coast ports, the Midlands and the north and has good links to London and the West Midlands via the M40 (see **Figure B.2**). However, it suffers from a lack of connectivity to and from the east, in particular to growth areas around Milton Keynes and Cambridge. The existing good links between Oxfordshire and London, Birmingham, Heathrow Airport and Southampton are currently accessed by road[109]. Emissions from transport currently account for around a third of greenhouse gas emissions in Oxfordshire, with the majority of this from road traffic[110].

B.54 Vehicle traffic has been growing steadily in Oxfordshire and at a greater rate than in the region as a whole. The M40 carries the most traffic, particularly on the stretch between junctions 9 and 10, which links the A34 via the A43 to the M1 and carries over 100,000 vehicles per day.

[109] As above.
[110] Draft Oxfordshire Plan 2050.

B.55 The A34 carries up to 70,000 vehicles per day, including a large proportion of lorries. It forms part of the Oxford ring road, which results in severe congestion, damaging the local and national economy. It is particularly vulnerable to disruption due to incidents, because of the lack of alternative north-south routes for journeys both within and through the County[111]. Congestion in Oxfordshire has a significant impact on bus journeys causing delay along important corridors. Technology improvements are due to start in 2019/20 along the A34 between the M4 and M40 which will improve safety and reduce congestion. However, capacity along the A34 is currently insufficient to sustain the level of traffic accessing Oxfordshire and the M40 leading to congestion and delays, which is a key constraint for any future housing development. In addition to the technology improvements along the A34, there are numerous local road improvements that are proposed to alleviate both existing congestion hot spots and to plan for proposed growth in Oxfordshire up to and beyond 2031[112].

B.56 Movement of freight and goods is an inherent part of Oxfordshire's market-based economy, with the majority of which moved by road. Due to Oxfordshire's central location in the country and proximity to major ports and airports there are major freight movements through the county, particularly on the main routes such as the A34 and M40. However, there has been increasing concern regarding the impacts of freight movements on particular areas and less strategic roads. Volumes of freight moved by rail has increased since 2017, however it is restricted[113].

B.57 There are five railway stations in Cherwell District. Banbury station has connections to London Marylebone, Oxford and Birmingham, as well as Manchester, Bournemouth, Newcastle and Reading. Bicester has two train stations; Bicester North (the larger) and Bicester Village. Bicester North station is on the Chiltern Main Line running south to London Marylebone and north to Birmingham. Oxford Parkway Station is also served by Chiltern Railways.

B.58 In West Oxfordshire, there are rail services connecting to Birmingham and London, which pass through a small part of the eastern fringe of the District. The Cotswold line passes through the largely rural central part of the District, connecting several small towns and villages with Hereford in the west and Oxford and London in the east. However, the main town of Witney does not have a rail connection. South Oxfordshire is served by the train station at Didcot Parkway, which is on the Great Western Rail line running between London, Reading and the West. However, it also connects to Oxford and Birmingham. While the same two railway main lines (Bristol to London and Oxford to London) run through the Vale of White Horse District, there are only two stations on the Oxford line and none on the Bristol line within the Vale of White Horse.

B.59 In addition, Oxfordshire contains a number of older disused railway lines, for example the Carterton-Witney-Oxford-Cowley-Wheatley rail route, some of which may or may not be appropriate for re-opening in the future.

B.60 In West Oxfordshire, there were approximately 3,880,000 tourism days trips made to the District in 2014[114], up 1.8% compared to the previous year. Despite this, the effects of tourism on the transport network are not well understood.

B.61 There is a good network of frequent bus or rail services linking the County's main towns with Oxford, yet the proportion of car journeys between these towns and Oxford remains high. In part this is due to the success of Park & Ride on the edge of Oxford. However, it means that the road corridors leading to Oxford used by buses all suffer from congestion[115].

B.62 Within Oxford, there is a mature and well-used network of largely commercial bus services, including regular services to the city centre from the five Park and Ride sites on the edge of the city. However across the rest of the County, bus networks are relatively under-developed, offering slow, infrequent routes that are more suited to shoppers than commuters. In West Oxfordshire, Witney, Carterton and Eynsham are connected to Oxford by high frequency bus services. Other bus services operate throughout the rural area with varying frequencies but many have required ongoing public subsidy.

B.63 The quality of cycling and walking networks is variable, with some towns having had very little investment in pedestrian and cycling infrastructure. Compared to most cities, Oxford has particularly high proportions of people travelling by bus and by bicycle. However elsewhere across the County, there is scope to increase levels of cycling through targeted improvements to cycling infrastructure. Cycle routes along inter-urban routes are largely non-existent, the notable exception being the cycle track

[111] As above.
[112] AECOM (2017) *Oxfordshire Infrastructure Strategy* https://www.oxfordshiregrowthboard.org/wp-content/uploads/2018/04/oxis_stage2.pdf
[113] Draft Oxfordshire Plan 2050.
[114] Tourism South East (2014) *The Economic Impact of Tourism West Oxfordshire 2014, https://www.oxfordshirecotswolds.org/dbimgs/Advice_EIS2014.pdf*
[115] Oxfordshire County Council (2016) *Local Transport Plan 2015-2031 Volume 1: Policy & Overall Strategy*

alongside the A40 linking Witney and Wheatley to Oxford. Over 25% of Oxford residents who work in Oxford cycle to work, with a further 25% walking and 20% using the bus[116].

B.64 In terms of travel to work, **Table B.8** below shows that the highest level of inward commuting is experienced in Oxford and Cherwell Districts.

Table B.8: Commuting flows from the Annual Population Survey, Great Britain, 2011

District	Inward Commuting	Outward Commuting
Oxford City	57,451	16,557
Cherwell	19,195	23,629
South Oxfordshire	24,447	32,581
Vale of White Horse	17,926	31,690
West Oxfordshire	10,949	19,910

B.65 Of the 57,451 commuters into Oxford, 16,563 are from Vale of White Horse District and most of the outward commute to work is to Reading[117]. The level of outward commuting to work is highest amongst South Oxfordshire residents[118]. Most commuters are travelling into Aylesbury Vale and Cherwell to work and travel to work by car either as a driver or as passenger. This figure has remained roughly equivalent to the 2001 data; however, it is significantly higher than the proportion for England. Cherwell residents travel further to work than people in the rest of the South East and nationally. It is estimated that 23,629 people commute from Cherwell with the majority (7,543) commuting into Oxford[119].

B.66 A large number of people commute out of West Oxfordshire to work, particularly to Oxford and the employment locations in the Abingdon and Didcot area. Many journeys continue to be made by private car and the number of people and distance people travel to work by car increased between the 2001 and 2011 Censuses. Commuting creates congestion on major routes, particularly the A40, A44 and A415 as well as within towns. However, due to the COVID-19 pandemic, 2020 saw a significant drop in commuting across the country as those who could work from home have. In April 2020, 46.6% of people in employment did some work at home and of those 86% did so as a result of the COVID-19 pandemic[120].

B.67 Oxfordshire County Council has produced its 4th Local Transport Plan (LTP4) which will run until 2031[121]. It guides the Council's policy making across all services, and is the long-term plan on which the Council's annually updated Corporate Plan is based. Its aims are to:

- Create a world class economy for Oxfordshire.
- Have healthy and thriving communities.
- Look after our environment and respond to the threat of climate change.
- Reduce inequalities and break the cycle of deprivation.

B.68 The Oxfordshire Infrastructure Strategy lists a wide variety of transport projects that are being proposed to 2031 to address Oxfordshire's transport issues. Some include: East-West Rail, upgrades to the A34, three bus rapid transit lines, super cycle routes and an A40-A44 link road. However, the Strategy suggests that about 25% of the proposed rail projects, 10% of the

[116] As above.
[117] Commuting flows from the Annual Population Survey, Great Britain, 2011 http://www.neighbourhood.statistics.gov.uk/HTMLDocs/Commute_APS_Map/Index.html
[118] As above.
[119] As above.
[120] Office for National Statistics (2020) *Coronavirus and homeworking in the UK: April 2020*, https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/coronavirusandhomeworkingintheuk/april2020
[121] Oxfordshire County Council (2016) *Local Transport Plan 2015-2031 Volume 1: Policy & Overall Strategy* www.oxfordshire.gov.uk/connectingoxfordshire

proposed road and bus projects, and none of the cycle projects had secured funding in 2017[122]. Additionally, the Oxfordshire Electric Vehicle Infrastructure Strategy (2021) sets out key actions for of how to roll out EV infrastructure over the next 5 years.

B.69 In addition, the Oxfordshire Housing and Growth Deal will help to fund a series of transport improvements focusing on reducing the impact of congestion, improving public transport infrastructure, pedestrian and cycling improvements[123].

B.70 In September 2018, the Government announced the preferred corridor for the new Oxford-Cambridge Expressway, accepting the recommendations of Highways England. The Expressway, which the Government sees as filling major gap in the national road network, will work together with the proposed East West Rail link to improve east-west connectivity. The Expressway is projected to take up to 40 minutes off the journey between the A34 south of Oxford and the M1 to improve connectivity to high quality jobs in centres of rapid growth such as Oxford Science Park[124].

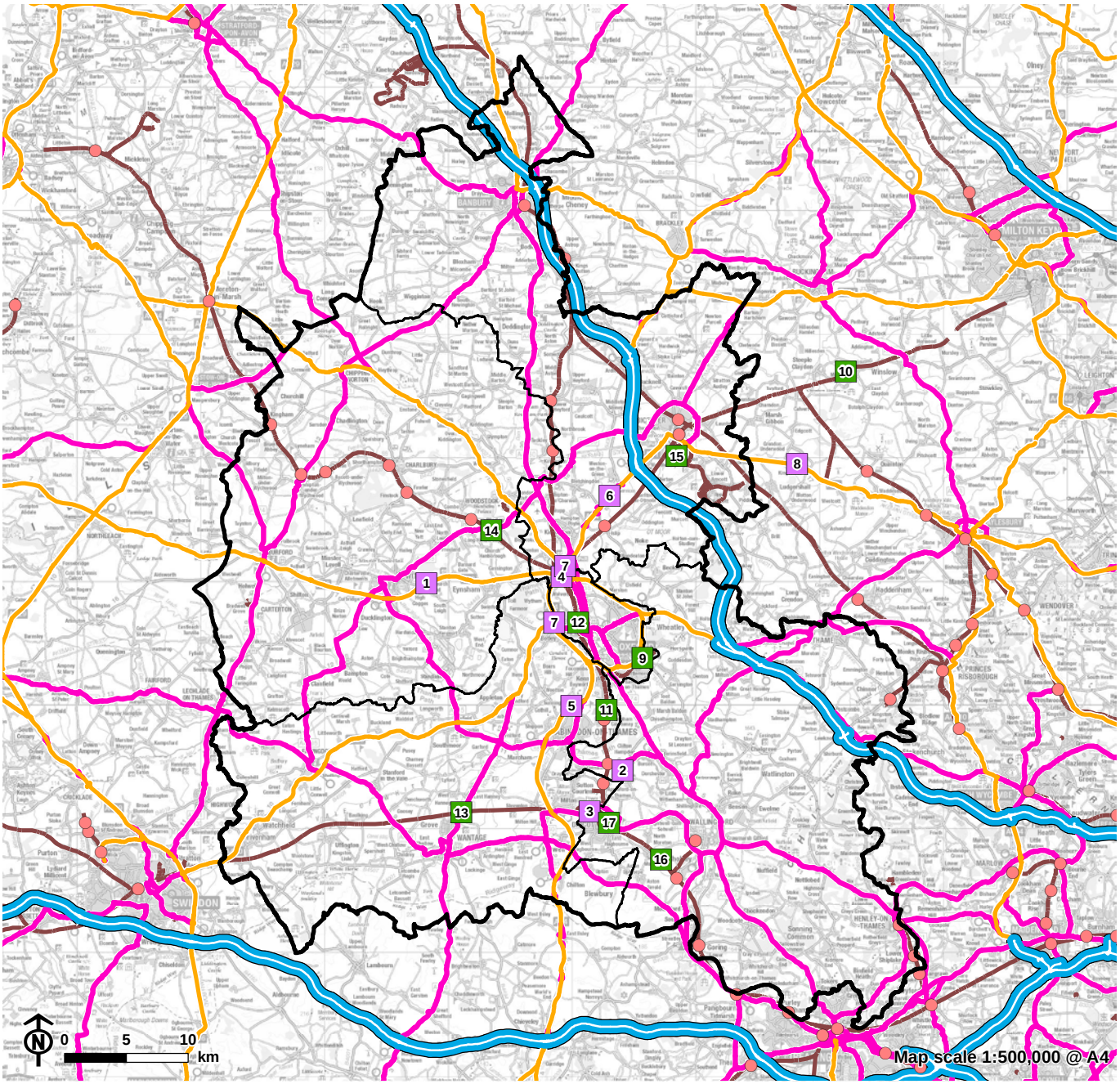
B.71 A summary of the key sustainability issues in relation to the transport baseline described above is provided in **Table B.9**, along with the likely evolution of each issue if the Oxfordshire Plan 2050 were not implemented.

Table B.9: Key sustainability issues for Oxfordshire and likely evolution without the Oxfordshire Plan 2050 (Transport)

Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
High reliance on the private car.	Without the Oxfordshire Plan 2050, it is likely that car dependency will continue to be high. However, the Oxfordshire Local Transport Plan (2015) aims to minimise private travel through the promotion of public transport and by making walking and cycling more attractive alternatives to the car. The Oxfordshire Plan 2050 provides an opportunity to reduce car use through the promotion of a joined-up, strategic approach to transport planning across Oxfordshire.
Oxford experiences severe traffic congestion, with the ring road being particularly vulnerable to disruption as a result of incidents. This is due to the lack of alternative routes for journeys both within and through the County.	Without the Oxfordshire Plan 2050, it is anticipated that congestion will continue to rise with the rising population. However, the Oxfordshire Local Transport Plan (2015) aims to minimise use of the private car, and the Oxfordshire Infrastructure Strategy (2017) sets out ambitions for new and improved infrastructure to 2031 and beyond. Regionally and County-wide, the Strategy supports an East-West rail link between Oxford, Bicester, Milton Keynes and Bedford; rail improvements between Oxford and Didcot; redevelopment of Oxford Station, and upgrades to the A34. In the long term, it also supports an Oxford-Cambridge expressway. The Oxfordshire Plan 2050 presents the opportunity to address issues associated with congestion through providing clarity for infrastructure providers at the same time as promoting a joined-up, strategic approach to transport planning across the County, integrated with the delivery of housing and economic development.
Rail services across Oxfordshire could be improved.	Without the Oxfordshire Plan 2050, there will be a continued need for improvements to be made to rail services across Oxfordshire. However, as set out in the document 'Partnering for Prosperity: A new deal for the Cambridge-Milton Keynes-Oxford Arc', the National Infrastructure Commission supports the proposed East-West rail line and Oxford-Cambridge expressway. The Oxfordshire Plan 2050 can help integrate development with these new public transport initiatives and can help support improvements to rail services across the

[122] AECOM (2017) *Oxfordshire Infrastructure Strategy* https://www.oxfordshiregrowthboard.org/wp-content/uploads/2018/04/oxis_stage2.pdf
[123] Oxfordshire Growth Board *Oxfordshire Housing and Growth Deal – Outline Agreement* https://www.oxford.gov.uk/downloads/file/4138/outline_agreement
[124] https://www.gov.uk/government/speeches/oxford-to-cambridge-expressway-road-scheme-update

Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
	County by encouraging collaborative working between each of the six Oxfordshire Councils.
Outside of Oxford City, bus networks are relatively under-developed offering slow, infrequent routes that are more suited to shoppers than commuters.	Without the Oxfordshire Plan 2050, bus networks across Oxfordshire are likely to remain under-developed. However, the Oxfordshire Bus & Rapid Transit Strategy (part of the Oxfordshire Local Transport Plan 2015) aims to improve bus services across Oxfordshire so as to reduce dependence on the private car. The Oxfordshire Plan 2050 could help support improvements to the bus network through the promotion of collaborative working between the six Oxfordshire Councils, and by ensuring that new strategic scale development links into and supports the bus network.
The quality of cycling and walking networks across Oxfordshire is variable, with some towns having had very little investment in pedestrian and cycling infrastructure. Cycle routes along inter-urban routes are largely non-existent. However, new walking and cycling infrastructure temporarily created in response to the COVID-19 pandemic offers an opportunity to make permanent improvements to these important networks.	Without the Oxfordshire Plan 2050, it is anticipated that the standard of cycling and walking networks across Oxfordshire would remain as they are. The Active & Healthy Travel Strategy (part of the Oxfordshire Local Transport Plan 2015) does, however, seek to reduce pressure on the road network through the promotion of sustainable door to door journeys that combine cycling or walking with public transport. The Strategy specifically aims to provide a safer, more attractive environment for cyclists and walkers. The Oxfordshire Plan 2050 could help support improvements to the pedestrian and cycling infrastructure through the promotion of collaborative working between the six Oxfordshire Councils, and by ensuring that new strategic scale development links into and supports cycling and walking networks.



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CB:KS EB:Chamberlain_K LUC FIG03_02_10573_Transport_network_A4P 04/06/2021
Source: OCC, OS

Figure B.2: Transport network

Oxfordshire county
District boundary
Rail station
Rail track
Motorway
Trunk road
A road

Strategic road and rail projects

Road

1. A40 strategy: dual carriageway from Witney to Eynsham
2. Culham to Didcot river crossing
3. Didcot Science Bridge and A4130 capacity
4. A40 - A44 link road
5. A34 upgrades: (short term) traffic management
6. A34 upgrades: (longer term) Oxford to Cambridge
7. A34 upgrades: (short term) on-slip improvements to Botley and Pear Tree interchanges
8. A41 Bicester to Aylesbury

Rail

9. Cowley branch line
10. East West Rail phase 2
11. Didcot to Oxford capacity improvement
12. Oxford Station redevelopment phases 1-3
13. Wantage and Grove Station and new inter-regional service
14. Cotswolds line upgrade (including Hanborough Station)
15. Freight interchange at Graven Hill
16. Wester Rail link to Heathrow: facilitates new direct services from Didcot to Oxford
17. Didcot east grade separation

Air quality

B.72 Nationally, from the 1990s leading up to 2000 there were reductions in NOx emissions, however since 2000 the amount of NOx emissions has surprisingly plateaued[125]. The major threat to clean air is currently created by traffic emissions. Petrol and diesel-engine motor vehicles emit a wide variety of pollutants, principally carbon monoxide (CO), oxides of nitrogen (NOx), volatile organic compounds (VOCs) and particulate matter (PM10 and PM 2.5), which have an increasing impact on urban air quality. These pollutants may not only prove a problem in the immediate vicinity of pollutant sources, but can be transported long distances. Health concerns are associated with each air pollutant. For example, both short-term and long-term exposure to ambient levels of PM is consistently associated with respiratory and cardiovascular illness and mortality as well as other ill-health effects[126].

B.73 The World Health Organisation has recently released data looking at air pollution world-wide and which pollutants posed the greatest risk to human health. This found that 10 towns and cities in the UK, including Oxford, breached safe levels of PM10, and another 39 urban areas, including Oxford, breached safe levels of PM2.5[127].

B.74 Despite these findings for Oxford city, air quality across Oxfordshire is considered to be generally good since the County is largely rural in nature. In more densely population areas of the County, and those which experience high traffic flows such as Oxford, Banbury and Bicester, increased levels of air pollution are of concern. In these areas, road traffic is the most significant source of pollutant emissions. In 2015, there were generally lower levels of NOx emissions across the County; however it is unclear whether this is indicative of a downward trend or whether other factors have influenced the results[128].

B.75 In March 2009, the Cabinet Member for Transport gave support to Oxford City Council's declaration of a low emission zone (LEZ) for buses operating in Oxford city centre. The LEZ declared in 2009 requires buses to meet the Euro V standard by January 2014. Oxford City Council Environment Officers estimate investments into new low emission buses will have reduced emissions of oxides of nitrogen (NOx) from buses by almost 60%[129].

B.76 From 2020, Oxford's Zero Emission Zone will put restrictions on some vehicles and journey types, which will increase gradually to all vehicles in the following years. The vision towards zero emissions accelerates from 2022 to 2035, when Oxford City council and Oxfordshire County council are considering further possible measures for non-zero and high emission vehicles to encourage a faster conversion towards low emission and zero emission vehicles. The aim is to have zero transport emissions in Oxford by 2035. It is also expected that the ZEZ will improve air pollution levels across Oxfordshire because the buses and taxis that serve Oxford also serve towns and villages across the County[130].

B.77 To support the change to electric vehicles, Oxford City's Submission version Local Plan, which was submitted on 22 March 2019, includes proposals for electric vehicle charging points across the city. Oxford City Council also plans to introduce a zero emission zone (ZEZ) in the city centre from 2020, with zero emissions progressively applying to more vehicles and a larger area, until the city centre has zero transport emissions by 2035. Oxford City Council is also a leader in the provision of car-free homes[131]. However, due to the COVID-19 pandemic, the current plan to launch the ZEZ has been postponed, with the end goal of implementing the scheme in the Summer of 2021[132].

B.78 The Environment Act 1995 introduced the National Air Quality Strategy and the requirement for local authorities to determine if statutory air quality objectives (AQOs) are likely to be exceeded. All local authorities now report to DEFRA on an

[125] IEMA (2017) Air Quality in the UK – Trends, Science and Politics https://www.iema.net/event-reports/2017/03/08/air-quality-in-the-uk-trends-science-and-politics/
[126] Oxfordshire Air Quality (2019) *What are the causes of air pollution* https://oxfordshire.air-quality.info/what-are-the-causes-of-air-polution
[127] Oxford City Council (undated) *Air Quality* https://www.oxford.gov.uk/download/downloads/id/2635/55_air_quality.pdf
[128] Oxfordshire Air Quality Group Annual Report – Health Improvement Board https://mycouncil.oxfordshire.gov.uk/documents/s35048/Item%2011%20-%20Air%20Quality%20Annual%20Report%20to%20Health%20Improvement%20Board.pdf
[129] Deputy Director for Environment and Economy (2012) *Oxford City Centre Low Emission Zone, http://mycouncil.oxfordshire.gov.uk/documents/s14877/CMDT_FEB1612R05.pdf*
[130] Oxford City Council (2019) *Plans for Zero Emission Zone in Oxford move ahead in the journey to zero emissions* https://www.oxford.gov.uk/news/article/965/plans_for_zero_emission_zone_in_oxford_move_ahead_in_the_journey_to_zero_emissions
[131] Oxford City Council, Oxford Zero Emission Zone (ZEZ) https://www.oxford.gov.uk/zez
[132] Oxford City Council (2020) Oxford Zero Emission Zone (ZEZ) March 2020 proposals https://www.oxford.gov.uk/info/20299/air_quality_projects/1305/oxford_zero_emission_zone_zez/2

annual basis, and have the obligation to declare Air Quality Management Areas (AQMAs) and develop action plans for improvement of air quality if objectives are likely to be exceeded.

B.79 There are currently 13 AQMAs within Oxfordshire. **Table B.10** below provides information about the AQMAs in each of the Oxfordshire Districts and **Figure B.3** shows their locations.

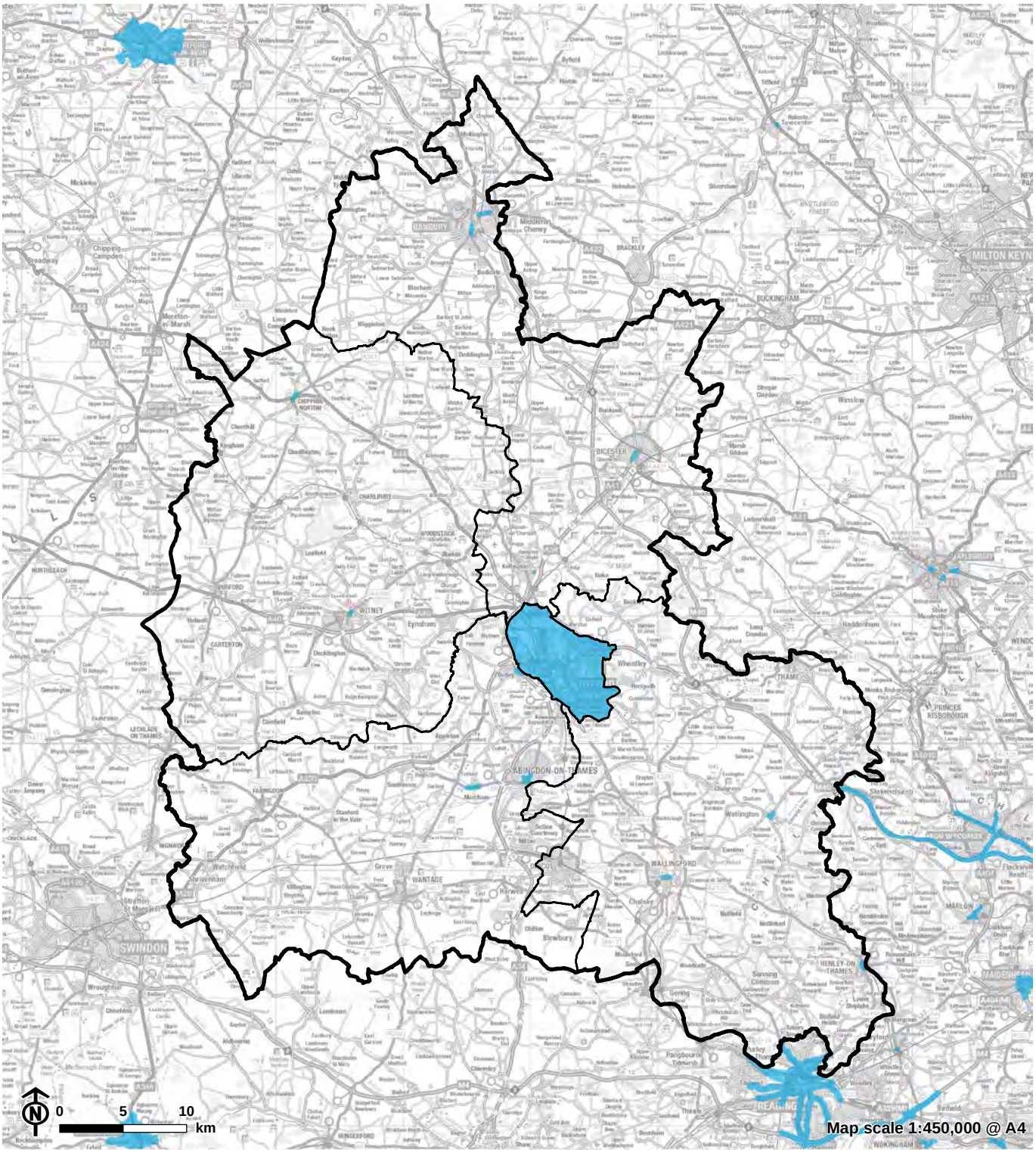
Table B.10: AQMAs

District	AQMAs	Declared for
Oxford City	City of Oxford	NO_2 concentrations in excess of the annual mean objective
Cherwell	Hennef Way, Banbury	NO_2 annual mean objective being exceeded
	Bloxham/ Oxford Road Junction and Horsefair, Banbury	Exceedances of the NO_2 annual mean objective
	Bicester Road, Kidlington	NO_2 concentrations in excess of the annual mean objective
	Kings End-Queens Avenue, Bicester	NO_2 concentrations in excess of the annual mean objective
South Oxfordshire	Duke Street, Hart Street, Market Place, Bell Street to the New Street junction, Greys Road to the Albert Road junction, Friday Street to the Queens Road junction, Reading Road to the Station Road junction, Henley	NO_2 annual mean objective being exceeded
	Wallingford High Street, Wallingford	Exceedances of the NO_2 annual mean objective
	Brook Street, Watlington	Exceedances of the NO_2 annual mean objective
Vale of White Horse	Stratton Way, Stert Street and parts of High Street, Ock Street, the Vineyard and Bridge Street, Abingdon	Exceedances of the NO_2 annual mean objective
	A34, Botley	Exceedances of the NO2 annual mean objective
	A415, Marcham	Exceedances of the NO2 annual mean objective
West Oxfordshire	Bridge Street, Witney	Exceedances of the NO2 annual mean objective
	Horsefair and High Street, Chipping Norton	Exceedances of the NO2 annual mean objective

B.80 A summary of the key sustainability issues in relation to the air quality baseline described above is provided in **Table B.11**, along with the likely evolution of each issue if the Oxfordshire Plan 2050 were not implemented.

Table B.11: Key sustainability issues for Oxfordshire and likely evolution without the Oxfordshire Plan 2050 (Air quality)

Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
On-going concern over air pollution, particularly from vehicles and as a result of congestion.	How air quality will change in the absence of the Oxfordshire Plan 2050 is unknown, given that the County accommodates a high volume of traffic. However, recent national policies and the emergence of new technologies are likely to improve air pollution, for example, through cleaner fuels/energy sources, and the shift towards electric and low emissions vehicles is likely to gather pace over the plan period. However, the development of new housing across the County will inevitably result in a higher number of cars on the roads. The Oxfordshire Local Transport Plan (2015) seeks to reduce pressure on the road network which will have a beneficial effect on air quality. The Oxfordshire Plan 2050 provides an opportunity to contribute to improved air quality in the County through the sustainable siting of development and the promotion of alternative travel modes to the motorised vehicle, in line with national policy aspirations.



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Source: Defra

Figure B.3: Air Quality Management Areas

Oxfordshire county

District boundary

Air Quality Management Area

Climate Change

B.81 The UK is a signatory to the international 2015 Paris Agreement, committing the country to a long-term goal of keeping the increase in global average temperature to well below 2°C above pre-industrial levels, through domestic mitigation measures. The UK's Climate Change Act, 2008 commits to reduce national emissions by at least 80% of 1990 levels by 2050.

B.82 All of the Oxfordshire authorities have declared a climate emergency with Oxfordshire County Council declaring in April 2019 and aims to be carbon neutral by 2030[133].

B.83 Planning has a significant role to play in mitigating the effects of and adapting to the inevitable impacts of climate change. In the past this has focussed on reducing the need to travel but in the future buildings will need to be more energy efficient, use decentralised, low carbon or renewable energy sources and be designed and located to be resilient to more extreme weather events and increased risk of flooding. It should also be highlighted that climate change is a cross cutting issue that can contribute to increasing the significance of effects related to other sustainability issues. Defra's 25 Year Environment Plan aims to improve the global environment by providing international leadership in tackling climate change.

Climate Change Adaptation

B.84 The UK Climate Projections (UKCP18) scenarios confirm that the South East will be one of the region's most severely affected by climate change. Greater extremes in temperature, more storms and extreme weather events (e.g., torrential rainfall, heat waves) are predicted. The 2018 IPPC Special Report on Global Warming presents the key findings, based on the assessment of the available scientific, technical and socio-economic literature relevant to global warming of 1.5°C and for the comparison between global warming of 1.5 °C and 2 °C above pre-industrial levels[134]. Unless rapid action is taken to reduce greenhouse gas emissions, global temperatures may rise to 4°C above pre-industrial levels by the end of the century. Summer maximum temperatures could rise by up to 10°C in parts of England by the 2080s. Sea levels will rise for decades and centuries ahead. Sea level rise is predicted to be between 0.4 and 1 metre by 2100, and possibly by as much as 4 metres by 2300[135].

B.85 Urban growth can contribute to the urban heat island effect. This is due to the land surfaces in towns and cities, which are made of materials like tarmac and stone, which absorb and store heat, that coupled with concentrated energy use and less ventilation than in rural areas, creates a heating effect[136]. With an estimated increase in population in Oxfordshire, urban heat island effect becomes an increasing stressor on the towns and cities.

B.86 Successfully adapting to climate change involves understanding the risks and quantifying the likely impacts, so that informed decisions can be taken about the costs and benefits of reducing those risks. Taking the impacts of a changing climate into account in all short, medium and long term planning is an investment to save money. Actions to increase resilience help to maximise the capacity of all to adapt. Adaptation plans need to be kept under regular review as adaptation will become increasingly important if appropriate mitigation is not put in place in time[137].

Climate Change Mitigation

B.87 The most recent carbon dioxide emission data records a 23% reduction in emissions between 2008 and 2015 in Oxfordshire[138]. Although there has been a decrease in overall emissions since 2008, they remain high with road transport, residential development, public services and commercial services contributing the majority of emissions.

[133] Declare a Climate Emergency (2019) Oxfordshire https://www.climateemergency.uk/blog/oxfordshire/
[134] IPCC (2018) *Global Warming of 1.5 °C Special Report* https://www.ipcc.ch/sr15/
[135] Environment Agency (2018) *Climate Change Impacts and Adaptation* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/758983/Climate_change_impacts_and_adaptation.pdf
[136] Met Office (2012) *Urban Heat Islands* https://www.metoffice.gov.uk/binaries/content/assets/mohippo/pdf/8/m/mo_pup_insert_health.web.pdf
[137] Environment Agency (2018) *Climate Change Impacts and Adaptation* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/758983/Climate_change_impacts_and_adaptation.pdf
[138] Oxfordshire County Council: https://www.oxfordshire.gov.uk/residents/environment-and-planning/energy-and-climate-change/across-oxfordshire

B.88 Coal-fired Didcot A power station stopped operations in 2013. Gas-burning Didcot B started operations in 1997. South Oxfordshire and Vale of White Horse are exploring options for using surplus heat from Didcot B to heat buildings and generate electricity for the new business park planned for the Didcot A site.

B.89 **Table B.12** sets out the per-capita carbon dioxide emissions from each of the Oxfordshire authorities for 2016, and shows that the highest total emissions were from Cherwell District. The significantly lower emissions from Oxford City can be largely attributed to the much lower emissions from transport than from the other Districts.

Table B.12: Carbon dioxide emissions 2017[139]

District	Industry and Commercial (kt CO_2)	Domestic (kt CO_2)	Transport (kt CO_2)	Total (t CO_2 per person)
Oxford City	339.9	188.7	146.3	4.4
Cherwell	362.2	227.0	675.7	8.5
South Oxfordshire	225.7	240.4	446.1	6.2
Vale of White Horse	222.3	205.7	436.6	6.5
West Oxfordshire	192.6	183.2	215.1	5.2

B.90 The Oxfordshire Local Economic Partnership (OxLEP) has made predictions of greenhouse gas (GHG) emissions under a scenario of 100,000 new homes by 2031. The analysis begins by noting that GHG emissions already dropped by about one-quarter between 2008 and 2015 as a result of reduced emissions from the commercial, public services and residential sectors (see **Chart B.1** below)[140]. However, **Chart B.1** highlights that under a 'business as usual' scenario of no new government policies, emissions in Oxfordshire will begin to rise again to 2040, reflecting Oxfordshire's increasing population. The projection including implementation of national measures estimates a reduction of 40% by 2030 which is insufficient to reach Oxfordshire's target of 50% by 2030 compared to the 2008 baseline[141].

B.91 Oxfordshire has a thriving economy, with almost 81,000 business contributing £21.9 billion to the national economy. Homes, business and transport used 6,800 GWh of energy in 2015. Between 2008 and 2015 energy use fell within the county; however, energy used for transport has increased proportionately and remains the highest energy consumer across the county[142]. Furthermore, Oxfordshire's reliance on petroleum products and gas must reduce at a fast rate in order to meet national 2030 targets and clean energy goals.

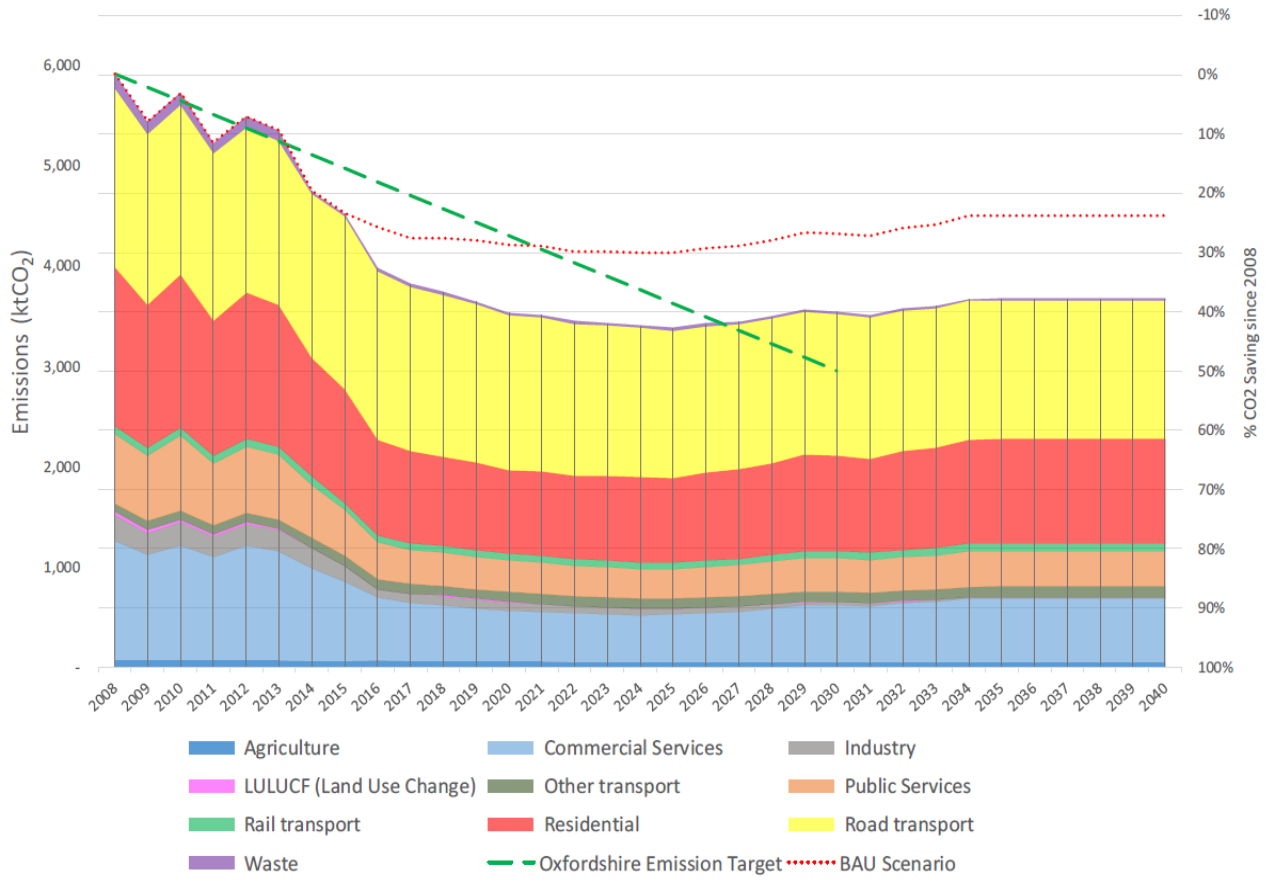
B.92 The OxFutures Programme led by OxLEP is a 3.2m project to grow Oxfordshire's low carbon economy. The three year project runs until March 2020 focusses on energy efficiency and low carbon innovation by delivering free energy audits to small and medium enterprises (SMEs)[143]. Oxford's Low Carbon Hub[144] has invested in 38 renewable and low carbon energy installations to date, saving 1,562 tonnes of carbon dioxide every year and generating 4.2GWh of clean energy a year and has a target is on track to reduce emissions in Oxford by 40% by 2020.

B.93 Oxfordshire's low carbon economy accounts for 7% of the local economy, with 8,800 jobs, 570 businesses and £1.15 billion per year in sales. Oxfordshire is hoping to expand its low carbon economy through its established vehicles of change:

[139] Department of Business, Energy & Industrial Strategy (June 2019) *UK local authority and regional carbon dioxide emissions national statistics: 2005-2017* Retrieved April 2020: https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2017
[140] Aether (2018) *Oxfordshire LEP Greenhouse Gas (GHG) Projections 2018 Update* https://www2.oxfordshire.gov.uk/cms/sites/default/files/folders/documents/environmentandplanning/climatechange/OxLEPEmissionsReport.pdf
[141] Aether (2018) *Oxfordshire LEP Greenhouse Gas (GHG) Projections 2018 Update* https://www2.oxfordshire.gov.uk/cms/sites/default/files/folders/documents/environmentandplanning/climatechange/OxLEPEmissionsReport.pdf
[142] Oxfordshire Energy Strategy: https://www.oxfordshirelep.com/sites/default/files/uploads/Oxfordshire%20Energy%20Strategy.pdf
[143] OxFutures Programme: http://oxfutures.org/
[144] Oxford's Low Carbon Hub: https://www.lowcarbonhub.org/

world renowned universities, high-tech economic clusters found at Harwell and Culham, the engineering experience of Motorsport Valley, Oxfordshire's skilled labour force, and a countrywide economic plan focused on innovation and enterprise[145].

Chart B.1 GHG emission projections for Oxfordshire until 2040[146]



B.94 Communities and governments around the world must adapt and plan in the face of climate uncertainty, as it is not possible to know the exact extent to which our climate will change. Adaptation and mitigation plans must incorporate the full range of climate risks, take account of uncertainty over timing and severity and build climate resilience[147].

B.95 A summary of the key sustainability issues in relation to the climate change baseline described above is provided in **Table B.13**, along with the likely evolution of each issue if the Oxfordshire Plan 2050 were not implemented.

[145] Low Carbon Oxford and the Environmental Change Institute at the University of Oxford *Joining the Crowd: Growing a New Economy for Oxfordshire*
[146] Aether (2018) *Oxfordshire LEP Greenhouse Gas (GHG) Projections 2018 Update* https://www2.oxfordshire.gov.uk/cms/sites/default/files/folders/documents/environmentandplanning/climatechange/OxLEPEmissionsReport.pdf
[147] Environment Agency (2018) *Climate Change Impacts and Adaptation* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/758983/Climate_change_impacts_and_adaptation.pdf

Table B.13: Key sustainability issues for Oxfordshire and likely evolution without the Oxfordshire Plan 2050 (Climate change)

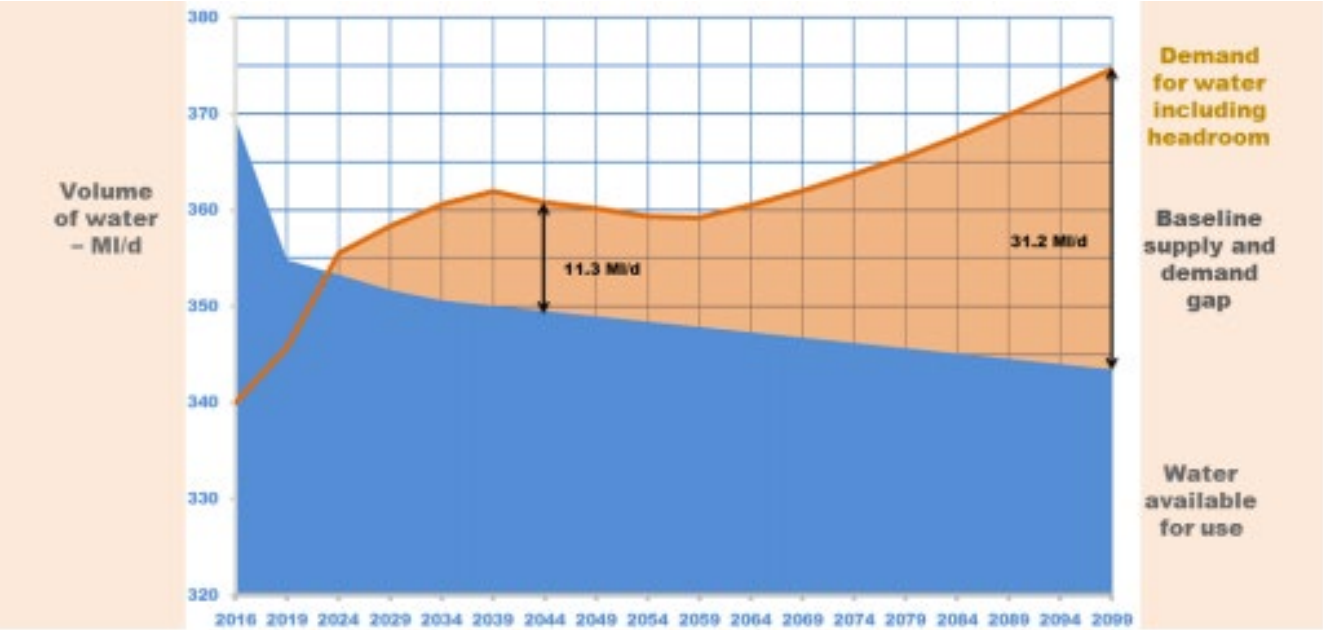
Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
In common with all parts of the country, Oxfordshire needs to dramatically reduce its carbon emissions and contribution to climate change.	National policy will continue to seek to reduce carbon emissions by encouraging more efficient use of energy (e.g. through insulation of buildings) and by a switch to renewable sources of energy. This is likely to continue without the Oxfordshire Plan 2050 and will be encouraged through the District's Local Plans. The Oxfordshire Plan 2050 provides the opportunity to encourage energy efficient development in the County, and to reduce the need to use the car through planning and support for walking, cycling and public transport. It can also encourage provision for renewable energy schemes.

Water resources and water quality

B.96 Demand for water and the quality of water resources have become important local, national and international issues. Oxfordshire lies largely within the Thames Water region, which is one of the driest in the country. The Environment Agency has assessed the Thames Water supply region as an area of 'serious' water stress which is expected to get worse, as shown in **Chart B.2** below[148]. Water is abstracted from the River Thames, from groundwater aquifers and there are reservoirs at Farmoor and Grimsbury, Banbury in Oxfordshire[149]. Thames Water's Water Resource Management Plan (2020) shows that Oxfordshire lies within the Swindon and Oxfordshire Water Resource Zone (SWOX)[150]. The Thames Valley Region is seriously water stressed, and by 2020 baseline demand for water will outstrip supply from the Swindon and Oxfordshire catchment area meaning that more water will have to be imported from adjoining water resource management areas[151]. This has knock on implications for the carbon footprint of supplying water to residents as it is pumped or transported from further afield. To mitigate the impact of this, Thames Water is developing a new reservoir in Oxfordshire in partnership with Affinity Water[152]. From the base year of 2016/17 to 2045, Thames Water predicts that there will be a 27.4% increase in SWOX's population, putting enormous stress on the Thames Water supply region. In its Draft Water Resources Management Plan, Thames Water envisages a future scenario of sourcing water from reservoirs and inter-regional water transfers[153]. For example, the Water Resources Management Plan proposes the South East Strategic Reservoir Option to improve the resilience of both the Thames Water and Affinity Water (serves parts of Bedfordshire, Buckinghamshire, Essex, Greater London, Hertfordshire, Surrey and Kent) regions through the creation of a regional storage and transfer hub. This will capture and store water falling on the wetter west side of the region to meet the growing needs of Swindon and Oxford, and using the River Thames as a natural, efficient water transfer system to supply customers in the Slough, Wycombe and Aylesbury area, customers served by Affinity Water, and Thames Water customers in London, up to 100 miles away. Development of this new reservoir is earmarked from 2037[154].

[148] JBA Consulting (2016) *South Oxfordshire District Council – Water Cycle Study* http://www.southoxon.gov.uk/sites/default/files/Water%20Cycle%20Study%20Phase%20I%20-%20S%20Oxfordshire%20District%20Council.pdf
[149] Transport Research Laboratory (2017) *Oxfordshire Minerals and Waste Local Plan: Part 1 - Core Strategy incorporating Proposed Main Modifications Sustainability Appraisal Report Update: Appendix A: Scoping Report Update*
[150] Thames Water (2020) *Shape Your Future Water. Our Water Resources Management Plan 2020-2100* *https://www.thameswater.co.uk/media-library/home/about-us/regulation/water-resources/water-resources-management-plan-overview.pdf*
[151] Environment Agency (2014), *Thames Catchment Abstraction Licensing Strategy*
[152] Thames Water (2020) *Shape Your Future Water. Our Water Resources Management Plan 2020-2100* *https://www.thameswater.co.uk/media-library/home/about-us/regulation/water-resources/water-resources-management-plan-overview.pdf*
[153] Thames Water (2019) *Draft Water Resources Management Plan 2019* https://corporate.thameswater.co.uk/-/media/Site-Content/Your-water-future-2018/WRMP-Sections/dWRMP19-Section-03---Current-and-Future-Demand-For-Water_151217.pdf
[154] Thames Water (2019) *Draft Water Resources Management Plan 2019* https://corporate.thameswater.co.uk/-/media/Site-Content/Your-water-future-2018/WRMP-Sections/dWRMP19-Section-00---Executive-summary-221217.pdf

Chart B.2 Baseline supply demand balance for SWOX Water Resource Zone[155]



B.97 All five local authorities' Local Plans include policies that require new development to be designed to a water efficiency standard of 110l per person per day. This is required by the National Planning Policy Guidance in water-stressed areas.

B.98 Thames Water has undertaken an assessment which shows that a large number of Wastewater Treatment Plants in Oxfordshire will have capacity issues up to 2031[156]. Increased demand for water consumption and treatment from new development could result in changes to the water environment[157].

B.99 The ecological status of waterbodies within Oxford varies from high to poor, but each has good chemical status. The Thames river basin management plan includes measures for the Cherwell and Cotswold catchments, which include Oxford, to increase the environmental capacity for the water environment of Oxford. These measures include creating more back waters between Banbury and Oxford helping to re-naturalise the river corridor and targeting the connectivity or riparian and aquatic habitats with the aim to improve flood management, water quality and soil quality.[158]

B.100 The Upper Cherwell catchment supports abstractions for public water supply at Banbury and from the Sor Brook at Adderbury, as well as licensed abstractions for agricultural purposes and supporting the Oxford Canal. As a result, low flows occur upstream of the Sor Brook confluence so measures such as increasing water efficiency are proposed. There are abstractions in the catchment from both surface water and groundwater sources. The majority of existing abstraction licences are for farming and industrial purposes. However, the largest amounts of water are abstracted for public water supply[159]. Of the 37 water bodies within the Cherwell catchment, four are artificial or heavily modified. Over a quarter (28%) of rivers currently achieves good or better ecological status/potential. Nearly half (48%) of rivers are at good or high biological status, with 30% at poor biological status, and 7% at bad biological status. The main reasons for less than good status are high levels of phosphate, degraded physical habitat, localised low flows and pollution from large areas of land[160]. The priority river basin management

[155] Thames Water (2019) *Draft Water Resources Management Plan 2019* https://corporate.thameswater.co.uk/-/media/Site-Content/Your-water-future-2018/WRMP-Sections/dWRMP19-Section-00---Executive-summary-221217.pdf
[156] AECOM (2017) *Oxfordshire Infrastructure Strategy* https://www.oxfordshiregrowthboard.org/wp-content/uploads/2018/04/oxis_stage2.pdf
[157] Transport Research Laboratory (2017) *Oxfordshire Minerals and Waste Local Plan: Part 1 - Core Strategy incorporating Proposed Main Modifications Sustainability Appraisal Report Update: Appendix A: Scoping Report Update*
[158] Oxford City Council (2018) *Phase 1 of Oxford City Water Cycle Scoping Study* https://www.oxford.gov.uk/downloads/file/5091/water_cycle_study
[159] Environment Agency (2012) *Cherwell, Thame and Wye Catchment Abstraction Licensing Strategy*
[160] Environment Agency, Catchment Data Explorer, Cherwell-Summary Operational Catchment 2016

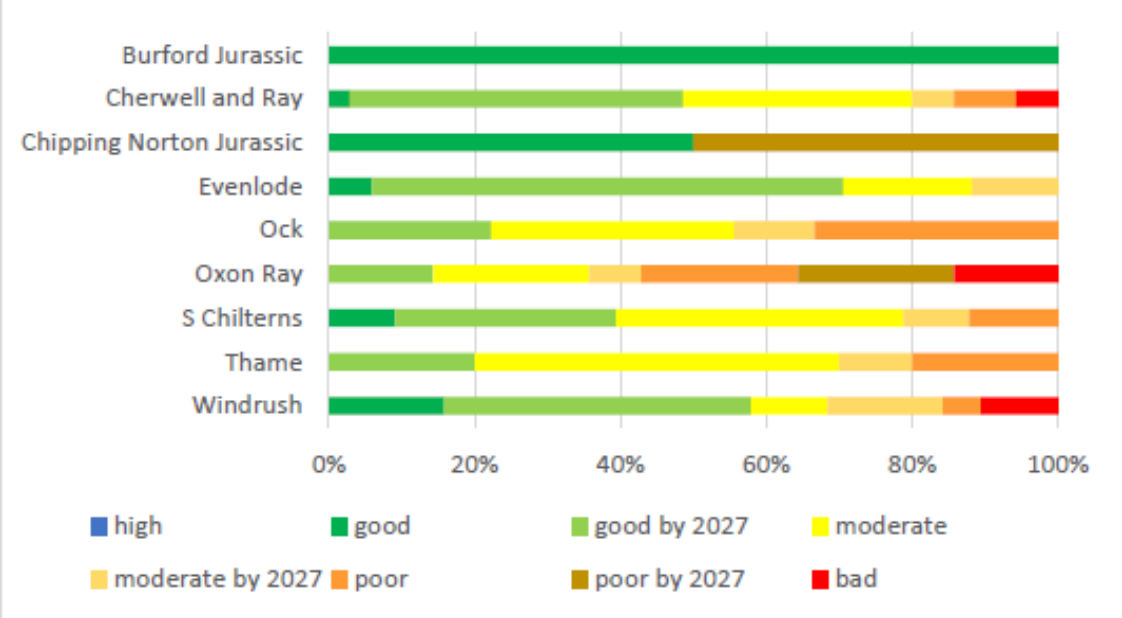
issues to tackle in the Cherwell catchment, affecting both surface water and groundwater, are diffuse pollution from agricultural run-off, pollution from waste-water (including from sewage treatment works) and heavily modified channels[161].

B.101 Vale of White Horse District is included within the Thames River Basin District and is covered by the Vale of White Horse catchment although this also includes Didcot and Swindon. This catchment contains 34 river water bodies, three of which are artificial or heavily modified. Twenty-four percent of rivers currently achieve good or better ecological status/potential. Forty-six percent of rivers are at good or high biological status, with 29% at poor biological status. Surface water quality in the catchment is generally good, with the Rivers Ock, Key and Ginge Brook having the poorest water quality in the catchment.

B.102 The majority of water bodies monitored in South Oxfordshire are of moderate standard while a few water bodies have achieved good status and some are poor. One river received a failed status. Several rivers flow through West Oxfordshire including the Thames on the southern boundary and its tributaries the Windrush and Evenlode rivers which flow through the western and central parts of the District. These rivers and their floodplains are also important corridors for biodiversity, provide opportunities for recreation, and form part of the setting of many towns and villages. Surface water quality is generally good and most rivers have shown improvements over the last few years although phosphate concentrations are a concern on the River Evenlode and River Glyme.[162]

B.103 **Chart B.3** shows the ecological status of Oxfordshire rivers in 2015 and how it is expected to change by 2027. The figure shows that many of Oxfordshire's water bodies do not and will not achieve 'good' status within that period. The Oxon Ray, Ock and Thame river catchments are particularly challenged, with less than 40% expected to achieve 'good' status by 2027. Pollution from agricultural and rural land management and wastewater pollution from the water industry are the two main polluters. In addition, another cause is physical modification from urban and transport development, encroachment by non-native species and industry[163].

Chart B.3 Ecological Status or potential by 2015 or, where extended, by 2027



B.104 A summary of the key sustainability issues in relation to the water resources and water quality baseline described above is provided in **Table B.14**, along with the likely evolution of each issue if the Oxfordshire Plan 2050 were not implemented.

[161] Environment Agency and DEFRA (2015) *Part 1: Thames River Basin District, River Basin Management Plan*
[162] Environment Agency, Catchment Data Explorer, Cherwell-Summary Operational Catchment 2016
[163] Environment Agency, *River Basin Districts,* https://environment.data.gov.uk/catchment-planning/

Table B.14: Key sustainability issues for Oxfordshire and likely evolution without the Oxfordshire Plan 2050 (Water resources and water quality)

Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
The Thames Valley Region is seriously water stressed, and by 2020 baseline demand for water will outstrip supply from the Swindon and Oxfordshire catchment area meaning that more water will have to be imported from adjoining water resource management areas. This has knock on implications for the carbon footprint of supplying water to residents as it is pumped or transported from further afield.	Without the Oxfordshire Plan 2050, it is possible that development could be located in areas that would intensify the strain on water resources or have insufficient water supply infrastructure. The Oxfordshire Plan 2050 would provide the opportunity to ensure that strategic development is located and designed to take into account the sensitivities of the water resources and provide an opportunity to encourage better and more sustainable use of water resources. The Oxfordshire Plan 2050 may also provide the mechanism by which strategic planning for water resources is achieved on a catchment basis, helping to justify the necessary infrastructure investment.
Whilst water quality in some watercourses is good, others are not meeting quality standards. A large number of Wastewater Treatment Plants in Oxfordshire will have capacity issues up to 2031, and diffuse agricultural pollution plus discharges from waste water treatment facilities are the two main causes of poor water quality.	Pollution to watercourses from agriculture are outside the remit of the Oxfordshire Plan 2050 and therefore need to be addressed in other ways. The Oxfordshire Plan 2050 offers the opportunity to ensure that development does not lead to polluted run-off, for example through Sustainable Drainage Systems (SuDS), but it also can provide the context for necessary investment in wastewater treatment in a co-ordinated way across the catchment.

Flood risk

B.105 Development within high flood risk areas, or the loss of greenfield land to development, could contribute to increased flood risk. Properties outside the floodplain are also susceptible to flooding due to an increase in surface water runoff and large development sites outside the floodplain may exacerbate surface water flooding issues further without appropriate mitigation. However, mitigation may be achieved through the incorporation of Sustainable Drainage Systems (SuDS) into the new development.

B.106 The Environment Agency has prepared the Thames Region Catchment Flood Management Plan, which has information on the recommended approaches and actions needed to deliver the selected flood risk management option in each of the 43 sub-areas that have been identified, including in Oxfordshire. Oxfordshire has a range of between 500 to 5,000 properties at risk of flooding. The last major flood event in the Thames Region was in July 2007, causing immediate surface water flooding in many locations followed by river flooding in the upper parts of the Thames catchment. Over 5,000 flooded properties were reported to the Environment Agency; 2,000 of these were a result of surface water. Numerous communities across Oxfordshire were badly affected by the flooding[164].

B.107 Of the total land area of Oxfordshire, 12% is within the floodplain. Approximately 24,000 hectares of land is within flood zone 3 (1 in 100 year risk) and a further 6,000 hectares is in flood zone 2 (1 in 100 year risk). The largest areas of floodplain are predominantly in the centre of Oxfordshire around Witney in West Oxfordshire (from the River Windrush), in Oxford (from the River Thames and River Cherwell) and in Abingdon in the Vale of White Horse District (from the River Ock and River Thames). Other high flood risk areas include the Langford Brook and River Ray south of Bicester in Cherwell[165]. However, it is important

[164] Environment Agency (2009) *Thames Catchment Flood Management Plan*
[165] Transport Research Laboratory (2017) *Oxfordshire Minerals and Waste Local Plan: Part 1 - Core Strategy incorporating Proposed Main Modifications Sustainability Appraisal Report Update: Appendix A: Scoping Report Update*

note that flooding of internationally and nationally designated wildlife sites can be beneficial; indeed many of the sites such as the Oxford Meadows depend on regular flooding to sustain its habitat[166].

B.108 Climate change is forecast to result in milder and wetter winters and more storms in summer months. Changes in farming practices can exacerbate overland flow due to the removal of hedgerows and trees and the issue is likely to become increasingly important due to climate change. Further development pressure will increase the pressure on existing sewer systems effectively reducing their capacity, leading to more frequent flooding.

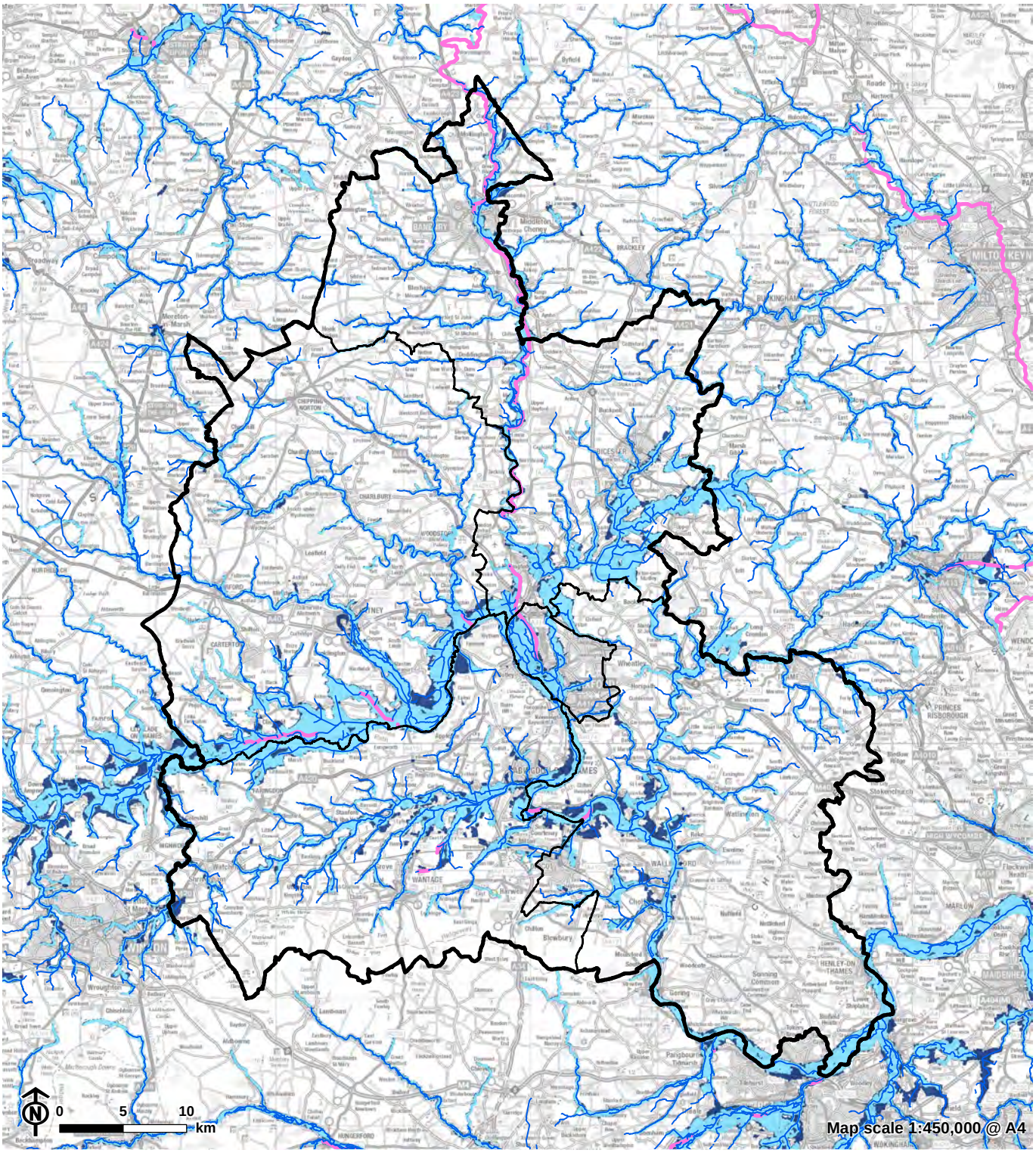
B.109 **Figure B.4** shows the extent of flood risk across Oxfordshire.

B.110 A summary of the key sustainability issues in relation to the flood risk baseline described above is provided in **Table B.15**, along with the likely evolution of each issue if the Oxfordshire Plan 2050 were not implemented.

Table B.15: Key sustainability issues for Oxfordshire and likely evolution without the Oxfordshire Plan 2050 (Flood risk)

Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
Development within high flood risk areas or the loss of greenfield land to development, could contribute to increased flood risk. Development outside the floodplain is also susceptible to flooding due to an increase in surface water runoff.	The Oxfordshire Plan 2050 is not likely to reduce the risk of flooding to existing development and infrastructure. However, it does present an opportunity for each of the District Councils to work together alongside the Environment Agency to locate development in sustainable locations that would not be significantly impacted by flooding and to mitigate the effects of potential future flooding.

[166] Environment Agency (2009) *Thames Catchment Flood Management Plan*



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Source: EA

Figure B.4: Water network and flood risk

- Oxfordshire county
- District boundary
- River
- Canal
- Flood zone 2
- Flood zone 3

Soils

B.111 The Agricultural Land Classification (ALC)[167] system provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. The principal factors influencing agricultural production are climate, site and soil. These factors, together with the interactions between them, form the basis for classifying land into one of five grades, where Grade 1 describes land as excellent (land of high agricultural quality and potential) and Grade 5 describes land as very poor (land of low agricultural quality and potential). Land falling outside of these scores is deemed to be 'primarily in non-agricultural use', or 'land predominantly in urban use'.

B.112 The best and most versatile agricultural land (defined as Grades 1, 2, and 3a) is considered to be a national resource and should not be lost. Development options that would involve large-scale development on greenfield land where the land is higher agricultural quality would have negative effects on the efficient use of land and soils as a result of that land being permanently lost to agricultural uses. Government guidance contained in the NPPF states that planning authorities should encourage the effective use of land by re-using land that has been previously developed or brownfield land. From 1961 to 2016 the UK has lost 24,500 sq m. of agricultural land[168].

B.113 Most of the agricultural land in Oxford City is not high quality, but there are some parcels of Grade 2 agricultural land north of Binsey and in the Cherwell Valley. The majority of land within Cherwell District is Grade 3 and in the north of the District Grade 2, while the two urban centres of Banbury and Bicester are classified as non-agricultural land. The majority of agricultural land quality in South Oxfordshire is Grade 3. Vale of White Horse District has a significant part of its land under cultivation for farming with the quality of the farmland ranging from Grade 4 up to Grade 2 in a number of locations. In West Oxfordshire, most of the land is Grade 3 although there are areas of Grade 2 land, particularly in the south of the District.

B.114 **Figure B.5** shows the distribution of high quality agricultural land across Oxfordshire.

Contaminated Land

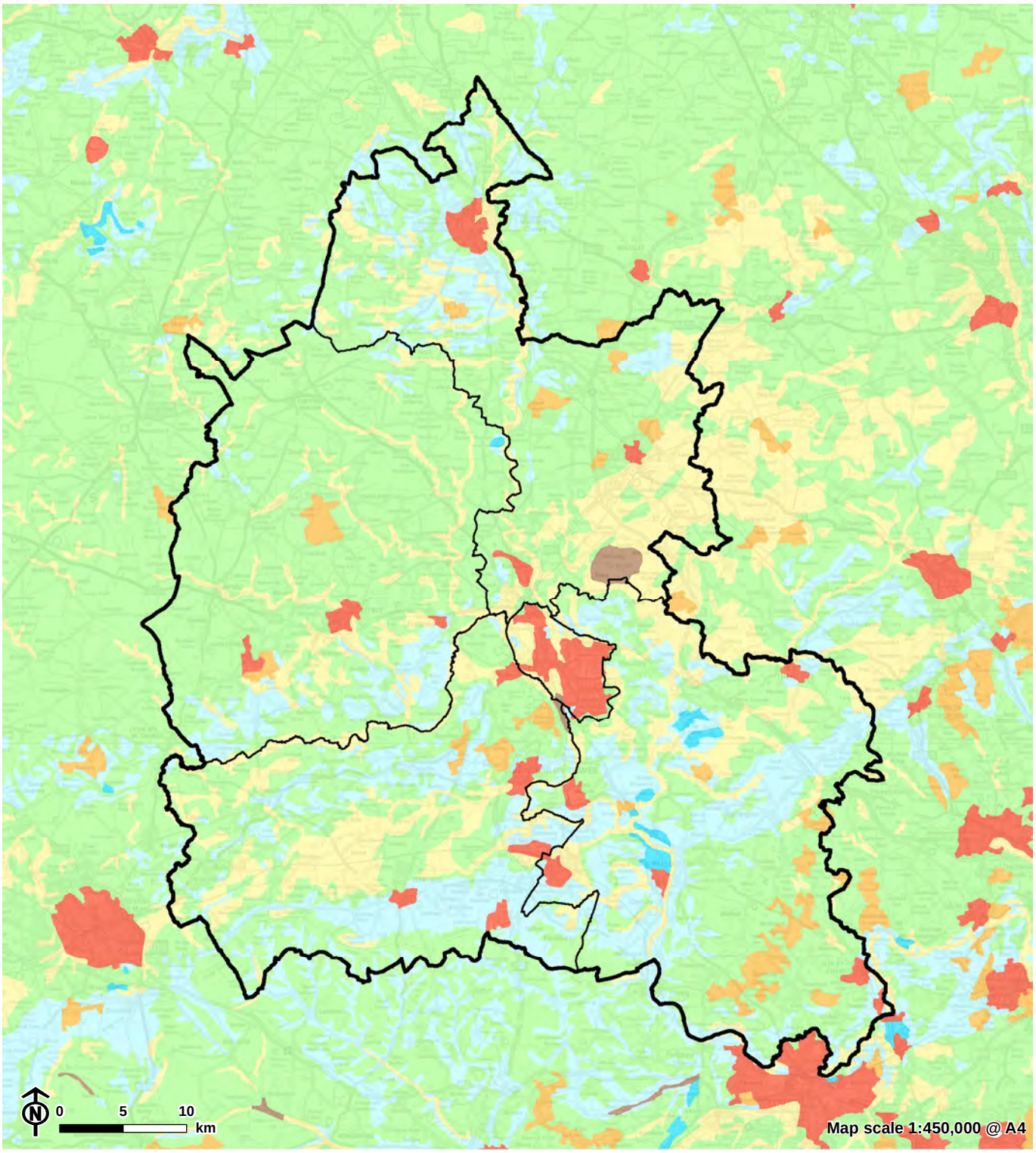
B.115 Each District council has created a contaminated land strategy. Currently, there are two entries on the South Oxfordshire District Council contaminated land public register, however, there are no entries logged for Oxford City, Cherwell or Vale of White Horse Districts.

B.116 A summary of the key sustainability issues in relation to the soils baseline described above is provided in **Table B.16**, along with the likely evolution of each issue if the Oxfordshire Plan 2050 were not implemented.

Table B.16: Key sustainability issues for Oxfordshire and likely evolution without the Oxfordshire Plan 2050 (Soils)

Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
Oxfordshire contains a mix of classified agricultural land, the majority of which is Grade 3, with some areas of Grade 1 and Grade 2 which, where possible, should not be lost or compromised by future growth.	Without the Oxfordshire Plan 2050 it is likely that Grades 1, 2 and 3a land would not be lost or compromised because of national policy and policies in the individual District Council's Local Plans. However, the Oxfordshire Plan 2050 does provide an opportunity for the local authorities to work together to ensure these natural assets are not lost or compromised and to take the quality of agricultural land into account using a County-wide approach.

[167] Natural England, Agricultural Land Classification (ALC) system, 2013
[168] The World Bank, *Agricultural Land* https://data.worldbank.org/indicator/AG.LND.AGRI.K2?end=2016&start=2013



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Source: NE

Figure B.5: Agricultural Land Classification

Oxfordshire county
District boundary

Agricultural Land Classification

- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Grade 5
- Non Agricultural
- Urban

Minerals

B.117 Where development takes place within areas of minerals resource, this may result in the sterilisation of minerals, meaning that potentially useful mineral resources will no longer be available for extraction and use in the future.

B.118 Sand and gravel is the most common mineral resource across Oxfordshire and typically found in river valley deposits, particularly along the River Thames which runs north-south through the District and its tributaries. Limestone and ironstone are found mainly in the north and west of the County; they are used primarily as crushed rock aggregate but also for building and walling stone.

B.119 Annual production of aggregates (sand and gravel and crushed rock) in Oxfordshire fell over the 10 year period 2004 to 2013 from two million tonnes to just over one million tonnes. It increased again, to just under two million tonnes in 2015, comprising 52% sand and gravel and 48% crushed rock[169].

Sand and gravel

B.120 Production of sharp sand and gravel in Oxfordshire has become increasingly concentrated in the northern part of the County (Cherwell and West Oxfordshire Districts), particularly in West Oxfordshire District, with a decline in the proportion coming from quarries in the southern part (South Oxfordshire and Vale of White Horse Districts). Over the last 10 year period 2006-2015, an average of 70% of production has been from northern Oxfordshire and there are concerns about the rate and intensity of mineral working in the area and the cumulative impact on local communities, generation of traffic on the A40 and water quantity and quality[170].

Crushed rock

B.121 Existing working areas of limestone are south east of Faringdon (Vale of White Horse District), south of Burford (West Oxfordshire District) and north west of Bicester (Cherwell District). There is one existing area of ironstone working in the north of the County at Alkerton / Wroxton Alkerton (Cherwell District)[171].

Safeguarded mineral locations

B.122 Oxfordshire County Council is currently replacing this plan with a new Minerals and Waste Local Plan that is being prepared in two parts: Core Strategy, which was adopted in September 2017, and Site Allocations document, which is currently being consulted. Policy M3 has identified the following principal locations for safeguarding working aggregate minerals:

- Sharp sand and gravel:
  - The Thames, Lower Windrush and Lower Evenlode Valleys area from Standlake (West Oxfordshire) to Yarnton (Cherwell District).
  - The Thames and Lower Thame Valleys area from Oxford to Cholsey (South Oxfordshire District).
  - The Thames Valley area from Caversham (previously part of Oxfordshire, but now in Berkshire) to Shiplake (South Oxfordshire District).
- Soft sand
  - The Corallian Ridge area from Oxford to Faringdon (Vale of White Horse District).
  - The Duns Tew area (Cherwell District).
- Crushed rock
  - The area north west of Bicester (Cherwell District).
  - The Burford area south of the A40 (West Oxfordshire District).

[169] Oxfordshire County Council (2017) *Oxfordshire Minerals and Waste Local Plan Part 1 – Core Strategy Adopted Plan, September 2017*
[170] Oxfordshire County Council (2017) *Oxfordshire Minerals and Waste Local Plan Part 1 – Core Strategy Adopted Plan, September 2017*
[171] As above

– The area east and south east of Faringdon (Vale of White Horse District).

B.123 Specific sites for working aggregate minerals will be identified within these strategic resource areas in the Minerals & Waste Local Plan: Part 2 – Site Allocations Document[172].

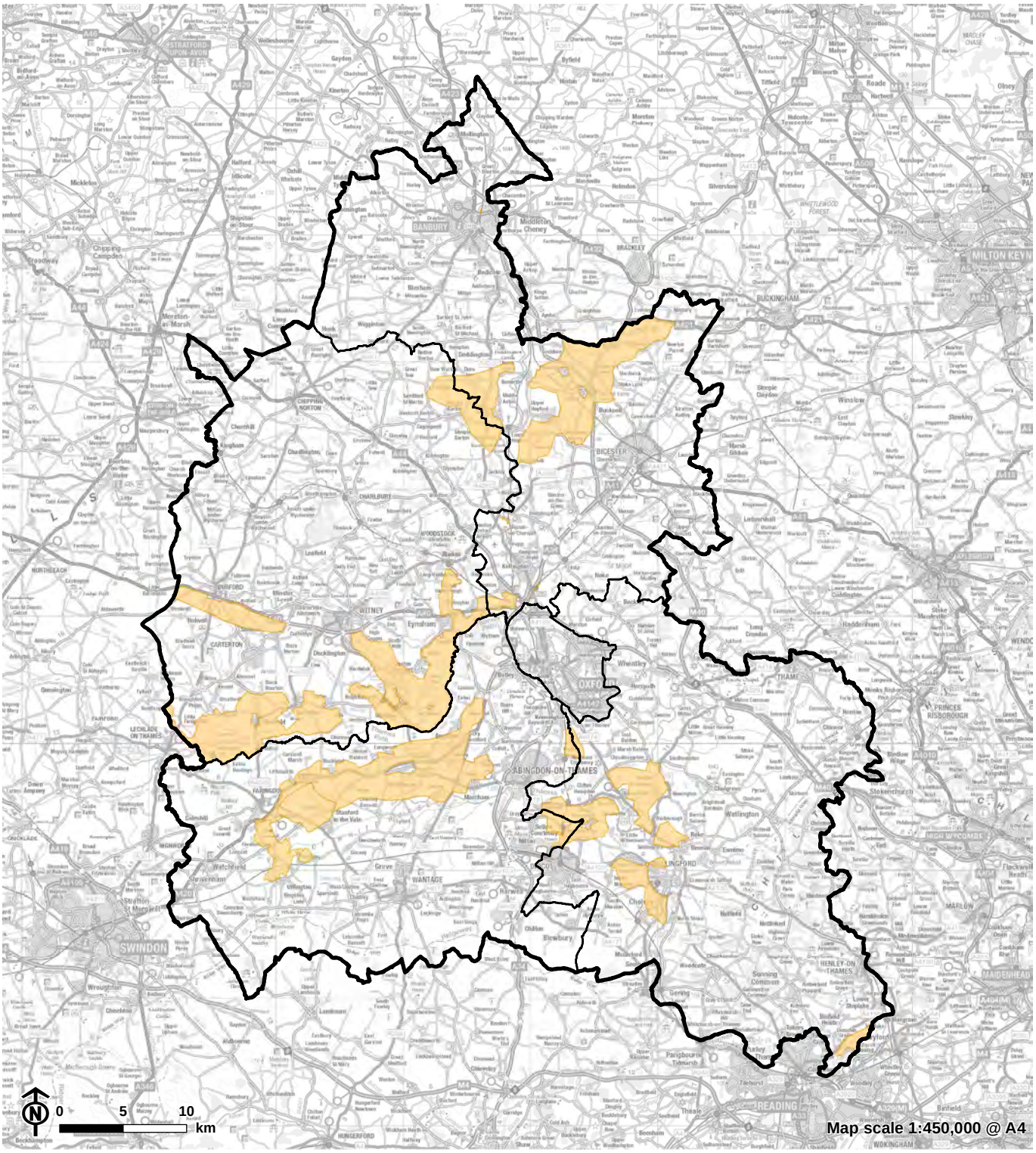
B.124 **Figure B.6** shows the locations of Strategic Minerals Resource Areas in Oxfordshire.

B.125 A summary of the key sustainability issues in relation to the minerals baseline described above is provided in **Table B.17**, along with the likely evolution of each issue if the Oxfordshire Plan 2050 were not implemented.

Table B.17: Key sustainability issues for Oxfordshire and likely evolution without the Oxfordshire Plan 2050 (Minerals)

Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
Oxfordshire contains safeguarded mineral resources which, where possible, should not be lost or compromised by future growth.	Without the Oxfordshire Plan 2050, un-planned minerals development could take place in areas being overused and result in unnecessary sterilisation, although each of the District's Local Plans should guard against this happening. Oxfordshire County Council is currently in the process of preparing a new Minerals and Waste Local Plan which will set out areas in which minerals extraction can take place. The Oxfordshire Plan 2050 could provide an opportunity for each of the District Councils to work together to ensure that minerals development is located and designed to take into account the importance of ensuring that sufficient economic minerals are available for future generations to use.

[172] As above



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Source: OCC

Figure B.6: Mineral resources

- Oxfordshire county
- District boundary
- Mineral safeguarding area

Biodiversity and geodiversity

B.126 There is a wide variety of important biodiversity and geodiversity features across Oxfordshire which could be affected by development. The extent of land known to be of significant value for nature in Oxfordshire is 30,289 hectares[173], which includes both designated and undesignated sites and features. The impacts of development on biodiversity and geodiversity could include direct physical damage or disturbance and the impacts of non-physical disturbance such as noise, vibration or light pollution. There could also be indirect impacts, for example an increase in air pollution from additional vehicle traffic could affect some habitats and species. An increase in population near to sensitive sites which are popular for recreation could also result in increased visitor numbers, leading to damage and disturbance.

B.127 **Table B.18** below shows the number of designated biodiversity and geodiversity sites in each of the five Districts and these are mapped in **Figure B.7**.

B.128 Oxfordshire is in the process of creating a Nature Recovery Network, which will be formed by a core zone, recovery zone and a wider landscape zone. The core zone constitutes 11% of the county, which includes Special Areas for Conservation, Sites of Special Scientific Interest, Local Nature Reserves, Local Wildlife Sites (including proposed), Cherwell District Wildlife Sites, Oxford City Wildlife Sites, BBOWT reserves, Woodland Trust Woodlands, Other sites of local importance for nature conservation and all priority habitats[174]. At the European level, Oxford Meadows is designated as a Special Area of Conservation (SAC) for its lowland hay meadows and creeping marshwort. The SAC lies partly within Oxford City and partly within Cherwell District, with a very small area extending into West Oxfordshire District. Previous HRAs have noted that air pollution could potentially adversely affect the integrity of the site, especially since the site is in close proximity to multiple A roads. The Oxford Meadows SAC also lies within the Oxford Meadows and Farmoor Conservation Target Area. Other SACs in Oxfordshire include Hackpen Hill and Cothill Fen in Vale of White Horse District, and Little Wittenham, Hartslock Wood and Aston Rowant in South Oxfordshire District. Development proposals that could have an adverse effect on the integrity of these SACs would therefore be subject to the requirements of the Habitats Regulations. There are no Special Protection Areas (SPAs) or Ramsar sites within any of the Oxfordshire Districts.

B.129 There are a total of 111 Sites of Special Scientific Interest (SSSIs) in the County which are designated for either their biological or geological interest. These designations cover a total of 4,494ha. Of the total area of SSSIs in Oxfordshire assessed and recorded by Natural England, 97.88% are in favourable or unfavourable recovering condition, as shown in **Figure B.8**. The remaining SSSIs in Oxfordshire are either in unfavourable condition with no change (0.09%), unfavourable declining condition (1.84%) or are destroyed (0.19%)[175].

B.130 The recovery zone of the Nature Recovery Network will consist of the Conservation Target Areas and Important Freshwater Areas making up about 50% of Oxfordshire. Oxfordshire contains 37 Conservation Target Areas (CTAs) that cover over 20% of the County[176]. Conservation Target Areas are concentrations of Priority Habitats and Priority Species that include surrounding land which could buffer and link these areas, as well as provide opportunities to create new areas of high quality and Priority Habitat should funding become available. The CTAs contain 95% of the SSSI land area in Oxfordshire and 74% of the Local Wildlife Sites. Any development within a CTA should increase connectivity of wildlife habitats and aim to achieve targets for priority habitats[177]. Similar to Conservation Target Areas, there are Important freshwater areas within Oxfordshire. These areas contain sites and habitats that support a significant proportion of freshwater biodiversity. The Freshwater Habitats Trust have mapped these areas creating a network which will help create a hydrological approach to freshwater connectivity and be vital inputs to the Nature Recovery Network in Oxfordshire. This network includes a significant amount of terrestrial habitat, including ancient woodlands[178].

B.131 Oxfordshire contains 18 priority habitats which can be categorised into the following themes: grasslands, woodlands, wetlands and other. In particular, Oxfordshire has an abundance of lowland beech and yew woodland in the south of the County and wet woodlands distributed sporadically within the County. Oxfordshire also contains five types of irreplaceable habitats:

[173] Oxfordshire County Council (2021) Topic Paper: A Nature Recovery Network for Oxfordshire
[174] Thames Valley Environmental Record Centre (2020) A Draft Nature Recovery Network for Oxfordshire
[175] Natural England, SSSI Condition Summary, data recovered January 2016
[176] Wild Oxfordshire, *State of Nature in Oxfordshire 2017* https://www.wildoxfordshire.org.uk/wp-content/uploads/2016/10/State-of-Nature-in-Oxfordshire-2017_Full-Report_FINAL_MIN2_COVERS.pdf
[177] Oxfordshire Nature Conservation Forum, *Oxfordshire's Biodiversity Action Plan and Conservation Target Areas*
[178] Thames Valley Environmental Record Centre (2020) A Draft Nature Recovery Network for Oxfordshire

ancient woodland, ancient/veteran trees, ancient hedgerows, traditional unimproved meadows/ancient grasslands and fens. For example, ancient woodland is found throughout Oxfordshire, but there are particular concentrations in the Chilterns in South Oxfordshire, Wychwood in West Oxfordshire and the edge of the Bernwood area in the east of Oxfordshire[179].

B.132 Less than 10,000ha of Oxfordshire retains any special value for wildlife which equates to 4% of the total landmass of the County. The Oxfordshire State of Nature report (2017) found that there continues to be long-term decline in farmland and woodland biodiversity and that there is continued habitat fragmentation and loss of connectivity across the county's landscape. Around 80 protected species and 200 species are therefore recognised as being a priority for conservation that are native to Oxfordshire[180]. Adders, nightingales and the marsh fritillary butterflies are examples of species lost from Oxfordshire in recent years. Many more are threatened with extinction, including once widespread birds such as turtle doves, cuckoos and willow tits[181]. The wider landscape zone of the Nature Recovery Network includes the wider countryside which will aim to strengthen the character of the area.

B.133 The loss of meadows and species-rich grassland in Oxfordshire is primarily due to agricultural intensification, sand and gravel extraction, and urban and industrial development. Climate change related changes in temperature and rainfall also affect species composition. The relatively poor water quality in Oxfordshire's water bodies affects river and wetland biodiversity, as does dredging, canalisation and impoundment. Oxfordshire's woodlands are small and fragmented, and suffer from neglect and pests/diseases. In urban areas, a decrease in the average size of gardens and modern trends of impermeable surfaces has reduced the overall green cover of garden holdings; and pollution (including light pollution) affects breeding birds, night-flying insects and bats[182].

B.134 The Thames River Basin is an essential component to Oxfordshire's blue infrastructure network connecting local species and habitats to those of neighbouring plan areas. There are ecological assets located downstream, including European sites that contain a diverse array of aquatic wildlife.

Table B.18: Summary of biodiversity designations

District	SACs	SPAs	Ramsar sites	SSSIs	National Nature Reserves	Local Wildlife Sites	Local Nature Reserves	Local Geological Sites
Oxford City	2	0	0	19	0	18	3	2
Cherwell	3	0	0	26	0	85	3	13
South Oxfordshire	8	0	0	53	6	111	6	5
Vale of White Horse	3	0	0	37	2	73	2	9
West Oxfordshire	1	0	0	37	2	96	2	17

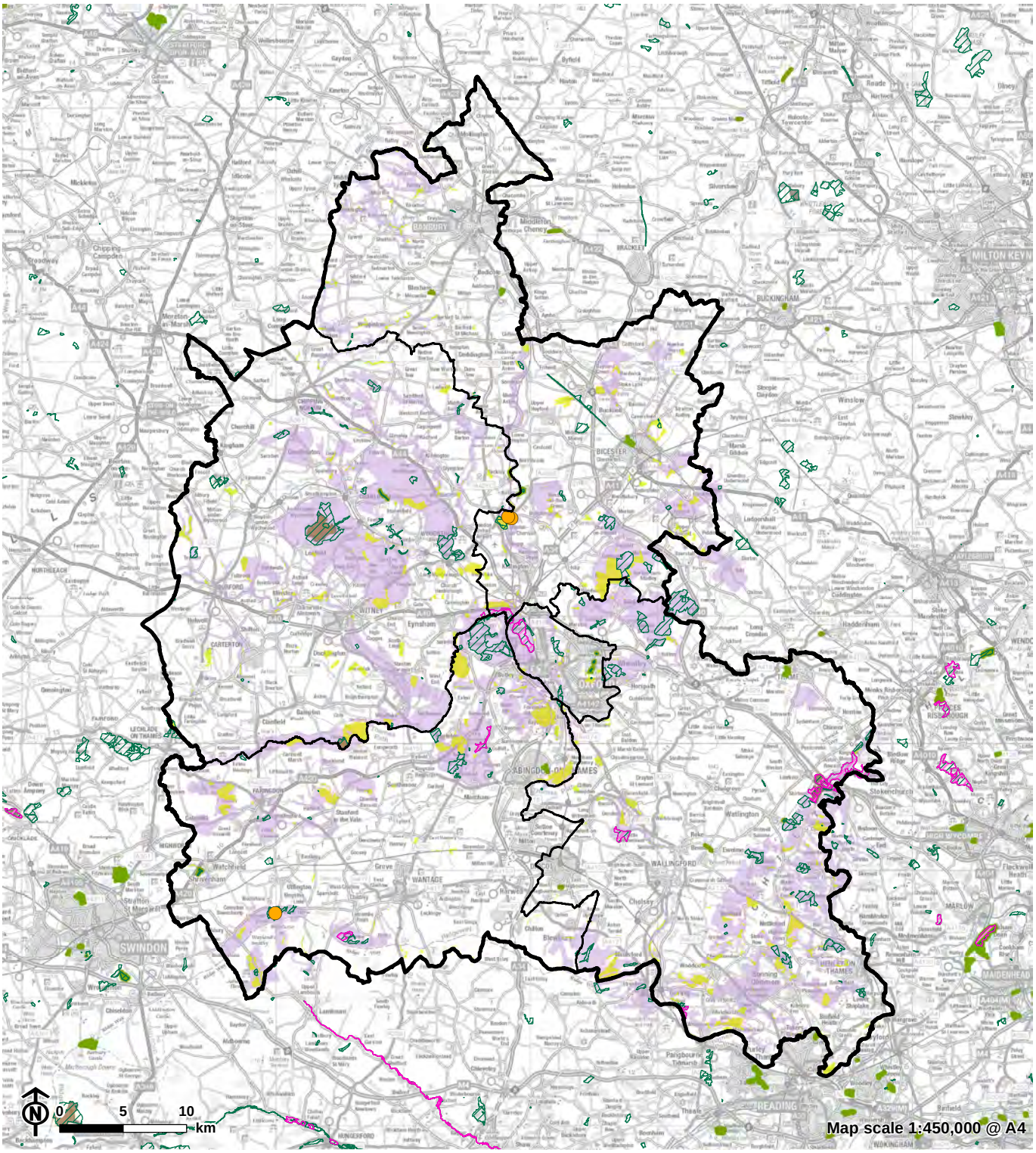
Note: where a feature falls within more than one District it is included in the row for both Districts, so the columns in these tables should not be totalled to reach a County-wide figure

B.135 A summary of the key sustainability issues in relation to the biodiversity and geodiversity baseline described above is provided in **Table B.19**, along with the likely evolution of each issue if the Oxfordshire Plan 2050 were not implemented.

[179] Wild Oxfordshire, *Biodiversity and Planning in Oxfordshire 2014,* https://www.wildoxfordshire.org.uk/wp-content/uploads/2018/01/Biodiversityandplanning.pdf
[180] Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust, Oxfordshire County Council and Thames Valley Environmental Record Centre (March 2014) *Biodiversity and Planning in Oxfordshire*
[181] Oxfordshire County Council (2021) Topic Paper: A Nature Recovery Network for Oxfordshire
[182] Wild Oxfordshire, *State of Nature in Oxfordshire 2017* https://www.wildoxfordshire.org.uk/wp-content/uploads/2016/10/State-of-Nature-in-Oxfordshire-2017_Full-Report_FINAL_MIN2_COVERS.pdf

Table B.19: Key sustainability issues for Oxfordshire and likely evolution without the Oxfordshire Plan 2050 (Biodiversity and geodiversity)

Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
Oxfordshire contains and is in close proximity to a wide variety of both designated and non-designated natural habitats and biodiversity. Although the vast majority of the designated sites are in favourable or unfavourable recovering condition, this needs to be maintained. Overall biodiversity in Oxfordshire can be affected by the loss and erosion of habitats and fragmentation of ecological networks.	Internationally designated biodiversity sites receive protection through the Habitats Regulations, which apply to Local Plans and development projects irrespective of the Oxfordshire Plan 2050. However, such sites still experience pressure, for example from recreation and traffic-related air pollution that often benefits from a strategic response that the Oxfordshire Plan 2050 could provide. Nationally designated sites also receive national policy protection, and designated sites are usually taken into account in Local Plans. Similarly, locally designated biodiversity assets receive policy protection in Local Plans. However, on-going development, plus pollution and people pressure, produce on-going pressures that the Oxfordshire Plan 2050 can help to address at a strategic scale, seeking to safeguard and improve not only designated sites, but the ecological networks and supporting habitats that support them and their species.



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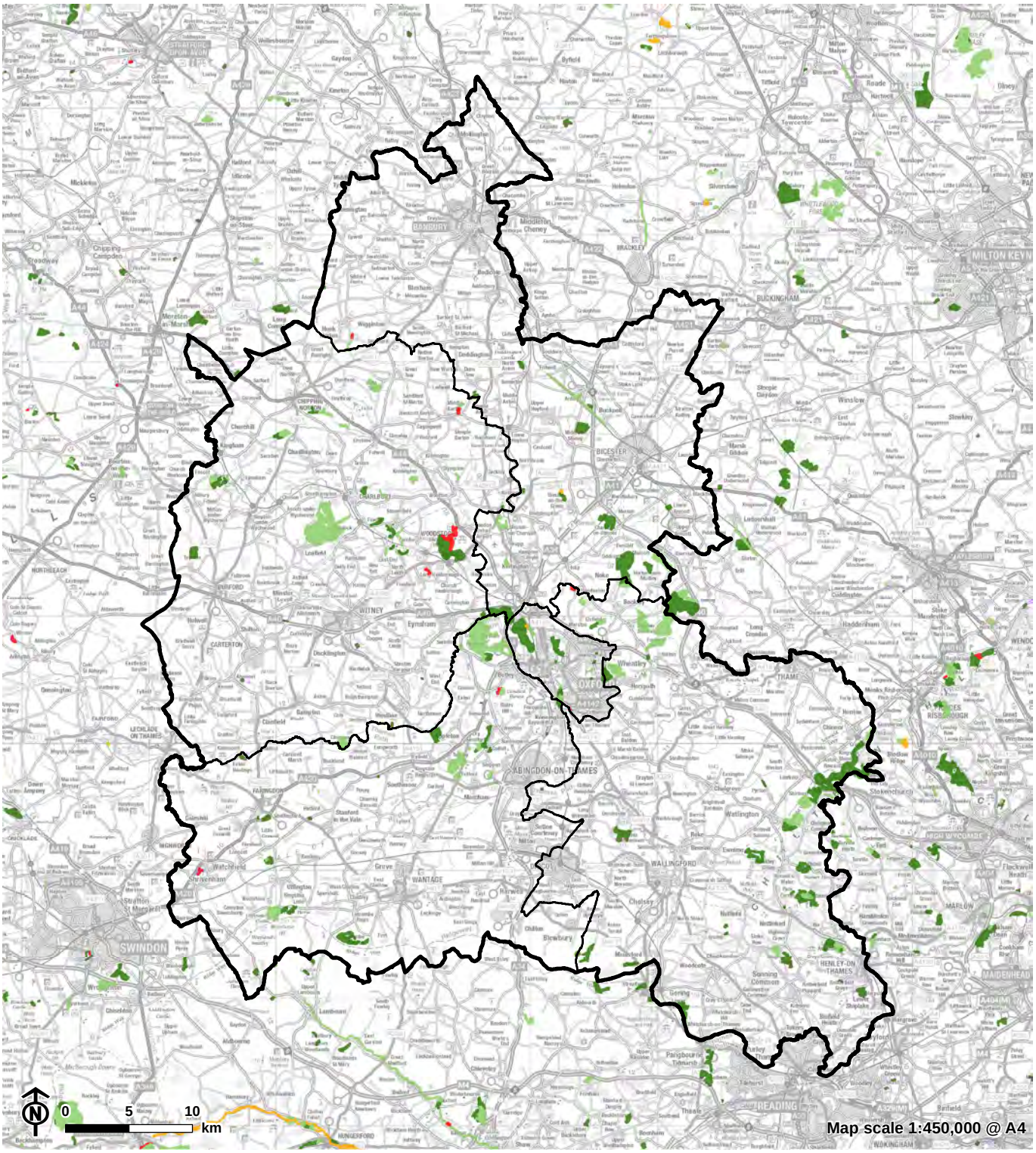
Source: NE, OCC

Figure B.7: Biodiversity and Geodiversity

- Oxfordshire county
- District boundary
- Local Geological Site
- Special Area of Conservation
- Site of Special Scientific Interest
- National Nature Reserve
- Local Nature Reserve
- Local Wildlife Site
- Conservation target area



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Source: NE

Figure B.8: SSSI condition

Oxfordshire county
District boundary

SSSI condition

- Favourable
- Unfavourable recovering
- Unfavourable no change
- Unfavourable declining
- Not Assessed

Heritage

B.136 Oxfordshire has significant historic environment assets, from the prehistoric, Roman occupation and the Saxon, Norman, Medieval, post-medieval and Victorian periods. Development can affect both designated and undesignated heritage assets either directly or as a result of impacts on the setting of assets. As well as listed buildings and scheduled monuments, consideration will also need to be given to areas of archaeological potential which could be affected by new development. New development could itself lead to the discovery of further sites and artefacts.

B.137 Oxford City is steeped in history, with evidence of a settlement dating as far back as the Bronze Age. Oxford City has a total of 1,172 Listed Buildings (this figure is over 1,600 when considering Locally Listed Properties)[183], 10 Scheduled Monuments, and 15 Registered Parks and Gardens. 18 Conservation Areas have been designated in Oxford, of which 13 have published Conservation Area Appraisals. Fourteen of the 72 Conservation Areas within South Oxfordshire have published a Conservation Area Appraisal. Twenty-four of the 51 Conservation Areas within West Oxfordshire have published a Conservation Area Appraisal. Fifty-six of Cherwell's 60 Conservation Areas have a Conservation Area Appraisal. Six of the 51 Conservation Areas within Vale of White Horse have completed Conservation Area Appraisals.

B.138 Two sites in Oxford City were listed on the Heritage at Risk Register as of December 2018. These are the Church of St Thomas the Martyr (Grade II Listed) and the Swing Bridge near Rewley Road which is a Scheduled Monument. Heritage at risk for the rest of the Districts is outlined in **Table B.20.**

B.139 Outside of Oxford City, many of Oxfordshire's settlements, both market towns and villages, have distinctive histories reflected in their character, buildings and artefacts, many of which are recognised in their designation as Conservation Areas. Many of these settlements are set within historic landscapes, such as the Cotswolds.

B.140 Of particular note is Blenheim Palace and its park, which is internationally designated by UNESCO as a World Heritage Site. In addition, Oxfordshire has many historic landscapes, parks and gardens. These range from medieval to modern and in scale from private gardens to the landscaped grounds of great estates through to manorial, college and domestic gardens. There are currently 56 sites within Oxfordshire on the Register of Historic Parks and Gardens. There are also many sites of local importance that are not included. A review of historic parks and gardens in the County was carried out by Colvin and Moggeridge in 1997. Their report identified 185 sites of special interest, either nationally or at County level[184].

B.141 With the support of Historic England, the Oxfordshire Historic Landscape Characterisation project examined Oxfordshire and includes the three AONBs within the County as well as the District of Oxford. The landscape of Oxfordshire has been characterised into 15 Broad Types and subdivide into 109 HLC Types. One of the key findings was how agricultural Oxfordshire is, with 73.8% of the County characterised by Enclosure Types. These Enclosures are spread throughout the County and are only less common in the heavily wooded area of the Chiltern Hills and within the County's major settlements. The band of Woodland Types identified in the south-east of Oxfordshire is also very prominent. A less obvious, but equally important area of woodland lies to the northwest of Oxford and represents the remains of the Ancient Wychwood Forest[185].

B.142 **Table B.20** below summarises the number of heritage designations across the five Oxfordshire Districts as well as heritage assets at risk. These are mapped in **Figure B.9**.

[183] Oxford City Council (March 2020) *Annual Monitoring Report https://www.oxford.gov.uk/downloads/download/420/annual_monitoring_report*
[184] Oxfordshire Gardens Trust (undated) *Parks and Gardens* https://www.ogt.org.uk/parks-and-gardens
[185] Oxfordshire County Council (2017) *Oxfordshire Historic Landscape Characterisation Project* https://www.oxfordshire.gov.uk/residents/environment-and-planning/archaeology/landscape-characterisation

Table B.20: Summary of cultural heritage designations

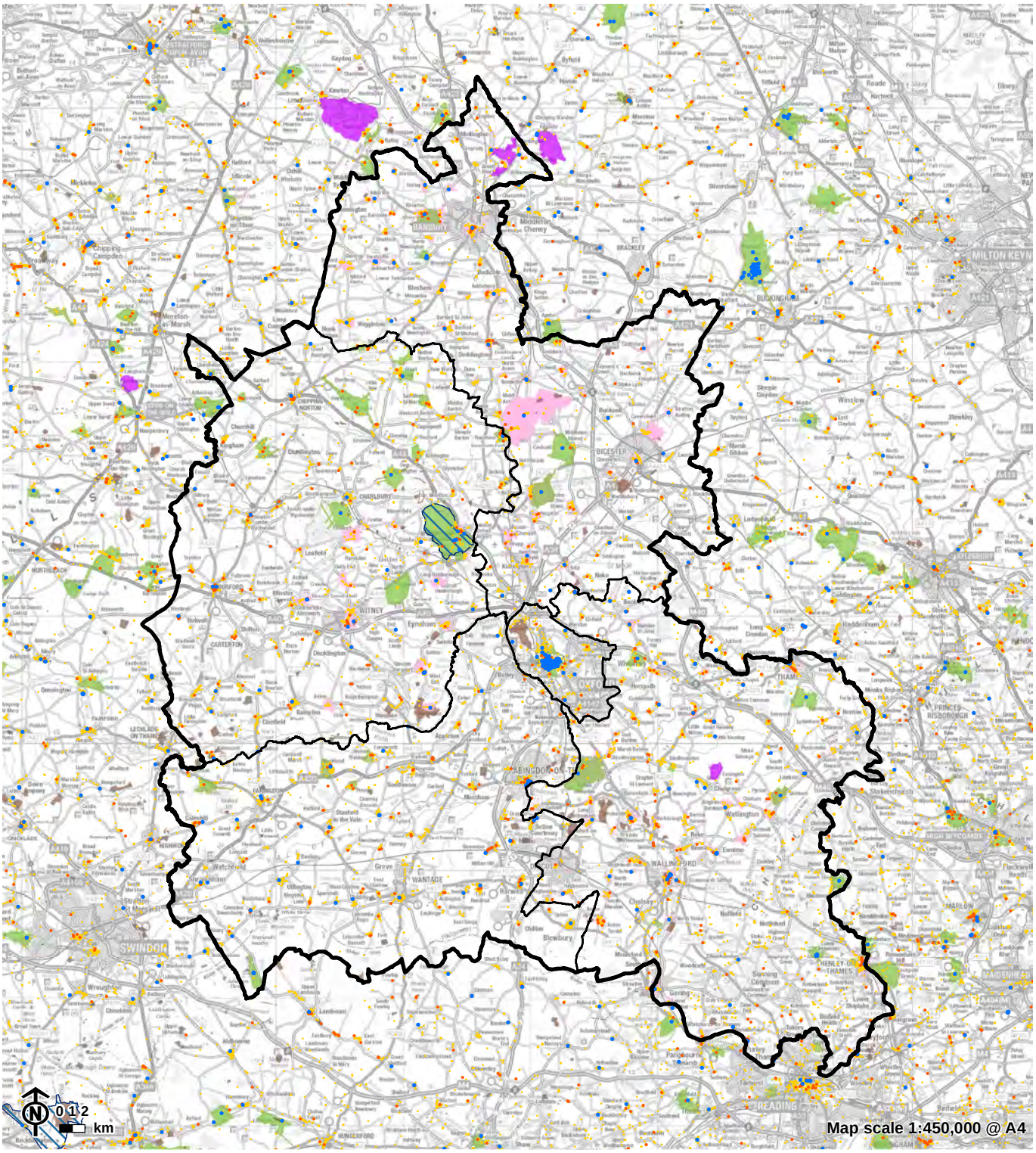
District	World Heritage Sites	Grade I listed buildings	Grade II listed buildings	Grade II* listed buildings	Conservation Areas	Scheduled Monuments	Registered Parks and Gardens	Registered Battlefields	Heritage at Risk
Oxford City	0	199	894	79	18	10	15	0	2
Cherwell	0	39	2,191	102	60	36	5	1	10
South Oxfordshire	0	61	3,042	179	72	52	11	1	14
Vale of White Horse	0	43	2,008	125	51	75	8	0	8
West Oxfordshire	1	40	2,942	213	51	138	17	0	10

Note: where a feature falls within more than one District it is included in the row for both Districts, so the columns in these tables should not be totalled to reach a County-wide figure

B.143 A summary of the key sustainability issues in relation to the heritage baseline described above is provided in **Table B.21**, along with the likely evolution of each issue if the Oxfordshire Plan 2050 were not implemented.

Table B.21: Key sustainability issues for Oxfordshire and likely evolution without the Oxfordshire Plan 2050 (Heritage)

Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
There are many sites, features and areas of historical and cultural interest in Oxfordshire, some of which could be affected by poorly located or designed development. The Blenheim Palace UNESCO World Heritage Site requires special consideration in terms of its status.	Without the Oxfordshire Plan 2050, the heritage assets across Oxfordshire would still be protected by statutory designations. Furthermore, the NPPF requires local planning authorities to refuse consent for development that would lead to substantial harm to (or total loss or significance of) a designated heritage asset. However, it is possible that undesignated assets would be adversely affected by inappropriate development. Each District Council's Local Plan does, however, make provision for this. The Oxfordshire Plan 2050 is likely to encourage collaborative working between each of the District Councils, ensuring the protection and conservation of designated and undesignated heritage assets.



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CB:KS EB:Chamberlain_K LUC FIG03_09_10573_Historic_Environment_A4P 04/06/2021
Source: CDC, HE, SODC, WODC

Figure B.9: Historic Environment

- Oxfordshire county
- District boundary

Listed building

- Grade I
- Grade II*
- Grade II

- World Heritage Site
- Registered Parks and Gardens
- Scheduled monument
- Registered battlefield
- Conservation area

Landscape and Townscape

B.144 Oxfordshire's landscapes are particularly important in defining the character of the county. Much of Oxfordshire's landscape is high quality and while there are no National Parks in the County there are three Areas of Outstanding Natural Beauty (AONBs):

- North Wessex Downs AONB which lies in the south of Vale of White Horse District and the west of South Oxfordshire District.
- The Chilterns AONB which covers much of the southern half of South Oxfordshire District.
- The Cotswolds AONB which covers much of central West Oxfordshire District, also extending slightly within the north west of Cherwell District.

B.145 The protected landscapes of the Chilterns, Cotswolds and North Wessex Downs cover over a third of the land area of the county[186]. A recent CPRE report highlights that there has been an 82% increase in new housing units given planning permission in the 34 AONBs of England from 2012-2017. The three AONBs within Oxfordshire are within the eight AONBs under the most pressure nationally from development. In particular, the Cotswolds AONB saw the largest rise in units per year average; 217 units to 635 units[187].

B.146 The Clean Neighbourhoods and Environment Act classifies light pollution as a statutory offence under the Environmental Protection Act 1990. In Oxfordshire, just 1% of its total land area is within CPRE Oxfordshire's 'truly dark' category[188].

B.147 Further development could affect the character and quality of the landscape, depending on its location in relation to the most sensitive areas. Other factors such as the design and layout of the development and the incorporation of screening will also influence impacts on the landscape and townscape, although this cannot be determined in detail until the planning application stage. It should also be noted that each of the AONBs within Oxfordshire has a management plan which sets out the vision, outcomes, ambitions and policies to guide the management of each AONB over the plan period.

B.148 An important consideration is the setting of the city of Oxford, which is defined by agricultural vales to the north and south, wooded hills to the east and the west and rivers valleys extending through the urban core of the city. Key to Oxford's character is the fact that it is located in a floodplain overlooked by surrounding ridges which provide an important backdrop to Oxford's cityscape. The city itself is divided up by the river corridors of the Rivers Thames and Cherwell. Oxford's character is also defined by its unique built environment. The iconic skyline and architecture produced by the limestone colleges and towering spires create a world famous urban environment.

B.149 **Figure B.10** shows the location of the AONBs in Oxfordshire and key views into Oxford.

B.150 England has been divided into 159 separate National Character Areas (NCAs), each of which are regarded as distinct natural areas. A unique combination of landscape, biodiversity, geodiversity, history, and cultural and economic activity defines each area in question. The boundaries of each NCA relate to how these elements have combined to form the landscape and do not relate to administrative boundaries.

B.151 Oxfordshire is split between eight individual NCAs, as also shown in **Figure B.10**. In the north of the County, Northamptonshire Uplands NCA is within the District of Cherwell and is characterised by gently rolling, limestone hills and valleys capped by ironstone-bearing sandstone and clay Lias, with many long, low ridgelines.

B.152 The Bedfordshire and Cambridgeshire Claylands NCA is also within Cherwell District. This NCA is a broad, gently undulating, lowland plateau dissected by shallow river valleys which gradually widen towards the east where the Fens NCA forms.

[186] Draft Oxfordshire Plan 2050.
[187] CPRE Oxfordshire (2017) *Oxfordshire's most outstanding landscapes under pressure from housing development* http://www.cpreoxon.org.uk/news/current-news/item/2647-beauty-betrayed-aonbs-under-pressure-report
[188] CPRE Oxfordshire (undated) *Dark Skies Matter*, http://www.cpreoxon.org.uk/campaigns/countryside/dark-skies/dark-skies-matter/item/2097-dark-skies-matter

B.153 The Cotswolds NCA is to the west of the Bedfordshire and Cambridgeshire Claylands NCA and covers much of the northern part of Oxfordshire, falling across the boundary of Cherwell and West Oxfordshire Districts. This area is displayed as a steep scarp crowned by a high, open wold. It forms the beginning of a long and rolling dip slope which is cut by a series of increasingly wooded valleys.

B.154 Upper Thames Clay Vales NCA covers parts of all five Oxfordshire Districts, in effect forming a ring of flat lands around the more elevated ground which stretch from the Vale of Aylesbury in Buckinghamshire to Swindon. The area is a broad belt of open, gently undulating lowland farmland on predominantly Jurassic and Cretaceous clays.

B.155 Midvale Ridge NCA covers most of the city of Oxford which lies in its middle section. This NCA also takes in parts of Vale of White Horse and South Oxfordshire and is a band of low-lying limestone hills stretching east–west which is surrounded by the flat lands of the Oxfordshire clay vales, allowing for extensive views across the surrounding countryside.

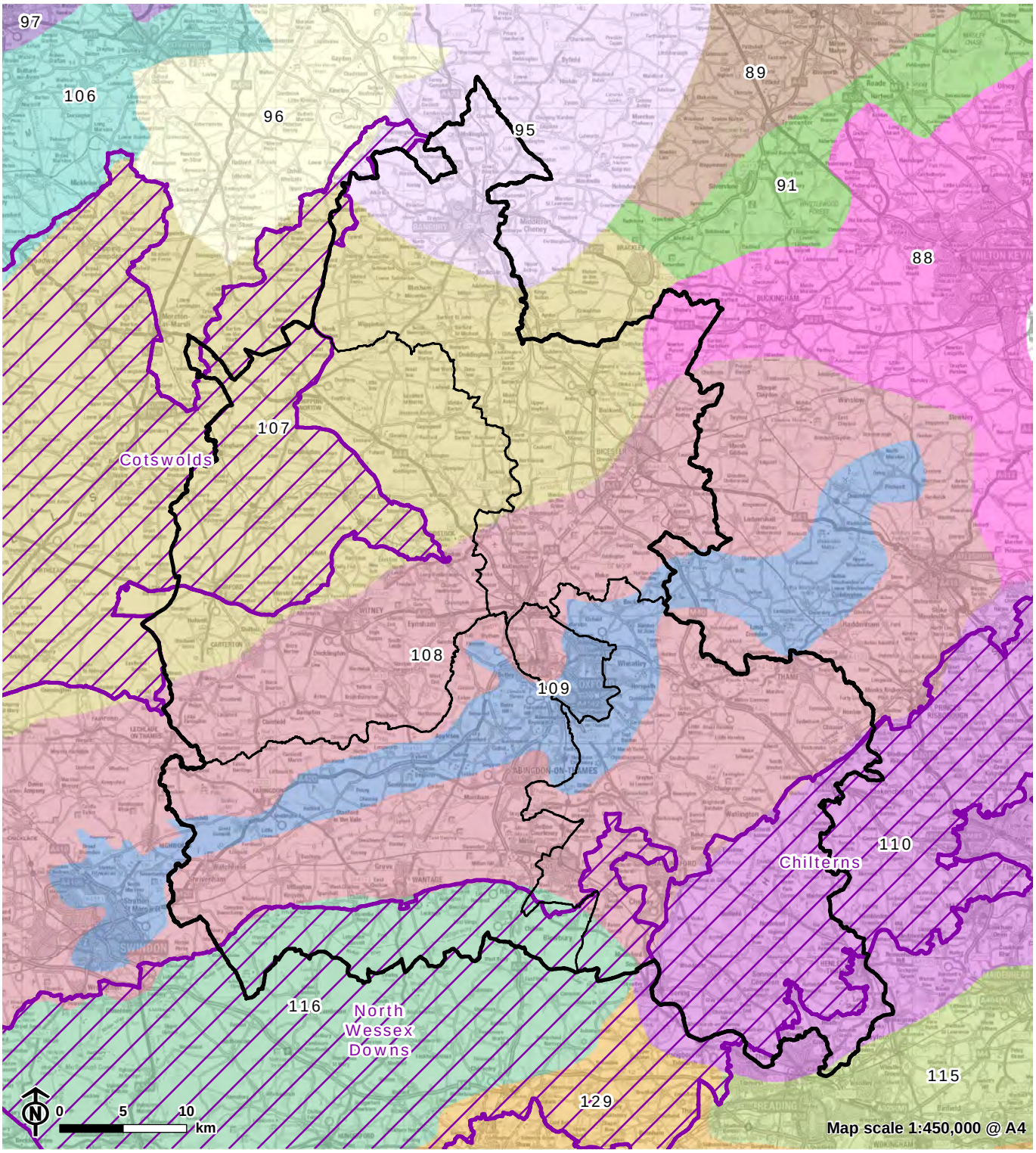
B.156 Berkshire and Marlborough Downs NCA is within Vale of White Horse District and covers much of the south and south western parts of Oxfordshire. The NCA consists of vast arable fields which are stretched across the sparsely settled, rolling chalk hills. Directly to the east of the Berkshire and Marlborough Downs NCA, the Chilterns NCA is within South Oxfordshire District. This NCA is extensively wooded with areas of farmland interspersed allowing for an overall patchwork within hedged boundaries. The entire area is underlain by chalk bedrock which rises up from the London Basin to form a north-west facing escarpment.

B.157 A very small area in the most south easterly part of Oxfordshire is within the Thames Valley NCA. The NCA is a very diverse landscape of urban and suburban settlements, infrastructure networks, fragmented agricultural land, historic parks, commons, woodland, reservoirs and extensive minerals workings with the River Thames being a unifying feature throughout the area. Hydrological features such as its tributaries dominate the valley.

B.158 A summary of the key sustainability issues in relation to the landscape and townscape baseline described above is provided in **Table B.22**, along with the likely evolution of each issue if the Oxfordshire Plan 2050 were not implemented.

Table B.22: Key sustainability issues for Oxfordshire and likely evolution without the Oxfordshire Plan 2050 (Landscape and townscape)

Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
Development could affect the character and quality of the landscape and townscape in Oxfordshire, specifically the three Areas of Outstanding Natural Beauty and views of Oxford's famous 'Dreaming Spires'.	In the absence of the Oxfordshire Plan 2050, Oxfordshire's landscape and townscape would still be protected by each of the District's Local Plans. However, the Oxfordshire Plan 2050 does offer a further opportunity to ensure that the character and quality of the landscape character is taken into account in the design and siting of strategic development, whilst maximising any opportunity for the protection and enhancement of the landscape. In addition, the Oxfordshire Plan 2050 provides the opportunity to look more strategically at alternatives sites in terms of landscape impacts and to plan strategically for landscape improvements.



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Source: NE

Figure B.10: Landscape

- Oxfordshire county
- District boundary
- Area of Outstanding Natural Beauty

National Character Areas

- 88: Bedforshire and Cambridgeshire Claylands
- 89: Northamtonshire Vales
- 91: Yardley-Whittlewood Ridge
- 95: Northamptonshire Uplands
- 96: Dunsmore and Feldon
- 97: Arden
- 106: Severn and Avon Vales
- 107: Cotswolds
- 108: Upper Thames Clay Vales
- 109: Midvale Ridge
- 110: Chilterns
- 115: Thames Valley
- 116: Berkshire and Marlborough Downs
- 117: Avon Vale
- 129: Thames Basin Heaths
- 130: Hampshire Downs

Green Belt

B.159 Although not an environmental designation, it is worth noting that around Oxford City there is approximately 66,000ha of designated Green Belt land which extends within all four of the neighbouring Districts, as shown in **Figure B.11**. Nearly 250ha of the Green Belt is open access land, including 100ha of Country Parks, while around 75% of the Green Belt is in agricultural use.

B.160 The Green Belt has historically been subject to development restraint due to the protection provided to Green Belts by national policy, although in the mid-1990s Oxford City Council released areas in the Green Belt for housing and employment uses such as the Northern Gateway. Since then, there have only been very minor alterations to the Green Belt in Oxfordshire although there is currently debate about whether more land should be removed from the Green Belt in order to deliver development requirements.

B.161 The 2015 Oxford Green Belt Study[189] recommended that local authorities should undertake careful masterplanning of development so that harm is minimised. It also assessed whether individual land parcels within the designated Green Belt are performing well against the Green Belt purposes identified in the NPPF.

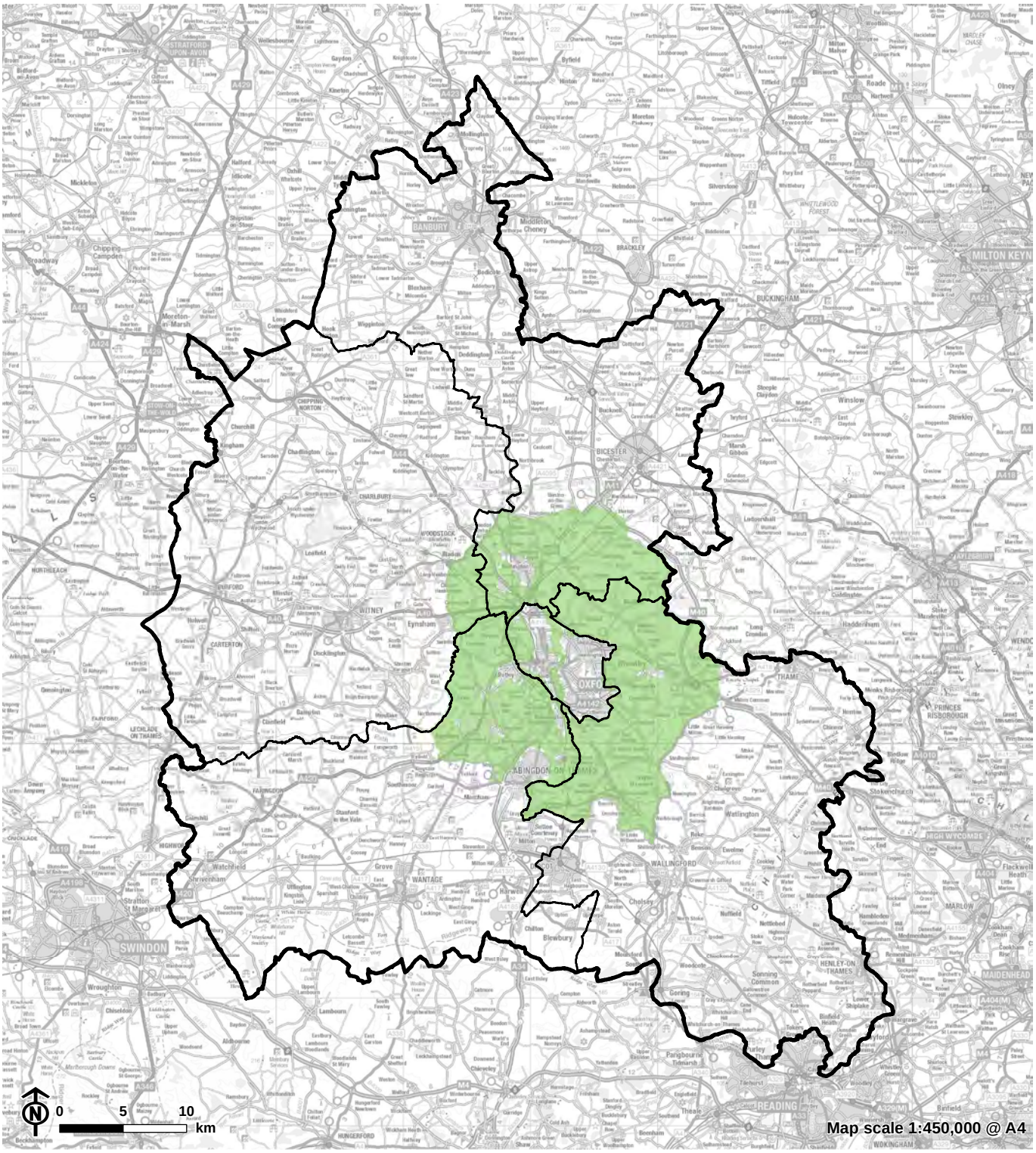
B.162 A recent CPRE report notes that the Oxfordshire Districts are opening up the Green Belt to accommodate the expected increase in population, with new Local Plans allocating land for release from the Green Belt around Oxford, including at Elsfield, Sandford, Horspath and Kidlington[190].

B.163 A summary of the key sustainability issues in relation to the Green belt baseline described above is provided in **Table B.23**, along with the likely evolution of each issue if the Oxfordshire Plan 2050 were not implemented.

Table B.23: Key sustainability issues for Oxfordshire and likely evolution without the Oxfordshire Plan 2050 (Green Belt)

Key sustainability issues for Oxfordshire	Likely evolution without the Oxfordshire Plan 2050
The Green Belt restricts development within Oxfordshire, particularly around Oxford. However, maintaining the Green Belt also helps to safeguard the Oxfordshire countryside from encroachment by development.	Without the Oxfordshire Plan 2050, it is likely that the Green Belt would reduce due to increasing development pressure. However, the Oxfordshire Plan 2050 provides an opportunity for the local authorities to work together to minimise the amount of harm to the Green Belt as well as discussing the performance of individual land parcels within the Green Belt.

[189] LUC (October 2015) Oxford Green Belt Study: Final Report
[190] CPRE Oxfordshire (2019) *Battle for the Green Belt* http://www.cpreoxon.org.uk/news/item/2751-battle-for-the-green-belt



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CB:KS EB:Chamberlain_K LUC FIG03_11_10573_Green_belt_A4P 02/06/2021
Source: DCLG

Figure B.11: Green Belt

- Oxfordshire county
- District boundary
- Green Belt

Appendix C

Review of relevant national and international plans, policies and programmes

Overarching policy objectives

International

C.1 United Nations Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (the 'Aarhus Convention') (1998) establishes a number of rights of the public (individuals and their associations) with regard to the environment. The Parties to the Convention are required to make the necessary provisions so that public authorities (at national, regional or local level) will contribute to these rights to become effective.

National

C.2 The National Planning Policy Framework (NPPF)[191] is the most significant national policy context for the Oxfordshire Plan 2050. The latest version of the NPPF, adopted in July 2018, with further updates in 2019, sets out the Government's planning policy for England and how these policies should be applied. The Oxfordshire Plan 2050 must be consistent with the NPPF requirements. The NPPF sets out information about the purposes of local plan-making, stating that:

"Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area … So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development"."

C.3 The presumption in favour of sustainable development is to be given priority in plan-making and in the decision making process. Specific to the plan-making process this will mean that:

"a) plans should positively seek opportunities to meet the development needs of their area, and be sufficiently flexible to adapt to rapid change;

b) strategic policies should, as a minimum, provide for objectively assessed needs for housing and other uses, as well as any needs that cannot be met within neighbouring areas, unless:

- *i. the application of policies in this Framework that protect areas or assets of particular importance provides a strong reason for restricting the overall scale, type or distribution of development in the plan area; or*
- *ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."*

C.4 In addition to contributing to the achievement of sustainable development the NPPF also requires Local Plans to be prepared positively in a way that is 'aspirational but deliverable'. This means that opportunities for appropriate development should be identified in order to achieve net gains across the three overarching objectives of sustainable development: that is to say achieving the economic, social and environmental objectives of the planning system. Significant adverse impacts on these objectives should be avoided however and, where possible, alternative options which reduce or eliminate these types of impacts should be taken forward. Where this is not possible mitigation followed by compensatory measures should be pursued.

C.5 The Government is also setting out goals for managing and improving the environment within its **25 Year Environment Plan**[192]. The document seeks to influence planning at a local level and therefore will be relevant to the scope of the SA and the Oxfordshire Plan 2050. Reference has been included within each topic below to the relevant text from the 25 Year Environment Plan.

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[191] Ministry of Housing, Communities and Local Government (July 2018) *National Planning Policy Framework*
[192] HM Government (January 2018) *A Green Future: Our 25 Year Plan to Improve the Environment*

Population, health and wellbeing

International

C.6 The United Nations Declaration on Sustainable Development (Johannesburg Declaration) (2002) sets the broad framework for international sustainable development, including building a humane, equitable and caring global society aware of the need for human dignity for all, renewable energy and energy efficiency, sustainable consumption and production and resource efficiency.

C.7 United Nations Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (the 'Aarhus Convention') (1998): Establishes a number of rights of the public (individuals and their associations) with regard to the environment. The Parties to the Convention are required to make the necessary provisions so that public authorities (at national, regional or local level) will contribute to these rights to become effective.

C.8 Other topic based international policies relating to human health and wellbeing are described under the relevant topics below.

National

C.9 The **NPPF** includes as part of its social objective the promotion of "*strong, vibrant and healthy communities*" by:

- *"ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and*
- *by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural wellbeing ."*

C.10 Ultimately planning policies and planning decision making should "*aim to achieve healthy, inclusive and safe places*".

C.11 The document states that strategic policies should set out the pattern, scale and quality of development and make sufficient provision for *"housing (including affordable housing) … [as well as] community facilities (such as health, education and cultural infrastructure)."* Policies should reflect "*the size, type and tenure of housing needed".* This policy approach is to include but should not be limited to housing requirements relating to affordable homes, families with children, older people, students, people with disabilities, service families, travellers, those who rent their homes and people wishing to commission the construction of their own homes. Major developments that involve the provision of new housing planning policies and decisions should expect at least 10% of the total number of homes to be delivered for affordable home ownership subject to conditions and exemptions.

C.12 To help to diversify opportunities for builders, promote a better mix of site sizes and increase the number of schemes that can be built-out quickly to meet housing need, the NPPF states that at least 10% of the sites allocated for housing through a local authority's plan should be half a hectare or smaller.

C.13 Where there is an identified need, development of sites not already allocated for housing to provide entry-level homes suitable for first-time buyers is to be supported by local planning authorities unless such need is already to be met at other locations within the authority area. These sites should comprise of entry-level homes that offer one or more types of affordable housing.

C.14 The document also promotes a theme of enhancing healthy and safe communities which is to be achieved by creating places which *"promote social interaction (and) enable and support healthy lifestyles*."

C.15 As part of this approach social, recreational and cultural facilities and services that the community needs should be provided guided by planning policies which:

- *"plan positively provision and use of shared spaces, community facilities (such as local shops, meeting places, sports venues, open space, cultural buildings, public houses and places of worship) and other local services;*
- *support the delivery of local strategies to improve health, social and cultural wellbeing for all sections of the community;*
- *help prevent unnecessary loss of valued facilities and services."*

C.16 Plan making through the guidance of the NPPF recognises the important role of access to open spaces and other facilities which provide opportunities for sport and physical activity has in terms of health and wellbeing of communities. The importance of delivering a sufficient choice of school places to meet the needs of existing and new communities is also recognised in the document and local planning authorities should take a "*proactive, positive and collaborative approach to meeting this requirement*".

C.17 The NPPF also sets out that the standard method provided in national planning guidance should be used to undertake a local housing need assessment identifying the minimum number of homes needed. The **Housing Delivery Test Measurement Rule Book**[193] provides this standard method allowing for calculation of objectively assessed housing need using government household forecasts adjusted for local house prices and local earnings. Unmet need from neighbouring areas will also need to be taken into account as part of the calculation.

C.18 National Design Guide[194]: sets out the Government's priorities for well-designed places in the form of ten characteristics: context, identity, built form, movement, nature, public spaces, uses, homes and buildings, resources and lifespan.

C.19 Fair Society, Healthy Lives[195] investigated health inequalities in England and the actions needed in order to tackle them. Subsequently, a supplementary report was prepared providing additional evidence relating to spatial planning and health on the basis that there is "*overwhelming evidence that health and environmental inequalities are inexorably linked and that poor environments contribute significantly to poor health and health inequalities*".

C.20 Select Committee on Public Service and Demographic Change report Ready for Ageing?[196]: warns that society is underprepared for the ageing population. The report states "longer lives can be a great benefit, but there has been a collective failure to address the implications and without urgent action this great boon could turn into a series of miserable crises". The report highlights the under provision of specialist housing for older people and the need to plan for the housing needs of the older population as well as younger people.

C.21 Laying the foundations: a housing strategy for England[197]: Aims to provide support to deliver new homes and improve social mobility.

C.22 Homes England Strategic Plan 2018 to 2023[198]**:** Sets out a vision to ensure more homes are built in areas of greatest need, to improve affordability, and make a more resilient and diverse housing market.

C.23 Planning Policy for Traveller Sites[199] sets out the Government's planning policy for traveller sites. The Government's overarching aim is to ensure fair and equal treatment for travellers, in a way that facilitates the traditional and nomadic way of life of travellers while respecting the interests of the settled community.

C.24 Planning for the Future White Paper[200]: Sets out a series of potential reforms to the English planning system, to deliver growth faster. The White Paper focuses on the following:

- Simplifying the role of Local Plans and the process of producing them.
- Digitising plan-making and development management processes.
- Focus on design, sustainability and infrastructure delivery.
- Nationally determined, binding housing requirements for local planning authorities to deliver through Local Plans.

[193] Ministry of Housing, Communities and Local Government (July 2018) *Housing Delivery Test Measurement Rule Book*
[194] Ministry of Housing, Communities and Local Government (January 2021) *National Design Guide* [online] Available at: https://www.gov.uk/government/publications/national-design-guide
[195] The Marmot Review (2011) *Fair Society, Healthy Lives*
[196] Select Committee on Public Service and Demographic Change (2013) *Ready for Ageing?* [online] Available at: https://publications.parliament.uk/pa/ld201213/ldselect/ldpublic/140/140.pdf
[197] HM Government (2011) *Laying the Foundations: A Housing Strategy for England* [online] Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7532/2033676.pdf
[198] Homes England (2018) *Strategic Plan 2018 to 2023* [online] available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/752686/Homes_England_Strategic_Plan_AW_REV_150dpi_REV.pdf
[199] Department for Communities and Local Government (2015) *Planning policy for traveller sites*
[200] Department for Housing, Communities and Local Government (2020) *Planning for the Future White Paper* [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/907647/MHCLG-Planning-Consultation.pdf

C.25 Planning for the Sustainable Growth in the Oxford-Cambridge Arc (An introduction to the Oxford-Cambridge Arc Spatial Framework (2021)[201]: This paper sets out the government's approach, growth, spatial planning and infrastructure provision within the area and how the community and local partners will help develop the framework.

C.26 The Housing White Paper 2017 (Fixing our broken housing market)[202] sets out ways to address the shortfall in affordable homes and boost housing supply. The White Paper focuses on the following:

- Planning for the right homes in the right places – Higher densities in appropriate areas, protecting the Green Belt while making more land available for housing by maximising the contribution from brownfield and surplus public land, regenerating estates, releasing more small and medium-sized sites, allowing rural communities to grow and making it easier to build new settlements.
- Building homes faster – Improved speed of planning cases, ensuring infrastructure is provided and supporting developers to build out more quickly.
- Diversifying the Market – Backing small and medium-sized house builders, custom-build, institutional investors, new contractors, housing associations.
- Helping people now – supporting home ownership and providing affordable housing for all types of people, including the most vulnerable.

C.27 Public Health England, PHE Strategy 2020-25[203]: identifies PHE's priorities upon which to focus over this five-year period to protect people and help people to live longer in good health.

C.28 Healthy Lives, Healthy People: Our strategy for public health in England[204]: Sets out how our approach to public health challenges will:

- Protect the population from health threats – led by central government, with a strong system to the frontline.
- Empower local leadership and encourage wide responsibility across society to improve everyone's health and wellbeing, and tackle the wider factors that influence it.
- Focus on key outcomes, doing what works to deliver them, with transparency of outcomes to enable accountability through a proposed new public health outcomes framework.
- Reflect the Government's core values of freedom, fairness and responsibility by strengthening self-esteem, confidence and personal responsibility; positively promoting healthy behaviours and lifestyles; and adapting the environment to make healthy choices easier.
- Balance the freedoms of individuals and organisations with the need to avoid harm to others, use a 'ladder' of interventions to determine the least intrusive approach necessary to achieve the desired effect and aim to make voluntary approaches work before resorting to regulation.

C.29 The 25 Year Environment Plan sets out goals for improving the environment over the next 25 years. It details how the Government will work with communities and businesses to leave the environment in a better state than it is presently. The document identifies six key areas upon which action will be focused. Those of relevance to the topics of population growth, health and wellbeing are using and managing land sustainably; and connecting people with the environment to improve health and wellbeing. These two key areas are of relevance to the Oxfordshire Plan 2050 as follows:

- Using and managing land sustainably:
  - Embed an 'environmental net gain' principle for development, including housing and infrastructure.
- Connecting people with the environment to improve health and wellbeing:

[201] HM Government (2021) Planning for sustainable growth in the Oxford-Cambridge Arc [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/962455/Spatial_framework_policy_paper.pdf
[202] Department for Communities and Local Government (2017) *Fixing our broken housing market*
[203] Public Health England (2019) PHE Strategy 2020-25 [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/831562/PHE_Strategy_2020-25.pdf
[204] HM Government (2010) Healthy Lives, Healthy People: Our strategy for public health in England [online] Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216096/dh_127424.pdf

- Help people improve their health and wellbeing by using green spaces including through mental health services.
- Encourage children to be close to nature, in and out of school, with particular focus on disadvantaged areas.
- 'Green' our towns and cities by creating green infrastructure and planting one million urban trees.
- Make 2019 a year of action for the environment, working with Step Up To Serve and other partners to help children and young people from all backgrounds to engage with nature and improve the environment.

Economy

International and National

C.30 There are no specific international economic policy agreements relevant to the preparation of the Oxfordshire Plan 2050 and the SA, although there are a large number of trading agreements, regulations and standards that set down the basis of trade within the European Union (subject to changes post-Brexit) and with other nations.

C.31 The **NPPF** contains an economic objective to *"help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity."*

C.32 It also requires that planning seeks to *"create the conditions in which businesses can invest, expand and adapt"* with policies required to "*set out a clear economic vision and strategy which positively and proactively encourages sustainable economic growth"*. Policies addressing the economy should also seek *"to address potential barriers to investment, such as inadequate infrastructure, services or housing, or a poor environment."*

C.33 Of particular relevance to Oxfordshire is the requirement for planning policies to *"recognise and address the specific locational requirements of different sectors. This includes making provision for clusters or networks of knowledge and data-driven, creative or high technology industries; and for storage and distribution operations at a variety of scales and in suitably accessible locations."*

C.34 Planning policies are also required specifically to address support for the rural economy. Sustainable growth and expansion of all types of business and enterprise in rural areas should be supported, both through conversion of existing buildings and well-designed new buildings, while the diversification of the rural economy and promotion of sustainable rural tourism and leisure developments is also supported.

C.35 The NPPF also supports the role of town centres as functioning at the heart of local communities. This support is required to provide for a "*positive approach to [town centres'] growth, management and adaptation*." Included within this support is a requirement to *"allocate a range of suitable sites in town centres to meet the scale and type of development needed, looking at least ten years ahead."*

C.36 The Local Growth White Paper (2010)[205] *highlights* the importance of economic policy that focusses on the delivery of strong, sustainable and balanced growth of income and employment over the long-term, growth which is broad-based industrially and geographically to provide equality of access and opportunity and build businesses that are competitive internationally.

C.37 Build Back Better: Our Plan for Growth[206]: Sets out a plan to 'build back better' tackling long-term problems to deliver growth that delivers high-quality jobs across the UK while supporting the transition to net zero. This will build on three core pillars of growth: infrastructure, skills and innovation.

C.38 The Rural White Paper 2000 (Our Countryside: the future – A fair deal for rural England)[207] sets out the Government's Rural Policy Objectives:

[205] Department for Business, Innovation and Skills (2010) *Local Growth: Realising Every Place's Potential*
[206] HM Treasury (2021) Build Back Better: Our Plan for Growth [online] available at: https://www.gov.uk/government/publications/build-back-better-our-plan-for-growth/build-back-better-our-plan-for-growth-html
[207] HM Government (2000) *Rural White Paper (Our Countryside: the future – A fair deal for rural England)*

- To facilitate the development of dynamic, competitive and sustainable economies in the countryside, tackling poverty in rural areas.
- To maintain and stimulate communities, and secure access to services which is equitable in all the circumstances, for those who live or work in the countryside.
- To conserve and enhance rural landscapes and the diversity and abundance of wildlife (including the habitats on which it depends).
- To promote government responsiveness to rural communities through better working together between central departments, local government, and government agencies and better co-operation with non-government bodies.

C.39 National Infrastructure Delivery Plan (2016-2021) sets out the government's plans for economic infrastructure over a five year period with those to support delivery of housing and social infrastructure.

C.40 UK Industrial Strategy: building a Britain fit for the future (2018) lays down a vision and foundations for a transformed economy. Areas including: artificial intelligence and big data; clean growth; the future of mobility; and meeting the needs of an ageing society are identified as the four 'Grand Challenges' of the future.

Transport

International

C.41 The Trans-European Networks (TEN) was created by the European Union by Articles 154-156 of the Treaty of Rome (1957), with the stated goals of the creation of an internal market and the reinforcement of economic and social cohesion. These include the Trans-European Transport Networks (TEN-T), which includes High Speed 1, and the Trans-European Telecommunications Networks (eTEN).

National

C.42 The **NPPF** requires that *"transport issues should be considered from the earliest stages of plan-making"*. The scale, location and density of development should reflect "*opportunities from existing or proposed transport infrastructure*". To help reduce congestion and emissions, and improve air quality and public health the planning system should focus significant development "*on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes.*" The draft revised framework also requires that planning policies support an appropriate mix of uses across an area to further help reduce the need to travel as well as the provision of high quality walking and cycling network.

While the framework promotes the use and development of sustainable transport networks it also requires that *"where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development"* should be identified and protected.

C.43 The Road to Zero[208] sets out new measures towards cleaner road transport, aiming to put the UK at the forefront of the design and manufacturing of zero emission vehicles. It explains how cleaner air, a better environment, zero emission vehicles and a strong, clean economy will be achieved. One of the main aims of the document is for all new cars and vans to be effectively zero emission by 2040.

C.44 Transport Investment Strategy[209]**:** Sets out four objectives that the strategy aims to achieve:

- Create a more reliable, less congested, and better connected transport network that works for the users who rely on it;
- Build a stronger, more balanced economy by enhancing productivity and responding to local growth priorities;
- Enhance our global competitiveness by making Britain a more attractive place to trade and invest; and
- Support the creation of new housing.

[208] HM Government (2018) *The Road to Zero*
[209] Department for Transport (2017) *Transport Investment Strategy* [online} Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/918490/Transport_investment_strategy.pdf

C.45 Door to Door: A strategy for improving sustainable transport integration[210]: Focuses on four core areas which need to be addressed so that people can be confident in choosing greener modes of transport. There are as follows:

- Accurate, accessible and reliable information about different transport options.
- Convenient and affordable tickets.
- Regular and straightforward connections at all stages of the journey and between different modes of transport.
- Safe and comfortable transport facilities.

C.46 The strategy also includes details on how the Government is using behavioural change methods to reduce or remove barriers to the use of sustainable transport and working closely with stakeholders to deliver a better-connected transport system.

C.47 Department for Transport, Decarbonising Transport: Setting the Challenge (2020)[211] sets out the strategic priorities for a new Transport Decarbonisation Plan (TDP), to be published later in 2020, will set out in detail what government, business and society will need to do to deliver the significant emissions reduction needed across all modes of transport, putting us on a pathway to achieving carbon budgets and net zero emissions across every single mode of transport by 2050. This document acknowledges that while there have been recently published strategies[212] to reduce greenhouse gas emissions in individual transport modes, transport as a whole sector needs to go further and more quickly, therefore the TDP will take a coordinated, cross-modal approach to deliver the transport sector's contribution to both carbon budgets and net zero.

Air, land and water quality

National

C.48 The **NPPF** states that planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing valued soil and the economic and other benefits of the best and most versatile agricultural land. Policies should also prevent new and existing development from "*contributing to, being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution.*"

C.49 The document also requires that strategic policies should seek to make the most effective use of land in meeting local requirements making as much use as possible of previously-developed or 'brownfield' land. Furthermore policies should "*support appropriate opportunities to remediate despoiled, degraded, derelict, contaminated or unstable land*".

C.50 Environmental Protection Act 1990[213]: makes provision for the improved control of pollution to the air, water and land by regulating the management of waste and the control of emissions. Seeks to ensure that decisions pertaining to the environment are made in an integrated manner, in collaboration with appropriate authorities, non-governmental organisations and other persons.

C.51 Building Regulations[214]: requires that reasonable precautions are taken to avoid risks to health and safety cause by contaminants in ground to be covered by building and associated ground.

C.52 National Planning Policy for Waste (NPPW)[215]: Key planning objectives are identified within the NPPW, requiring planning authorities to:

[210] Department for Transport (2013) *Door to Door: A strategy for improving sustainable transport integration* [online] Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/142539/door-to-door-strategy.pdf
[211] Department for Transport (2020) *Decarbonising Transport Setting the Challenge* [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/932122/decarbonising-transport-setting-the-challenge.pdf
[212] These have not been summarised, since the upcoming TDP will supersede them to some extent: the Road to Zero strategy, Maritime 2050 and the Clean Maritime Plan, the Aviation 2050 Green Paper and forthcoming net zero aviation consultation and Aviation Strategy, the Cycling and Walking Investment Strategy, Future of Mobility: Urban Strategy, the 2018 amendments to the Renewable Transport Fuel Obligation, Freight Carbon Review, the Rail Industry Decarbonisation Taskforce and the Carbon Offsetting for Transport Call for Evidence.
[213] HM Government (1990) *Environmental Protection Act 1990* [online] Available at: https://www.legislation.gov.uk/ukpga/1990/43/contents
[214] HM Government (2010) *Building Regulations* [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/431943/BR_PDF_AD_C_2013.pdf
[215] Department for Communities and Local Government (2014) *National Planning Policy for Waste* [online] Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/364759/141015_National_Planning_Policy_for_Waste.pdf

- Help deliver sustainable development through driving waste management up the waste hierarchy.
- Ensure waste management is considered alongside other spatial planning concerns.
- Provide a framework in which communities take more responsibility for their own waste.
- Help secure the recovery or disposal of waste without endangering human health and without harming the environment.
- Ensure the design and layout of new development supports sustainable waste management.

C.53 The Nitrate Pollution Prevention Regulations[216] provides for the designation of land as nitrate vulnerable zones and imposes annual limits on the amount of nitrogen from organic manure that may be applied or spread in a holding in a nitrate vulnerable zone. The Regulations also specify the amount of nitrogen to be spread on a crop and how, where and when to spread nitrogen fertiliser, and how it should be stored. It also establishes closed periods during which the spreading of nitrogen fertiliser is prohibited.

C.54 The Urban Waste Water Treatment Regulations[217] protect the environment from the adverse effects of urban waste water discharges and certain industrial sectors, notably domestic and industrial waste water. The regulations require the collection of waste water and specifies how different types of waste water should be treated, disposed and reused.

C.55 The Water Environment Regulations[218] protect inland surface waters, transitional waters, coastal waters and groundwater, and outlines the associated river basin management process.

C.56 The Water Supply (Water Quality) Regulations[219] focus on the quality of water for drinking, washing, cooking and food preparation, and for food production. Their purpose is to protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring it is wholesome and clean.

C.57 The Environmental Permitting Regulations[220] streamline the legislative system for industrial and waste installations into a single permitting structure for those activities which have the potential to cause harm to human health or the environment. They set out how to prevent or, where that is not practicable, to reduce emissions into air, water and land and to prevent the generation of waste, in order to achieve a high level of protection of the environment and human health.

C.58 The Air Quality Standards Regulations[221] set out limits on concentrations of outdoor air pollutants that impact public health, most notably particulate matter (PM10 and PM2.5) and nitrogen dioxide (NO_2). It also sets out the procedure and requirements for the designation of Air Quality Management Areas (AQMAs).

C.59 The Environmental Noise Regulations[222] apply to environmental noise, mainly from transport. The regulations require regular noise mapping and action planning for road, rail and aviation noise and noise in large urban areas. They also require Noise Action Plans based on the maps for road and rail noise and noise in large urban areas. The Action Plans identify Important Areas (areas exposed to the highest levels of noise) and suggest ways the relevant authorities can reduce these. Major airports and those which affect large urban areas are also required to produce and publish their own Noise Action Plans separately. The Regulations do not apply to noise from domestic activities such as noise created by neighbours; at work places; inside means of transport; or military activities in military areas.

C.60 The Waste (Circular Economy) Regulations[223] seek to prevent waste generation and to monitor and assess the implementation of measures included in waste prevention programmes. They set out requirements to justify not separating waste streams close to source for re-use, recycling or other recovery operations, prohibit incineration and landfilling of waste unless such treatment process represent the best environmental outcome in accordance with the waste hierarchy. The Regulations set out when waste management plans and in waste prevention programmes are required. The Regulations focus on the circular economy as a means for businesses to maximise the value of waste and waste treatment.

[216] HM Government (2016) *The Nitrate Pollution Prevention Regulations*
[217] HM Government (2003) *The Urban Waste Water Treatment Regulations*
[218] HM Government (2016) *The Water Environment (England and Wales) Regulations*
[219] HM Government (2016) *The Water Supply (Water Quality) Regulations*
[220] HM Government (2016) *The Environmental Permitting Regulations*
[221] HM Government (2016) *The Air Quality Standards Regulations*
[222] HM Government (2018) *The Environmental Noise (England) Regulations*
[223] HM Government (2020) *The Waste (Circular Economy) Regulations*

C.61 Safeguarding our Soils – A Strategy for England[224] sets out how England's soils will be managed sustainably. It highlights those areas which Defra will prioritise and focus attention in tackling degradation threats, including: better protection for agricultural soils; protecting and enhancing stores of soil carbon; building the resilience of soils to a changing climate; preventing soil pollution; effective soil protection during construction and; dealing with contaminated land.

C.62 The Water White Paper[225] provides out the Government's vision for the water sector including proposals on protecting water resources and reforming the water supply industry. It outlines the measures that will be taken to tackle issues such as poorly performing ecosystems, and the combined impacts of climate change and population growth on stressed water resources.

C.63 National Policy Statement for Waste Water[226]**:** sets out Government policy for the provision of major waste water infrastructure. The policy set out in this NPS is, for the most part, intended to make existing policy and practice in consenting nationally significant waste water infrastructure clearer and more transparent.

C.64 Future Water: The Government's Water Strategy for England[227]: Sets out how the Government wants the water sector to look by 2030, providing an outline of steps which need to be taken to get there. These steps include: improving the supply of water; agreeing on important new infrastructure such as reservoirs; proposals to time limit abstraction licences; and reducing leakage. The document also states that pollution to rivers will be tackled, whilst discharge from sewers will be reduced.

C.65 The Air Quality Strategy for England, Scotland, Wales and Northern Ireland[228] sets out a way forward for work and planning on air quality issues by setting out the air quality standards and objectives to be achieved. It introduces a new policy framework for tackling fine particles, and identifies potential new national policy measures which modelling indicates could give further health benefits and move closer towards meeting the Strategy's objectives. The objectives of the Strategy are to:

- Further improve air quality in the UK from today and long term.
- Provide benefits to health quality of life and the environment.

C.66 The Road to Zero[229] sets out new measures towards cleaner road transport, aiming to put the UK at the forefront of the design and manufacturing of zero emission vehicles. It explains how cleaner air, a better environment, zero emission vehicles and a strong, clean economy will be achieved. One of the main aims of the document is for all new cars and vans to be effectively zero emission by 2040.

C.67 The UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations[230] provides the Government's ambition and actions for delivering a better environment and cleaner air, including £1 billion investment in ultra-low emission vehicles (ULESvs), a £290 million National Productivity Investment Fund, a £11 million Air Quality Grant Fund and £255 million Implementation Fund to help local authorities to prepare Air Quality Action Plans and improve air quality, an £89 million Green Bus Fund, £1.2 billion Cycling and Walking Investment Strategy and £100 million to help improve air quality on the National road network.

C.68 Of the key areas in the **25 Year Environment Plan** around which action will be focused, those of relevance to the Oxfordshire Plan 2050 in terms of the protection of air, land and water quality are: using and managing land sustainably; recovering nature and enhancing the beauty of landscapes; and increasing resource efficiency, and reducing pollution and waste:

- Using and managing land sustainably:
  - Embed a 'net environmental gain' principle for development, including natural capital benefits to improved and water quality.

[224] Department for Environment, Food and Rural Affairs (2009) *Safeguarding our Soils: A Strategy for England*
[225] Department for Environment, Food and Rural Affairs (2012) *The Water White Paper*
[226] HM Government (2012) N*ational Policy Statement for Waste Water* [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69505/pb13709-waste-water-nps.pdf
[227] HM Government (2008) *Future Water: The Government's water strategy for England* [online] Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69346/pb13562-future-water-080204.pdf
[228] Department for Environment Food and Rural Affairs (2007) *The Air Quality Strategy for England, Scotland, Wales and Northern Ireland*
[229] HM Government (2018) *The Road to Zero*
[230] Department for Environment Food and Rural Affairs and Department for Transport (2017) *UK plan for tackling roadside nitrogen dioxide concentrations*

- Protect best agricultural land.
- Improve soil health, and restore and protect peatlands.

- Recovering nature and enhancing the beauty of landscapes:
  - Respect nature by using our water more sustainably.
- Increasing resource efficiency and reducing pollution and waste:
  - Reduce pollution by tackling air pollution in our Clean Air Strategy and reduce the impact of chemicals.

C.69 Our Waste, Our Resources: A strategy for England (2018) aims to increase resource productivity and eliminate avoidable waste by 2050. The Strategy sets out key targets which include: a 50% recycling rate for household waste by 2020, a 75% recycling rate for packaging by 2030, 65% recycling rate for municipal solid waste by 2035 and municipal waste to landfill 10% or less by 2035.

C.70 Clean Air Strategy 2019[231]: This strategy sets out the comprehensive action that is required from across all parts of government and society to meet these goals. New legislation will create a stronger and more coherent framework for action to tackle air pollution. This will be underpinned by new England-wide powers to control major sources of air pollution, in line with the risk they pose to public health and the environment, plus new local powers to take action in areas with an air pollution problem. These will support the creation of Clean Air Zones to lower emissions from all sources of air pollution, backed up with clear enforcement mechanisms. The UK has set stringent targets to cut emissions by 2020 and 2030. The goal is to reduce the harm to human health from air pollution by half.

Climate change mitigation and adaptation

International

C.71 United Nations Paris Climate Change Agreement (2015) is an international agreement to keep global temperature rise this century well below 2 degrees Celsius above pre-industrial levels.

National

C.72 The **Climate Change Act 2008**[232] sets targets for UK greenhouse gas emission reductions of at least 80% by 2050 and CO_2 emission reductions of at least 26% by 2015, against a 1990 baseline.

C.73 Planning and Energy Act (2008)[233]: enables local planning authorities to set requirements for carbon reduction and renewable energy provision. It should be noted that while the Housing Standards Review proposed to repeal some of these provisions, at the time of writing there have been no amendments to the Planning and Energy Act.

C.74 The **NPPF** contains as part of its environmental objective a requirement to mitigate and adapt to climate change, *"including moving to a low carbon economy"*. The document also states that the "*planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change."* To achieve these aims new development should be planned to ensure appropriate adaptation measures are included (including green infrastructure) and should be designed, located and orientated as to help to reduce greenhouse gas emissions.

C.75 The revised framework also requires that development is directed away from areas which are at highest existing or future risk of flooding. Where development is required in such areas, the "*development should be made safe for its lifetime without increasing flood risk elsewhere."*

[231] DEFRA, *Clean Air Strategy 2019* [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770715/clean-air-strategy-2019.pdf
[232] HM Government (2008) *Climate Change Act 2008*
[233] HM Government (2008) Climate Change Act 2008: https://www.legislation.gov.uk/ukpga/2008/27/pdfs/ukpga_20080027_en.pdf.

C.76 In relation to coastal change in England planning policies and decisions should take account of the UK Marine Policy Statement and marine plans. Furthermore, plans should "*reduce risk from coastal change by avoiding inappropriate development in vulnerable areas and not exacerbating the impacts of physical changes to the coast".*

C.77 The Energy Performance of Buildings Regulations[234] seek to improve the energy efficiency of buildings, reducing their carbon emissions and lessening the impact of climate change. The Regulations require the adoption of a standard methodology for calculating energy performance and minimum requirements for energy performance, reported through Energy Performance Certificates and Display Energy Certificates.

C.78 The **UK Renewable Energy Strategy**[235] describes out the ways in which we will tackle climate change by reducing our CO_2 emissions through the generation of a renewable electricity, heat and transport technologies.

C.79 The Energy Efficiency Strategy[236] aims to realise the wider energy efficiency potential that is available in the UK economy by maximising the potential of existing dwellings by implementing 21st century energy management initiatives on 19th century homes.

C.80 The UK Low Carbon Transition Plan: National Strategy for Climate and Energy[237]: sets out a five point plan to tackle climate change. The points are as follows: protecting the public from immediate risk, preparing for the future, limiting the severity of future climate change through a new international climate agreement, building a low carbon UK and supporting individuals, communities and businesses to play their part.

C.81 UK Climate Change Risk Assessment 2017[238]: sets out six priority areas needing urgent further action over the next five years. These include:

- flooding and coastal change risks to communities, businesses and infrastructure,
- health, well-being and productivity from high temperatures,
- shortages in public water supply, and for agriculture, energy generation and industry with impacts on freshwater ecology,
- natural capital, including terrestrial, coastal, marine and freshwater ecosystems, soils and biodiversity,
- domestic and international food production and trade and
- new and emerging pests and diseases and invasive non-native species affecting people, plants and animals.

C.82 The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting[239] sets out visions for the following sectors:

- People and the Built Environment – *"to promote the development of a healthy, equitable and resilient population, well placed to reduce the harmful health impacts of climate change...buildings and places (including built heritage) and the people who live and work in them are resilient and organisations in the built environment sector have an increased capacity to address the risks and make the most of the opportunities of a changing climate."*
- Infrastructure – *"an infrastructure network that is resilient to today's natural hazards and prepared for the future changing climate".*
- Natural Environment – *"the natural environment, with diverse and healthy ecosystems, is resilient to climate change, able to accommodate change and valued for the adaptation services it provides."*
- Business and Industry – *"UK businesses are resilient to extreme weather and prepared for future risks and opportunities from climate change."*

[234] HM Government (2021) *The Energy Performance of Buildings Regulations*
[235] HM Government (2009) *The UK Renewable Energy Strategy*
[236] Department of Energy & Climate Change (2012) *The Energy Efficiency Strategy: The Energy Efficiency Opportunity in the UK*
[237] HM Government (2009) *The UK Low Carbon Transition Plan* [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/228752/9780108508394.pdf
[238] HM Government (2017) *UK Climate Change Risk Assessment 2017* [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/584281/uk-climate-change-risk-assess-2017.pdf
[239] HM Government (2018) *The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting: Making the country resilient to a changing climate*

- Local Government – *"Local government plays a central in leading and supporting local places to become more resilient to a range of future risks and to be prepared for the opportunities from a changing climate."*

C.83 The **Flood and Water Management Act 2010**[240] and **The Flood and Water Regulations**[241] sets out measures to ensure that risk from all sources of flooding is managed more effectively. This includes: incorporating greater resilience measures into the design of new buildings; utilising the environment in order to reduce flooding; identifying areas suitable for inundation and water storage to reduce the risk of flooding elsewhere; rolling back development in coastal areas to avoid damage from flooding or coastal erosion; and creating sustainable drainage systems (SuDS).**Understanding the risks, empowering communities, building resilience: The national flood and coastal erosion risk management strategy for England**[242]: This Strategy sets out the national framework for managing the risk of flooding and coastal erosion. It sets out the roles for risk management authorities and communities to help them understand their responsibilities. The strategic aims and objectives of the Strategy are to:

- Manage the risk to people and their property.
- Facilitate decision-making and action at the appropriate level – individual, community or local authority, river catchment, coastal cell or national.
- Achieve environmental, social and economic benefits, consistent with the principles of sustainable development.

C.84 The **25 Year Environment Plan** sets out policy priorities with respect to: responding to climate change are using and managing land sustainably; and protecting and improving our global environment. Actions that will be taken as part of these two key areas are as follows:

- Using and managing land sustainably:
  - Take action to reduce the risk of harm from flooding and coastal erosion including greater use of natural flood management solutions.
- Protecting and improving our global environment:
  - Provide international leadership and lead by example in tackling climate change and protecting and improving international biodiversity.

Biodiversity

International

C.85 International Convention on Wetlands (Ramsar Convention) (1976) is an international agreement with the aim of conserving and managing the use of wetlands and their resources.

C.86 European Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) (1979) aims to ensure conservation and protection of wild plant and animal species and their natural habitats, to increase cooperation between contracting parties, and to regulate the exploitation of those species (including migratory species).

C.87 International Convention on Biological Diversity (1992) is an international commitment to biodiversity conservation through national strategies and action plans.

C.88 United Nations Declaration on Forests (New York Declaration) (2014) sets out international commitment to cut natural forest loss by 2020 and end loss by 2030.

[240] HM Government (2010) *Flood and Water Management Act*
[241] HM Government (2019) *The Flood and Water Regulations*
[242] HM Government (2011) *Understanding the risks, empowering communities, building resilience: The national flood and coastal erosion risk management strategy for England* [online] Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228898/9780108510366.pdf

National

C.89 A requirement of the **NPPF's** environmental objective is that the planning system should contribute to protecting and enhancing the natural environment including helping to improve biodiversity, and using natural resources prudently. In support of this aim the framework states that Local Plans should "*identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks"* and should also "*promote the conservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.*"

C.90 The framework requires that plans should take a strategic approach in terms of "*maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries".*

C.91 The Conservation of Habitats and Species Regulations[243] protect biodiversity through the conservation of natural habitats and species of wild fauna and flora, including birds. The Regulations lay down rules for the protection, management and exploitation of such habitats and species, including how adverse effects on such habitats and species should be avoided, minimised and reported.

C.92 The Natural Environment and Rural Communities Act 2006[244] places a duty on public bodies to conserve biodiversity.

C.93 England Biodiversity Strategy Climate Change Adaptation Principles[245]**:** sets out principles to guide adaptation to climate change. The principles are: take practical action now, maintain and increase ecological resilience, accommodate change, integrate action across all sectors and develop knowledge and plan strategically. The precautionary principle underpin all of these.

C.94 Biodiversity 2020: A strategy for England's wildlife and ecosystem services[246] guides conservation efforts in England up to 2020 by requiring a national halt to biodiversity loss, supporting healthy ecosystems and establishing ecological networks. The Strategy includes 22 priorities which include actions for the following sectors: Agriculture, Forestry, Planning & Development, Water Management, Marine Management, Fisheries, Air Pollution and Invasive Non-Native Species.

C.95 Biodiversity Offsetting in England Green Paper[247] sets out a framework for offsetting. Biodiversity offsets are conservation activities designed to compensate for residual losses.

C.96 The key areas of the **25 Year Environment Plan** of relevance in terms of the protection and promotion of biodiversity are recovering nature and enhancing the beauty of landscapes; securing clean, productive and biologically diverse seas and oceans; and protecting and improving our global environment. Actions that will be taken as part of these three key areas are as follows:

- Recovering nature and enhancing the beauty of landscapes:
  - Develop a Nature Recovery Network to protect and restore wildlife, and provide opportunities to re-introduce species that have been lost from the countryside.
- Securing clean, healthy, productive and biologically diverse seas and oceans:
  - Achieve a good environmental status of the UK's seas while allowing marine industries to thrive, and complete our economically coherent network of well-managed marine protected areas.
- Protecting and improving our global environment:
  - Provide international leadership and lead by example in tackling climate change and protecting and improving international biodiversity.

[243] HM Government (2019) The Conservation of Habitats and Species Regulations
[244] HM Government (2006) *Natural Environment and Rural Communities Act 2006*
[245] Department for Environment, Food and Rural Affairs (2008) *The England Biodiversity Strategy Climate Change Adaptation Principles* [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69270/pb13168-ebs-ccap-081203.pdf
[246] Department for Environment, Food and Rural Affairs (2011) *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*
[247] Department for Environment, Food and Rural Affairs (2013) *Biodiversity offsetting in England Green Paper*

– Support and protect international forests and sustainable agriculture.

Heritage

International

C.97 United Nations (UNESCO) World Heritage Convention (1972) promotes co-operation among nations to protect heritage around the world that is of such outstanding universal value that its conservation is important for current and future generations.

C.98 European Convention for the Protection of the Architectural Heritage of Europe (1985): defines 'architectural heritage' and requires that the signatories maintain an inventory of it and take statutory measures to ensure its protection. Conservation policies are also required to be integrated into planning systems and other spheres of government influence as per the text of the convention.

C.99 Valletta Treaty, formerly the European Convention on the Protection of Archaeological Heritage (1992): agreed that the conservation and enhancement of an archaeological heritage is one of the goals of urban and regional planning policy. It is concerned in particular with the need for co-operation between archaeologists and planners to ensure optimum conservation of archaeological heritage.

National

C.100 Of relevance to the approach of the planning system to the historic environment the **NPPF** contains an environmental objective to contribute to the protection and enhancement of the built and historic environment. The document also sets out a strategy to seek "*the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay and other threats."* Such a strategy is required to take into consideration the desirability of sustaining and enhancing the significance of heritage assets and bringing them into viable use.

C.101 It should also be considerate of the wider benefits of conserving the historic environment, the contribution new development can make in terms of character and distinctiveness and the opportunity for the historic environment to contribute to this character and distinctiveness. Local authorities should also maintain or have access to a historic environment record which is to be supported by up to date evidence.

C.102 Ancient Monuments & Archaeological Areas Act 1979[248]: a law passed by the UK government to protect the archaeological heritage of England & Wales and Scotland. Under this Act, the Secretary of State has a duty to compile and maintain a schedule of ancient monuments of national importance, in order to help preserve them. It also creates criminal offences for unauthorised works to, or damage of, these monuments.

C.103 Planning (Listed Buildings & Conservation Areas) Act 1990[249]: An Act of Parliament that changed the laws for granting of planning permission for building works, with a particular focus on listed buildings and conservation areas.

C.104 Historic Buildings and Ancient Monuments Act 1953[250]**:** An Act of Parliament that makes provision for the compilation of a register of gardens and other land (parks and gardens, and battlefields).

C.105 The **Government's Statement on the Historic Environment for England**[251] sets out the Government's vision for the historic environment. It calls for those who have the power to shape the historic environment to recognise its value and to manage it in an intelligent manner in light of the contribution that it can make to social, economic and cultural life. It includes reference to promoting the role of the historic environment within the Government's response to climate change and the wider sustainable development agenda.

[248] HM Government (1979) *Ancient Monuments & Archaeological Areas Act*: https://consult.environment-agency.gov.uk/engagement/bostonbarriertwao/results/b.21---ancient-monuments-and-archaeological-areas-act-1979.pdf.
[249] HM Government (2002) *Planning (Listed Buildings & Conservation Areas) Act (1990)*: http://www.legislation.gov.uk/ukpga/1990/9/pdfs/ukpga_19900009_en.pdf.
[250] HM Government (1953) *Historic Buildings and Ancient Monuments Act 1953* [online] Available at: https://www.legislation.gov.uk/ukpga/Eliz2/1-2/49/contents
[251] HM Government (2010) *The Government's Statement on the Historic Environment for England 2010*

C.106 The Heritage Statement[252] describes out how the Government will support the heritage sector and help it to protect and care for our heritage and historic environment, in order to maximise the economic and social impact of heritage and to ensure that everyone can enjoy and benefit from it.

C.107 Sustainability Appraisal and Strategic Environmental Assessment, Historic England Advice Note 8[253]: Sets out Historic England's guidance and expectations for the consideration and appraisal of effects on the historic environment as part of the Sustainability Appraisal/Strategic Environmental Assessment process.

Landscape

International

C.108 The European Landscape Convention (2002) promotes landscape protection, management and planning. The Convention is aimed at the protection, management and planning of all landscapes and raising awareness of the value of a living landscape.

National

C.109 The Oxfordshire Plan 2050 will be required to have consideration for the conservation and enhancement of landscape character in the District. The **NPPF** includes as part of its approach to protecting the natural environment, recognition for the intrinsic character and beauty of the countryside, and the wider benefits to be secured from natural capital. Importantly, great weight is to be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty.

C.110 As part of the approach to achieving well-designed places the NPPF states that planning policies and decisions should ensure that developments "*are sympathetic to local character and history, including the surrounding built environment and landscape setting*."

C.111 National Parks and Access to the Countryside Act 1949[254]: An Act of Parliament to make provision for National Parks and the establishment of a National Parks Commission; to confer on the Nature Conservancy and local authorities powers for the establishment and maintenance of nature reserves; to make further provision for the recording, creation, maintenance and improvement of public paths and for securing access to open country.

C.112 Countryside and Rights of Way Act 2010[255]: An Act of Parliament to make new provision for public access to the countryside.

C.113 England National Parks and the Broads: UK Government Vision and Circular 2010[256]**:** provides updated policy guidance on the English National Parks and Broads. It also sets out a vision for 2030 and the key outcomes the Government is seeking over the next five years to ensure early progress towards the vision.

C.114 The key area in the **25 Year Environment Plan** of relevance in terms of the conservation and enhancement of landscape character is recovering nature and enhancing the beauty of landscapes. Actions that will be taken as part of this key area are as follows:

- Working with AONB authorities to deliver environmental enhancements.

[252] Department for Digital, Culture Media and Sport (2017) *Heritage Statement 2017*
[253] Historic England (2016) *Sustainability Appraisal and Strategic Environmental Assessment: Historic England Advice Note* 8 [online] Available at: https://content.historicengland.org.uk/images-books/publications/sustainability-appraisal-and-strategic-environmental-assessment-advice-note-8/heag036-sustainability-appraisal-strategic-environmental-assessment.pdf/
[254] HM Government (1949) *National Parks and Access to the Countryside Act 1949* [online] Available at: https://www.legislation.gov.uk/ukpga/Geo6/12-13-14/97
[255] HM Government (2010) *Countryside and Rights of Way Act 2010* [online] Available at: https://www.legislation.gov.uk/ukpga/2000/37/section/85
[256] Department for Environment, Food and Rural Affairs (2010) *English National Parks and the Broads UK Government Vision and Circular 2010* [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/221086/pb13387-vision-circular2010.pdf

C.115 Identifying opportunities for environmental enhancement of all England's Natural Character Areas, and monitoring indicators of landscape character and quality.

Appendix D

Reasons for the selection of policies in light of the reasonable alternatives

Table D.1: Reasons for the selection of policies in light of the reasonable alternatives

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
Oxfordshire Plan Vision	'In 2050 the people of Oxfordshire are living in sustainable communities with a high quality of life and strong sense of community. The integrity and richness of the county's historic character and natural environment are valued and conserved. A wide range of secure and good quality housing options are within reach for all. Existing and new communities are well connected, integrated, distinct, attractive and desirable places to live; their design and layouts facilitate healthy lifestyles and sustainable travel options. Productivity has increased and residents are well-skilled and able to access a wide range of high-value job opportunities and share in wealth creation. The private and public sector continue to have the confidence to invest in the county. Oxfordshire has embraced the technological, demographic and lifestyle changes of recent decades and new developments are fit for the future and resilient to climate change. The wellbeing of residents and workers is enhanced through being part of this special place'.	No reasonable alternatives identified.	A draft vision for the Oxfordshire was consulted upon at the Regulation 18 (part 1) stage and was amended following the responses received.
Oxfordshire Plan 11x Objectives	1. To demonstrate leadership in addressing the climate emergency by significantly reducing greenhouse gas emissions.	No reasonable alternatives identified.	A series of draft objectives were consulted on at Reg 18 part 1 stage. The current objectives were revised and updated in light of consultation responses received.
	2. To conserve and enhance Oxfordshire's historic, built and natural environments, recognising the benefits these assets contribute to quality of life, local identity and economic success.		
	3. To protect and enhance Oxfordshire's distinctive landscape character, recreational and		

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
	biodiversity value by identifying strategic green and blue infrastructure, improving connectivity between environmental assets and securing a net gain for biodiversity.		
	4. To improve health and wellbeing by enabling independence, encouraging active and healthy lifestyles, facilitating social interaction and creating inclusive and safe communities.		
	5. To sustain and strengthen Oxfordshire's economic role and reputation by building on our key strengths and relationships.		
	6. To ensure that the benefits and opportunities arising from Oxfordshire's economic success are felt by all of Oxfordshire's communities.		
	7. To meet Oxfordshire's housing needs, including affordable housing, and to ensure that housing delivery is phased appropriately to support the needs of our communities.		
	8. To ensure that new housing is flexible to meet the varied needs of people through all stages of life.		
	9. To deliver high quality, innovatively designed development that ensures efficient use of land and resources.		
	10. To reduce the need to travel and to support people in making sustainable transport choices by providing inclusive, integrated, safe and		

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	**Alternatives Considered**	
	convenient pedestrian, cycle and public transport infrastructure linking communities.		
	11. To ensure that communities are digitally connected and that innovative technologies are supported.		
Addressing climate change	Policy 01: Sustainable Design and Construction: The preferred policy approach is to define an Oxfordshire-wide definition for net-zero carbon design and construction for development in Oxfordshire.	1) Defer standards for the design and construction of new buildings to district Local Plans. National policy does not prevent local authorities from setting higher ambitions, particularly in relation to energy efficiency standards that exceed Building Regulations.	Setting a consistent approach to net zero carbon across the county would be beneficial in working towards ambitious targets for net zero emissions. The preferred approach will assist in achieving the County's objectives in achieving net zero carbon emissions over the lifetime of the Oxfordshire Plan with multiple benefits including supporting the health and wellbeing of communities and encouraging clean growth and innovation, consistent with Strategic Vision and Oxfordshire Plan objectives. The preferred approach takes account of whole life carbon while existing Local Plan and proposed national approaches do not cover embodied carbon. There is an opportunity for the Oxfordshire Plan to be ambitious in terms of setting standards for sustainable design and construction. Reducing ambitions will likely result in additional future need to retrofit properties to achieve net zero carbon. A key challenge in Oxfordshire is how the retrofit of existing properties will be achieved to achieve net zero carbon. Alternative 1 is not the preferred option as different targets and timescales for achieving net zero carbon development in Local Plans could hinder efforts to achieve net zero carbon emissions in Oxfordshire during the lifetime of the Plan. Alternative 2 is not the preferred option as failure to introduce more stringent national standards for the design and construction of new development could hinder Oxfordshire's efforts to achieve net zero carbon emissions during the lifetime of the Plan.
		2) Defer guidance on sustainable design and construction to building regulations and the Future Homes and Future Buildings Standards.	

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
	Policy 02 – Energy: The preferred policy option is to maximise the use of renewable energy in new developments in Oxfordshire.	1) Do not set county wide targets for renewable energy in new developments and to defer to Local Plans and individual developments. 2) Set a percentage target for renewable energy generation in new developments e.g., minimum 10%.	Increasing the amount of energy generated from renewable sources will be essential in achieving net zero carbon targets. The preferred policy approach is most ambitious in increasing renewable energy and reducing fossil fuel dependency and will ensure that rising demands for electricity are matched with zero carbon energy provision, to achieve a net zero carbon energy balance and to support efforts to achieve net zero carbon emissions over the lifetime of the Oxfordshire Plan. Alternative 1 is not the preferred option as establishing different approaches to renewable energy generation for new developments through Local Plans could undermine efforts to achieve targets for net zero carbon emissions in Oxfordshire over the lifetime of the Plan. Alternative 2 is reasonable as the continued decarbonisation of the National Grid will help to ensure that a zero-carbon energy balance could be achieved nationally and locally during the lifetime of the Plan, particularly with increased renewable energy generation locally. It is not the preferred option as a lower target would potentially fall short of local targets of net zero carbon emissions during the lifetime of the Plan.
	Policy 03: Water Efficiency: The preferred approach is for the Oxfordshire Plan to set ambitious minimum water efficiency standards for new development Oxfordshire.	1) Require water neutrality in Oxfordshire. 2) Set less ambitious water efficiency standards in the Oxfordshire Plan 2050. For example: i. align with the current optional requirement of 110 litres per person per day for new homes;	Setting water efficiency requirements for non-residential development and strategic growth locations and the most ambitious possible water efficiency standards for new homes would help to ensure that new development limits its contribution to water stress. The preferred option is considered appropriate given increasing pressures on water resources, both within Oxfordshire and across the wider region. Setting ambitious policies in the Oxfordshire Plan is consistent with the opportunity that the Oxfordshire Plan represents to deliver long-term transformational change and to address the impacts of climate change. Local plans could provide further detail as appropriate.

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
		ii. do not set water efficiency standards for non-residential development; and iii. encourage (rather than require) development at strategic growth locations identified in the Oxfordshire Plan 2050 to maximise water efficiency through the delivery of community-scale rainwater harvesting and grey water recycling schemes.	Alternative 1 could be implemented alongside the preferred option of setting ambitious minimum water efficiency standards for new development in Oxfordshire. Although this would represent a transformational change and would further help to address the impacts of climate change, it is not the preferred option as at it is unclear how this approach could be delivered, funded and monitored. Alternatives 2 and 3 are not the preferred approach as it would not represent transformational change and does not recognise opportunities to do more to address the impacts of climate change.
		3) Do not have a strategic policy on water efficiency in the Oxfordshire Plan 2050. Leave it to Local Plans to set policies in relation to water efficiency.	
	Policy 04: Flood Risk: The preferred approach is for the Oxfordshire Plan to provide a strategic planning framework for managing flood risk in Oxfordshire.	1) Include a strategic flood risk policy in the Oxfordshire Plan but reduce the scope of this policy.	Utilising natural flood management methods, the application of SuDS and supporting a catchment-based approach to flood risk is in line with national policy and best practice. The Environment Agency highlighted that there is a significant amount of existing built development in the functional floodplain (flood zone 3b) in Oxfordshire and that opportunities should be taken to: a) improve the resilience of development in flood zone 3b to flood risk; and
		2) Do not have a strategic policy on flood risk in the Oxfordshire Plan 2050. Leave it to Local Plans to set	

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
		policies in relation to flood risk.	b) consider the cumulative impacts of small scale development in flood zone 3b on flood risk. The preferred option framework would follow the Environment Agency's advice and set out flood risk requirements relevant to development across Oxfordshire. In taking this approach, the impact on design (specifically building heights) needs to be considered. However, given the severity of the risks associated with flood risk, the preferred approach prioritises flood resilience. If this approach is consistently applied, then over time building heights would become more aligned as increasing numbers of homes are rebuilt or raised. Local plans could provide further detail as appropriate. Alternatives 1 and 2 are not the preferred option as there is a risk that local plans might set different flood risk management requirements across Oxfordshire. This could result in less certainty and clarity for developers and communities. It may also make it more difficult to meet proposed ambitions around the delivery of transformational change and addressing the impacts of climate change.
Improving environmental quality	Policy 05: Protection and Enhancement of Landscape Characters: The preferred policy option is to establish a positive strategy for the protection and enhancement of landscape and townscape features in Oxfordshire, due to the significance and importance of these features on the identity, sense of place, health and well-being and prosperity of Oxfordshire's communities.	No reasonable alternatives identified.	It is considered necessary for the Oxfordshire Plan to have regard to the landscape and townscape character of the county in terms of shaping policies, defining the spatial strategy and determining the spatial distribution of growth. Further detailed evidence on landscape sensitivity and impacts will be required as the Oxfordshire Plan evolves, but it is important to recognise the importance landscape and townscape character will have on determining the overarching spatial strategy for the Oxfordshire Plan.
	Policy 06: Protection and Enhancement of Historic Environment: The preferred policy option is to establish a positive strategy for the conservation and enjoyment of Oxfordshire's historic environment, due to the significance and importance of Oxfordshire's historic environment on	No reasonable alternatives identified.	Protection and enhancement of the historic environment is fundamental to sound spatial planning for Oxfordshire. It is therefore considered necessary that the Oxfordshire Plan should have regard to the location, scale and importance of Oxfordshire's heritage assets in terms of shaping policies, defining the spatial strategy and determining the spatial distribution of growth. Further detailed

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
	the identity, sense of place, health and wellbeing and prosperity of Oxfordshire's communities.		evidence on heritage impact will be required as the Oxfordshire Plan evolves.
	Policy 07: Nature Recovery: The preferred option is to identify those parts of the county that are important for establishing a well-connected ecological network and to use this mapped resource to shape the policies, define the spatial strategy and determine the spatial distribution of development in the Oxfordshire Plan.	1) Do not progress Nature Recovery Network map in Oxfordshire Plan and leave to subsequent Nature Recovery Strategy for Oxfordshire to define. Defer to established approach of site, species and habitat protection, Conservation Target Areas and application of mitigation hierarchy for biodiversity to be applied through Local Plans.	Oxfordshire Plan provides an opportunity to plan for ecological connectivity at a landscape scale. The preferred approach of utilising the draft Nature Recovery Network to shape the Oxfordshire Plan will ensure that future development and ecological enhancements are directed to locations where they can minimise harm and secure the greatest benefits in supporting nature's recovery and building resilience in communities and ecosystems to climate change. Alternative 1 is not preferred as the Oxfordshire Plan provides an opportunity to plan more holistically for ecological connectivity at the landscape scale. Not utilising the draft Nature Recovery Network to shape the Oxfordshire Plan spatial strategy might undermine future efforts to establish ecological networks and to plan for nature recovery through a future Nature Recovery Strategy.
	Policy 08: Biodiversity Gain: The preferred option is to set an ambitious target for biodiversity net gain as a standalone policy as one of the primary mechanisms through which nature's recovery can be delivered through the Oxfordshire Plan. Setting an ambitious target above national requirements emphasises the importance of supporting nature's recovery and improving environmental quality through the Oxfordshire Plan.	1) Establish differential biodiversity net gain targets for different parts of the county with higher target (25%) in high value parts of the county including green belt, AONBs, Conservation Target Areas, as well as Broad Areas for Growth identified in the Oxfordshire Plan and a lower target (10%) for the rest of the county.	Although it is recognised that there could be viability implications for achieving higher biodiversity net gain targets in parts of Oxfordshire, the preferred approach acknowledges that higher targets are being sought within individual developments and strategic developments in other parts of the County. A more ambitious target set for biodiversity net gain to account for past losses and degradation of the environment. Opportunity to test ambitious target for the whole of the county. This approach is supported by Natural England and is consistent with proposed approach through OxCam Arc. Alternative 1 may assist drawing out the challenge of viability that is anticipated in different parts of the County, whilst prioritising areas where biodiversity net gain from development is particularly sensitive and necessary. Alternative 2 is not preferred as reliance on the UK wide 10% net gain would fall short of Oxfordshire's efforts to support nature's recovery and account for past losses to biodiversity.

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
		2) Leave to national standards and do not set minimum biodiversity net gain targets in Oxfordshire Plan 2050.	
	Policy 09: Natural Capital and Ecosystem Services: The preferred option is to identify the parts of the county that are important and valuable for natural capital and ecosystems services and to use this mapped resource to shape the policies, define the spatial strategy and determine the spatial distribution of development in the Oxfordshire Plan	1) Include natural capital considerations within place shaping principles rather than defining Oxfordshire wide approach to the assessment of supply and demand for ecosystem services.	This is an emerging policy area for which it is considered important to establish the baseline evidence for Oxfordshire. The preferred policy of utilising the Natural Capital mapping to shape the Oxfordshire Plan will ensure that future development and environmental enhancements are directed to locations where they can minimise harm and deliver multiple benefits for the environment and communities as well as building resilience in communities and ecosystems. Alternative 1 is not preferred because it would represent a more traditional approach to green infrastructure delivery established in adopted Local Plans and would not capitalise on the detailed evidence available to shape the Oxfordshire Plan.
	Policy 10: Green Belt: The preferred option is for the Oxfordshire Plan to focus on Green Belt enhancement.	No reasonable alternatives identified.	The preferred policy is considered to strengthen the important roles that the Green Belt plays, as well as supporting key objectives of the Oxfordshire Plan to improve the health and wellbeing of communities, deliver environmental enhancements and support nature's recovery.
	Policy 11: Water Quality: The preferred approach is for the Oxfordshire Plan to provide a strategic planning framework for the protection and enhancement of water quality in Oxfordshire. This framework would set minimum standards for development in Oxfordshire.	2) Do not have a strategic policy on water quality in the Oxfordshire Plan 2050. Leave it to Local Plans to set policies in relation to water quality.	Water quality is a cross-boundary strategic planning matter. Having a strategic policy would help to ensure a consistent approach to the protection and enhancement of water quality across Oxfordshire. It would also provide a framework for improving water quality wherever possible, aligning with proposed ambitions around environmental improvement and nature recovery. Local plans could provide further detail as appropriate. Alternative 1 is not preferred as there is a risk that local plans might take different approaches to water quality. This could result in less certainty and clarity for developers and communities. It may also

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
			make it more difficult to meet proposed ambitions around environmental improvement and nature recovery.
	Policy 12: Air Quality: The preferred approach is for the Oxfordshire Plan to provide a strategic planning framework for the protection and enhancement of air quality in Oxfordshire. This framework would set minimum standards for development in Oxfordshire.	1) Include a strategic air quality policy in the Oxfordshire Plan but reduce the scope of this policy. For example: do not require air quality assessments for major development proposals. 2) Do not have a strategic policy on air quality in the Oxfordshire Plan 2050. Leave it to Local Plans to set policies in relation to air quality.	The preferred strategic policy would help to ensure a consistent approach to the protection and enhancement of air quality across Oxfordshire. It would also provide a framework for improving air quality wherever possible, aligning with proposed ambitions around environmental improvement and creating strong and healthy communities. Local plans could provide further detail as appropriate. Alternatives 1 and 2 are not the preferred option as there is a risk that local plans might take different approaches to air quality. This could result in less certainty and clarity for developers and communities. It may also make it more difficult to meet proposed ambitions around the delivery of transformational change, environmental improvement and creating strong and healthy communities.
Creating strong and healthy communities	Policy 13: Healthy Place Shaping and Health Impact Assessments: The preferred policy option is to include a Health Impact Assessment policy within the Oxfordshire Plan, requiring major developments to be supported by an HIA.	1) Do not include a standalone policy, and instead weave healthy place shaping principles through the Oxfordshire Plan, allowing individual Local Plans to implement their own healthy place shaping principles as appropriate.	The preferred policy helps to emphasise the importance of healthy place shaping in the Oxfordshire Plan, particularly the need to explicitly address the existing and projected health and wellbeing needs of an area. It would allow for clear guidance to be provided for when and where the preparation of a HIA would be appropriate. Alternative 1 is not preferred because it would risk an inconsistent approach to HIAs in local plans, or even a lack of a HIA policy.
	Policy 14: Health Infrastructure: The preferred approach is an enabling policy that aims to set out a framework in which the land use and planning elements of future health reorganisations might be considered, recognising that many of the issues	1) Leave these considerations to future Local Plans.	Although this could be left to future Local Plans, the definition of a policy to enable forward health infrastructure planning by the Local Planning Authority in conjunction with the health bodies, developers, local communities and Parish/Town Councils is considered a strategic priority for the Plan.

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
	arising will be matters that impact across more than one local planning authority.		Alternative 1 is not preferred because there is a risk that the cross-boundary nature of health estate changes will be lost. A strategic approach that brings together more than one local planning authority is likely to be more effective in securing influence over the actions proposed by the NHS.
	Policy 15: High Quality Design for New Development and Garden Town Standards for New Settlements: The preferred policy is to establish a strategic framework that individual local plans can respond to taking account of local circumstances.	1) Leave design matters for local plans and, neighbourhood plans based on national guidance.	The preferred policy of would provide a consistent strategic framework for new development in Oxfordshire, with local plans and other documents providing more locally-specific detail at an appropriate scale. Alternative 1 is not the preferred option because it would miss an opportunity to set an Oxfordshire-wide high-quality design ambition.
	Policy 16: Leisure, Recreation and Open Space Facilities: The preferred policy option is to leave local plans to set policies for local (non-strategic) leisure, recreation, community and open space facilities, with the Oxfordshire Plan 2050 setting a policy for strategic facilities that serve communities both in the county and further afield.	1) Include a policy that seeks to protect the existing indoor and outdoor sports facilities and open spaces within the County. Those within built up areas are most likely to be at threat from other forms of development. A policy which acknowledges the importance of retaining existing open spaces within built-up areas and seeks to protect them would do more to secure the future of these types of facilities within the built-up areas. Access to any new private facilities would also be encouraged.	The definition of a policy to enable forward recreation facility planning by the Local Planning Authority in conjunction with the health bodies, developers, local communities and Parish/Town Councils is considered a strategic priority for the Plan. Alternative 1 is not the preferred policy because it could be regarded to be non-strategic.
	Policy 17: Towards a Net Zero Transport Network: The preferred option is to support the emerging active travel policies of the LTCP, expected to focus	1) Leave to future Local Plans.	The preferred policy is considered to provide strategic direction on this cross-boundary issue. It will help complement major planned investment, including service and station improvements enabled

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
Planning for sustainable travel and connectivity	on developing an active travel network for the county and further developing Local Cycling and Walking Infrastructure Plans at key settlements.		through East West Rail, and other major rail capacity investment proposed as part of the 'Oxfordshire Connect' priorities arising out of the Oxfordshire Rail Corridor Study. Alternative 1 is not preferred given the strategic and cross boundary nature of the transport network.
	Policy 18: Sustainable Transport in New Development: The Preferred policy option seeks to set a standard framework for considering these matters across development in Oxfordshire.	1) Leave to future Local Plans.	The preferred option for the Oxfordshire Plan takes account of the Oxfordshire Electric Vehicles strategy which recommends that future planning policies should seek to meet or exceed those targets set out for Oxford City. Building on national planning guidance, the recent local plan policies and the government proposals for building regulations, there is an opportunity through the Oxfordshire Plan to set out a common minimum standard for all new developments that support the move towards 100% uptake of Electric Vehicles. There is also an opportunity to plan for this provision alongside the energy and digital networks within any development. Alternative 1 is not preferred given the strategic and cross boundary nature of the transport network.
	Policy 19: Supporting Sustainable Freight Management: The preferred policy option would close the current planning policy gap and provide a strategic framework for considering freight issues as proposals come forwards.	1) Leave to the OxCam Arc Spatial Framework and/or future Local Plans.	This planning issue is not considered to be matter that is well suited to consideration through individual local plans given the strategic nature of freight movement and goods management across Oxfordshire and the need for consistent criteria for consideration of proposals. Therefore, a strategic framework in the Oxfordshire Plan is the preferred option. Alternative 1 is not preferred because these matters are not considered well suited to consideration through individual local plans given the strategic nature of freight movement and goods management across Oxfordshire and the need for consistent criteria for consideration of proposals.

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
	Policy 20: Digital Infrastructure: The preferred policy sets out an Oxfordshire-wide approach delivering digital infrastructure trough development.	1) Leave to future Local Plans.	The preferred policy is considered to be the best way to ensure that development proposals take into account national strategy and guidance as well as securing the scale of investment needed to secure a full rollout of investment. Alternative 1 is not preferred given the opportunity for the Plan to provide strategic direction on this cross-boundary issue.
	Policy 21: Strategic Infrastructure Priorities: The preferred policy option seeks to ensure that the Oxfordshire Plan and the OXIS are aligned, given the significance of strategic infrastructure that frequently crosses more than one local planning authority.	1) Safeguard land for strategic infrastructure priorities.	Alongside other evidence, the Oxfordshire Infrastructure Strategy (OxIS) Stage 1 report will help inform the refinement of Oxon Plan spatial options towards a preferred option at the next stage of the plan. It is also intended that a final Stage 2 report will be produced to assess strategic infrastructure priorities to 2050 and consider how these align with the preferred spatial options. It is expected that this will provide a strategic infrastructure framework for delivery of infrastructure needs alongside new development and inform the more detailed planning for sites at the local plan level. Alternative 1 is not preferred as this should be considered in more detail in the individual local plans that follow the completion of the Oxfordshire Infrastructure Strategy (OxIS) programme.
Creating jobs and providing homes	Policy 22: Supporting the Creation of Jobs: The preferred policy does not propose to identify specific requirements for job numbers as there is too much uncertainty later on in the plan period. However, this preferred policy would play a role in providing a strategic framework for emerging Local Plans to work with.	1) OGNA trajectories range from an additional 20,000 to 45,000 jobs. See additional options appraised in Chapter 4. 2) Use a floor space calculation of new B Class employment.	The Oxfordshire 2050 Plan is looking to secure a progressive change to business working practices to 2050. The two alternatives are considered to be traditional rather than transformational. In addition, recent changes to Use Class orders (new Class E) has made calculating floorspace requirements difficult. Therefore, the preferred policy option is likely to be the better option as it provides an overarching positive strategy which Local Plans and Neighbourhood Plans can build on.
	Policy 23: Protection of Economic Assets: The preferred policy option seeks to secure a consistent long-term approach across Oxfordshire to ensure that investment continues to flow to support the	1) Leave to future Local Plans.	Strategic economic assets are considered to be at the heart of Oxfordshire economy. The preferred policy is therefore considered to be necessary to enable sensible forward planning by site owners and business operators about their future site and building needs for new

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
	business and science park network as major economic assets. The preferred policy supports a flexible intensification of economic activity at these sites, with repurposed buildings and site layouts, new build and extensions as required.		economic purposes, for science, technology and innovation, as business needs change, in both the rural and urban parts of Oxfordshire. The aim is also to seek to ensure that the network of sites continues to support new innovative economic uses, but also becomes more sustainable, not just as buildings are upgraded, but as sites seek to reduce their carbon footprint and increase their take up of renewable energy, whilst supporting new aspects of the economy of Oxfordshire as innovation continues and key sectors continue to evolve. Alternative 1 is not preferred because it would miss the strategic opportunity from an Oxfordshire-wide approach. Strategic economic assets are at the heart of Oxfordshire the economy.
	Policy 24: Town Centre Renewal: The preferred policy approach seeks to provide the local planning authorities with an enabling policy with which to respond quickly to support new economic opportunities in the city and town centres across Oxfordshire that arise. It establishes a framework policy to support long-term action at the local level following the major changes to retail and the hospitality sector accelerated through the COVID-19 pandemic period.	1) Leave to future Local Plans.	Establishing an Oxfordshire-wide framework is judged the right means to enable forward planning by developers in conjunction with the local planning authorities and the local business community and Parish/Town Council affected. Alternative 1 is not preferred because the opportunity for the Plan to enable forward town centre renewal planning would be missed.
	Policy 25: Visitor Economy: The preferred policy option seeks to set in place a positive strategic framework to address large tourism proposals that are likely to impact on more than one local planning authority.	1) Leave to future Local Plans.	It is considered necessary to provide strategic direction on the determination of major tourism developments that have an impact beyond more than one District or the city. The Plan aims to set out a positive approach to encouraging new sustainable tourism development, in appropriate places to benefit urban and rural Oxfordshire and supporting a coordinated approach to infrastructure to support sustainable tourism development and investment. Alternative 1 is not preferred because the opportunity for the Plan to enable forward visitor economy planning would be missed.

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
	Policy 26: Culture and Arts: The preferred policy option aims to advance these cultural and creative industries in Oxfordshire by supporting new strategic cultural and arts facilities across the county that will have regional, national and international draw.	1) Leave to future Local Plans.	It is considered necessary to provide strategic direction on the determination of major culture and arts developments that have an impact beyond more than one District or the city. The Plan aims to set out a positive approach to encouraging new culture and arts development, in appropriate places to benefit urban and rural Oxfordshire and supporting a coordinated approach to infrastructure. Alternative 1 is not preferred because the opportunity for the Plan to enable forward culture and arts planning would be missed.
	Policy 27: Meeting Skills and Educational Needs: The preferred policy option seeks to ensure that there is a framework policy in place to enable future development or the land use aspects of the reorganisations of skills and education facilities to be considered in a consistent way, especially where the provision reaches beyond administrative boundaries.	1) Leave to future Local Plans.	It is considered necessary to provide strategic direction on the determination of major developments focussed on developing skills and education that have an impact beyond more than one District or the city. The Plan aims to set out a positive approach to encouraging new training and education development, in appropriate places to benefit urban and rural Oxfordshire and supporting a coordinated approach to infrastructure.. This particular issue has arisen in a number of Duty to Cooperate discussions with neighbouring Councils. Alternative 1 is not preferred because the opportunity for the Plan to enable forward training and education planning would be missed.
	Policy 28: Homes: How many? Commitments and Locations	OGNA trajectories range from an additional 25,000 to 77,000 homes. See additional options appraised in Chapter 4. Furthermore, five strategic spatial options have been considered and appraised separately below. These options take into account the locations for growth set out	Deferred for further consideration at the Regulation 19 Stage based on the findings of the consultation process, the OGNA Range and existing committed growth across the five adopted Local Plans.

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
		in the five adopted local plans.	
	Policy 29: Urban Renewal: The preferred policy option for the Oxfordshire Plan is to put in place a framework policy to guide the development of options to renew areas over the next 20 to 30 years.	1) Leave to future Local Plans.	The preferred policy is considered necessary to enable forward urban renewal planning by the Local Planning Authority in conjunction with the health bodies, developers, local communities and Parish/Town Councils is considered a strategic priority for the Plan. Alternative 1 is not preferred because the opportunity for the Plan to enable forward urban renewal planning would be missed.
	Policy 30: Affordable Housing: The preferred policy focusses on achieving maximum levels of affordable housing are delivered on new residential sites across Oxfordshire. This would mean that the detail surrounding tenure mix and affordable housing requirements (expressed as a percentage) would remain a decision for Local Authorities to include in their local plans in light of local evidence. The Oxfordshire Plan would not set a county-wide figure for affordable housing.	1) Instead of leaving tenure mix to Local Plans, the Oxfordshire Plan 2050 could set tenure mix targets across Oxfordshire. This would be added to the policy set out above. Suggested targets (that reflect existing Local Plans) are as follows: • 40% Affordable Rented • 35% Social Rented • 25% other routes to affordable housing (including shared ownership and first homes).	This is a sensitive area of policy and one that will have to be subject to viability testing, particularly given there is significant variation across the county as to what is achievable and deliverable from an affordable housing perspective. Affordable housing delivery is a key strategic matter for Oxfordshire. Alternative 1 is not the preferred approach as it could potentially overlook the differences in the housing market across Oxfordshire. It would also be difficult to ensure that the policy has the necessary flexibility to plan over the longer term to 2050, when the needs of Oxfordshire might change. Alternative 2 is not preferred because the opportunity for the Plan to enable forward affordable housing planning would be missed.
		2) Do not include an affordable homes policy in Oxfordshire Plan and instead leave to Local Plans	

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
	Policy 31: Specialist Housing Needs: The preferred policy is to set a framework on specialist housing for the local plans to work with.	1) Support the delivery of specialist housing where meeting an identified need (i.e. for older people, students and key workers), in appropriate locations and where proposals conform with Local Plan policies. 2) Leave to future Local Plans, allowing them to define different thresholds for specialist accommodation as appropriate.	There are county-wide similarities with specialist housing that could benefit from a strategic level policy. A flexible policy approach is preferred because it enables districts to identify and meet their own needs, while recognising the importance of meeting the needs of an ageing population, a significant student population, particularly in Oxford and meeting the needs of key workers and improving the ability to retain staff. A policy in the Oxfordshire Plan could provide high level support for the delivery of specialist housing, recognising the role the local plans will play in setting out the levels of appropriate specialist housing that should be delivered. Alternative 1 is not preferred because it is considered that further details would compromise the flexibility of such a policy and would need supporting evidence that is currently unavailable. Alternative 2 is not preferred because the opportunity for the Plan to enable forward specialist housing needs planning would be missed.
	Policy 32: Gypsies, Travellers, Travelling Showpeople: The preferred policy is to set out an Oxfordshire-wide need figure and local planning authority breakdowns in 5-year tranches for each authority and set out locational criteria for the provision of pitches	No reasonable alternatives identified.	Considering gypsy and traveller needs at a county wide strategic scale provides an opportunity to identify appropriate locations for new sites in appropriate locations as part of a coherent spatial strategy for the county. Due to the COVID-19 pandemic the preparation of the GTAA has been delayed with the household surveys unable to be completed prior to this consultation. It is anticipated these will resume shortly and the final GTAA will be published at the next stage of consultation (Regulation 19).
	Spatial Strategy Options: No one option appears able to accommodate all of the proposed additional Plan growth on top of the growth associated with the existing five adopted Local Plans. It is therefore	Option 1: Focus on opportunities at larger settlements & planned growth locations	Deferred for further consideration at the Regulation 19 Stage based on further evidence.

Theme	Options		Justification for Selection of Preferred Approach over Reasonable Alternatives
	Preferred Approach	Alternatives Considered	
	anticipated that a mix of options will be defined at the Regulation 19 Stage.	Option 2: Focus on Oxford-led growth	
		Option 3: Focus on opportunities in sustainable transport corridors & at strategic transport hubs.	
		Option 4 – Focus on strengthening business locations.	
		Option 5 – Focus on supporting rural communities.	

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